SUNSHINE COAST AIRPORT EXPANSION PROJECT

ADDITIONAL INFORMATION TO THE ENVIRONMENTAL IMPACT STATEMENT (AEIS)

CONTENTS

EXECUTIVE SUMMARY

This Additional Information to the Environmental Impact Statement (AEIS) has been compiled to respond to the submissions received on the Environmental Impact Statement (EIS) for the Sunshine Coast Airport (SCA) Expansion Project (the Project) and requests for additional information from advisory agencies coordinated by the Office of the Coordinator-General (OCG).

On 24 October 2011, the Queensland Coordinator-General declared the Project to be a 'coordinated project' requiring an environmental impact assessment under section 26(1)(a) of the Queensland *State Development and Public Works Organisation Act 1971* (SDPWO Act). This declaration initiated the statutory environmental impact assessment process under part 4 of the Act, which required the proponent (Sunshine Coast Council) to prepare an EIS for the Project.

The Commonwealth Government determined on 7 October 2011 that the Project is a 'controlled action' under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to the likely potential impacts on matters of national environmental significance (MNES) (EPBC 2011/5823). As a consequence, the Project also required approval under the EPBC Act.

Pursuant to s.160 of the EPBC Act, the Commonwealth Minister for Environment will also provide advice to the Civil Aviation Safety Authority (CASA) and Airservices Australia regarding the authorisation of a plan for airspace place management.

The Project involves a change in orientation of the airport's main runway. The length and width of the existing runway have been recognised since the early 1980s as constraints to growth in passenger numbers, destinations and freight capacity. The proposed Project includes:

- A new 2,450 m long x 45 m wide main Code E runway aligned to the north-west/south-east (RWY 13/31)
- Two end taxiway loops and navigation aids
- Expansion of the apron at the existing terminal
- A combined new Air Traffic Control (ATC) tower and Aviation Rescue and Fire Fighting (ARFF) station, access road and utilities.

The Project will provide a broad range of benefits, including, most notably:

- Reduction of around 5,000 dwellings within areas of high aircraft noise
- Stimulation of diversification in employment opportunities on the Sunshine Coast
- Enhancement in connections between Sunshine Coast business and the global economy
- Contribution of $4.1 billion to Gross Regional Product between 2020 and 2040
- Generation of 1,538 direct and 693 indirect full time jobs by 2040
- Supporting of the ongoing development of the Sunshine Coast.

The AEIS outlines the public consultation and engagement activities that were undertaken during and following the public notification stage on the EIS including meetings with stakeholders, organisations and with advisory agencies (Commonwealth and State Government departments).

The public notification period for the EIS ran from Monday 29 September through to 5pm Thursday 13 November 2014. 987 submissions were considered as part of the AEIS.

Within the submissions a number of comments and queries relating to aspects of the EIS were raised. The submissions also included commentary on matters that were outside the scope of the EIS. In most cases, comments or queries relating to the EIS were dealt with through reference to a specific chapter or section. Sunshine Coast Airport (SCA) also endeavoured to respond to issues that were outside the boundaries of the EIS but which related either to SCA or Sunshine Coast Council.

The primary topics raised by submitters related to:

- Aircraft noise – in the main from specific areas associated with the 13/31 alignment being Mudjimba (south-east) and Eumundi and surrounding areas (north-west)
- Aircraft emissions and air quality
- Environment – flora and fauna in areas on and around the airport including water quality
- Community engagement activities
- Flooding
- Project funding.

Responses are provided in the AEIS in relation to these submitted comments.

Based on the submissions received, there have been no significant revisions or changes to the Project since the release of the EIS. The current Project design, proposed construction and operation are consistent with what has been provided in **Chapters A4 and A5** of the EIS.

However, to respond to some of the issues raised by submitters (particularly by the Government advisory agencies), further assessment and investigations have been conducted and the results included in the AEIS. Where the additional surveys, assessment, and new documentation have been supplied, they are provided as technical appendices to the AEIS.

This additional work includes:

- Preparation of a Biodiversity Offsets Strategy;
- Preparation of an Environmental Management Framework for Acid Sulfate Soils;
- Preparation of a Water Quality Management Plan and additional survey and assessments for tailwater discharge into the Marcoola Drain;
- Carrying out a targeted survey for Lesser Swamp Orchid;
- Provision of engineering advice about alternative tailwater discharge options;
- Additional review of the likelihood of occurrence and potential impacts to relevant MNES species;
- Additional air quality information;
- Additional surface transport information;
- Additional flood modelling information;
- Revised Public Safety Area (PSA) map for the Airport;
- Additional aircraft noise maps and information; and
- Additional economics information.

Alternatively, where the comments raised by submitters and the agencies were able to be addressed by a minor change or clarification amendment to the EIS, these are listed in a 'Clarification/Erratum' table contained within the AEIS.

The EIS and AEIS, taken together, will form the basis for making a determination on the Project under the *State Development and Public Works Organisation Act 1971* and *Environment Protection and Biodiversity Conservation Act 1999*.

AEIS

1. INTRODUCTION

This Additional Information to the Environmental Impact Statement (AEIS) has been compiled to respond to the submissions received on the Environmental Impact Statement (EIS) for the Sunshine Coast Airport (SCA) Expansion Project (the Project) and requests for additional information from advisory agencies coordinated by the Office of the Coordinator-General (OCG).

On 24 October 2011, the Queensland Coordinator-General declared the Project to be a 'coordinated project' requiring an environmental impact assessment under section 26(1)(a) of the Queensland *State Development and Public Works Organisation Act 1971* (SDPWO Act). This declaration initiated the statutory environmental impact assessment process under part 4 of the Act, which required the proponent (Sunshine Coast Council) to prepare an EIS for the Project.

The Commonwealth Government determined on 7 October 2011 that the Project is a 'controlled action' under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to the likely potential impacts on matters of national environmental significance (MNES) (EPBC 2011/5823). As a consequence, the Project also required approval under the EPBC Act.

The Commonwealth Government advised that the controlling provisions under the EPBC Act were:

- Wetlands of international importance (sections 16 and 17B)
- Listed threatened species and communities (sections 18 and 18A)
- Listed migratory species (sections 20 and 20A).

The Commonwealth Government determined that an EIS was the most appropriate assessment method under the EPBC Act, with the process to be conducted in a bilateral agreement between the Commonwealth and Queensland Governments.

As such, the EIS was conducted under part 4 of the SDPWO Act to meet the impact assessment requirements of both the Commonwealth and Queensland legislation.

Further approvals will also be required from the Civil Aviation Safety Authority (CASA) and Airservices Australia regarding the change to airspace pursuant to *Air Services Act 1995* and the *Civil Aviation Act 1988*. Pursuant to s.160 of the EPBC Act, the Minister for Environment will also provide advice to CASA and Airservices Australia as part of the determination of the Project regarding the authorisation of a plan for airspace place management.

The 'Terms of Reference for an environmental impact statement for the Sunshine Coast Airport Expansion Project' (TOR) were finalised in May 2012. The EIS was submitted by the proponent to the Coordinator General in September 2014 and was approved as being adequate (against the Terms of Reference) and released for public consultation and notification for submissions from 29 September to 13 November 2014.

This AEIS responds to particular issues raised in submissions from individuals, organisations and Commonwealth and State Government advisory agencies on the EIS for the Project. It supplements the original EIS and provides detailed responses on issues associated with these submitter comments as well as containing additional assessment information and identifying amendments to the EIS.

1.1 Project Background and Need

SCA is located on South East Queensland's (SEQ) Sunshine Coast at Marcoola, mid-way between Caloundra and Noosa. It occupies approximately 443 ha of relatively flat, low-lying land and is located 5 km north of the regional centre of Maroochydore. SCA is owned and operated by the Sunshine Coast Council (SCC), and is wholly responsible for the management of the terminal building, car parking, internal roads and aviation infrastructure, including the current main north-south runway (RWY 18/36) and a cross-runway (RWY 12/30).

The Project proposed by SCC involves a change in orientation of the airport's main runway. The length and width of the existing runway have been recognised since the early 1980s as constraints to growth in passenger numbers, destinations and freight capacity. The proposed Project includes:

- A new 2,450 m long x 45 m wide main Code E runway aligned to the north-west/south-east (RWY 13/31)
- Two end taxiway loops and navigation aids
- Expansion of the apron at the existing terminal
- A combined new Air Traffic Control (ATC) tower and Aviation Rescue and Fire Fighting (ARFF) station, access road and utilities.

Development of the new runway is a key objective of the SCA Master Plan 2007 and a strategic priority for SCC due to the expected flow-on benefits to the community and regional economy. At present the current runway infrastructure, due to its length and width (1,800 m x 30 m) and alignment relative to the prevailing winds constrains airline services that are available to the Sunshine Coast. Current operation on Runway 18/36 for Boeing 737 and Airbus A320 aircraft is subject to ongoing narrow runway operations requirements of the Civil Aviation Safety Authority (CASA).

Responding to these concerns, the Project provides the following benefits:

- Reduction of around 5,000 dwellings within areas of high aircraft noise
- Stimulation of diversification in employment opportunities on the Sunshine Coast
- Enhancement in connections between Sunshine Coast business and the global economy
- Contribution of $4.1 billion to Gross Regional Product between 2020 and 2040
- Generation of 1,538 direct and 693 indirect full time jobs by 2040
- Supporting of the ongoing development of the Sunshine Coast
- Facilitation of an uplift in the export freight direct from the Sunshine Coast
- Facilitation of direct access to all national and international destinations in Australia, South East Asia and the Western Pacific
- Provision of infrastructure to complement the development of the Maroochydore Principal Activity Centre, Sunshine Coast University Hospital and ongoing urban development
- Reduction in the need for private vehicle travel to Brisbane Airport to access aviation services
- Full unconditional compliance with CASA standards
- Better alignment to prevailing winds enhancing aircraft performance and reducing potential diversions
- Allowing most aircraft to operate at full capacity
- Accessibility of new destinations.

1.2 Structure of the AEIS

This AEIS report has been structured as follows:

- **Section 1**: Introduction
- **Section 2**: Stakeholder Engagement and EIS Public Notification Period
- **Section 3**: Submissions Received During EIS Public Notification (including advisory agency comments)
- **Section 4**: Revisions to the Project and Approval Process
- **Section 5**: Additional Assessments and Reports
- **Section 6**: Errata and Clarifications on the EIS
- **Section 7**: Conclusion

The Appendices to the AEIS include technical reports and information that are discussed and cross-referenced in the AEIS (primarily **section 5**). These appendices are as follows:

- **Appendix A:** Engagement Activities undertaken during the Public Notification Period for the EIS
- **Appendix B:** Biodiversity Offsets Strategy
- **Appendix C:** Environmental Management Framework for Acid Sulfate Soils
- **Appendix D:** Water quality management plan and additional survey and assessments for Marcoola Drain
- **Appendix E:** Targeted survey for Lesser Swamp Orchid
- **Appendix F:** Engineering advice about alternative tailwater discharge options
- **Appendix G:** Summary of the likelihood of occurrence and potential impacts for relevant MNES species
- **Appendix H:** Additional air quality information
- **Appendix I:** Additional surface transport information
- **Appendix J:** Additional flood modelling information
- **Appendix K:** Revised Public Safety Area (PSA) Map for the Airport
- **Appendix L:** Additional aircraft noise maps and information
- **Appendix M:** Additional economics information

2 STAKEHOLDER ENGAGEMENT AND EIS PUBLIC NOTIFICATION PERIOD

2.1 Background

2.1.1 Stages for Stakeholder Engagement

The EIS process comprised six primary stages, with stakeholder engagement activities concentrated around three of those stages, as highlighted below.

EIS Stage	Action	Timing
1	Public advertising of EIS TOR by the OCG	February 2012 – April 2012
2	Finalisation and approval of EIS Terms of Reference by OCG	May/June 2012 (announced by Queensland Government 8 May 2012)
3	Project investigations, studies and research for the compilation of the EIS	May 2012 – September 2014
4	TOR compliance review of EIS by Office of the Coordinator- General prior to public release	September 2014
5	Public Notification Period	29 September – 13 November 2014
6	Assessment Period	November 2014 to completion of assessment phase

This Section of the AEIS focuses on Stage 5 of the EIS process.

2.1.2 Requirements for Stakeholder Engagement

The Terms of Reference (TOR) for the airport expansion project as they related to stakeholder engagement, stated:

> *"The public consultation process should provide opportunities for community involvement and education. It may include interviews with individuals, public communication activities, interest group meetings, production of regular summary information and updates (i.e. newsletters), and other consultation mechanisms to encourage and facilitate active public consultation. The public consultation processes (community engagement) for all parts of the EIS should be integrated.*

The Stakeholder Engagement Program (SEP) aimed to, where possible, exceed the consultation requirements as set out in the TOR for the project.

2.2 Stakeholder Engagement Activities

The OCG advertised the Public Notification period to run for 30 business-days between Monday 29 September and Thursday 13 November and during this time Sunshine Coast Airport conducted a comprehensive stakeholder engagement campaign. The campaign included the activities as outlined in the sections following. Refer to **Appendix A** for a calendar of all engagement activities undertaken during the public notification period.

2.2.1 Distribution and Availability of EIS

The EIS was distributed, either in hard copy or DVD format to a range of stakeholders, including:

- Commonwealth Government and State Government agencies and departmental staff
- Local, State and Federal elected representatives and officers
- Community groups and special interest groups
- Business, industry and trade organisations.

The project team also emailed project database registrants, submitters during the TOR public notification process and other identified stakeholders to alert them to the availability of the EIS for public comment, including a live link to the OCG website. The same information was mailed to stakeholders where an email address was not available.

The EIS was made available for download from the OCG website and via the Commonwealth Department of the Environment website.

The SCA website also featured a range of supporting materials and information, including direct links to the OCG website. The same information was accessible via the SCC website.

Community members could also order a free copy of the EIS DVD. Printed copies were made available to view at:

- SCC Customer Service Areas at:
  - Caloundra: 1 Omrah Avenue, Caloundra
  - Maroochydore: 10 First Avenue, Maroochydore
  - Nambour: Cnr Currie and Bury Streets, Nambour
- SCA Management Office, 10 Electra Lane, Marcoola
- SCC Libraries
- Noosa Shire Council, 9 Pelican Street, Tewantin
- Noosa Shire Council Libraries
- Bribie Island Library
- State Library of Queensland, Cultural Centre, Stanley Place, South Bank, Brisbane
- National Library of Australia, Parkes Place West, Canberra
- Department of the Environment, John Gorton Building, Parkes, Canberra.

Figures 2.2a: The EIS was on display in a number of locations including Sunshine Coast Airport

2.2.2 Stakeholder Briefings

Elected representatives

All state and federal elected representatives within a 40km radius of the airport were contacted and offered a briefing on the EIS findings. Briefings were organised and held with the following:

Table: Elected representatives

Stakeholder	Date
Mr Peter Wellington MP, State Member for Nicklin	9 October
Hon. Fiona Simpson MP, State Member for Maroochydore	10 October
Hon. Glen Elmes MP, State Member for Noosa	17 October
Matt Adams, Policy Advisor to Hon. Jeff Seeney, Deputy Premier, Minister for State Development, Infrastructure and Planning	22 October
Hon. Mark McArdle MP, State Member for Caloundra	31 October
Hon. Jann Stuckey MP, State Minister for Tourism, Major Events, Small Business and the Commonwealth Games	3 November
Hon. Steven Dickson, State Minister for National Parks and State Member for Buderim	6 November

Figure 2.2b: This map shows the locations for stakeholder engagement activities during the EIS public notification period. It also shows the radius from the airport and the N70 contour for the proposed new runway in 2020.

● Libraries:
Beerwah Library, 25 Peachester Road
Caloundra Library, 8 Omrah Avenue
Coolum Beach Library, 6 Park Street
Kawana Library, Nanyima Street, Buddina
Kenilworth Library, 4 Elizabeth Street
Maleny Library, 5 Coral Street
Maroochydore Library, 44 Sixth Avenue
Nambour Library, Cnr Currie and Bury Streets
Cooroy Library, 9 Maple Street
Noosaville Library, 1 Welsby Parade

Libraries:
Bribie Island Library
Queensland Parliamentary Library
State Library of Queensland
National Library of Australia

● Community Information Sessions:
Northshore Community Centre, Marcoola
Yandina RSL, Yandina
Maroochy Surf Club, Maroochydore

● Customer Information Centres:
Omrah Avenue, Caloundra
Sixth Avenue, Maroochydore
Cnr Currie and Bury Streets, Nambour
Sunshine Coast Airport

● Shopping Centres:
Sunshine Plaza, Maroochydore
Kawana Shoppingworld, Buddina
Noosa Civic Shopping Centre
Stockland Shopping Centre, Caloundra
Peregian Springs Shopping Centre
North Shore Shopping Centre, Pacific Paradise

● Other council offices:
Noosa Shire Council, Pelican Street, Tewantin

● Community Meetings
Coolum
Eumundi
Maroochydore
Twin Waters
Yandina
Yandina Creek

The countour lines shown on this drawing represent the number of N70 noise events on an average summer day, with the proposed new runway, in 2020.

N70
5
10
20
50

Community groups and special interest groups

Stakeholder	Date
Sunshine Coast Airport Community Aviation Forum comprising representatives from: • Buderim 2000 • Coolum Development Watch • Sunshine Coast Environment Council • Coolum Residents Association • East West Runway Action Group • Marcoola Progress Association • Marcoola South • Mudjimba Residents Association • Twin Waters Residents Association	29 September
Caloundra Community Aviation Forum	1 October
Maroochydore Chamber of Commerce	10 October
Twin Waters Residents Association	13 October
Sunshine Coast Business Council	14 October
Body Corporate Managers	17 October
Sunshine Coast Destination Limited	17 October
Yandina Creek Progress Association	20 October
Coolum Business and Tourism	22 October
Sunshine Coast Environment Council, Coolum Coast Care, Development Watch, Friends of Lake Weyba	27 October
Yandina and District Community Association	27 October
Property Council Sunshine Coast Committee	5 November
Community Information Meeting Eumundi CWA Hall	10 November

Stakeholder briefings – Internal

Stakeholder	Date
Sunshine Coast Council staff	2 October
Sunshine Coast Airport customer service and terminal staff	8 October
Sunshine Coast Airport tenants and businesses	15 October

Industry and trade events (EIS display)

Stakeholder	Date
Regional Major Projects Forum	15 October

2.2.3 Community Information Sessions

Full day community information sessions were held. These sessions, which were advertised via newspapers, media releases and the information bulletin, provided stakeholders with the opportunity to speak with members of the airport team about the proposed project.

Displays comprised large posters on topics including runway orientation, flora and fauna, sand extraction and placement and flight paths.

The fly-through video was played throughout each day and computers were set up with the online aircraft noise information tool so that stakeholders could seek information about noise impacts in relation to specific properties.

The DVD with the EIS and appendices was given away at the displays, as was information on how to make a submission.

Members of the project team available at the sessions represented technical aspects including engineering, aircraft noise and flight paths, flora and fauna and whole of project.

Sessions at Maroochydore and Yandina ran between 10am and 2pm and 4pm to 8pm, while the Mudjimba session ran from 9am to 5pm.

Location	Date	Attendees
North Shore Community Centre, Mudjimba	Saturday 11 October	96
Maroochy Surf Club, Maroochydore	Wednesday 15 October	16
Yandina RSL Hall, Yandina	Wednesday 22 October	31
TOTAL ATTENDEES:		143

The majority of attendees (65 per cent) were residents of Marcoola, Mudjimba, Pacific Paradise and Twin Waters. The remaining attendees were from Maroochy River, Ninderry, North Arm, Valdora, Yandina, Yandina Creek (16 per cent) and other suburbs across the Sunshine Coast.

The majority of attendees at the Mudjimba sessions expressed concern about the potential noise impacts from a new runway. This concern was particularly focused on issues around the runway alignment, orientation, centre line, length and size of aircraft.

Other issues raised at community information sessions included:

- Questions relating to the other options discussed in the EIS, including the 'Do minimum' option
- Helicopter noise
- Project costs and funding
- Community engagement /EIS process
- Concerns about noise impacts on local facilities
- Aircraft emissions and air quality
- Size of airport following expansion
- Economic benefits / employment opportunities
- Impact on marine ecology.

2.2.4 Shopping Centre Kiosks

Shopping centre kiosks were set up in locations across the Sunshine Coast. The kiosks, staffed by project team members, featured small displays with a pull-up banner and project information. Materials provided free of charge included the Summary of Major Findings and Aircraft Noise Information booklet, EIS DVD's, the project information bulletin and how to make a submission flyer.

Figure 2.2c: Images of community information session at Yandina RSL

Location	Date	Times	Enquiries
Peregian Springs Shopping Centre	7 October	10am – 2pm	25
Sunshine Plaza, Maroochydore	9 October	10am – 2pm	95
Kawana Shoppingworld	13 October	4pm – 7pm	25
Noosa Civic Shopping Centre	16 October	4pm – 7pm	30
Stockland Caloundra	18 October	10am – 2pm	15
Pacific Paradise North Shore Centre	20 October	10am – 2pm	120
TOTAL ENQUIRIES:			Approx. 310

The majority of enquiries were positive and comments were mainly supportive of the project.

Residents were interested in the opportunities for additional flights to new destinations such as Cairns, Townsville, Perth and Darwin; project timing; project funding, and avoiding the need to travel to Brisbane to make regular journeys around the country.

Other issues raised included:

- Project costs and funding
- Community engagement /EIS process
- Economic benefits / employment opportunities
- Flight destinations
- Helicopter noise.

2.2.5 Sunshine Coast Airport Website

The SCA website provided the necessary links to the OCG for public submissions during the EIS public notification period.

In addition, a number of innovative online tools were developed specifically for use during the EIS public notification period and were made available on the SCA website.

Online Aircraft Noise Information Tool

This innovative and informative tool was developed by SCA in conjunction with the expert noise consultant firm that prepared the noise assessment for the EIS.

The data upon which the tool was based accurately reflected noise modelling undertaken for the EIS.

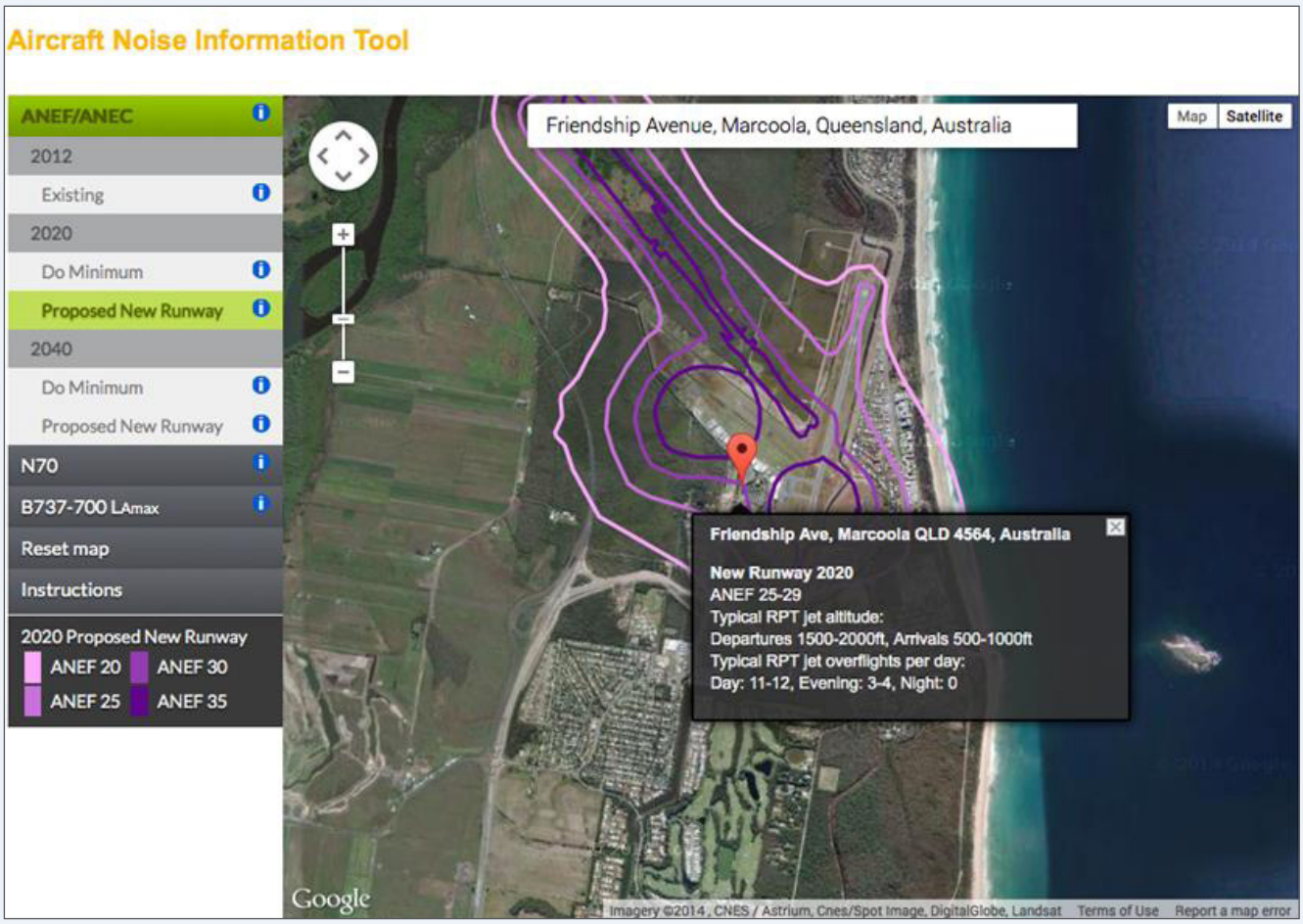
The tool enabled stakeholders to input a specific address of interest leading to the display of noise data including predicted noise levels as N70 or single-event contours, the ANEF values, number of over flights and relative altitude.

The tool also allowed residents to interrogate the projected noise impacts from the proposed new runway compared with the current runway.

Throughout the public notification period, the online aircraft noise information tool had close to 4,000 page views.

Figure 2.2d: Shopping centre kiosk at Sunshine Plaza, Maroochydore

Figure 2.2e: A snapshot of one page from the Aircraft Noise Information tool. The selected image reflects information on expected noise impacts for the proposed new runway in 2020 at Friendship Avenue, Marcoola, which is the location of Sunshine Coast Airport.



Flight Path Fly-through Video

Sunshine Coast Airport created an innovative community engagement and education tool for the public notification period. The video provided a virtual fly-through of the proposed flight paths for the proposed new runway. It described in detail the altitude and likely noise levels from aircraft as they take two main approaches on arrival to Runway 13 – the 'straight' approach and the 'curved' approach.

The video allowed the community to clearly see the distance aircraft might be from specific locations, and the altitude and possible noise impacts from the new flight paths.

Throughout the public notification period, the flight path fly-through video had more than 5,200 views.

Supporting information

To further allow the community to explore and understand the projected changes arising from the proposed new runway, other supporting documents and tools were available on the SCA website, including:

- A Summary of Major Findings booklet
  - This document provides a brief summary of the key findings for each topic studied during the preparation of the EIS.
- The Aircraft Noise Information booklet
  - This booklet provides detailed information about flight paths that aircraft will fly when using the new runway, as well as showing expected noise impacts and numbers of aircraft.
- Fact Sheets
  - 12 individual fact sheets were developed and loaded to the airport's website, covering topics of interest including: project description, construction, destination opportunities, sand extraction and surcharge, land tenure, terrestrial flora and fauna, flight paths and aircraft noise, mitigation and commitments and how to have your say on the EIS.

Figure 2.2f: A snapshot taken from the flight path fly-through video shows the 'curved' approach to Runway 13

Flight Path Fly-Through

Flight path fly-through video

This video gives you a pilot's view as an aircraft approaches the proposed new runway at Sunshine Coast Airport. The virtual fly-through is designed to show you where an aircraft will fly when using the new runway, and shows both the 'straight approach' and the 'curved approach' flight paths. This fly-through has been prepared to illustrate and support the information contained in the Environmental Impact Statement for the Airport Expansion Project.

Click here to view the Environmental Impact Statement

Click here to view flight path fly-through

Click here to view the online aircraft noise information tool

Click here for EIS Summary, aircraft noise information booklet and fact sheets

The public comment period runs from Monday September 29 to Thursday 13 November 2014.

ABOUT THE EXPANSION PROJECT
A summary of the project

ABOUT THE EIS
Overview to the Expansion Project Environmental Impact Statement and link to the Office of the Coordinator-General website to view, download and comment on the EIS

EXPANSION PROJECT HISTORY
Background to the Airport Expansion Project

PROJECT DESIGN
Artist's impression of the Airport Expansion Project

EIS SUPPORTING INFORMATION
View the EIS summary, Aircraft Noise Information booklet and fact sheets

GET INVOLVED
Where to view the EIS, public comment timing and Community Information Session details

FLIGHT PATH FLY-THROUGH
A pilot's view of proposed new flight paths

AIRCRAFT NOISE INFORMATION TOOL
Use this tool to understand expected aircraft noise impacts at specific locations

CONTACT THE SUNSHINE COAST AIRPORT EXPANSION PROJECT
Ask a question of the project team or request further information

Figure 2.2g: A snapshot of the Supporting Information page of the airport's website

EIS Supporting Information

To further assist you to understand the EIS, other supporting documents and tools been developed that are available free of charge.

- **Click here for the Summary of Major Findings booklet**
  - This document provides a brief summary of the key findings of the EIS.
- **Click here for Aircraft Noise Information booklet**
  - This booklet provides detailed information about flight paths that aircraft will fly when using the new runway, as well as showing expected noise impacts and numbers of aircraft.
- **EIS Fact Sheets**
  1. Project description
  2. Project benefits
  3. Artist impression of new expansion project
  4. Proposed construction program
  5. Potential destination opportunities
  6. Sand surcharge and fill for the new runway
  7. Land tenure around the airport site
  8. Terrestrial Flora and Fauna
  9. Flight paths and aircraft noise
  10. Summary of Impacts, Mitigation and Commitments
  11. Have your say
  12. Fast Facts
- **How to make an EIS submission**

Click here to view the Environmental Impact Statement

Click here to view flight path fly-through

Click here to view the online aircraft noise information tool

Click here for EIS Summary, aircraft noise information booklet and fact sheets

The public comment period runs from Monday September 29 to Thursday 13 November 2014.

Submissions must be made via the Office of the Coordinator-General. View the Environmental Impact Statement and make a submission online, by email, mail or fax. If you have special needs and require assistance to read the EIS, please telephone the EIS project manager on +61 7 3452 7436 for assistance.

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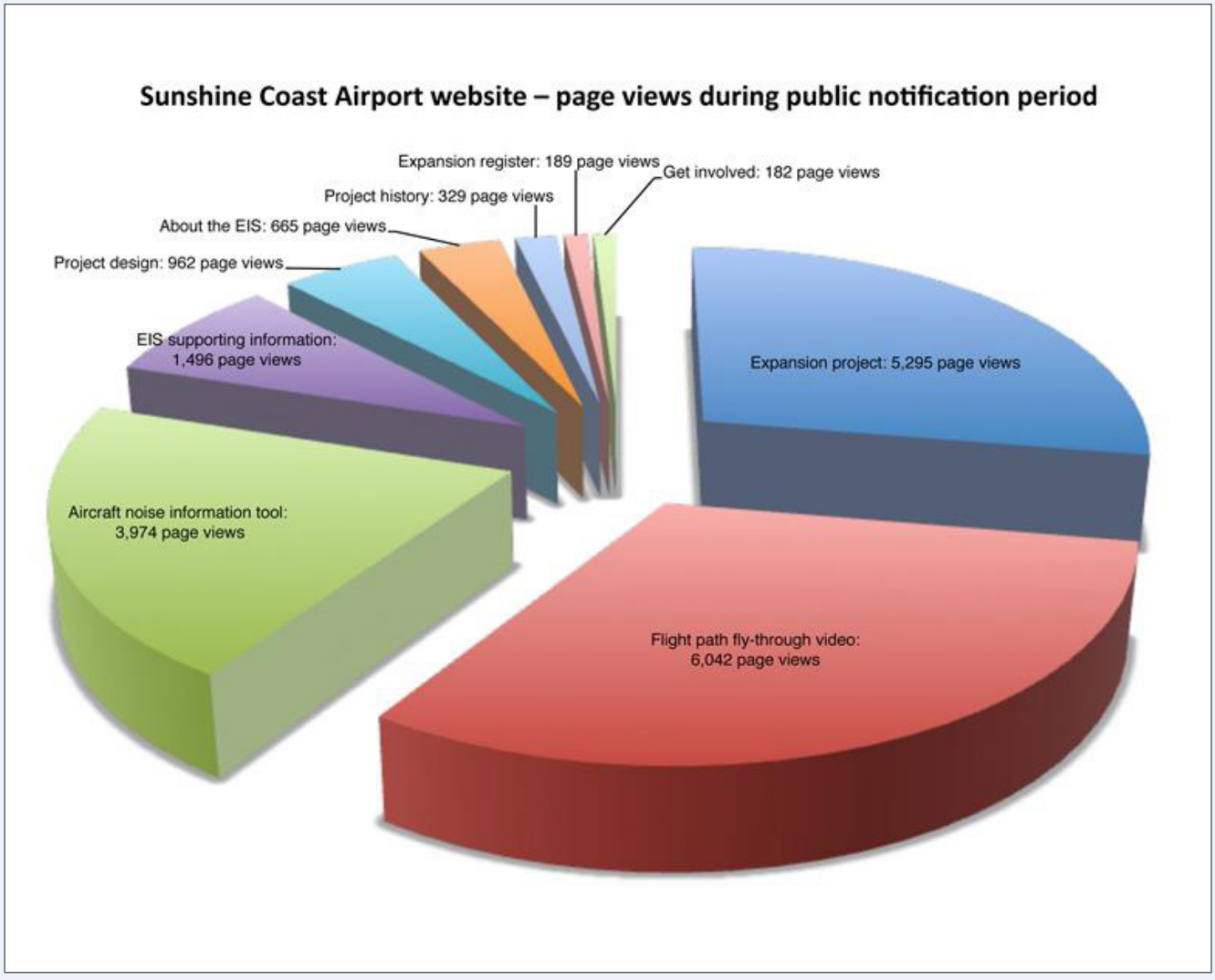
Ask a question of the project team or request further information

AEIS

SCA Website Statistics

The SCA website was a popular source of information during the public notification period. The following table and pie graph outline the number of page views recorded during the period.

Page	Page views	Unique page views	Average time on page
Fly-through video	5,234	3,424	0:03:10
Aircraft-noise-tool	3,530	2,642	0:04:09
Expansion-project	4,569	3,359	0:00:51
EIS-supporting-information	1,331	869	0:04:24
Expansion-project-design	849	657	0:01:44
About the EIS	550	478	0:01:40
Expansion-project-history	269	220	0:01:15
Expansion-register	156	132	0:02:10
Expansion-get-involved	157	142	0:03:19



2.2.6 Sunshine Coast Council Website

Council's website featured the public notification period in its 'Have Your Say' section, including reference on the home page. The website provided direct links to the OCG website to download the EIS, as well as links to the supporting information on the Sunshine Coast Airport website.

During the public notification period, SCC recorded 465 hits to the 'Have Your Say' page.

2.2.7 Print Advertising

Advertisements were published in a broad range of Sunshine Coast newspapers to advertise the community information sessions and provide details on where to view the EIS and how to make a submission.

The advertisements were published in the following papers either on Wednesday 1 or Thursday 2 October:

- Sunshine Coast Daily
- Buderim Chronicle
- Caloundra Weekly
- Kawana Weekly
- Nambour Weekly
- Noosa News
- Coolum News
- Range News
- Maroochy Weekly
- Sunshine Coast Hinterland Times
- Noosa Today
- Coolum And North Shore Advertiser.

Figure 2.2h: Sample of the advertisement placed in Sunshine Coast newspapers in the early stages of the public notification period

Sunshine Coast COUNCIL | Sunshine Coast AIRPORT

AIRPORT ENVIRONMENTAL IMPACT STATEMENT ON DISPLAY

You are invited to view and comment on the Environmental Impact Statement (EIS) that has been prepared for the Sunshine Coast Airport Expansion Project.

The EIS will be on public display for 30 business days between Monday 29 September and 5pm Thursday 13 November 2014.

To view the EIS online and to make a submission, visit **www.haveyoursay.dsdip.qld.gov.au/coordinatorgeneral/SCAexpansion**

All submissions must be sent to the Office of the Coordinator-General.

Information supporting the EIS, including a Summary of Major Findings, Aircraft Noise Information booklet, online aircraft noise tool and fact sheets are available via **www.sunshinecoastairport.com.au** and **www.sunshinecoast.qld.gov.au**

COMMUNITY INFORMATION SESSIONS

Join the project team at the following community information sessions to learn about the Sunshine Coast Airport Expansion Project EIS:

Date	Time	Location
Saturday 11 October	9am – 5pm	North Shore Community Centre, 701 David Low Way, Mudjimba
Wednesday 15 October	10am – 2pm 4pm – 8pm	Maroochy Surf Club, 34-36 Alexandra Parade, Maroochydore
Wednesday 22 October	10am – 2pm 4pm – 8pm	Yandina RSL Hall, 24 North Street, Yandina

For more information about the Sunshine Coast Airport Expansion Project EIS, contact us by email **info@SCAexpansion.com.au** or phone **1800 210 755**.

www.sunshinecoastairport.com.au A Business Unit of Sunshine Coast Council

2.2.8 Television Advertising

A 15-second television advertisement was aired on the two main Sunshine Coast news programs during the second week of the public notification period. The advertisements promoted the EIS public notification period and provided website details for more information. The advertisements were aired as follows:

TV Station	Aired dates	Placement
WIN TV	Tuesday 7 October to Friday 10 October	6pm – 6:30pm: 1 ad per day
Seven Sunshine Coast	Tuesday 7 October to Friday 10 October	7pm – 7:30pm: 1 ad per day

Figure 2.2i: Snapshot taken from the television advertisement that aired on Sunshine Coast local television stations

2.2.9 Radio Advertising

A 15-second radio advertisement was aired on four Sunshine Coast FM stations throughout the public notification period. The advertisements promoted the EIS public notification period and provided website details for more information. The advertisements aired as follows:

Radio Station	Aired dates	Placement
MIX FM	7, 8, 14 and 21 October	6am – 9am (2 ads per day)
SEA FM	9, 10, 16 and 23 October	6am – 9am (2 ads per day)
HOT FM	8, 9, 15 and 22 October	6am – 9am (2 ads per day)
ZINC FM	9, 10, 17 and 24 October	6am – 9am (2 ads per day)

2.2.10 Information Bulletin

An information bulletin was distributed by letterbox drop to more than 32,000 residents, to provide a general overview of the expansion project, the EIS and details on how to make a submission, as well as dates for community information sessions.

The information bulletin was distributed to a radius approx. 20km north-west and 10km south of the airport.

2.2.11 Fact Sheets

Fact sheets covering key topics of interest and relevant EIS findings were prepared to support the release of the EIS for public comment, including:

1. Project description and background
2. Flight paths and aircraft noise
3. Proposed construction program
4. Flora and Fauna
5. Sand surcharge and fill for the new runway
6 Project benefits
7. Summary of Impacts, Mitigation and Commitments
8. Land tenure around the airport site
9. How to make a submission
10. Potential destination opportunities
11. Fast Facts.

The fact sheets were uploaded the SCA website.

2.2.12 Media

During the course of the public notification period three media releases were prepared and distributed about the project to key Sunshine Coast media outlets including print, radio and television. Topics included the release of the EIS for public comment, the capacity to increase exports of local produce and bird strike.

The media were very interested in the project and as a result over 100 individual articles, broadcasts, telecasts and letters to the editor arose during the course of the public notification≈period.

2.2.13 Social Media Channels

Social media channels, via SCC's website, were also used to distribute information about the public notification period for the Airport Expansion Project EIS. A number of posts were made on Facebook (10) and Twitter (9), including through the mayor's personal Twitter account. A number of tweets were retweeted.

Figure 2.2j: An image of one page of the information bulletin distributed to 32,000 households

Sunshine Coast COUNCIL | Sunshine Coast AIRPORT

EXPANDING YOUR AIRPORT

During the past seven years, Sunshine Coast Council has been working on plans to develop Sunshine Coast Airport including a new 2,450 metre-long south-east/north-west runway. The Project will support population growth, growth in regional tourism and business, and meet the community need for improved aviation services to and from the Sunshine Coast.

Sunshine Coast Airport currently services over 900,000 travellers a year, with flights to east coast destinations such as Sydney and Melbourne. However, a new, longer runway is needed to enable the airport to accommodate flights to many more domestic and international destinations.

EIS RELEASED FOR PUBLIC COMMENT

The Environmental Impact Statement (EIS) for the Sunshine Coast Airport Expansion Project (the Project) has been completed and is now available for the public to view and provide comment.

The EIS will be on public display for 30 business days between Monday 29 September and 5pm Thursday 13 November 2014.

The preparation of the EIS has arisen as a result of work that began in 2007 through the airport's Master Planning process.

As the Project has the potential to impact on matters of national environmental significance, the Australian Government requested the preparation of an EIS, which will be assessed before the Project is allowed to proceed. Both the Australian and Queensland Governments will be involved in the EIS assessment process.

PROJECT BENEFITS

The Project offers a range of economic, environmental and operational benefits. It would:

- Support the ongoing development of the Sunshine Coast
- Contribute $4.1 billion to Gross Regional Product between 2020 and 2040
- Generate 2,231 new full time jobs by 2040
- Enhance connections between Sunshine Coast businesses and the global economy
- Ensure the airport is fully compliant with international standards
- Facilitate an uplift in the export freight direct from the Sunshine Coast
- Facilitate direct access to all national and international destinations in Australia, South East Asia and the Western Pacific
- Minimise impacts on the site, adjoining lands, flora and fauna
- Provide significant improvements in noise outcomes
- Better align the new runway to prevailing winds enhancing aircraft performance and reducing potential diversions.

ARTIST'S IMPRESSION OF THE PROPOSED SUNSHINE COAST AIRPORT EXPANSION PROJECT

EIS TOPICS

The EIS brings together in four volumes the results of detailed technical economic, environmental and social investigations as outlined in the Terms of Reference prepared by the Australian and Queensland Governments.

These comprehensive studies report on the following topics:

- Need for the Project
- Aircraft noise and flight paths
- Land use and tenure
- Geology, soils and groundwater
- Coastal processes
- Flooding
- Surface water and hydrology
- Terrestrial flora and fauna
- Aquatic and marine ecology
- Indigenous cultural heritage and Native Title
- Non-Indigenous cultural heritage
- Social impact
- Surface transport
- Noise and vibration
- Air quality and greenhouse gas emissions
- Landscape and visual
- Climate change
- Economic impact
- Dredging and dredge movements.

Importantly, the EIS proposes measures to mitigate and manage any identified impacts of the Project.

FIND OUT THE DETAILS

There are a number of ways to find out all the details:

- Visit www.haveyoursay.dsdip.qld.gov.au/coordinatorgeneral/SCAexpansion to download the EIS and to make a submission.
- Visit www.sunshinecoastairport.com.au or www.sunshinecoast.qld.gov.au for materials supporting the EIS
- A Summary of Major Findings booklet is available, which provides a brief summary of the key findings for each topic
- The Aircraft Noise Information booklet details information about flight paths, noise impacts and numbers of aircraft
- An online aircraft noise information tool gives a first-hand look at where aircraft will fly and the likely noise impacts on the Sunshine Coast. This tool is available at www.sunshinecoastairport.com.au

For more information about the Expansion Project EIS contact us by email **info@SCAexpansion.com.au** or **call 1800 210 755**.

www.sunshinecoastairport.com.au

A Business Unit of Sunshine Coast Council

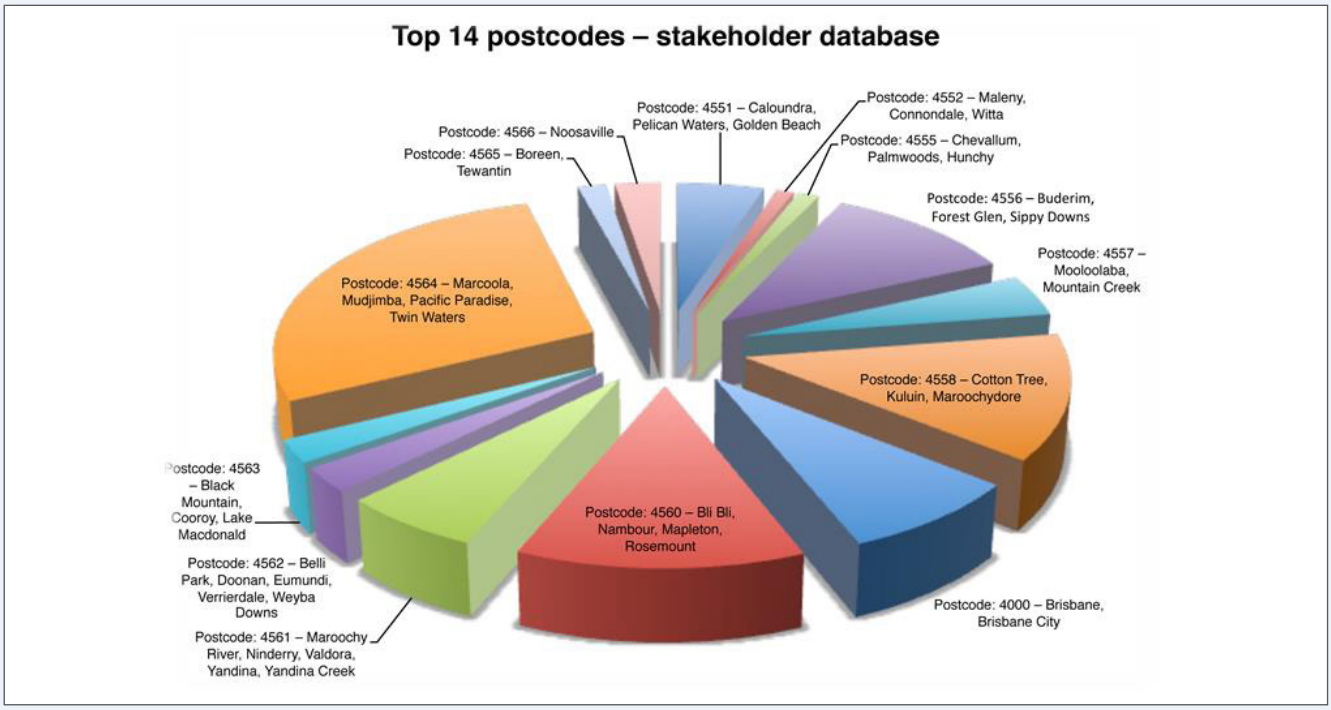
2.2k: Mayor Mark Jamieson addresses television journalists at the release of the EIS for public comment (Monday 29 September 2014)

2.2.14 Community Information Channels

The project team established an 1800 free call information line and dedicated project email address in February 2012.

From that time, people were invited to register to the database to receive updates when new information about the project became available.

At 13 November 2014, 1,135 stakeholders were registered. The pie graph below defines the top 14 groups of stakeholders by postcode.



The 1800 number and project email address were advertised extensively during the public notification period as a means of inviting and responding to queries about the EIS, the submission process and general queries about the airport and its operations.

Contacts during the public notification period included:

Type	No.	Primary topics of interest
Email enquiries received	160	• Aircraft noise and flight paths • Community engagement • Construction • Ecology • Requests for DVD copy of EIS
Bulk emails out to database	2	• Commencement of public notification period for EIS • Reminder that submissions must be in by 5pm Thursday 13 November
Phone calls	88	• Aircraft noise and flight paths • Use of Aircraft Noise Information tool • Ecology • Whole of project • Funding
Online subscribers	15	• Aircraft noise and flight paths • Ecology • Whole of project

3 SUBMISSIONS RECEIVED DURING EIS PUBLIC NOTIFICATION

3.1 Overview of Submissions Received

As outlined in **section 2** of the AEIS, the public notification period for the EIS ran from Monday 29 September through to 5pm Thursday 13 November 2014.

987 submissions were received by the Coordinator General consisting of 880 public submissions (generally from individuals), 87 submissions from organisations and 20 submissions from advisory agencies.

The comments contained within the submissions were converted into an excel spreadsheet (the submission spreadsheet) listing all submitters, substantive comments raised and providing unique identifiers for each.

3.1.1 Public Submissions

Public submissions were, in the main, from individuals across the Sunshine Coast and other areas of Queensland.

In an assessment of the public submissions, 14 'form-style' submissions were identified. In addition to providing responses to unique submissions, the proponent developed comprehensive responses to each of the 'form' submissions.

Due to space constraints within the submission spreadsheet, the 'form' submissions and responses were dealt with in a separate document and cross-referenced back to each relevant entry in the spreadsheet.

Responses to these submissions are addressed in the AEIS in **section 3.2**, **Table 3.2a**.

3.1.2 Organisation Submissions

Within the submissions were a number made by organisations representing specific groups within the community, i.e. environment, tourism, aviation, industry and community. In general, these were longer submissions comprising a number of points on various topics within the EIS.

Responses to these submissions are also addressed in **Table 3.2a**.

3.1.3 Advice Agency Submissions

In addition to submissions received from the public and organisations, submissions with advisory comments from Government advisory agencies were sought by the Office of the Coordinator General (OCG) and forwarded for consideration of the Project. Responses to these submissions are addressed in the AEIS in **section 3.3** 'Summary of Agency Comments and Proponent Responses'.

As part of developing the responses to the agency submissions, the proponent undertook a range of meetings during February, March and April 2015 with agencies. Meetings occurred with representatives from the OCG, the Commonwealth Government Department of the Environment (DoE), the Department of Environment and Heritage Protection (DEHP), the Department of National Parks, Recreation, Sport and Racing (DNPRSR), the Department

of Transport and Main Roads (DTMR), the Department of Agriculture, Fisheries and Forestry (DAFF), the Department of State Development, Infrastructure and Planning (DSDIP) and other agencies.

3.2 Summary of Key Issues – Public and Organisation Submissions

Within the submissions a number of comments and queries relating to aspects of the EIS were raised. The submissions also included commentary on matters that were outside the scope of the EIS.

In most cases, comments or queries relating to the EIS were dealt with through reference to a specific chapter or section. SCA also endeavoured to respond to issues that were outside the boundaries of the EIS but which related either to SCA or SCC.

The primary topics raised by submitters related to:

- Aircraft noise – in the main from specific areas associated with the 13/31 alignment being Mudjimba (south-east) and Eumundi and surrounding areas (north-west)
- Aircraft emissions and air quality
- Environment – flora and fauna in areas on and around the airport including water quality
- Community engagement activities
- Flooding
- Project funding.

In addition, there were a wide variety of other topics raised such as airport operations, demand forecasting, dredge and dredge movements, project comparisons with the Gold Coast and preferences for road and rail upgrades between the Sunshine Coast and Brisbane ahead of the airport expansion.

In a positive sense, those submitters that welcomed the project commented on the economic benefits the project would provide including jobs and business growth, as well as the chance to enhance accessibility for visitors thus providing stimulus for the Sunshine Coast tourist industry, which is one of the largest contributors to employment and regional economic prosperity.

A list of the most common comments and topics from the public and organisation submissions is provided in **Table 3.2a**, over the following pages (by topic in alphabetical order), including responses provided by the proponent.

In several instances, matters raised in public and organisation submissions have led to the inclusion of additional or amended information within the AEIS. There is a notation in the far right hand column of **Table 3.2a** to indicate how and where the issues have been further addressed in the AEIS (e.g. in section 5 or 6 of the AEIS document and/or in a relevant Appendix).

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
1	18/36 runway (existing)	Comments that the 18/36 will continue to operate thus exacerbating noise impacts	No jet regular public transport aircraft will use the existing main runway once the new one is operational. It would only be used by some light aircraft (10 per cent or less) only if weather dictates.	D2	No
2	2007 Sunshine Coast Airport Master Plan	Queries around consultation associated with the 2007 SCA Master Plan	The draft Master Plan was released for public comment between June 15 and August 14 2006. Communication activities included community and industry group forums, static information displays, public meetings, direct mail letters, discussions with key stakeholders and information flyers. Feedback mechanisms included email, fax, website feedback form, information flyer form, letters and public meetings. Advertising was placed in the Sunshine Coast Daily and the Coolum/North Shore News. 723 submissions were received as a result of the consultation.	A1	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
3	2007 Sunshine Coast Airport Master Plan	Claims that old passenger data from the 2007 airport master plan has been used in demand forecasting	Passenger forecasts included in the 2007 master plan are based on work carried out in 2005/6 prior to the global financial crisis. New forecasts were completed for the EIS based on data available in the 2012 financial year. None of the master plan data was used in determining the need for the project. The airport master plan is not the basis for the project. The master plan describes the proposed expansion of the airport. The EIS tests this proposition.	A2	No
4	310m shift of runway along the 13/31 alignment	Noise impacts arising from the 310m shift along the proposed 13/31 runway alignment	As part of the design work undertaken during the preparation of the EIS it was determined that a 310 metres shift along the existing 13/31 alignment would deliver a range of benefits for the project. As part of these deliberations the project team sought advice from its noise consultants in relation to the 310m shift along the alignment. They advised moving the runway 310 metres to the south-east along the same runway centreline "is likely to result in a negligible increase of 1 to 2 decibels in the noise levels experienced at the residential properties in the Mudjimba area. The change is so slight as to be imperceptible to most people". The 310m move along the 13/31 alignment allows the runway to avoid poor ground conditions. Additionally, it enables floodwater to flow around the toe of the runway thus reducing flooding effects and provides sufficient space for the establishment of a wildlife corridor between the north and south areas of the national park to mitigate local connectivity. These outcomes, combined with the assessment that the move would have a negligible impact on noise, provide cumulative benefits with respect to construction time frames, cost and reduced environmental impact.	A3	Yes, refer **Section 6** which inserts additional wording into **Chapter A3** of the EIS.
5	Accuracy of dwelling counts	Comments that the dwelling counts, particularly in the Mudjimba area, may be incorrect	Verifiable counts of properties within N70 contours have been provided by suburb in **Chapter D5** of the EIS. See also **Chapter D3**, **section 3.2.4** Dwellings data and analysis, which provides details of the property counts undertaken and the assumptions associated with those counts.	D3, D5	Yes, refer **Appendix L**
6	Acid Sulphate Soils (ASS)	Comment that there is an inadequate description of ASS treatment and potential impacts to landholders using borewater	A more detailed environment framework for the management of ASS has been prepared as part of this AEIS. A detailed management plan will be undertaken as part of the detailed design work to avoid any ASS impacts on groundwater off the site that could affect borewater use.	B3, E3	Yes, refer **section 5** of this report and **Appendix C**

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
7	ASS	Provision of an ASS Management Plan	A more detailed environment framework for the management of ASS has been prepared as part of this AEIS. A detailed management plan will be undertaken as part of the detailed design work.	B3, E3	Yes, refer **section 5** of this report and **Appendix C**
8	Agricultural land	Comment about the quantification and assessment of impacts of the project on land uses such as agriculture	Refer to **Table 3.3f** of the AEIS for a detailed response to this issue.		Yes, refer **Table 3.3f** of this report
9	Air quality and emissions	Queries about the effects of aircraft emissions on: • Rain water tanks, lakes and other water resources. • Cars, houses and other property. • The health and well-being of the community. • The environment and agriculture. • Queries about fuel dumping or 'leaks'.	Air quality and greenhouse gas emissions are considered extensively within the EIS in **Chapters B16 and D4**. The studies conclude that emissions in 2040 would be well below the Environmental Protection (Air) Policy air quality objectives. The project would not have any impact on water catchments or rainwater tanks. There are some commonly held misconceptions within the community regarding the air and water quality impacts of aviation. In the course of normal operations aircraft do not dump fuel because fuel is the most expensive component of airline operations; it is environmentally irresponsible; and there are regulations preventing this activity except in emergency situations. Fuel dumping is highly unusual and no such event has occurred in recent memory at SCA. Based on previous studies it has been determined that dark residues which accrete on houses, cars and other outdoor objects can be attributed by the public to aircraft emissions. Residues of this nature can be caused from sources including pollutants combining with dust and other particulate matter; bushfires and burn-offs, as well as from vehicle and other engines and biological residues resulting from the release of pollen and spores. While some aircraft may contribute to a very small proportion of residues because they produce gaseous emissions at lower height levels during approach, take-off and landings, which can combine with dust and other particles in the atmosphere to create a residue, the levels being emitted are so low in comparison with emissions from cars and other industry, such as agriculture, that the contribution, even in the vicinity of the airport, is negligible. It is therefore considered that aircraft emissions do not have an effect on water quality.	B16, D4	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
10	Air quality and emissions	Comments around the impacts of air emissions (extended response)	Dark residues which may build up on houses, cars and other outdoor objects are sometimes attributed to aircraft emissions by people living in the region of airports. However, such residues are relatively common and the sources of such residues may include: • Air pollutants combining with dust and other particulate matter – the major anthropogenic sources of particulate matter are cars and trucks • Incomplete combustion of fuels, both anthropogenic (vehicle and other engines) or natural (bushfires) • Biological residue such as moulds and fungi Notwithstanding the above, emissions of particulate matter (PM) were considered and quantitatively assessed as part of the SCA EIS process. The following points should be noted: • Emissions of PM will be more intensive during the takeoff/landing cycle • Low concentrations of particulate matter were predicted in the vicinity of airport where the influence of takeoff/landing cycles would be most prominent • The concentrations of particulate matter related to aircraft dropped to less than 2% of the Queensland Air Quality Objective within the modelling domain, which extended approx. 6 km from the airport • At 2% of the criteria, particulate matter concentrations will not be measurable above the existing background of PM • At greater distances from the airport, concentrations will be even lower.	B16, D4	No
11	Air quality and emissions	Impacts of dust from increased use of unsealed roads during construction	Additional assessment on this issue has been undertaken as part of the AEIS. Construction impacts have been presented as contour plots in **Appendix H** Air Quality Assessment – Construction showing contours of predicted PM10 concentrations and dust deposition rates, with and without backgrounds.	B16	Yes, refer **Appendix H**

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
12	Air quality monitoring	Queries around location of air quality monitoring stations	The EIS did not identify a need for air quality monitoring during the operational phase of the airport. Monitoring during the construction phase has been identified as a potential option to ensure that air quality standards are being met. If monitoring were undertaken it would be located between residences and construction activities occurring at the time. As discussed in **Chapter D4 and B16**, data that is available from the current DEHP monitoring network was utilised to characterise the general quality of air in the region. The monitoring reported in the EIS was taken from the closest monitor to the airport, which is located at the Mountain Creek Primary School, and is regarded to be representative of the region.	B16, D4	No
13	Aircraft noise	Comments that the EIS does not inform people about new noise impacts	The EIS acknowledges that some communities will experience new noise. However, the Social and Visual Impact assessment (**Chapter D5** of the EIS) determined that in 2020, with the proposed change to the main runway alignment, 3,500 fewer dwellings on the Sunshine Coast would experience five or more 70 dB(A) noise events. In 2040 there would be a 73 per cent reduction (5,285 fewer dwellings) in the number of dwellings affected by frequent noise events (five or more 70 dB(A) noise events on a summer weekday day).	D3, D5	Yes, refer **Appendix L**
14	Aircraft Noise	Comment about discrepancies between Aircraft Noise Information Booklet and **Chapter D3** of the EIS	Aircraft noise was visually represented in many formats during the public notification period. In addition to extensive noise charts within **Chapter D3 and D5**, visual representation was also used in the Flight Path Booklet and online through the noise information tool. The noise information tool, in particular, enabled users to look at any specifically identified property within 40km of the airport to ascertain likely impacts against three noise measurement metrics – ANEC, N70 and LaMAX. SCA believes this is best practice in the field of communicating potential noise impacts to interested parties.	D3, D5, Summary of Major Findings, Aircraft Noise Information Booklet	No
15	Aircraft Noise	Queries about noise impacts at Mt Eerwah	The project has no measurable impact at Mt Eerwah. No regular passenger jet aircraft coming to or from Sunshine Coast Airport will overfly Mt Eerwah.	D3	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
16	Aircraft noise	Queries about noise impacts in the vicinity of Mt Cooroy and risks for residents in terms of aircraft accidents	Based on information from the online noise tool and airspace design, aircraft fly to the south west of Mt Cooroy during arrivals and departures. Based on a single aircraft noise event (B737-800) for aircraft on a 'straight in' flight path, a noise level of between 60 and 64 dB(A) may be experienced on approach and a noise level of less than 60dB(A) may be experienced on departure. Mt Cooroy is well outside the field of N70 events. In terms of the number of regular public transport (RPT) flights to the south west of Mt Cooroy, in 2020 there are forecast to be between 1 and 2 RPT flights in the day (7am to 6pm) and 0 to 1 RPT flights in the evening (6pm – 10pm). In 2040, there would be between 7 and 8 RPT flights during the day and 2 to 3 RPT flights in the evening. There are no night flights at 2020 or 2040. On departure, aircraft in the vicinity of Mt Cooroy would be at between 9,000 and 9,500ft and between 3,500 and 4,000ft for arrivals.	D3, D5, E6	No
17	Aircraft noise	Queries about noise impacts in the vicinity of Mudjimba Island:	Mudjimba Island is not typically overflown in either 2020 or 2040. Aircraft noise is likely to be heard at the island. Even with the existing runway Mudjimba Island experiences noise events and these would continue if the existing runway were to operate into the future. There would be no implications from aircraft operations on the natural environment.	D3, D5, B8	No
18	Aircraft noise	Claims that the project will result in aircraft flying overhead at night	It is predicted that no night flights (10pm – 7am) would occur at SCA until between 2030 and 2040, when two flights at around 6am are forecast.	D2, D3, D5	Yes, refer **Appendix L**
19	Aircraft noise	Queries about the benefits the project will deliver in terms of aircraft noise	The EIS acknowledges that some communities will experience new noise. However, the Social and Visual Impact assessment (**Chapter D5** of the EIS) determined that in 2020, with the proposed change to the main runway alignment, 3,500 fewer dwellings on the Sunshine Coast would experience five or more 70 dB(A) noise events. In 2040 there would be a 73 per cent reduction (5,285 fewer dwellings) in the number of dwellings affected by frequent noise events (five or more 70 dB(A) noise events on a summer weekday day).	D3, D5	No
20	Aircraft noise	Comments about noise modelling and how it has been performed	Noise modelling is based on a range of inputs including traffic forecasts, airspace design, fleet mix and weather assumptions and infrastructure design. A change to any of these variables will result in changes to the model outputs and therefore noise forecasts.	A2, D2, D3	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
21	Aircraft noise	Comments that there was not enough information about anticipated noise impacts in the EIS	The EIS provides a number of tools to enable the community to accurately depict the level of noise that might be received at their property. This includes **Chapter D3** which provides all of the N70 (day, evening and night (where applicable) and N60 contours for night time noise (as a requirement of the Terms of Reference) but also a series of maximum noise contours which go beyond 70dBA. These contours are provided for all modelled scenarios and account for different times of day and year. In addition, this information is summarised in an Aircraft Noise Information Booklet and in an online noise tool, which enables residents to enter their property and determine if and how they are impacted by changes in noise. This tool includes maximum noise descriptors as well as N70's for the main project scenarios both now, in 2020 and 2040. In addition, the flight path fly-through provided a graphic of the proposed new flight paths, supported by a voice-over that explained characteristics of the paths (aircraft speed and altitude, position in relation to notable terrain and community centres). The Aircraft Noise Information Booklet, the fly-through and the online noise tool were developed by aviation noise specialists and were built on the same information that informed **Chapter D3** – Aircraft Noise. The Social and Visual Impact assessment (**Chapter D5** of the EIS) determined that in 2020, with the proposed change to the main runway alignment, 3,500 fewer dwellings on the Sunshine Coast would experience five or more 70 dB(A) noise events. In 2040 there would be a 73 per cent reduction (5,285 fewer dwellings) in the number of dwellings affected by frequent noise events (five or more 70 dB(A) noise events on a summer weekday day).	D3, D5	No
22	Aircraft noise	Impacts of overflights in Noosa area	When passing over the Noosa area aircraft are likely to be above 10,000ft on departures and between 4,500 and 5,000ft on arrivals. Forecasts indicate in 2020 there may be one flight in the vicinity during the day (7am – 6pm) and between 0 and 1 during the evening (6pm – 10pm) and in 2040, 4 – 5 day flights and 1 – 2 evening flights. Departures and arrivals would generate noise of less than 60dB(A). (Note: where specific addresses were provided individualised information was in the response)	D3, D5	No
23	Aircraft noise	Comments about Occupational Noise Standards and relationship with the project	The National Standard for Occupational Noise focuses on continual noise exposure and not single event levels of short duration such as is the case for an airport such as Sunshine Coast.	D5	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
24	Aircraft noise	Suggestions that the airport cease servicing larger capacity jets and act as a transfer point only to Brisbane Airport	Airlines are responsible for selecting aircraft types to serve specific destinations. Airlines operating into Sydney and Melbourne currently use Airbus A320s and Boeing 737's for their Sunshine Coast services. If airlines were required to substitute smaller less efficient aircraft in place of those they currently operate, it would have a significant impact upon the viability of routes and the cost of travel for Sunshine Coast residents.	A2	No
25	Aircraft noise	Queries about noise impacts at Yaroomba	Yaroomba would experience no regular public transport overflights and no noise events as a result of the proposed new runway.	D3, D5	No
26	Aircraft noise	Query about the scope of the aircraft noise assessment in relation to all potentially affected residential areas	Detailed analysis of the noise impacts on residential areas arising from the project are provided in EIS **Chapters D3 and D5**. These chapters include detailed mapping of three noise metrics – ANEC, N70 and LAMax – an approach that is considered best practice in the communication of aircraft noise impacts. In addition, further information is contained in the flight path booklet, the fly through video and the online noise information tool, which were all available for the duration of the EIS public notification period. To restate noise impacts within a 5km radius of the airport further mapping work has been undertaken included as **Appendix L** to the AEIS.	D3, D5	Yes, refer to **Appendix L**
27	Aircraft noise	Comment that there were inadequacies in visual representation of aircraft noise	Aircraft noise was visually represented in many formats during the public notification period. In addition to extensive noise charts within **Chapters D3 and D5**, visual representation was also used in the Flight Path Booklet and online through the noise information tool. The noise information tool, in particular, enabled users to look at any specifically identified property within 40km of the airport to ascertain likely impacts against three noise measurement metrics – ANEC, N70 and LaMAX. SCA believes this is best practice in the field of communicating potential noise impacts to interested parties.	D3, D5	No
28	Aircraft noise	Reference to ANEF guidelines in relation to aircraft noise levels in residential areas	As discussed in **Chapters D3 and D5**, the existing airport operations and the ongoing "Do Minimum" scenarios for 2020 and 2040 have impacts on dwellings within the ANEF20 contours. The project results in a net reduction in dwellings within the ANEF20 contour of 584 dwellings by 2040.	D3, D5	No
29	Aircraft noise	Comment that imagery in the EIS did not show coastline	No additional imagery is proposed to be published. **Chapter D3** of the EIS shows the coastline in all drawings including overlays of various noise contours.	D3	Yes, refer **Appendix L** of the AEIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
30	Aircraft noise	Comment that aircraft noise complaints should be registered on house/land title	Land use planning controls or restrictions as to user/property notifications on land titles not held by council are beyond the scope of this project. The current and past Sunshine Coast Planning Schemes provide detailed information on airport related impacts and planning controls that have been available to purchasers for many years.	A6	No
31	Aircraft noise	Comment about inadequate quantification of dwellings worse off (rather than a focus on dwellings with reduced impact) – submitters estimation at 400 dwellings	Aircraft noise was visually represented in many formats during the public notification period. In addition to extensive noise charts within **Chapter D3 and D5**, visual representation was also used in the Flight Path Booklet and online through the noise information tool. The noise information tool, in particular, enabled users to look at any specifically identified property within 40km of the airport to ascertain likely impacts against three noise measurement metrics – ANEC, N70 and LaMAX. SCA believes this is best practice in the field of communicating potential noise impacts to interested parties. Further information relating to dwelling counts and aircraft noise are addressed in **Appendix L** of this AEIS.	D3, D5	Yes, refer **Appendix L** of the AEIS
32	Aircraft operations	Comment that cumulative departures and arrivals should be presented in the EIS for day, evening and night for 2020 and 2040	The ANEF and N70 metrics show in **Chapter D3** of the EIS are cumulative measures of noise impacts.	D3	No
33	Aircraft operations	Comments that aircraft can operate in cross-winds	The objectives of the project are to invest in a runway with as few operational limitations as possible. Aircraft performance and airline services are currently impacted by cross winds on runway 18/36.	A1, A2, D2	No
34	Aircraft operational scenarios	Query whether for the purposes of noise assessment whether all operational scenarios were assessed	All operational scenarios were included in the noise assessment	D2, D3	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
35	Airport relocation	Suggestions the airport should be relocated away from its current location	Move the airport: As outlined in **Chapter A3**, **section 3.1.2**, option testing undertaken for the 2007 Master Plan included sites remote from the current SCA site. The investigations revealed significant disadvantages with respect to the cost of connections to, and the provision of supporting infrastructure. An additional concern was the dislocation of business activity allied to the airport and the inability to build upon the investment in existing airport assets.	A3	No
36	Airspace design	Questions about the basis of noise modelling	The noise modelling carried out for the EIS is based upon an airspace design which is the subject of a preliminary approval from Airservices Australia and the Civil Aviation Safety Authority. Prior to the opening of the new runway a final approval will be sought for the airspace architecture. It is expected that the detail design of the airspace will not be substantially different from the design which received preliminary approval.	D3	No
37	Australian Noise Exposure Forecast (ANEF)	Changes to the ANEF as a result of the proposed project and the impact on existing dwellings	The ANEF 20 – 25 contour (i.e. AS2021) does not preclude development of new dwellings. The ANEF contour is not relevant to existing dwellings or other land uses such as parks, beaches and the like (see **Chapter D5**, **section 5.6.8** for more details). By 2040 the project will result in 540 fewer dwellings in the ANEF 20+ contour with the new runway in place. The ANEF contours will have changed with the realignment of the runway made with the adoption of the current Sunshine Coast Airport Master plan by Council in 2007. The Master plan then formed the basis of the ANEF chart that was endorsed by Airservices Australia in 2010 and exhibited in the draft Sunshine Coast Planning Scheme of 2012 and included in the gazetted Sunshine Coast Planning Scheme of 2014. It should be noted that in all probability the ANEF contours would have changed without any adjustment to the alignment of the runway in 2007 as each time one of the inputs to the ANEF modelling – aircraft fleeting, traffic forecasts, flight schedules, weather assumptions, or infrastructure design changes so too will the ANEF contours that result. The ANEF contours are the product of specific assumptions made at a point in time, they do not remain constant.	D3, D5	No
38	Avifauna	The impact of the proposed project and new flight paths on birds and migratory birds	The impact of the project upon all relevant fauna species is addressed in **Chapter B8**. The chapter concludes that there is no significant impact on migratory birds and avifauna.	B8	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
39	Benefit Cost Ratio (BCR) expressed as Benefit Cost Analysis (BCA) in the EIS	Queries around the BCR and how it was calculated	The BCR calculation has been carried out by experts in accordance with the processes used by State and Commonwealth Governments for major infrastructure projects. Modelling has included standard processes to address the issues of avoided pollution and car accidents.	A2	No
40	Benefit Cost Ratio	Query re whether Noosa Council area included in cost benefit analysis	The Noosa Council area was included in considerations around the economic assessment.	A2	No
41	Benefit Cost Ratio	Query as to why expenditure was only provided to 2019 and not 2040	The cost-benefit analysis addresses capital costs. The capital spending is projected to be ended in the 2019/20 financial year.	A2	No
42	Benefit Cost Ratio	Query as to why the benefit cost ratio does not take into account any future stages of infrastructure development	SCA has costed the project as it is proposed and as outlined in the EIS. Beyond that, no additional infrastructure is proposed or can be costed at this stage.	A2	No
43	Benefit Cost Ratio	Comment on why there was no consideration of increased crime rates in the BCR	The BCR analysis has been conducted in accordance with industry accepted practice. There is no evidence that the project will have any bearing upon crime or crime related costs on the Sunshine Coast.	A2	No
44	Bird strike	Risks to aircraft, passengers and residents through a perceived potential for increased bird strike	The airport will operate in accordance with an updated Wildlife Hazard Management Plan to minimise the risk of collisions between aircraft and avifauna. Refer **Chapter B8**.	B8, E6	No
45	Booster Pump for dredge program	Comment about inadequate quantification of dredge booster pump noise impacts, mitigation and monitoring	**Chapter B15** Noise and Vibration at **Table 15.5g** describes the noise impacts of construction, including booster pump operation, at 14 receiving locations around the airport (mapped at **Figure 15.3a**). The chapter also discusses specific noise mitigations for the booster pump at **section 15.5.6**.	B15	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
46	Booster pump noise	**Chapter A5 – Table 5.4a** notes that two booster pumps may be required for the project. **Chapter B15 – Table 15.5f** construction equipment by package notes that the noise modelling was based on use of one pump. Clarify how many pumps were modelled in the noise assessment.	The construction noise assessment has modelled the most likely scenario for the project which is the establishment of a single dredge booster pump to assist conveyance of the sand from the pump out site offshore from Marcoola Beach to the on-airport reclamation area. **Table 5.4a** from the EIS notes that one dredge plant option – the small TSHD Brisbane – may need a second booster pump as a result of the inadequate pumping power of that vessel. It is considered very unlikely that this vessel would be contracted to undertake the works for the project, noting a larger dredge is able to significantly reduce the duration of the works as well as remove the need for a second booster (offering additional cost savings). The likely noise impact and mitigation measures for a second booster pump would be similar to those identified in the EIS; however, the proponent will readily commit to the re-modelling of the construction noise impacts and associated consultation with the relevant agencies should this possibility of a second booster eventuate.	A5, B15	No
47	Change to runway alignment	Queries around why the proposed realignment is required	One of the primary reasons for the Sunshine Coast Airport expansion project is to bring it up to an operational standard that is in keeping with modern airports and new generation aircraft that are more frequently being used in Australia and overseas. To achieve this level of operational compliance requires the lengthening and widening of the runway. The proposed change in orientation into the prevailing winds will further improve the airport's operational efficiency and therefore its appeal to airlines who may wish to operate into and out of the airport. Sunshine Coast Council considers the proposed redevelopment to be an investment in the future of the Sunshine Coast, providing operational certainty for existing airlines, and also creating an opportunity for more airlines to choose the Sunshine Coast as a destination which would be of economic benefit to the entire community.	A1, A2, D2	No
48	Civil Aviation Safety Authority (CASA) change to standard for 'narrow runway' operations	Queries around when Sunshine Coast Airport and Sunshine Coast Council became aware of the regulation change	CASA advised the airport in writing on 12 August 2014 that the then arrangements with respect to the narrow runway exemption would remain in place until a review of CASA's Manual of Standards 139 had been completed. The amended regulation gazetted on the 4th of November 2014 and which came into effect on 13 November 2014 differed in terms of the future applicability of the exemption to the earlier August advice.	N/A	N/A

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
49	Civil Aviation Safety Authority (CASA) change to standard for 'narrow runway' operations	Claims that the CASA regulation change negates the need for the new runway	CASA regulation: On 30 October 2014 a new regulation was made that moves the primary responsibilities for the operation of aircraft on "Narrow Runways" from airports to airlines. The change came into effect on 13 November 2014. This makes no difference to the Airport Expansion EIS or what it contains. The impact of the change is that aircraft applying to operate under the provisions of the Regulation for a "Narrow Runway Operation" will need to demonstrate to CASA that they have taken the necessary steps to satisfy the requirements of the new regulations and that the need for airports to hold current and future exemptions will no longer be necessary. The runway at 30m wide remains an operational constraint to the airport and does not allow "standard operations" to be undertaken by aircraft currently servicing the Sunshine Coast. SCA's concerns involving narrow runway operations remain unchanged and the combined issues of runway length, width and orientation remain the principal reasons for undertaking the project. The current configuration of the runway is a constraint to economic growth on the Sunshine Coast. The airport will be limited in the type of aircraft that can use airport, the distances that can be flown and the capacity to carry passengers and cargo. The airport will be limited in its ability to attract new carriers servicing new destinations and this restricts economic development potential. While current operators are already set up for narrow runway operations new airline operators must demonstrate to CASA that they meet the requirements of the new regulations before they can operate into the Sunshine Coast, and ultimately the decision would rest with them as to whether or not they invest in these requirements. In summary, the runway at 30m wide remains an operational constraint whether the responsibility for narrow runway operation lies with the airport or the airline.	A2, A3	Yes, refer **section 6** which inserts additional wording into **Chapter A2 and A3** of the EIS
50	Code 4C aircraft	Code 4C aircraft	The proposed 13/31 alignment as adopted in the 2007 Master Plan pre-dates the discussion by CASA to curtail operations on 'narrow runways'. Council's objectives are clearly set out in the EIS – **Chapter A2**. The runway infrastructure required for Code E aircraft is the same as that required for Code C aircraft that currently visit the Sunshine Coast.	A2	Yes, refer **section 6** which inserts additional wording into **Chapter A2** of the EIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
51	Community engagement	Queries around community engagement undertaken for the proposed project (general)	Significant levels of community engagement have been undertaken around the proposed expansion project including newspaper, radio and television advertising, public displays, briefings for special interest community and environmental groups, letters to key community, environment and industry groups on the first day of the public comment period and shopping centre displays. In addition, there was been substantial media coverage of the proposed expansion project with over 100 articles appearing in mainstream newspapers, radio and television. This coverage has included the major local newspaper, ABC radio, local area newspapers and online information sources. Substantial information has been available on the Sunshine Coast Airport website as well as the Sunshine Coast Council website. In addition to the engagement that has accompanied the release of the EIS, Sunshine Coast Airport undertook extensive engagement for its 2007 Master Plan, which shows the proposed new alignment, and Sunshine Coast Council undertook extensive engagement around its 2014 Planning Scheme, which included information on the proposed 13/31 runway alignment.	A7, Public Notification Engagement Report	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
52	Community engagement	Queries around community engagement undertaken in the north-west hinterland	Significant levels of community engagement have been undertaken around the proposed expansion project as outlined in **section 2** of this AEIS. One of the three public displays was held at Yandina to enable people from the hinterland to attend. At the start of the statutory consultation period a media release was sent to all newspapers and other local news outlets. For the Eumundi area specifically this included: • 4562 Eumundi Online Mag – this online local publication received the media release and posted it online. Their journalist confirmed information about the project had been published through the magazine, starting at the time of the public notification period announcement. • Eumundi Green – a fortnightly publication. During the consultation period, the edition of Eumundi Green on 16th October 2014 contained two references to the SCA EIS project including one from the local Councillor Stephen Robinson in his monthly article about Council related matters, encouraging local residents to get involved in the SCA EIS. In addition to the engagement that has accompanied the release of the EIS for public comment, Sunshine Coast Airport undertook extensive engagement for its 2007 Master Plan, which shows the proposed new alignment, and Sunshine Coast Council undertook extensive engagement around its 2014 Planning Scheme, which included information on the proposed 13/31 runway alignment. Also in early 2013, letters about the project and offering a briefing were sent to groups including the Eumundi Chamber of Commerce, EDV Residents Group, Yandina Creek Progress Association, Cooroy Chamber of Commerce and Eumundi Chamber of Commerce. Eumundi Chamber of Commerce accepted a briefing that occurred in July 2013.	A7, Public Notification Engagement Report	No
53	Community engagement	Queries around community engagement undertaken in the Noosa area	EIS notification in Noosa area: The public notification period, how to access the EIS and make a submission was advertised in the Noosa News in the first week of the public notification period. The EIS was on display in two Noosa Shire libraries (Noosaville and Cooroy) and was available at the offices of Noosa Council at Tewantin. In addition, a briefing was provided to a local state member. Other local, state and federal government members in the area received direct phone calls from the project team to advise about the EIS accompanied by an offer for a briefing. All state and federal members received a letter informing them of the availability of the EIS.	A7, Public Notification Engagement Report	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
54	Comparisons with other international airports in south-east Queensland	Why expand Sunshine Coast Airport when there are a number of other airports in south-east Queensland? Sunshine Coast Airport will have difficulty in attracting new international airlines and passengers because Brisbane Airport is expanding.	**Toowoomba Airport:** The opening of the airport in Toowoomba has no bearing on the operation of Sunshine Coast Airport. Both are regional airports servicing regional needs. It would not serve the growing population of the Sunshine Coast due to distance and lack of connectivity between the two regions. Sunshine Coast Airport already handles international flights from New Zealand. The international and domestic flights into Sunshine Coast Airport are constrained by the length and width of the existing main runway. Destinations beyond Sydney and Melbourne are unable to be reached without payload restrictions with the current runway configuration. The constraints also hinder the development of the fresh-food freight opportunities for Sunshine Coast producers. **Brisbane Airport:** Under the Terms of Reference a requirement for assessment of competition from Brisbane Airport was not required. The forecasting, included in **Chapter A2**, discusses the likely future demand for air travel to the Sunshine Coast. Forecasting is not done in isolation and takes into account the regional aviation dynamics. There are also regional economic benefits (see **Chapter A2**) with SCA being able to provide services that avoid trips to Brisbane Airport. **Gold Coast:** Gold Coast Airport is a regional airport servicing regional needs. Passenger numbers at Sunshine Coast Airport are forecast to grow from the current 1 million passengers in 2013 to around 1.3 million in 2020 and 2.9 million in 2040. This contrasts with the Gold Coast, which is forecasting up to 13 million passengers at 2031.	A2	No
55	Compensation	Queries around compensation for noise effected areas	Given the level of public exposure the new runway has received over many years, and the fact that the airport has been in its current location for over 50 years, property specific mitigation is not being≈considered.	A1	No
56	Conflict of interest	Perception that council is the approving body for the project leading to claims of conflict of interest	Sunshine Coast Council is the proponent for the project. The EIS will not be determined by Council, instead being determined by the State and Commonwealth governments. There is no conflict of interest in this project. Council as the custodian of an asset of considerable significance to the Sunshine Coast economy is proposing to further develop the asset, subject to the approval of the State and Commonwealth governments. Council's planning scheme and economic development strategy have consistently provided for the expansion of the airport as proposed under the EIS.	A1	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
57	Construction	General comments about noise and vibration associated with construction	**Chapters B15 and D3** address noise and vibration impacts from the construction and operation of the project, including any mitigation measures proposed.	B15, D3, D5	No
58	Construction	Comment about the need for mitigation measures for the construction compound in the event of heavy metal being in soil samples	Soil and erosion control measures will be implemented as part of earthworks for the construction compound. Refer **Chapter E3** – Environmental Management Plan in the EIS.	A5, E3	No
59	Construction period	Queries about how long the proposed project would take to build	There is a 4-5 year detailed design and construction period required before the runway can open. This is explained in detail in **Chapter A4** – Project Construction.	A4	No
60	Contaminated land	Inadequate description of environmental and health based assessment criteria used in contaminated land assessment	The assessment as outlined in **Chapter B3**, **section 3.7.3**, has met the Terms of Reference and concludes the risk of disturbance of contaminated site is limited to the farm sheds; for which there is a clear commitment to rehabilitation.	B3	No
61	Contamination at Mudjimba from runoff	Queries about how issues such as ASS will be treated and how runoff from the sand placement process will be managed to minimise impacts	There are a range of mitigation measures that have been proposed to manage issues such as ASS and seawater discharged on site during sand pumping during construction (described in detail in **Chapter B3** – Geology, Soils and Groundwater and mitigation provided in **Chapters E3 and E4** – Environmental Management Plan and Dredge Management Plan respectively). In addition, the water quality implications of bringing seawater onto site with sand dredging has been modelled and assessed in **Chapter B6** – Surface Water and Hydrology. Additional assessment and mitigation planning has been undertaken as part of the AEIS for both of these issues as outlined in **section 5** of this AEIS.	A4, A5, B3, B5, B6, E3, E4	Yes, refer **section 5** of this report and: **Appendix C** (Environmental Management Framework for Acid Sulfate Soils); **Appendix D** (Water Quality Management Plan for Marcoola Drain)

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
62	Cultural heritage	Comments about lack of consideration for matters of cultural heritage	With regard to the EIS, SCA has engaged closely with indigenous groups linked to the airport site and sand dredging activities at Spitfire Realignment Channel and is currently developing a Cultural Heritage Management Plan with relevant parties. Cultural Heritage is covered extensively in **Chapters B11, B12 and C6** of the EIS.	B11, B12	No
63	Cultural heritage	Timing for completion of Indigenous cultural heritage consultations	ICH consultation has been occurring over the past 18 months. The CHMP has already progressed to the point where the endorsed parties have been identified. The CHMP process is expected to be completed in 2015.	B11, B12	No
64	Cultural heritage	Comment about perceived inadequate assessment of project impacts on cultural heritage and traditional owner values	ICH consultation has been occurring over the past 18 months. The CHMP has already progressed to the point where the endorsed parties have been identified. The CHMP process is expected to be completed in 2015.	B11, B12	No
65	Curfew / 24 hour operations	Requests for imposition of a curfew at Sunshine Coast Airport	The market for tourism and other travel on the Sunshine Coast does not support back of the clock operations. Even as far out as 2030, forecasts predict that there may be two jet flights between 6am and 7am at some stage between 2030 and 2040. No other night time regular public transport (RPT) flights (10pm to 7am) are forecast. On this basis it is believed that a curfew is not warranted.	B13, D3, D5	No
66	Customs and quarantine services	Queries about whether biosecurity requirements associated with international flights have been factored into project costs	Customs and quarantine services already operate at Sunshine Coast Airport during the seasonal Air New Zealand flights to and from Auckland. Facilities at Sunshine Coast Airport have already been upgraded facilitate customs and quarantine services.	N/A	N/A
67	Cut-off wall	Query about design of cut-off wall	The cut-off wall, described in **Chapter A4**, is an accepted engineering solution to this issue. The final design of the cut-off wall will be a product of the detailed design process.	A4	No
68	Cut-off wall	Request to include cut-off wall to protect National Park	A cut-off wall (refer **Chapter A4**) is proposed to protect the National Park – including drawdown of the National Park water table and saline intrusion from the project to the National Park.	A4	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
69	De-commissioning	Comments that no reference to de-commissioning of the project has been addressed in the EIS	The project and construction phases are fully described in **Chapters A4 and A5** of the EIS. There is no proposal to decommission the runway and therefore this is not covered in these sections.	A4, A5	No
70	Demand and demand forecasting	Comments around the efficacy of forecasts in **Chapter A2**	**Chapter A2** of the EIS – Need for the Project covers forecasting extensively. Supporting data was contained in appendices to the EIS. The forecasting indicates that there will be increasing demand for flights to and from the Sunshine Coast and that the scope to generate this increase would be provided by the proposed new runway, which would provide for unconstrained operational efficiency. The current runway is constrained in length and width which limits the capacity of the airport to attract interest from airlines that operate to locations other than Sydney and Melbourne, or load constrained to Auckland. **Chapter A2** – Need for the Project sets out the methodology for demand forecasting including the assessment of conservative, baseline and aggressive growth forecasts, ahead of selecting the baseline for the purposes of the EIS (refer **section 2.3 – 2.3.2 and 2.3.1**). Full details of long-term forecasts of aviation activity at SCA for 2013 – 2050 are contained in **Appendix A2:B**. Forecasts have been prepared by experts in the field using proven industry standard methods.	A2, **Appendix A2:B**	No
71	Destinations	Queries about the number of aircraft flying to various destinations and the times any such flights would occur	The expected number of aircraft using Sunshine Coast Airport in 2020 and 2040 has been analysed and reported on in the EIS – refer **Chapter A2** of the EIS and the associated Appendix. Similarly, the forecast times for those flights have also been documented. It is anticipated no night flights (10pm – 7am) would occur at SCA until between 2030 and 2040, when two flights at around 6am are predicted.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
72	Development	Queries about why Council approved development around the airport	Development has occurred generally in accordance with whatever planning scheme was in force at the time the development was approved. The planning schemes have included a range of land use planning and design controls to ensure that the impact of aircraft noise is addressed where relevant. Prior to the adoption of the current SCC 2014 Planning Scheme, the Maroochy Plan 2000 was in effect. The ANEF contained in this scheme was based on information about runway design, fleet mix, noise levels and aircraft movement forecasts available at the time this scheme was prepared. The ANEF shown in the current SCC 2014 Planning Scheme is based upon assumptions made in 2009. Upon approval of the EIS, SCA will seek Airservices Australia endorsement of the ANEC charts prepared as part of the EIS. SCA would then request the 2014 scheme be amended to reflect the latest ANEF information via the normal planning scheme amendment process.	D5	No
73	Dredging	Comment about need for regulation of dredge contractors	The dredge contractor will be required to conform with the requirements of the Dredge Management Plan as outlined in **Chapter E4** of the EIS.	E4	No
74	Dredging and dredge movements	Comments about lack of assessment of the proposed dredging and impacts on marine ecology and coastal processes	Dredging and dredge movements including an assessment of marine geology, coastal processes and water quality and marine ecology in the vicinity of the dredge pump-out site were undertaken for the EIS (refer **Chapters C2 – C4**).	C2, C3, C4	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
75	Dredging and dredge movements	Quality of sand, effects on Mudjimba Island and the groundwater effects of slurry to the site	Sand from Spitfire Realignment Channel in Moreton Bay is proposed as the bulk fill material to build up the proposed runway. The sand resource present in Moreton Bay is high quality, clean Holocene sand with very small fines content. Details of the physical and chemical qualities of the sand from Spitfire Channel are provided in **Chapter C2** – Marine Geology. **Chapter A5** – Project Construction describes the dredging methodology and this is also summarised in **Chapter C1**. Sand taken from Spitfire Realignment Channel via a trailer suction hopper dredge is planned to be taken to the pump-out site off Marcoola Beach. The proposed pump out site at Marcoola is some 2.8km north of Mudjimba Island and there would be no impacts on the island or its surrounding ecology from this activity. The dredger will hydraulically pump a slurry mix of sand and seawater to the placement area via a delivery pipeline. The impacts from the discharge of seawater into Marcoola Drain are assessed in detail in the EIS in **Chapter B6** – Surface Water and Hydrology; and on groundwater in **Chapter B3**. The ecological implications of the discharge of seawater onto site and proposed mitigations are provided in **Chapters B7** – Terrestrial Flora and **B8** – Terrestrial Fauna. Additional assessment and mitigation planning has been undertaken as part of the AEIS for the discharge of dredge tailwater into the Marcoola Drain as outlined in **section 5** of the AEIS and **Appendix D**.	A5, B3, B6, B7, B8, C1, C2	Yes, refer **section 5** of this report and **Appendix D** (Water Quality Management Plan for Marcoola Drain)

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
76	Dredging at Spitfire Realignment Channel	Comments about lack of assessment of proposed dredging at Spitfire Realignment Channel	The impacts of dredging at the Spitfire Realignment Channel has been investigated and reported on in **Chapters C1 to C6** of the EIS. The dredge footprint is not located within the Moreton Bay Ramsar Site or within designated fish habitat areas. It is outside of conservation zones of the Moreton Bay Marine Park. The Spitfire Realignment Channel was selected for the Project as it is an approved dredging site for the Port of Brisbane Pty Ltd and as such has been modified by previous dredging. The approval for the Port of Brisbane over the site is long term, noting that dredging has occurred on the site as recently as December 2014 There are sparse communities of benthic fauna present at the site and ephemeral (transient) sparse seagrass communities. Threatened, migratory and protected fauna do not use the sand extraction area for foraging or to reproduce. The dredging activity would be undertaken under the auspices of a Dredge Management Plan (refer **Chapter E4** of the EIS) and in accordance with Commonwealth and State permits and conditions following a determination on the EIS.	C1, C2, C3, C4, C5, C6, E4	No
77	Dredging at Spitfire Realignment Channel	Comment on lack of information about potential contamination of sand at Spitfire Realignment Channel due to 2011 Brisbane floods and potential impact on marine life	The sand material at Spitfire Realignment Channel is uncontaminated clean sand; the area is not subject to deposition of fluvial material from rivers as it is a high-energy marine environment.	C4	No
78	Dredging at Spitfire Realignment Channel	Impact on seagrasses and breeding habitat at dredge site	Seagrass is sparse in and around the dredge footprint and is fully described in **Chapter C4** the EIS. **Appendix G** of the AEIS provides a summary of impacts to protected marine species. The summary concludes there is no significant impact to any species or associated habitat.	C4	Yes, refer **Appendix G** of the AEIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
79	Dredging at Spitfire Realignment Channel	Comment that "imported water-based materials dumped into the ocean off the proposed dredge site" could affect Mudjimba Island, reef and breeding habitat	No water will be imported to the area and nothing will be dumped in the ocean. Any incidental sand spillage from the dredge during pump-out operations will not have any effect on Mudjimba Island, reef or breeding habitat because of the clean nature of the sand, the low volumes involved and the distance of the pump-out site from sensitive receptors.	A4, A5, B10	No
80	Dredging at Spitfire Realignment Channel	Request for justifications of assumptions in sand movement model	The model is calibrated using locally collected data as outlined in the EIS **Chapter C3** and appendices. It is considered fit for purpose and has been acknowledged as meeting the TOR for numerical modelling set by the State Government.	C3 and appendix	No
81	Dunes	Queries around impacts on local area dunes	Impacts on the environment including sand dunes and protected species have been studied (**Chapters B7 – B10** of the EIS) and a range of mitigation measures has been recommended to protect or offset those impacts. Impacts on the sand dunes will be short-term during the time that sand will be pumped to the project site (maximum 33 weeks). At the conclusion of this, remedial work will be undertaken to rectify any disturbance. The airport will not illuminate dunal areas, with the new runway further from the dunal areas than the present main runway.	B7, B8, B9, B10, E3, E7	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
82	Dwelling counts	Comments about dwelling counts in the Yandina Creek area	Dwelling counts presented in **Tables 5.6c, 5.6d, 5.6e 5.6f, 5.6g and 5.6h** use ANEC and N70 contours as the boundary for dwelling counts as discussed **Chapter D5**, **section 5.4**. Country Coolum Estate (identified as properties in the vicinity of Country Coolum Drive) is located within the area 10-20km from Sunshine Coast Airport. Dwellings in this area (including dwellings in Yandina Creek) were included in the dwelling count analysis undertaken for the EIS. See **Chapter D3** for the methodology used to create this dwelling dataset. Dwellings in this estate are located outside the N70 contours used for analysis in the EIS (see **Chapter D5**, **section 5.4.2** for a description of these contours). As described in **section 5.4.2**, the N70 contours used in the EIS show areas that are expected to receive more than five 70 dB(A) noise events during the specified time period (day or evening). The EIS notes that areas outside the contours may still receive 70dB(A) noise events, but these will be at a lower frequency than five or more during the day. **Chapter 5**, **section 5.6.3.1** and **section 5.6.4.1** of the EIS states that dwellings located in Yandina Creek will be overflown by aircraft approaching and departing Sunshine Coast Airport. **Section 5.6.4.2** of the EIS states that 'other dwellings in Yandina Creek may also experience noise events of 70dB(A) that are less frequent than five events in the specified time period'.	D3, D5	No
83	Dwellings near airport	Comments about development in the vicinity of the airport	These developments have occurred in full awareness of the adjacent growing airport which has serviced the region for the last 50 years.	A1	No
84	Economic benefits	Queries about how the proposed project could be of benefit to the Sunshine Coast	**Chapter A2** of the EIS, 'Need for the Project', outlines the significant environmental, social, economic and operational benefits that would arise from the project. It is forecast the project would contribute $4.1 billion between 2020 and 2040 and in the same period generate up to 2,231 direct and indirect jobs. These assessments and projections were based on historical data associated with passenger numbers, aircraft movements, employment across the coast, etc. This data was available in the appendices to the EIS. The Project cost in 2020 dollars is $347 million. The benefit cost ratio has shown the project returns 2.45 times its investment to the community.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
85	Economic analysis	Query about project alternatives (e.g. widening the existing runway) which might be cheaper	SCA has provided an analysis of BCA and NPV with respect to the "Do Minimum" option presented in the EIS, in **Appendix M** of the AEIS.	A2	Yes, further addressed in **Appendix M**
86	Economic – externalities	In the context of the Benefit Cost Analysis (BCA) presented in **Chapter A2**, the proponent should value a broader range of externalities in the BCA including: Local traffic impacts Aircraft noise impact mitigation Environmental mitigation, monitoring and offset requirements Restrictions on other commercial airspace operators Temporary construction impacts on amenity or assess	<u>Local traffic impacts</u> As outlined in the EIS **Chapter B14**, traffic generated by the Project, either during construction or once operational, has minimal impact on the performance of local intersections. The primary cause for any reduced operational performance at local intersections is predicted growth in background, rather than Project-related traffic. Finland Road, which will be a major access route during the construction of the Project, will be upgraded as part of the Package 1 construction works. The cost of upgrades to Finland Road (and other minor traffic mitigation measures outlined in **Chapter B14**) has been included in the project turn out cost estimates presented as part of the BCA in **Chapter A2** of the EIS. <u>Aircraft noise mitigation</u> While the orientation of the new runway will cause residences in some suburbs to experience new or greater noise impacts from operating aircraft, overall the community will be better off as the new runway reduces the total number of homes affected by aircraft noise. Specifically, as a result of the new runway, the number of dwellings likely to experience on average five or more jet and GA aircraft noise events per day exceeding 70 dB(A) would be significantly reduced by approximately 5,285 dwellings by 2040. The Project would also reduce aircraft noise on identified noise-sensitive receivers located around the airport (including education facilities, hospitals and health care facilities, libraries, nursing homes, churches and childcare centres). On this basis, aircraft noise impact mitigation measures are not proposed as part of the Project and are not included as part of the BCA.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
			Environmental costs $11.2 million of the $347 million turn out cost presented in the BCA in **Chapter A2** was allocated to environmental mitigation, monitoring and offset costs. While this estimate may need to be revised upwards slightly following more detailed costing presented within the Biodiversity Offsets Strategy (refer **Appendix B**) and to accommodate other proposed Project mitigation (such as water quality monitoring as outlined in **Appendix D**) , it is an accurate, rough order of magnitude (ROM) estimate of the environmental costs involved. In this context, it should be noted that the actual costs will only be able to be derived following a determination on the EIS, and specific conditions related to environmental management, monitoring and offsets articulated. **Restriction on airspace** **Section 2.10.3** of **Chapter D2** discusses the changes Airservices Australia (Airservices) are expected to make to airspace as a result of the realignment of jet operations to the proposed 13/31 runway at SCA. Airservices has recently advised that these changes will be absorbed into the changes it is proposing to the classification of airspace in the vicinity of SCA from Class D to Class C airspace. This action by Airservices is part of a broader review of Brisbane Basin Airspace aimed at enhancing the safety and efficiency of aircraft movements across the Brisbane Basin which extends from Northern NSW, north to Maryborough and west to Oakey. Given the comprehensive review by Airservices of the wider airspace design, the minor changes that would have occurred as a result of the SCA Expansion Project will have no discernible impact on the viability of operations at other airfields in the region and on that basis are not expected to have any economic impact that need to be specifically considered as part of the BCA.		
			Temporary construction impacts Impacts during the construction phase on amenity and access are expected to be minimal given the bulk of works are on-airport which is already restricted access and with a limited viewshed. The project element with most scope to impact would be the establishment of the dredge pipeline across Marcoola Beach for a period of 3-6 months; but noting the actual beach closure time will be minimal (only during establishment and de-establishment) and there are multiple alternative accesses to the beach (noting one access will be used for the pipeline alignment). As such, these closures are not expected to have any economic impact that need to be specifically considered as part of the BCA.		

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
87	Economics – capital borrowing costs	Capital borrowing costs should be included in the BCA	Methodologically, capital borrowing costs should not be included in a CBA. The Handbook of Cost Benefit Analysis (2006), states that, 'to include interest payments on borrowed capital, in addition to using the discounting procedure, would be to double-count project costs'. On this basis, borrowing costs have not been added to the BCA or BCR derived for the Project in **Chapter A2**.	A2	No
88	Economics – operating costs	Operating costs – query about **Figure 2.6c** from EIS which show operational costs 'flatline' after 2020	The estimates presented are based on a capital expenditure program adjusted for inflation (CPI). As indicated by the footnote to **Figure 2.6e**, it is recognised that operational costs will increase as passenger numbers increase but the BCA has used a conservative average operating cost post 2020 to create a smoother cost profile.	A2	No
89	Economics – cost benefit analysis modelling	Cost-benefit analysis in A2 of the EIS is derived solely from input output (I-O) modelling and multipliers. This methodology may overstate the indirect or flow-on economic impacts (both positive and negative) of projects particularly where all consumption induced by the project is assumed to have not occurred otherwise.	This is a well-recognised issue with I-O models and is the reason that the model developed and used for this Project has been extended from a standard I-O model to be a "demographic-economic" (DECON) model. As explained in **Chapter A2**, the introduction of an unemployed 'sector' makes it possible to account for the consumption-induced impact of the unemployed in response to economic growth or decline. A model assumption is that a certain proportion of the jobs created by the project will be taken by: a. people previously living outside the region (so all their consumption is "new") and b. people already residing in the region (only the consumption resulting from their increase in their income is "new"). For the latter category (people already residing in the region), the consumption impact is only a marginal one, e.g. moving from unemployed to employed. By including only the marginal change in consumption the assessment has attempted to model just the impact of consumption that would "have not occurred otherwise".	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
90	Economics – demand and growth rates	Queries about the demand projections and growth rates presented in **Chapter A2**	As outlined in **Chapter A2**, to accommodate the potential variability of future demand over a long forecasting period (from 2012 to 2050), a baseline scenario, a conservative scenario and an aggressive scenario were presented with respect to both passenger and aviation movements. These are presented in detail in the technical report in **Appendix 2A:B** prepared by recognised aviation demand experts. These demand projections were then used in deriving the benefit cost ratio and regional economic benefits of the Project. The growth rates quoted in the EIS are reflective of the significant positive economic impacts that would be associated with attracting a new regular/ daily service. The addition of such routes can have a marked effect on overall passenger numbers and aircraft movements, particularly for a small regional airport such as the Sunshine Coast compared to incremental growth that would be experienced at larger airports with an existing high number of movements and passengers.	A2	No
91	Economics – asset lifespan	A consistent asset life figure should be used throughout A2 and elsewhere in the EIS (noting an asset life of 100 years as well as 60 years is referenced).	For the purpose of the BCA, an asset life of 60 years has been used (and is considered appropriate given the other assumptions such as demand projections) noting the practical life of the asset if properly maintained, may extend beyond this timeframe.	A2	Yes, refer **Appendix M** – Additional Economics Information
92	Economics – asset life horizon	An asset life horizon benefit should be calculated for the period between 2040 and the end of asset life, discounted appropriately, and included in the BCA instead of the residual value	Given the information that is otherwise provided within the model – it is not possible to look at a 'horizon approach' as this requires an analysis of the economic value and then valuing the assets on the basis of that economic value. Further, the ACCC guidelines state that the residual value should be based on a straight line application. This is what the current model contains and limits the discretion available to the assessment in this regard. The only point that could change the analysis is the time period. The suggested rate for 'Runways' is from 2-99 years, so 60 years (as adopted in the EIS) is considered appropriate as a selected horizon. Notwithstanding, if a longer asset life were selected, say from 60 to 90 years – the BCR is likely to only increase marginally.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
93	Economics	Issue with cost–benefit analysis: full analysis of options not displayed in EIS	Additional information on the BCR and NPV calculations with respect to the "Do Nothing" and "Do Minimum" option are addressed at item 96 below.	A2	No
94	Economics	Issue with cost–benefit analysis: no assessment of opportunity costs	In addition to information in **Chapter A2** of the EIS, discussion of further economic impacts is addressed at **Appendix M** of the AEIS. As no reasonable alternative project has been identified on which to assess opportunity costs this cannot be quantified.	A2	Yes, refer **Appendix M** – Additional Economics Information
95	Economics	Issue with cost–benefit analysis: inflated passenger projections – no consideration of bus/van services currently travelling to Brisbane Airport, no consideration of reduced aviation demand from the slowdown of the low cost carrier model	Passenger forecast methodology is outlined in **Chapter A2** and has been developed by specialist aviation professionals taking into consideration appropriate aviation trend data. Passenger numbers are derived from this methodology In relation to bus/van services, this level of detail has not been modelled nor would it reasonably be included.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

<table>
<tr><th>No.</th><th>Topic</th><th>Type of query or comment</th><th>Response</th><th>EIS ref chapters</th><th>Further addressed in the AEIS?</th></tr>
<tr><td>96</td><td>Economics – do nothing and do minimum</td><td>Further consideration of the ‘do nothing’ and ‘do minimum’ scenarios from Chapter A2 within the benefit cost analysis and net present value assessments</td><td><u>Do Nothing</u>
The ‘Do Nothing’ scenario assumes that the existing runway is maintained with no upgrade. This scenario also assumes that post 2020, Sunshine Coast Airport will not be able to service code 4C Regular Public Transport (RPT) jets. As the ‘Do Nothing’ scenario is the baseline measure for both the ‘Do Minimum’ and ‘Project Case’ the BCR and NPV of the ‘Do Nothing’ is not independently quantifiable in the context of a Benefit Cost Analysis. In this context, a CBA base case is determined as a conceptual zero baseline and the incremental costs and benefits are calculated against this case (‘Do Nothing’). Quantification of a “Do Nothing” scenario would not further assist in the comparison of options in a CBA analysis. The quantum of a ‘Do Nothing’ case in the context of a CBA – with its resultant BCR and NPV of incremental project cashflows – can be determined only by the absence of costs and benefits described in the ‘Do Minimum’ and ‘Project Case’ respectively.
<u>Do Minimum</u>
As described in the EIS, this option would see the minimum amount of work completed on the existing runway to avoid future restrictions being imposed by CASA. Under this scenario, both existing groups of passengers continue to fly from the Sunshine Coast. However, there is no opportunity to attract new services, access new destinations, markets nor induce additional demand than is possible today. The do minimum case also includes some minor terminal works.
<u>BCA Results Summary Do Minimum</u>
<table><tr><td>Cost items</td><td>60 Year Life</td></tr><tr><td>BCR</td><td>9.651</td></tr><tr><td>NPV</td><td>$297,606,683</td></tr></table></td><td>A2</td><td>No</td></tr>
<tr><td>97</td><td>Economics</td><td>Issue with cost–benefit analysis: constant costs between 2020-2040 assumed</td><td>The estimates presented are based on a capital expenditure program adjusted for inflation (CPI). As indicated by the footnote to Figure 2.6e in the EIS, it is recognised that operational costs will increase as passenger numbers increase but the BCA has used a conservative average operating cost post 2020 to create a smoother cost profile.</td><td>A2</td><td>No</td></tr>
</table>

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
98	Economic viability / lack of business plan / lack of accountability	Varied comments about whether council can afford the proposed project, who will pay for it and lack of financial performance information in the EIS	As required by the Terms of Reference, the EIS looked at the social, environmental and economic impacts of the project. It is not relevant to consider whether the proponent can afford the project or funding models that may be used. Notwithstanding, Sunshine Coast Council has commissioned the Royal Bank of Canada to look at various funding options into the future. Full accounts of the airport's operation are made public each year during council's normal reporting schedule. Past accounts are also available on council's website.	N/A	N/A
99	Economic viability	Assertion that airport operating costs regularly exceed revenues and the rate of return of the new runway is likely to be negative	The assertion regarding current operating costs and revenues is incorrect. Neither operating costs, revenues or rates of return are relevant considerations under the Terms of Reference. This issue has also been addressed in the item above.	N/A	N/A
100	Employment	Queries about how the job forecasts were arrived at	The projections outlined in **Chapter A2** of the EIS – 'Need for the Project', are based on historical data, using accepted methodologies for predicting future outcomes such as job creation. The project is predicted to create 1,538 direct and 693 indirect full time jobs by 2040 and contribute $4.1 billion to gross regional product between 2020 and 2040.	A2	No
101	Employment	Claims that an increase in jobs could create inflation	Council's view is that jobs are critical to the economy and future prosperity of the Sunshine Coast community and we do not believe jobs creation associated with the project will result in any change to the inflation rate.	A2	No
102	Employment	Request for guarantee of local employment	If the project is to be built by council then its procurement policies which promote local suppliers and employment opportunities, would come into play. In this regard Council has already engaged with the Industry Capability Network with a view to maximising the opportunities for local participation in the project.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
103	Environment	Wide ranging comments about the environmental impacts of the proposed project including reduction in habitat and loss of connectivity	Environmental impacts for terrestrial and marine flora and fauna are covered in **Chapters B7-B10** of the EIS. The project has been designed to minimise environmental impacts. There would not be direct impacts on the adjacent national parks. Where residual impacts exist, offsets in line with best practice have been identified, including offsetting 4.41ha of Mt Emu she-oak on airport land, compensating for loss of 55ha of broadleaved paperbark forest, heathland Regional Ecosystem and habitat for state listed acid frogs through rehabilitation of a site at Palmview, on-site compensation of 5.84ha for loss of ground parrot habitat and the staged construction of the airside perimeter fence to ensure ground parrot habitat is maintained at all times. An area of land at the north-west end of the proposed runway allows for the establishment of a wildlife corridor between the north and south areas of the national park. These measures are outlined in the Biodiversity Offsets Strategy at **Appendix B**.	B7, B8, B9, B10, E3, E7	Yes, refer **section 5** and **Appendix B** Biodiversity Offsets Strategy
104	Environment	Query about fire regime for Mt Emu she-oak	The detail of the management of flora species including translocation is included in the Biodiversity Offsets Strategy – **Appendix B** of the AEIS.	B7	Yes, refer **section 5** and **Appendix B** Biodiversity Offsets Strategy
105	Environment	Impacts on Mt Emu she-oak	The detail of the management of flora species including translocation is included in the Biodiversity Offsets Strategy – **Appendix B** of the AEIS.	B7	Yes, refer **section 5** and **Appendix B** Biodiversity Offsets Strategy

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
106	Environment	Queries around environmental impacts at Mt Coolum	Mt Coolum and adjacent national park areas to the SCA already experiences noise from the existing runway. A change of runway orientation is not likely to change the existing circumstances. The project has been designed to minimise environmental impacts and land based components of the Project are contained entirely on airport land. No incursion into local area national parks will occur. Where residual impacts exist, offsets in line with best practice have been identified, including offsetting 4.41ha of Mt Emu she-oak on airport land, compensating for loss of 55ha of broadleaved paperbark forest, heathland Regional Ecosystem and habitat for state listed acid frogs through rehabilitation of a site at Palmview, on-site compensation of 5.84ha for loss of ground parrot habitat and the staged construction of the airside perimeter fence to ensure ground parrot habitat is maintained at all times. An area of land at the north-west end of the proposed runway allows for the establishment of a wildlife corridor between the north and south areas of the national park.	B7, B8, B9, B10, E3, E7	No
107	Environment	Queries about the project splitting the national park surrounding the airport	The airport predates the formation of the national park which has always been in two sections. As part of the proposed project a vegetated corridor will be created at the north-west end of new runway to maintain connectivity between the two park areas.	B7, B8, B9, B10	No
108	Environment	Queries about impacts on the Noosa River wetlands	The project will not impact on the Noosa River wetlands.	N/A	N/A
109	Environment	Comments that the EIS did not include information on the Lesser Swamp Orchid	Whilst this population was not found through the desktop and field surveys undertaken for the EIS it was noted in **Chapter B7**, that the presence of Lesser Swamp Orchid within the project area is possible. At the time of writing the EIS, the population was not recorded in the Queensland Herbarium HERBRECS, Wildnet or Atlas of Living Australia database and the limitations of the field survey are discussed in the chapter. The submitter identified an area that was considered suitable habitat for this species, and further investigation was carried out in November 2014. These investigations have confirmed the existence of the species on site. The location of the individuals is not impacted by the proposed works. Measures have been identified in **Chapter E7** to ensure the conservation of the species on site.	B7	Yes, refer **section 5** of this report and **Appendix E** (Lesser Swamp Orchid Survey)

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
110	Environment	Comments around the viability of translocation of Mount Emu swamp she-oak:	There has been considerable investigation into the proposed tiling approach to translocation and consultation with regulatory authorities (especially given the failure of other seed propagation methods on the coast). In addition, as stated in **Chapter B7**, **section 7.7.1.2** – additional site investigations were undertaken at the receiving site to confirm the soil and hydrological conditions were similar to the source site, and they were. SCA is committing to a considerable budget for the offset, which will be spent over a 10 year period, when it is expected that the population would have successfully established.	B3, B7, E3, E7	No
111	Environment	References to internationally important wetlands within the vicinity of the airport	As stated in **Chapter B9** – Aquatic Ecology, **section 9.5.2**, "DEHP's Map of Referrable Wetlands shows palustrine wetlands (vegetated swamps) over much of the currently vegetated areas of the Project area. However, no wetlands of international significance (Ramsar wetlands) or wetlands of national importance are present within or adjacent the Project area. These wetlands (as noted in **Chapter B10** – Marine Ecology) are also mapped on Matters of State Environmental Significance. As this chapter describes, "the aquatic habitat on airport is of a poor quality."	B9, B10	No
112	Environment	Comments regarding a reduction in habitat and loss of connectivity as a result of the Project	As outlined in **Chapter B9** of the EIS, the waterways within and surrounding the Sunshine Coast Airport site have been found to be in poor physical condition and to support aquatic assemblages that are consistent with highly disturbed systems. Watercourses within the Project area are small and emanate from within the airport footprint or nearby adjacent areas. They do not provide connectivity to higher quality aquatic habitat or communities.	B9	No
113	Environment	Comments on maintaining aquatic ecosystem health to reduce impacts on native fish and to support birds such as spoonbill and jabiru, including annual surveys and audits of fish	For reasons of air transport safety SCA do not want to encourage visitation by large birds such as the Jabiru or Spoonbill. Notwithstanding, the waterways within and surrounding the Sunshine Coast Airport site have been found to be in poor physical condition and to support aquatic assemblages that are consistent with highly disturbed systems. Watercourses within the Project area are small and emanate from within the airport footprint or nearby adjacent areas. They do not provide connectivity to higher quality aquatic habitat or communities. The recommendation for additional surveys is not considered warranted.	B8, B9	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
114	Environment	Impacts on Oxleyan Pygmy Perch and platypus	The species Oxleyan Pygmy perch is addressed in **Chapter B9** Aquatic Ecology – No EVNT or EPBC Act listed fish species were recorded during field studies, and the available habitat is considered unlikely to support Oxleyan Pygmy Perch (*Nannoperca oxleyana*). No platypus (*Ornithorhynchus anatinus*) have been found on or near the airport.	B9	No
115	Environment	Query about MNES survey methodology and recognition of breeding habitat in relation to project impacts	Surveys have been undertaken in accordance with the Terms of Reference as stipulated by the Queensland Government. Refer **Appendix G** of the AEIS for species by species assessment of impact.	B7 – 10, E2	Yes, refer **Appendix G** of the AEIS
116	Environment	Comment that "the proposal to pollute groundwater with saline tailwater may impact on acid frogs"	There is no proposal to pollute groundwater with saline tail water. Mitigation measures such as the cut-off wall have been designed to retain and protect frog habitat adjacent to the works.	B3	No
117	Environment	Impact of the project on acid frogs	Management of acid frogs is addressed in **Chapter B8** of the EIS and in the Biodiversity Offsets Strategy component of the AEIS (**Appendix B**). Mitigation measures such as the cut-off wall have been designed to retain and protect frog habitat adjacent to the works.	B8	Yes, refer **Appendix B** (Biodiversity Offsets Strategy) of AEIS
118	Environment	Impacts of the project on species including Royal spoonbills and white bellied sea eagle	These species were discussed in **Chapter B8** of the EIS and are discussed further in **Appendix G** of the AEIS.	B8	Yes, refer **Appendix G** of AEIS
119	Environment	Impacts on jabiru	The jabiru is addressed in the EIS in **Chapter B8**. It is likely to be an occasional visitor only because there is no core habitat for this species onsite – refer **Appendix G** of the AEIS.	B8	Yes, refer **Appendix G** AEIS
120	Environment	Impact on whale migration path	The Dredge Management Plan (**Chapter E4** of the EIS **section 4.4.5** marine megafauna management) contains a range of measures aimed at protecting marine mammals during dredging operations including pump-out.	E4	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
121	Environment	Impact on whale "sonar type communication"	As outlined in **Chapter B10**, no impact on whales is predicted. This is further discussed in **Appendix G** in **Appendix G** of the AEIS.	B10	Yes, refer **Appendix G** AEIS
122	Environment	Impact on grey nurse sharks	As outlined in **Chapter B10**, no impact on grey nurse sharks is predicted. This is further discussed in **Appendix G** of the AEIS.	B10	Yes, refer **Appendix G** AEIS
123	Environment	Need for the provision of aquatic offsets	No residual significant impact is occurring to either MNES or MSES from the project on aquatic ecology and therefore no offset is required.	B9	No
124	Environment	General comments on impacts of flora and fauna of the project	All impacts on significant flora and fauna that could conceivably arise from the project are outlined in **Chapters B3 to B10** and associated appendices with further work in the AEIS in **Appendix B** and **Appendix G**. It must be noted that the airport expansion project will occur on land that has been identified for airport purposes in council's planning instruments since the 1980s.	B3 – B10	Yes, refer **Appendix B** and **G** AEIS
125	Environment	Impacts on false water rat	The false water rat otherwise known as the water mouse is addressed at **section 8.11** of **Chapter B8** of the EIS. The EIS concludes the project has no impact on this species.	B8	No
126	Environment	Potential for wildlife to be killed as a result of construction vehicle strike	**Chapter E3** of the EIS outlines the requirement for a Terrestrial Fauna Management Plan, **section 3.4.8**, which addresses this issue.	B8, E3	No
127	Environment	Impact of the project on birds in the local area	In **Chapter B8** of the EIS all species relevant to the project have been assessed and has concluded with the proposed mitigations there is no significant impact on any species. **Appendix G** of the AEIS provides a species by species assessment of migratory birds – no significant impacts are expected from the project including prospective plane strike issues and risks.	B8	Yes, refer **Appendix G** of the AEIS
128	Environment	Impact of the project on insects	The EIS (**Chapter B8**) has assessed all species relevant to the project and has concluded with the proposed mitigations there is no significant impact on any protected species.	B8	Yes, refer **Appendix G** of the AEIS
129	Environment	Comment that a 20m wide tunnel will be used for sand pumping operations which will block access for Echidna	There is no 20m wide tunnel to be built for sand pumping. The sand pumping pipe is expected to be not more than 1m in diameter. The EIS (**Chapter B8**) has assessed all species relevant to the project and has concluded with the proposed mitigations there is no significant impact on any species.	B8	Yes, refer **Appendix G** of the AEIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
130	Environment	Comment on potential threat to Spotted-tailed quoll	The EIS (**Chapter B8**) has assessed all species relevant to the project and has concluded with the proposed mitigations there is no significant impact on any species, including spotted-tailed quoll.	B8	Yes, refer **Appendix G** of the AEIS
131	Environment	Query re impacts to Mount Emu she-oaks, Allocasuarina thalassoscopica Mount Coolum she-oak and Acacia baueri subspecies baueri tiny.	*Allocasuarina emuina*. Impacts to Mt Emu She-oak are addressed in the EIS (**Chapter B7**), noting further assessment, mitigation and offset measures for this species are contained in the BOS (**Appendix B**) to the AEIS. *Allocasuarina thalassoscopica*. Mount Coolum She-oak is listed as endangered under both the Queensland *Nature Conservation Act 1992* and EPBC Act. The species, as it is currently described, only occurs in the low heath on the slopes of Mount Coolum between altitudes of 150-200m. As such, there is no suitable habitat for this species on the project site and it has not been found in flora surveys to date. It is noted that the species is morphologically similar to *A. emuina* – the subject of the recent journal paper arguing that they should be classified as one species. *Acacia baueri* subspecies *baueri tiny*: Tiny Wattle is listed as vulnerable under the Queensland *Nature Conservation Act 1992* but is not listed under the EPBC Act. There is a previous record in the Qld HERBRECS database for this species in the area of the Wallum Heath Management Area on the Airport land that is to be retained (e.g. not impacted by the Project). Flora surveys undertaken as part of the EIS searched this location, but could not find any of these plants. As there is suitable habitat for this species on the site, these species will be targeted as part of pre-clearing surveys as described in **Chapter E3** (EMP) of the EIS and revised commitments in **section 4** of the AEIS	B7, E3	Yes, refer **Appendix B**, Biodiversity Offsets Strategy and table of commitments in **Section 4**
132	Environment	Query about potential impacts to national parks from groundwater contamination	This is discussed in **Chapters B3 and B6** of the EIS, as well as **Chapter E7** – Mitigation and **Chapter E3** – Environmental Management Plan. The proposed mitigation will protect adjacent national park areas from saline or contamination impacts.	B3 – B6, E3, E7	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
133	Environmental Impact Study	Submitters have queried the reliability of the EIS	The EIS has been prepared based on the investigations and assessments of over 20 different specialist consultancy teams who were selected to work on the project because of their significant knowledge and experience in specific topic areas such as environment, noise, emissions, construction, flooding, etc. The assessments were undertaken to respond to Terms of Reference issued by the Queensland and Commonwealth Governments and were robust and reliable. Prior to the public notification period the draft EIS was provided to the OCG and the Commonwealth Government for review against the terms of reference. That review concluded that the Terms of Reference had been addressed and the public notification period could commence.	N/A	N/A
134	Erosion	Risks arising from potential site erosion as identified in council's Manual for Erosion and Sediment Control	Council's Erosion and Sediment Control Manual is a generic document applied broadly across the Sunshine Coast. The EIS assumptions with respect to rates of erosion are based on site-specific investigations.	B3	No
135	Existing 12/30 east/west runway	Requests to extend the existing 12/30 runway instead of the proposed project	There has never been any intention of extending the existing general aviation (12/30) runway due to lack of space for the required length of runway and this alignment relative to the terrain to the north-west of the airport.	A3	No
136	Fauna	Comments around fauna field studies	Details of field studies undertaken are outlined in **section 8.3.2** of **Chapter B8** – Terrestrial Fauna. The overall assessment methodology is outlined in **section 8.3**.	B8	No
137	Fill sources	Comments around KRA 150 being a suitable site to extract fill for the proposed project	KRA 150 was investigated as a possible source of sandfill in **Chapter A3** – Options and Alternatives, **section 3.2.2.3**. This source was discounted for a range of reasons as outlined in the EIS.	A3, A5	No
138	Fill sources	Comment that KRAs 150 and 156 not identified in the EIS	KRA150 is addressed in **Chapter A3** – Options and Alternatives of the EIS. KRA 156 is not impacted upon by the project.	A3	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
139	Flight paths	Queries around the development of flight paths	A number of flight paths have been determined for the proposed new runway, including 'straight in' and 'curved' approaches from the north-west and the south-east. These flight paths have been approved in principal by Airservices Australia and Civil Aviation Safety Authority. Once the runway is operational, the choice of flight path will be determined by Airservices air traffic controllers based on prevailing weather conditions. Details on the predicted number of flights on these paths, the percentage of aircraft likely to use the flight path and days when the flight path might not be used, is outlined in the Aircraft Noise Information Booklet. **Chapter D2** of the EIS provides details of the rationale for flight path development.	D2	No
140	Flight Paths	Inconsistencies between flight paths on p.38 of the Summary of Main Findings and in the Aircraft Noise Information Booklet	Page 38 of the SOMF provides a general schematic overview of airspace design as befits a Summary Booklet. Pages 5, 6 and 7 of the Aircraft Noise Information Booklet provide more detail on the same subject.	Summary of Major Findings, Aircraft Noise Information Booklet	No
141	Flight paths	Inconsistent and inadequate figures on the height/location of planes crossing the coast	**Chapter D2** – Airspace Architecture and Modes of Operation of the EIS indicates that both departing and arriving aircraft would operate at a minimum of 500 feet over the ocean. **Chapter D3** – Aircraft Noise indicates that aircraft departing Runway 13, that is in a south-east direction towards the ocean, are expected to achieve an altitude of between 1000 and 1500 feet by the time they cross the coast.	D2, D3	No
142	Flight paths	Comment that images of the flight path are out-dated and do not represent current housing density – recent, high quality maps should be presented in the EIS	The images and mapping used for the EIS was appropriate for the assessment and additional analysis is presented in **Appendix L** of the AEIS. A map package is attached to this report providing a series of maps to accompany the analysis and discussion. Aerial imagery used in this mapping was generated via Arc GIS with the source of these maps shown at the bottom of each map. This aerial imagery is used to provide a geographic reference for the noise contours and dwelling locations, but has not been relied on for analysis purposes. Aerial imagery is dated 4/11/2011.	D3, D5	Yes, refer **Appendix L** of the AEIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
143	Flooding and climate change	Comments that the proposed project will worsen flood impacts at Mudjimba	A thorough investigation into the potential flood impacts associated with the Project, including climate change, was undertaken using Council's current flood model as the basis for the assessment. Refer **Chapter B5** – Flooding of the EIS. The assessment indicates that Mudjimba is currently flood affected in all events that were assessed, from 2 y ARI to 100 y ARI. The impact assessment indicates a very minor reduction in peak flood levels of between 0 mm and 10 mm (considered to be no change) in all events from the 2 y ARI to 100 y ARI across almost all of Mudjimba. A small number of houses on Mudjimba Beach Road were identified as being potentially affected by an increase in peak flood levels of up to 20 mm in the 100 y ARI event; however, surveys of those properties indicated that the floor level was above predicted flood levels and therefore no new over floor flooding is expected. Climate change impacts were covered extensively in **Chapter B18** of the EIS. **Figure 5.2b** at page B5-139 indicates the extent of flooding modelling carried out.	B5, B18	No
144	Flooding	Query re potential non-compliance with Sunshine Coast Planning Scheme performance outcomes relating to flooding, storm tides and safety	Council will consider any necessary applications for works on site on merit and will apply the relevant provisions of the Planning Scheme including the Flood Hazard Code.	B5	No
145	Flooding	Claim that existing drainage structures are unable to cope with current flood risk	Flood impacts have been assessed in **Chapter B5**. The detailed design will ensure that individual drainage structures can accommodate predicted flows.	B5	No
146	Flooding	Fill dumping and release of tailwater may exacerbate flooding impacts	With respect to filling we are satisfied that the flood modelling contained in the EIS confirms that there is no impact on flooding in the locality with the exception of very minor impacts on a small numbers of properties in Marcoola. This is addressed via the commitments in **Chapter E7** and further information on this subject is provided at **Appendix J** of the AEIS. With respect to tailwater discharge during dredged material placement, the drainage of tailwater resulting from the sand pumping will not cause overtopping or otherwise exacerbate flooding in Marcoola Drain as outlined in **Appendix D**.	B5, E7	Yes, refer **Appendices D and J**

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
147	Flooding	Claim that flood modelling does not include a survey of local floor levels	The issue of flood impacts and mitigation was addressed in **Chapter B5** of the EIS and commitments made in **Chapter E7**. Further information is included in the AEIS as **Appendix J**.	B5, E7	Yes, refer **Appendix J**
148	Flooding	Potential for project to disrupt overland flows potentially increasing severity and frequency of flooding	The issue of flood impacts and mitigation was addressed in **Chapter B5** of the EIS and commitments made in **Chapter E7**. Further information is included in the AEIS as **Appendix J**.	B5, E7	Yes, refer **Appendix J**
149	Flooding and climate change	Comments that the proposed project will worsen flood impacts across the study area and that the cumulative flooding impacts of other projects in the area have not been considered.	A thorough investigation into the potential flood impacts associated with the Project (**Chapter B5** of the EIS), including climate change (also covered in **Chapter B18**), was undertaken using Council's current flood model as the basis for the assessment. Refer **Chapter B5** – Flooding of the EIS. The new runway has been designed to maintain a Q100 flood immunity to the year 2100. In all modelled events, except the 100 year ARI event, the project will have negligible increase in flood of less than 10mm in developed areas. In the 100 year event, modelling indicates that an area of already flood affected Marcoola North would experience a small increase in peak flood levels of less than 18.5 mm. These properties have been surveyed to determine if property specific mitigation measures are required. The survey results indicate that 5 properties may experience flooding impacts of between 17 mm and 18 mm as a result of the project. Property specific mitigations will be negotiated with the owners of the affected properties **Figure 5.2b** at page B5-139 of the EIS indicates the extent of flooding modelling carried out. Climate change impacts were covered extensively in **Chapter B18** of the EIS. **Table 5.5i** of **Chapter B5** identifies all known projects which could potentially have flooding implications.	B5, B18	Yes – refer revised commitments related to flood affected properties in **section 4**. **Table 5.5(i)** has been updated in **section 6** of the AEIS.
150	Ground parrot	Discussion around impacts of the proposed project on ground parrots	Ground parrot is addressed extensively in **Chapter B8** – in **sections 8.9. and 8.16**. A range of strategies aimed at retaining habitat for ground parrots is proposed. The airport security fence plays an important role in the protection of this species from predators. This will be maintained into the future and additional ground parrot habitat established.	B8	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
151	Ground parrot	Claims that ground parrots will be 'imprisoned' at the airport	Ground parrot are not 'imprisoned' by the security fence which surrounds their habitat – they are able to fly over the fence. The extensive survey work in the EIS has identified that the security fence provides protection from predation by dogs, cats, etc.	B8	No
152	Groundwater	Query about likely effect to ecological function of any rise in water table due tailwater discharge	There are no flow-on effects to ecological function arising from tailwater discharge. See **Appendix D** of the AEIS which contains the Water Quality Management Plan and additional analysis of groundwater impacts from tailwater discharge.	B3	Yes, refer **Appendix D**
153	Groundwater	Comment on inadequate assumption of coffee rock permeability – further information required on whether percolation of salinised groundwater could occur	Investigations undertaken to date are sufficient to assess the risk of impact and to develop the proposed mitigation measures. A Groundwater Management Plan (**Chapter E3** of the EIS) has been developed to identify, avoid and mitigate risks to the environment from groundwater pollution including transfer of saline water associated with sand pumping	E3	No
154	Health and wellbeing	Comments that the project will have a deleterious effect on community health	**Chapter D5** addresses the issues of the impacts of aircraft noise upon health noting that the level of traffic forecast for the Sunshine Coast Airport to 2040 is not substantial when compared with major capital city airports. It is predicted that no night flights (10pm – 7am) would occur at SCA until between 2030 and 2040, when two flights at around 6am are forecast.	D5	No
155	Heavy metals	Queries about heavy metals and impacts, including references to Gladstone experience	The sea water/sand ratio will vary from 4:1 to 2.5:1 depending upon the size of the dredge vessel and how far the sand is to be pumped. There are no heavy metals in the sand from Spitfire Channel Realignment site. It is clean, silt free, consistent sand eminently suited to the purpose proposed by Council. The HDPE liner and polishing (tailwater) pond area designed to prevent the transfer of sea water to the surrounding landscape. As discussed in **Chapter B10** of the EIS the project will not have any adverse impacts upon the Maroochy River or Marcoola Drain. On this basis, there is nothing relevant in the Gladstone example as the Project is not dredging an industrial harbour and dumping the mud in the sea.	B10	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
156	Heavy metals	Comment about inadequate assessment of sand contaminants/ heavy metals following large flooding events – modelling was undertaken in 2002 and there have been significant storm events since then	The sand resource within the Spitfire Banks Realignment Channel is part of the much larger sand resource (up to 4 billion m^3 of sand) in the Moreton Bay Northern Tidal Delta which is supplied from longshore sand movement along the coast. The sand located in the Realignment Channel does not contribute to or supply beaches on the Sunshine Coast and hydrodynamic studies as part of the MBSES and the EIS (refer **Chapter C3**) confirm removal of the 1.1 million m^3 of sand sought for the Project will not affect shoreline processes or supply of sand to the nearest beaches on Bribie Island. Clean Holocene sand has been identified at the Realignment Channel down to -20 m LAT based on previous borehole investigations and there has not been any record of contaminated material as part of these previous investigations. Nor is there any probable source of new contamination in this location (noting the channel is not currently used for shipping traffic). The Spitfire Banks locale in the Northern Delta is not normally exposed to fluvial inputs from the Brisbane River and is subject to active, high energy coastal processes, with surface sand on the seabed continually shifting and moving over time. As such, even if there were a source of contamination in the past (such as fluvial deposits from the Brisbane River floods in 2011) any fine sediments would not settle at this location, favouring deeper waters in the Central Bay.	C1 – C5	No
157	Helicopters	Relevance of helicopters to the proposed project	Helicopter traffic is forecast to rise whether the expansion project goes ahead or not. These helicopter operations are not relevant to the Project EIS, other than they have been modelled for completeness in **section 3.6**, **Chapter D3** and are considered in the preparation of the ANEC (contributing to the cumulative noise assessment for the project) as required by the Terms of Reference. SCA will ensure that helicopter noise will continue to be managed in accordance with current procedures and protocols.	D3	Yes, refer **section 4** of AEIS – Updated Project Commitments
158	High-density polyethylene liner (HDPE)	Query about the reliability of the HDPE under acidic conditions of a sandplain	The proposed HDPE liner is not new technology. There is no evidence to suggest it is an unsuitable technology for this project.	A5	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
159	Koala	Comments about threats to koala habitat in the vicinity of the airport	Koalas are addressed in **Chapter B8** of the EIS where it is concluded that there are no koalas on site, no koala habitat and therefore no impact on the species arising from the project.	B8	No
160	Lake Macdonald, Mount Cooroy, Noosa Biosphere	Comments that Lake Macdonald, Mt Cooroy and the Noosa Biosphere will be polluted by aircraft emissions	Extensive air emission studies indicate there will be no impact on these locations as a result of the change of runway orientation.	D3, D4	No
161	Legislation	Comment about relevance of *Forestry Act 1959*	The Forestry Act is not relevant to the project, however, the addition of a reference to this legislation has been included in the Clarifications Table of the AEIS.		Yes, refer **Table 6.1a** of Errata and Clarifications
162	Lengthen existing 18/36 runway	Suggestions that lengthening the existing runway would be a satisfactory outcome	**Chapter A3** of the EIS – Options and Alternatives provides a detailed overview to the options that were considered and the process followed to reach the preferred option, which is the subject of the EIS. Having selected the preferred option, all studies and analysis centres on that option. The lengthening of the existing 18/36 runway was discounted due to impacts on residential areas, road infrastructure and project viability.	A3	No
163	Loggerhead and green turtles	Queries around impacts of the project on turtles relating to dredging, sand placement process and lighting	There are no predicted significant impacts on loggerhead or green turtles from the project including from dredging, sand placement and lighting. In **Chapter B10** of the EIS it is noted that green turtles have not been recorded as nesting in the study area in recent years. A key commitment of the EIS is that the dredge activity occurs in winter months to avoid turtle nesting season on the beach. Refer **Appendix G** for further information on these species.	B9, B10, E7	Yes, refer **Appendix G**
164	Low Cost Carriers	Claims that low cost carriers are a declining sector of the airline industry	Low cost carriers have been for the past decade and are expected to continue to be, the growth area in airline business at all airports including Sunshine Coast.	A2	No
165	Marcoola Drain	Inadequate assessment of Marcoola Drain flows from stormwater runoff	The new drainage design takes into account volume from stormwater runoff. Further stormwater design and modelling will be undertaken as part of detailed design. Based on the modelling undertaken as part of **Chapter B6**, stormwater generated by the operation of the airport is likely to have negligible impacts to water quality in the Maroochy River and surrounds.	B6	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
166	Marine Ecology	Comment about impacts on marine ecology of flooding, jet fuel, dredging, light and noise	There are no measurable impacts on marine ecology arising from the project by reason of flooding, jet fuel pollution, dredging/turbidity, light pollution and noise. This is set out in Volumes B, C, and D of the EIS.	Volumes B, C and D of the EIS	No
167	Marine Ecology	Comment about impacts on humpback whales, dolphins, turtles and grey nurse shark	There are no measurable impacts on marine ecology arising from the project. This is set out in Volumes B, C and D of the EIS. In relation to Loggerhead turtles, there are no predicted impacts from the project. A key commitment of the EIS is that the dredge activity occurs in winter months to avoid turtle nesting season on the beach.	Volumes B, C and D of the EIS	Yes, refer **Appendix G** of the AEIS
168	Marine Ecology	Comment that mitigation is required to counter noise impacts on whales, dolphins, dugongs and sea turtles	Noise impacts from dredging on marine life is considered to be negligible – refer **Appendix G** of the AEIS.	B10	Yes, refer **Appendix G** of the AEIS
169	Marine Ecology	Comment that there has been in inadequate assessment of benthic organisms that may have been buried in the sand and not identified in surveys	The survey methodology adopted for the EIS is consistent with the Terms of Reference and clearly identifies a very low impact on benthic organisms – see **Chapter C4** of the EIS.	C4	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
170	N70	Comments around the use of the N70 as a noise descriptor within the EIS and noise tools	A system of describing aircraft noise was developed by the Department of Transport and Regional Services (now known as the Department of Infrastructure and Regional Development or DIRD) through industry and community consultation. This system is oriented toward providing information in a form that can be understood by interested members of the public, and provides a comprehensive description of the nature of aircraft noise exposure at any point. The information is presented in terms of a number of descriptors, and is intended to provide sufficient detail to allow members of the public to understand for themselves the likely impact of the noise. This system is described in the discussion paper "Expanding Ways to Describe and Assess Aircraft Noise" published in 2000 by DIRD. The most commonly used noise descriptor in this system is N70 – the number of aircraft noise events per day exceeding 70 dB(A). (A-weighted decibels (dB(A)) are an expression of the relative loudness of sounds in air as perceived by the human ear.) A noise level of 70 dB(A) outside a building would generally result in an internal noise level of approximately 60 dB(A), if windows were open to a normal extent. This noise level is sufficient to disturb conversation, in that a speaker would generally be forced to raise their voice to be understood. An internal aircraft noise level of 60 dB(A) is likely to also cause some words to be missed in speech from a television or radio. N70 values indicate the number of times per day when such events would occur. If external windows were closed, thus providing greater noise attenuation through the façade, an internal noise level of 60 dBA would be experienced when the external noise level is approximately 80 dB(A). For a listener outside, thus receiving no noise attenuation from a building, the described effects would be experienced with an external aircraft noise level of approximately 60 dB(A).For land use planning in Australia, the accepted measure of aircraft noise exposure is the ANEF. Australian Standard 2021 (the Standard) provides guidance on the acceptability of various areas for certain types of development, in terms of the ANEF level in the area. See **Chapter D3**, **section 3.2.1.1** of the EIS for more information.	D3, D5	No
171	Need for the project	Queries around why the project is needed	The proposed change to the alignment will ensure the airport meets all Civil Aviation Safety Authority (CASA) operational standards and is better aligned to prevailing winds thus enhancing aircraft performance and reducing potential diversions. Most aircraft will be able to operate at full capacity and it will provide the opportunity to make new national and international destinations accessible.	A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
172	Noise impacts	Comments about the impact of the project on Doonan, Eumundi and Verrierdale	**Chapter D5** of the EIS – Social and Visual Impacts points out that some residents of the Sunshine Coast are expected to experience new noise as a result of the project. It should be noted that based on forecasts, Eumundi and Doonan are not typically overflown. Aircraft would pass 3.5 km west of Doonan and 2.5 km east of Eumundi at a height of 2,500ft. Aircraft are still likely to be seen and any associated noise would be less than 60dBA. Similarly, Verrierdale is also not typically overflown. Aircraft will fly 1 km west of Verrierdale. Aircraft are likely to be seen and any associated noise events are likely to be between 60 and 65dBA. No N70 noise events are predicted for Eumundi, Doonan or Verrierdale.	D3, D5	No
173	Noise impacts	Queries about mitigation proposed to manage aircraft noise impacts	**Section 5.8** of **Chapter D5** sets out the current and possible future mitigation measures with respect to aircraft noise, including runway mode of operation, airspace management plan, updates to planning controls, expansion of the Community and Aviation Forum and ongoing community engagement.	D5	No
174	Noise impacts	Queries about noise impacts at Weyba Downs	Flights and noise in the vicinity of Weyba Downs: Weyba Downs is not typically overflown. However, it is likely that aircraft will be seen and potentially heard as noise events of less than 60dBA. With the new runway in 2020, aircraft departing Sunshine Coast Airport would be at between 8,000 and 8,500ft and arriving aircraft would be at between 3,000 and 3,500ft. In 2020 it is predicted that there would be between 2 and 3 flights on an annual average day (7am to 6pm). In 2020 evening flights (6pm – 10pm) are predicted to number between 0 and 1. No night flights (10pm – 7am) would occur. In 2040 it is predicted that there would be around 3 flights on an annual average day (7am to 6pm). In 2040 evening flights (6pm – 10pm) are predicted to number between 1 and 2. Night flights in 2040 are predicted to be between 0 – 1 (between 6am and 7am).	D3	No
175	Noise impacts	Comments about noise impacts at Mudjimba Beach	Using the current runway, aircraft pass over Marcoola surf and swimming beach, surf club, tourist facilities and accommodation. The area is still considered a popular and growing tourist destination. Aircraft arrive over Marcoola Beach at less than 500ft and depart over Marcoola Beach at between 500 and 1,000ft. Aircraft departing over Mudjimba beach with the new runway would be at an altitude of between 500ft and 1,000ft (see **Chapter D2** – Airspace Architecture and Modes of Operation, **D5** – Social and Visual Impact and Aircraft Noise Information Booklet).	D3, D5	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
176	Noise impacts	Comments about noise impacts at Mudjimba	The social and environmental impacts of the proposed 13/31 runway are covered comprehensively in **Chapters B13 and D5** of the EIS. The 13/31 alignment has been widely displayed within the community, including the 2007 Sunshine Coast Airport Master Plan and the Sunshine Coast Council 2014 Planning Scheme, which was the subject of extensive community consultation. The proposal to develop a north-west/south-east aligned runway has been in the public domain since the mid-1980s. The 13/31 alignment has also been discussed at length within quarterly Community and Aviation Forums which are attended by representatives of: Buderim 2000, Coolum Development Watch, Sunshine Coast Environment Council, Coolum Residents Association, East West Runway Action Group, Marcoola Progress Association, Marcoola South, Mudjimba Residents Association and Twin Waters Residents Association. The SCA has been located at Marcoola for over 50 years and all council documents and planning instruments have confirmed its continued operation into the future at the Marcoola location. Development in Mudjimba, North and South Marcoola has continued to occur even in the knowledge that the airport is close by including the construction of many tourist facilities and accommodation. In addition, using the current runway, aircraft pass over Marcoola surf and swimming beach, surf club and tourist accommodation at the same levels as forecast for Mudjimba and it is still recognised as a popular and growing tourist destination. Aircraft arrive over Marcoola Beach at less than 500ft and depart over Marcoola Beach at between 500 and 1,000ft.	A7, B13, D3, D5	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
177	Noise impacts	A number of submitters commented on perceived noise impacts at their properties.	Through investigation of the online noise information tool, individualised responses were provided by SCA to these submitters using a format similar to that shown here: *'With the new runway in 2020, aircraft departing Sunshine Coast Airport would be at between XXX and XXXft and arriving aircraft would be at between XXX and XXXft. In 2020 it is predicted that there would be between XX and XX flights on an annual average day (7am to 6pm). In 2020 evening flights (6pm – 10pm) are predicted to number between XX and XX. In 2040 it is predicted that there would be between XX and XXX flights on an annual average day (7am to 6pm). In 2040 evening flights (6pm – 10pm) are predicted to number between XXX and XXX. No night flights are envisaged on relevant flight paths. Departures are expected to generate noise levels of less than XXX dB(A) and arrivals are expected to generate noise levels of between XX and XXX dB(A). Depending on the area in question the following line was used or not used. No noise events of 70 dB(A) or greater are expected in these areas.'*	D3	No
178	Noise impacts	Queries about impacts at Marcus Beach	Noise at Marcus Beach: Aircraft departing in the vicinity of Marcus Beach will typically be at an altitude of 9,000-10,000 ft. Arriving aircraft will typically be between 3,5000 and 4,000 ft. In 2020 it is forecast there will typically be 8-9 overflights during the day (7am – 6pm), 3-4 overflights in the evening (6pm – 10pm) and no flights during the night (10pm – 7am). In 2040 it is forecast there will typically be 13-14 overflights during the day (7am – 6pm), 5-6 overflights in the evening (6pm – 10pm) and 0-1 flights during the night (10pm – 7am). Noise levels associated with these flights are expected to be 50-55 dBA.	D3	No
179	Noise impacts– additional analysis	Additional detail was sought on predicted operational noise impacts, including cumulative impacts noise impacts, a breakdown of new dwellings that would be affected and those that would be worse off from noise impacts	Noise information is presented in **Chapter D3** of the EIS. **Appendix L** of the AEIS provides an alternative representation of this data.	D3	Yes – refer **Appendix L**

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
180	Noise impacts –replacement of older aircraft in noise modelling	**Chapter D3 – section 3.3.2** of D3 refers to an assumed schedule for the replacement of older-generation aircraft with newer-generation aircraft (Table 3.3d) however this schedule was not included. Please provide a schedule and basis for the schedule, including any consultation/ agreement with Commonwealth agencies.	The reference in the EIS should have been to **Table 3.3c** rather than a reference to **Table 3.3d** (see proposed amendment in **section 6** of the AEIS). **Table 3.3c** provides an estimation of the likely fleet mix as time progresses. It is not a mandated timetable nor is it the subject of any specific consultation or agreement with Commonwealth agencies. As the text in **section 3.3.2** states, the noise assessment is deliberately conservative and relies upon the existing mix of aircraft even though new, quieter aircraft types are highly likely to be introduced into service during the forecast period. On this basis, any speculation about specific timeframes for the replacement of current types is not significant to the findings of the aircraft noise assessment.	D3	No
181	Offsets	Claims that offsets are not an acceptable approach to mitigation	Offsets are a viable option under both Federal and State environmental legislation applicable to a project when impacts cannot be avoided. As part of the AEIS, a more detailed Biodiversity Offsets Strategy has been prepared and consultation undertaken with Queensland and Commonwealth environment agencies. This strategy further outlines the offset commitments of the Project.	B7, B8, E2, E3	Yes, refer **section 5** of this report and **Appendix B** Biodiversity Offsets Strategy
182	Online noise information tool	Comments that people without internet access would not be able to determine potential noise impacts	The EIS Noise Chapter and Aircraft Noise Booklet provide all the necessary noise information to those members of the community that did not have access to the internet. In addition at each of the three public displays there were 3 computers loaded with the noise tool for use with technical experts that were able to explain it and any implications for affected property owners. Further, the 1800 number was available throughout the public display period and the consultation team responded to numerous requests regarding noise impacts at particular properties.	D3	No
183	Options	Comments around a preference for selecting Option 2 – Do Minimum (short response)	The Do Minimum option (Option 2) satisfies only one aspect of the requirements and objectives for the future of the airport. The length of the current 18/36 runway is a significant constraint to airline efficiency in the context of domestic and international airline operations.	A3	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
184	Options	Comments around a preference for selecting Option 2 – Do Minimum (extended response)	Option 2 (Do Minimum) option is not preferred and is not the subject of the EIS for reasons outlined in **Chapter A3**, **section 3.1.3.2**. The Do Minimum option would require capital expenditure estimated between $70 M and $80 M and whilst it would generate a positive benefit cost ratio, this expenditure would just maintain access to the existing limited mainly east coast domestic markets, with no potential for expansion to new domestic or international markets not able to be serviced by this length of runway. The Do Minimum option is not consistent with the SCC's objectives to support the region's economy through increased access to domestic and international destinations, and be a stimulus to tourism and commercial activities. This option was discounted on this basis.	A3	No
185	Options	Comments about the history of the options	Proposed changes to the existing 18/36 runway have been discussed over decades and debated through various formal mechanisms. The proposed runway orientation in the EIS is in the north-west to south east direction, technically termed Runway 13/31. This runway orientation was identified in the 2007 Sunshine Coast Airport Master Plan as the proposed orientation of the new runway. The Master Plan considered a range of alternative options in determining the preferred option and went through extensive public consultation. In addition, RWY 13/31 was then reflected in the latest Council Planning Scheme (consultation started in 2012 and it was finalised in 2014) which has also had extensive public consultation.	A3	No
186	Options	Comments citing the 'original option' (14/32) as the preferred	If it is to be assumed that the 'original' option is in fact a reference to the pre-2007 Master Plan 14/32 alignment, it should be noted that the change was formally adopted by council in the 2007 Master Plan and has been available on the airport and council websites since that time. The 13/31 alignment was also exhibited in 2012 as part of the public notification for the draft Sunshine Coast Planning Scheme, which was the subject of extensive public consultation and which was gazetted by the Queensland Government in 2014. As a result the realignment has been in the public domain for at least seven years.	N/A	N/A

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
187	Options	Comments that the existing 18/36 runway should be widened and lengthened thus negating the need for the project	**Chapter A3** of the EIS – Options and Alternatives provides a detailed overview to the options that were considered and the process followed to reach the preferred option, which is the subject of the EIS. Having selected the preferred option, all studies and analysis centred on that option. The lengthening of the existing 18/36 runway was discounted due to impacts on residential areas, road infrastructure and project viability. The widening of the existing runway satisfies only one aspect of the requirements and objectives for the future of the airport. The length of the current 18/36 runway is a significant constraint to airline efficiency in the context of domestic and international airline operations. It also does not improve the community noise outcomes as the proposed 13/31 runway orientation does nor is it possible to achieve the required 300m wide flight strip for the 18/36 alignment due to existing airport and surrounding development.	A3	No
188	Options	Comments recommending just a widening of the existing runway thus negating the need for the project	This satisfies only one aspect of the requirements and objectives for the future of the airport. The length of the current 18/36 runway is a significant constraint to airline efficiency in the context of domestic and international airline operations. It also does not improve the community noise outcomes as the proposed 13/31 runway orientation does nor is it possible to achieve the required 300m wide flight strip for the 18/36 alignment due to existing airport and surrounding development.	A3	No
189	Ornate Rainbowfish and gudgeon	Comment that these fish should be relocated to a non-impacted site, impact of project on connectivity and changes to fish distribution, including water quality at Marcoola Drain and its impact on aquatic ecology.	Impacts to these species are addressed in the EIS. Page 477 of **Chapter B9** states Ornate Rainbow Fish (*Rhadinocentrus ornatus*) ("HIGH" priority), was recorded during field surveys, although habitat within the Project area site is marginal for this species, does not constitute critical spawning, sheltering or foraging habitat and doesn't provide connectivity between populations of this species. The recommendation for relocation is not feasible or warranted based on the quality of the current habitat. The issue of water quality is addressed in additional work in **Appendix D,** which notes salinity impacts will be temporary and will not impact upstream freshwater habitats.	B9	Yes, refer **Appendix D**
190	Parking	Queries about future provision of a mobile phone parking area at the airport	Detailed car parking operations were not a topic of the terms of reference and will be explored in subsequent stages of expansion project.	N/A	N/A

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
191	Pipeline at Marcoola Beach	Comment on the design of the proposed pipeline for the delivery of sand to site	The design of the pipe will be based on engineering advice sourced from experts experienced in this field. The information obtained thus far suggests the methods of sand delivery proposed under the EIS are more than adequate to safeguard the environment.	A5	No
192	Pipeline at Marcoola Beach	View that the closure of any part of the beach is non-compliant with State Planning Policy	The SPP does not preclude the closure of a beach for public safety purposes; access will be temporarily closed during the installation and removal of the pipeline.	A5	No
193	Pipeline at Marcoola Beach	Requirement for a contingency plan in the event of heavy weather	This issue is acknowledged and will be addressed in detailed design to ensure the pipeline is secure during heavy weather. A commitment can be given to prepare a contingency plan as part of further planning following a determination on the Project.	A5	No
194	Pipeline at Marcoola Beach	Hazards associated with pipeline and dredge during extreme weather events	The design of the pipe will be based on engineering advice sourced from experts experienced in this field and will take into account potential weather. The sand pumping operation will be managed in accordance with the Dredge Management Plan. The information obtained thus far suggests the methods of sand delivery proposed under the EIS are more than adequate to safeguard the environment.	A5	Yes, refer **section 4** of the AEIS
195	Planning Scheme	Comments around Planning Scheme changes that may need to be made to facilitate the project	It may not be open to the Coordinator-General to condition that Council amend its planning scheme via a condition imposed under the *State Development and Public Work Organisation Act* for the Project. It is likely, however, that Council would seek to amend its scheme to reflect the findings of the EIS, where appropriate, should the EIS be approved.	A6	No
196	Project commencement	Comment that no work should commence on site prior to approval	There has been no physical work relevant to the EIS carried out to date. Vegetation management to the north of the current main runway continues (as it has for many years) to ensure the safe operation of aircraft.	A6	No
197	Project funding	Claims that ratepayers should not be made to pay for the project	At this stage, the funding of the project is yet to be determined. Sunshine Coast Council has engaged the Royal Bank of Canada to look at various funding options.	N/A	N/A

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
198	Project objectives	Requests for clarification around why council is proposing the project	Sunshine Coast Airport aspires to be a high quality regional airport with compliant operational capacity to service the needs of a growing region and to accommodate new generation aircraft as they are introduced into airline fleets. With the coast's population projected to increase by over 50 per cent in the next 20 years, the demand for services to major national destinations will grow. The proposed new runway is designed for the new generation B787 aircraft and not larger aircraft such as the A380 that flies from major capital city airports. Passenger numbers are forecast to grow from the current 1 million passengers in 2013 to around 1.3 million in 2020 and 2.9 million in 2040. The objectives of the project are to invest in a runway with as few operational limitations as is possible. Aircraft performance and airline services are currently impacted by cross winds on the 18/36 alignment, resulting in delays and diversions. This operational constraint is corrected by the proposed 13/31 alignment. Refer **Chapter A1**, **section 1.5** Project Rationale and **Chapter A2**, **section 2.2.2**.	A1, A2	No
199	Property Prices	Comments around the impact of the project on property prices in the area beyond Yandina Creek	Given the limited noise impacts in locations beyond the N70 >5 events noise contour and limited number of overflights, it is unlikely that there will be impacts on property values.	D5	No
200	Property Prices	Comments around the impact of the project on property prices in the area near the airport	**Chapter A2**, **section 2.6.1.1** says there are assumed to be property price impacts (positive and negative). These include property price impacts in newly affected areas and would be experienced from the point that new runway plans are announced and shown in public. These impacts may then extend into the construction period and ongoing operating period. However, the plans for a new runway at SCA have been in public circulation since 1985. Therefore, it is reasonable to expect that property price impacts have already been factored into properties deemed to be in an impact zone.	A2	No
201	Public Notification period	Comments that the public notification period was too short	The 30-business day public comment period was stated by the Queensland Government's OCG in accordance with the SDPWO Act.	A1	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
202	Public safety area	Queries about risks to dwellings in the Mudjimba area and the public safety area (PSA)	The design of the runway is such that no dwellings, existing or proposed, will occur within the critical I in 10,000 risk contour, which is consistent with the State Planning Policy objectives.	A6	No
203	Regionally significant landscapes	Query about why Mt Cooroy and Lake MacDonald are not listed as regionally significant landscapes in the EIS	These features will be added to the errata for **Table 17.2b** of the EIS and reflected in the list in **section 6** of the AEIS.	B17	Yes, refer **section 6** of the AEIS
204	Road, rail	Suggestions that an upgrade to the Bruce Highway and the implementation of high speed rail between Brisbane and the Sunshine Coast should be done instead of this project	Projects such as highway upgrades, high speed rail and rail duplication fall within the auspices of the Queensland and Commonwealth Governments. A full suite of transport infrastructure will be required to support the projected growth of the Sunshine Coast. Road and rail projects are seen as complementary to the Sunshine Coast Airport expansion project.	N/A	N/A
205	Salinity and water quality	Queries about impacts on water quality at Maroochy River	In terms of baseline water quality in the Maroochy River and surrounding waterways, water quality data shows turbidity is routinely elevated. In the Maroochy River salinity decreases from the river mouth heading upstream. The Marcoola drain is tidally influenced with salinities ranging from 0 (freshwater) to near ocean salinity levels, where it joins the Maroochy River. Any changes to sediment, turbidity and salinity in the drain as a result of construction would be short-term and minor, with the Marcoola drain acts as a mixing zone before tailwater enters the Maroochy River main channel. Additional assessment and mitigation planning has been undertaken as part of the AEIS for the discharge of tailwater into the Marcoola Drain as outlined in **section 5** of this AEIS.	B3	Yes, refer **section 5** of this report and **Appendix D** (Water Quality Management Plan for Marcoola Drain)

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
206	Second runway	Some submissions included reference to the project being a second runway for Sunshine Coast Airport	The airport expansion proposal does not encompass a second runway. The proposed main 13/31 runway would replace the shorter, constrained current 18/36 runway. No jet regular public transport aircraft will use the existing main runway once the new one is operational. It would only be used by some light aircraft (10 per cent or less) only if weather dictates.	A1	No
207	Social impact	Various queries about the social impacts and how the relevant chapters in the EIS were informed	The Social Impact Assessment (**Chapter D5**) of the EIS provides a wide-ranging discussion about the social impacts of the proposed project. It analyses impacts to the 40km radius as specified in the Terms of Reference and includes detailed information on the communities in various bands, noise sensitive receivers in those areas and dwelling counts for areas that are within the N70 contour. As part of that discussion the Chapter looks at impacts both with and without the proposed project and concludes that on a regional basis there are a number of benefits, including a reduction in the overall community noise burden. The EIS acknowledges that some communities will experience new noise. However, the Social and Visual Impact assessment (**Chapter D5** of the EIS) determined that in 2020, with the proposed change to the main runway alignment, 3,500 fewer dwellings on the Sunshine Coast would experience five or more 70 dB(A) noise events. In 2040 there would be a 73 per cent reduction (5,285 fewer dwellings) in the number of dwellings affected by frequent noise events (five or more 70 dB(A) noise events on a summer weekday day).	D5	Yes, refer **Appendix L** of the AEIS
208	Social impact	Comment that Mudjimba Skate Park, Power Memorial Park and Mudjimba Beach and SLSC were not included in references to social infrastructure	Mudjimba Skate Park and Power Memorial Park have been addressed in **Table 6.1a** of the AEIS. Mudjimba Beach and Surf Life Saving Club were addressed in **Chapter D5** of the EIS.	D5	Yes, refer **Table 6.1a** of the AEIS

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
209	Social impact	Query about methodology for social impact in terms of 40km radius assessment, newly affected homes, community consultation and perceived focus on positive impacts	The Terms of Reference set the radius as 40km which the EIS has complied with. The EIS (**Chapters D3 and D5**) provided extensive noise information. All these matters are addressed at length within the EIS. Community engagement activities are discussed at length in the EIS and in **section 2** of the AEIS.	D3, D5	Yes **section 2** of the AEIS
210	Soil acidity	Likelihood of whether calcareous material will buffer soil acidity of sand deposits in a terrestrial environment	Material placed during reclamation will be separated from adjacent terrestrial environments via a bund and through the high-density polyethylene (HDPE) liner as outlined in **Chapter A5** – Construction. On this basis, calcareous material in the sand from Moreton Bay will not affect the pH of adjacent environments.	A5	No
211	Stormwater	Query about use of Brisbane data for modelling of stormwater	There is no local data at Sunshine Coast Airport so data at Brisbane was used noting it is much larger scale and has greater air and ground traffic so would be a 'worst case' in the context of application to SCA.	B6	No
212	Study area	Comments that the study area for MNES was too small	The study area has been identified commensurate with the area of potential direct and indirect impacts on MNES.	E2	No
213	Process and approvals	Reference to **Chapter D6** on page 43 of the Summary document	The Summary of Major Findings will not be updated as part of the AEIS. We will note this typographical error in **Table 6.1a** Errata and Clarifications.		Yes, refer **Table 6.1a** of Errata and Clarifications
214	Sunshine Coast brand reputation	Comments that Sunshine Coast will lose its point of difference and become like the Gold Coast should the project proceed	Sunshine Coast Airport aspires to be a high quality regional airport with compliant infrastructure and operational capacity to service the needs of a growing region and to accommodate new generation aircraft as they are introduced into airline fleets. With the coast's population projected to increase by over 50 per cent in the next 20 years, the demand for services to major national destinations will grow. The proposed new runway is designed for the new generation B787 aircraft and not larger aircraft such as the A380 that flies from major capital city airports. Passenger numbers are forecast to grow from the current 1 million passengers in 2013 to around 1.3 million in 2020 and 2.9 million in 2040. This contrasts with the Gold Coast which is forecasting up to 13 million passengers at 2031.	A1, A2	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
215	Surface transport	Requirement of an infrastructure plan to accommodate growth as a result of the project	Although there are no identified impacts on local area roads as a result of the project, SCA will work with DTMR during the course of the project if approved.	B14	No
216	Surface transport	Comment raised about inadequate mitigation measures in EIS re road widening, upgrades, resealing and public transport	Although there are no identified impacts on local area roads as a result of the project, SCA will work with DTMR during the course of the project if approved.	B14	No
217	Surface transport	Queries around the impact of construction and operationally-related traffic	Traffic impacts have been dealt with in **Chapter B14** – Surface Transport. It found that traffic generated as a result of the construction and operation of the new runway and upgraded airport terminal building is expected to have minimal impact on the operational performance of the surrounding road network. Finland Road, which will be a major access route during construction, will be upgraded as part of early construction works. To improve traffic operations, signals will be installed at the David Low Way/Finland Road intersection. During construction, heavy vehicle movements are expected to occur predominantly in daylight hours.	B14	Yes, refer **Appendix I** for traffic issues raised by agencies & **section 6** which adds wording into **Chapter B14** of the EIS
218	Surface Water and hydrology	Claim of inadequate assessment of increased flows in Marcoola Drain from increased stormwater runoff	Flood modelling undertaken as part of the EIS has assessed how the new drain on the Airport will interact with Marcoola Drain. Drainage infrastructure has been sized to ensure no adverse flood outcomes. Based on modelling presented in **Chapter B6**, stormwater generated by the operation of the airport is likely to have negligible impacts to water quality in the Maroochy River and surrounds.	B6	No

Table 3.2a: Responses to Public and Organisation Submissions Received on Project EIS (continued)

No.	Topic	Type of query or comment	Response	EIS ref chapters	Further addressed in the AEIS?
219	Tailwater	Queries around how tailwater will be managed	As outlined in **Chapter A5**, the polishing pond has been sized to accommodate three days of run-off from the runway platform. It should be further noted that in inclement weather sand-pumping operations would be halted. **Chapter B10** addresses the impact of tailwater upon the ecology of receiving water and concludes there will be no significant impact. Additional assessment and mitigation planning has been undertaken as part of the AEIS for the discharge of tailwater into the Marcoola Drain as outlined in **section 5** of this AEIS.	A5, B10	Yes, refer **section 5** of this report and **Appendix D** (Water Quality Management Plan for Marcoola Drain)
220	Tailwater discharge	Potential flow-on effects of tailwater discharge on ecological function	This is addressed in **Chapters B6 and B10** of the EIS. Additional assessment of impacts on tailwater discharge on Marcoola Drain water quality and ecology are addressed in **Appendix D** of the AEIS.	B6, B10	Yes, refer **Appendix D** of the AEIS
221	Tailwater pond	Comment that the tailwater pond should be lined rather than relying on underlying clays to slow infiltration of saline water	The geotechnical advice available suggests the underlying clays at the proposed location of the tailwater pond will prevent saline water intrusion.	B3	No
222	Telec-ommunications	Potential interference with phone and internet due to project	There will be no impacts on telecommunications as a result of the project.	N/A	No
223	Temperature	Comments about operating in high temperatures	The longer length of the new runway will reduce the operational impacts of high ambient temperatures on passenger services.	A3	No
224	Virgin Australia	Submitters have used a reported statement from Virgin Australia to underline project objections	Virgin Australia has written to Sunshine Coast Council to say “the company supported the sustainable development of the airport to help continue air traffic growth and the ongoing development of the Queensland economy”.	N/A	N/A
225	Widebody aircraft	Comments that widebody aircraft generate more noise and have not been appropriately accounted for in the EIS	Widebody aircraft operations will remain a small percentage of the aircraft mix visiting Sunshine Coast Airport and similar to narrow-bodied aircraft are becoming increasingly more efficient and quieter with each generation.	A2, D3	No

3.3 Summary of Agency Comments and Proponent Responses

As part of the preliminary assessment process, the EIS was reviewed by the Office of the Coordinator General and referred to advisory agencies for review, with a broad range of comments received.

Following the 2015 Queensland election, the names of some Government departments were changed.

These changes are documented in the Administrative Arrangements Order contained at http://www.qld.gov.au/about/how-government-works/government-responsibilities. For clarity, Agency names used in this AEIS refer to the names of the Department as they were at the time of receiving submissions (prior to the most recent Queensland State election) as outlined in the table below.

Agency	Coverage of comments
Commonwealth Government	
Department of the Environment (DoE)	Matters of national environmental significance (MNES) under the EPBC Act and airspace related issues
Airservices Australia	Airspace procedures and Air Traffic Control
Queensland Government	
Department of Environment and Heritage Protection (DEHP)	Environment and heritage matters, including matters of state environmental significance (MSES)
Department of State Development, Infrastructure and Planning (DSDIP) (now Department of Infrastructure, Local Government and Planning)	Various planning matters relevant to the State Planning Policy (SPP)
Department of Agriculture, Fisheries and Forestry (DAFF) (now Department of Agriculture and Fisheries)	Agricultural land and resource use, fisheries and marine plants
Department of Transport and Main Roads (DTMR), including Maritime Safety Queensland (MSQ)	Transport infrastructure and maritime safety
Department of National Parks, Recreation, Sport and Racing (DNPRSR) (now Department of National Parks, Sport and Racing)	National parks, marine parks and fish habitat areas
Public Safety Business Agency (PSBA) including Queensland Fire and Emergency, Police and Ambulance Services (QFES, QPS, QAS)	Safety and emergency situations
Department of Aboriginal and Torres Strait Islander Multicultural Affairs (DATSIMA) (now Department of Aboriginal and Torres Strait Islander Partnership)	Aboriginal and Torres Strait Islander considerations
Department of Energy and Water Supply (DEWS)	Energy and water supply infrastructure
Department of Natural Resources and Mines (DNRM)	Natural resources
Queensland Health	Public health and related services
Department of Education, Training and Employment (DETE) (now Department of Education and Training)	Public education and related services

Responses are provided in the following sections in relation to these submitted agency comments. As outlined in **section 2**, the proponent carried out additional meetings and consultations with the OCG and advice agencies following the receipt of the submissions and comments to clarify issues raised and identify potential solutions. The outcomes of these discussions are also addressed below where relevant.

For some issues raised in agency submissions, further assessment and investigations have been conducted for the AEIS and are summarised in **section 5**. Where the additional surveys, assessment, and management plans were substantive, they are provided in the Appendices to the AEIS.

Where the comments raised by agencies were able to be addressed by a minor change or clarification amendment to the EIS, these are listed in the 'Clarification/Erratum' table contained within **section 6** of this AEIS.

3.3.1 Commonwealth Department of the Environment

The Commonwealth DoE provided comments in relation to MNES listed under the EPBC Act. In particular, DoE focused on the impacts and offsets to the Mount Emu swamp she-oak (Allocasuarina emuina), wallum sedgefrog (Litoria olongburensis), grey-headed flying-fox (Pteropus poliocephalus) and water mouse (Xeromys myoides). A subsequent information request about a broader range of MNES species was received in April 2015. DoE also commented on potential salinity impacts to MNES as a result of the Project.

In the context of offsets, DoE requested that the Project address the EPBC Environmental Offsets Policy (October 2012) and the Offsets Assessment Guide in calculating offsets. To address this request, a draft Biodiversity Offsets Strategy (BOS) was prepared by the proponent and circulated to DoE in early 2015. Comments on the draft document are outlined below, and subsequent comments received by DoE have sought to be addressed in the final BOS contained in **Appendix B**.

Table 3.3a provides a response to the comments received from DoE.

Table 3.3a: Response to Comments from DoE

Comment	Response
Comments that the draft Biodiversity Offsets Strategy (BOS) did not appear to have been prepared consistently with the Environmental Offsets Policy (October 2012) or the Offsets Assessment Guide. In particular, comments made as to the uncertainty/ inadequacy of offsets for Mount Emu swamp she-oak (*Allocasuarina emuina*), wallum sedgefrog (*Litoria olongburensis*) and grey-headed flying-fox (*Pteropus poliocephalus*). • *Mount Emu swamp she-oak:* there is uncertainty as to whether the offset determined from Offset Assessment Guide (1440 individuals to offset 550 individuals lost/4.41 ha cleared)includes consideration of mortality or self-thinning due to competition, and why a Confidence in Result figure (75%) was given when only 50% of past translocations (i.e. one of two) have been successful. • *Mount Emu swamp she-oak:* there is uncertainty as to whether the land set aside for offset will be available due to potential land use conflict with a proposal for bulk water supply infrastructure on or near the site. • *Wallum sedgefrog:* there is uncertainty as to whether or not the Offsets Policy and Guide have been applied. • *Wallum sedgefrog:* while 47.07 ha of habitat have been mapped as Essential Habitat for the species only 1.67 ha (breeding habitat) has been provided for in the offset. • *Grey-headed flying-fox:* despite the predicted loss of 41.8 ha of foraging habitat, no offset has been provided for the grey-headed flying-fox.	<u>Offsets</u> A final Biodiversity Offsets Strategy has been developed, taking into account both the EPBC Environmental Offsets Policy and the Offsets Assessment Guide and provides further clarification on offsetting for each of these species. This is provided in **Appendix B**. The potential conflict between the proposed Mount Emu swamp she oak (*Allocasuarina emuina)* offset site and future use of the site for a proposed bulk water supply infrastructure facility was raised by the Queensland Department of Energy and Water Supply (DEWS) and is discussed in the relevant section for that Department below.

Table 3.3a: Response to Comments from DoE (continued)

Comment	Response
	Essential Habitat for Wallum sedgefrog Regional Ecosystems (RE's) are a method of stratifying and defining types of remnant vegetation within Queensland. Using aerial photography (including pre-clearing photography), topographic and soil mapping data, the extent and distribution of individual RE's have been mapped. 'Essential habitat' is derived from RE maps by identifying those RE's which typically include suitable resources for a species of conservation significance and occurs within proximity (~2km) to a confirmed sighting of the species. While beneficial, essential habitat mapping can be inaccurate due to: 1. RE mapping is frequently not based on field observations and can be incorrect, 2. RE stratification is based on vegetation attributes and provides little information on features important to a species of conservation significance. For example, the entire helicopter training area on the Airport is mapped as 'Essential habitat' though is obviously not suitable for Wallum Sedgefrog. This example demonstrates how the use of Essential habitat for habitat offset calculations can grossly overestimate a threatened species habitat. By contrast, the habitat mapping provided in the EIS and BOS is based on field inspection and should be considered the most accurate representation of Wallum Sedgefrog habitat and therefore provided the basis for habitat offset calculations. Flying-fox No Grey-headed Flying-fox (GHFF) camps will be affected by the proposed actions. The assessment provided in **section 8.16.5.1** of **Chapter B8** shows that the loss of foraging habitat represents ~0.65% of resources within a 15km radius of the SCA (see also **Table 8.16f**). Considering GHFF can forage up to 50km from roosts each night, this represents a negligible loss of foraging habitat in the broader context. As such, the assessment determined that there will be no residual impact on GHFF and therefore no formal offsets are required. Nevertheless, it was recognised that habitat provided within the proposed offset property (Palmview) for other ecological values would also benefit the Grey-headed Flying-fox (resulting in almost negligible loss of foraging habitat). Provision of additional habitat at Palmview is described as 'compensatory' habitat for GHFF in **Chapter B8**. However the incorrect terminology of 'offset' was used in **Chapter E2**, which should have rather used 'compensatory'.

Table 3.3a: Response to Comments from DoE (continued)

Comment	Response
Comments that salinity impacts on threatened species, as described in **Chapter E2** of the EIS, need to be clarified in relation to the wallum sedgefrog and the water mouse: • Do thresholds for impact on wallum sedgefrog from an increase in salinity change for tadpoles and eggs? • Is there the potential for habitat areas to become inundated with saline water, especially during flooding≈events? • Will migration of groundwater north of the Northern Perimeter Drain cause impacts to the wallum sedgefrog? • Is there the potential of an increase in salinity levels to adversely affect the water mouse in the Maroochy River?	Wallum Sedgefrog Impacts of increased groundwater salinity on Wallum Sedgefrog due to the use of dredged material is discussed in **Chapter B8** of the EIS (see **section 8.16.2.7** on page B8-393). As indicated in this Chapter, tolerance of Wallum Sedgefrog embryos and larvae to increased salinity is unknown. Salinity levels in areas of known breeding habitat however are typically low, ranging from 7.5 to 93.35 mg/L. A significant increase in surface water salinity (>> 100 mg/L) could therefore pose a threat to the species. Despite this, a significant impact on Wallum Sedgefrog appears unlikely with saltwater intrusion north-east of the Northern Perimeter drain limited by a cut off wall (constructed on the east side of this drain). Intrusion of saline groundwater into Wallum Sedgefrog habitat in this area is also likely to be limited by coffee rock separating perched surface waters from the regional (groundwater) aquifer. Based on the assessment in B3 of the EIS, this rock layer is likely to prevent intrusion of saline groundwater into areas of perched surface water used for breeding by the Wallum Sedgefrog. As outlined in **Appendix D**, the discharge of tailwater into Marcoola Drain will be controlled to avoid impacts upstream (including along riparian areas of the Mt Coolum National Park). These areas have been recently re-surveyed (March 2015) and riparian areas are not considered to be suitable habitat for wallum sedgefrog due to non-acidic pH levels and presence of Gambusia. Water Mouse Habitat along the Marcoola Drain is considered marginal for the water mouse and is unlikely to support significant numbers of the species. Habitat along the Marcoola drain, while consistent with Water Mouse habitat (i.e., Mangroves), is very limited in extent (typically ~1m in width). This long linear fragment is unlikely to support significant Water Mouse numbers, if any. As no significant impacts to water quality or habitat are expected in the Maroochy River from the Project (including during the tailwater discharge phase), no impacts to the water mouse are expected. This assessment conclusion from the EIS was confirmed in comments received from the Queensland Department of Science, Information, Technology, Innovation and the Arts (DSITIA).
Requirement for consistent likelihood of occurrence for all MNES species identified in the EPBC Act protected matters search tool (PMST) results.	A consistent list of all species in the PMST has been provided in **Appendix G**.

Table 3.3a: Response to Comments from DoE (continued)

Comment	Response
Comment requiring further discussion of particular MNES fauna species • Australasian bittern (*Botaurus poiciloptilus*): uncertainty as to potential habitat to be impacted • Regent honeyeater (*Anthochaera phrygia*): management should be included as part of the Allocasuarina offsets package • Glossy ibis (*Plegadis falcinellus*): clarification as to why species was considered in EIS when not in PMST results • Little Tern – further detail to justify predicted impacts • Loggerhead turtle (*Caretta caretta*) and green turtle (*Chelonia mydas*): concerns that breeding season extends to May and was incorrectly stated in the EIS • Marine fauna: all commitments to be consolidated into main commitment register	The occurrence of and impacts to the Australasian bittern, regent honeyeater, glossy ibis and Little tern are considered in **Appendix G**. The comment about marine turtle breeding is not directly relevant to the Project noting the potential impact from pipeline operations on Marcoola Beach is on turtle nesting and hatchlings (not breeding activities which occur at sea). The marine turtle nesting season quoted in the EIS (November to March) are based on studies conducted by Dr Col Limpus of DEHP and are considered to be reliable for the purposes of the EIS (see Limpus 2008a and 2008b from **Chapter B10** of the EIS). However, as raised by a submitter, there is the possibility that hatchlings can be present later into the year (into April and May). Extending the proposed mitigation in the EIS to avoid dredging operations beyond March are not supported on the basis that: • The area is not considered a high density beach for turtle nesting and the Nov – Mar environmental window where dredge operations cannot occur should minimise the majority of interactions; • The initial pipeline installation (and decommissioning) will be undertaken following a detailed site inspection of potential nesting areas and sites and actions taken to avoid or translocate these nests if required; • Once the pipeline is established, impacts such as lighting are unlikely to have an adverse impact on any turtle hatchlings (as discussed in the EIS **Chapter B10**); and • If any turtles or hatchlings are encountered during operation of the pipeline, management protocols to minimise disturbance from site access and pipe maintenance will be developed and implemented with local QPWS officers. The commitments for marine megafauna are addressed in the EIS **Chapter E4**: Dredge Management Plan. These include: • A reactive marine water quality monitoring programme for offshore dredging works at Spitfire Channel • A marine megafauna management plan for dredge operations including dredging, transit and operations at the pump out site at Marcoola Beach. Measures include the use of spotters, exclusion zones, turtle exclusion devices and other≈measures. • Avoiding dredge pipeline operations on Marcoola Beach during turtle nesting seasons (as outlined above) • Pre-construction surveys along the beach and dredge pipeline alignment for marine fauna (as outlined above)

Table 3.3a: Response to Comments from DoE (continued)

Comment	Response
Comment requiring further discussion of targeted surveys for MNES flora, especially wallum leek-orchid (*Prasophyllum wallum*).	Targeted surveys were carried out for all species considered likely or known to occur in the Project area (see **Appendix G**). These were: • Mount Emu she-oak (Allocasuarina emuina) • Attenuate wattle (Acacia attenuata) • Swamp stringybark (Eucalyptus conglomerata) • Lesser swamp orchid (Phaius australis) • Wallum leek-orchid (*Prasophyllum wallum*) Targeted surveys were undertaken 8-10 and 23 October 2012, and 28 October 2014 (lesser swamp orchid only). Habitat suitability assessment identified habitat for all five species but only Mount Emu she-oak and lesser swamp orchid were identified. Findings of the lesser swamp orchid targeted surveys are contained in **Appendix E**.

3.3.2 Airservices Australia

Airservices Australia has made a number of comments in relation to airspace procedures and Air Traffic Control (ATC). The specific matters discussed by Airservices Australia included runway dimensions, threshold coordinates and elevation, changes to flight paths, impacts to ATC operations or ARFF services, and operational and safety assessments.

These comments relate primarily to post-EIS airspace and operational approvals and will be managed subsequent to the EIS.

3.3.3 Queensland Department of Environment and Heritage Protection

Comments provided by the Department of Environment and Heritage Protection (DEHP) related to the following topics:

- Air quality and noise
- Threatened species and biodiversity offsets
- Acid Sulfate Soils (ASS), salinity (to surface and groundwaters), sediment and turbidity, and contaminated land.

Responses have been divided up into these respective areas.

3.3.3.1Air Quality and Noise

Comments provided on air quality and noise responded to modelling and emissions assessments in **Chapters B16 and D4** of the EIS. In particular, DEHP noted potential uncertainties associated with the Air Pollution Model (TAPM) and emission factors provided in the EIS, and potential issues with air and noise impact assessment and mitigation approaches. In response, some clarifications of the underlying modelling have now been provided as amendments to the EIS (see **section 6**) along with additional air quality contour plots for assessing PM10 and dust deposition impacts (see **section 5** and **Appendix H**).

Detailed comments and proponent responses are summarised in **Table 3.3b**.

Table 3.3b Responses to Comments from DEHP on Air Quality and Noise

Comment	Response
Comments related to the accuracy and comprehensiveness of TAPM used for the project assessment. • Uncertainty as to whether local meteorological data was used • Uncertainty as to whether the correct construction emission factors (adopted from US EPA AP-42 and NPI databases) were applied • Uncertainty as to accuracy of TAPM model impact prediction due to under-prediction of wind speeds at≈airport • Uncertainty as to what predicted xylene emissions rates comparative to total volatile organic compound (VOC) emissions modelled	Data from the Bureau of Meteorology (BoM) at the SCA and other nearby monitoring stations was not assimilated into the TAPM as a quantitative validation of the TAPM output (refer **Appendix C** of **Chapter B16**) demonstrated that data assimilation was not required. The EIS has been updated to include justification for no data assimilation (see **section 6** of this AEIS). Construction emission factors applied in modelling have been confirmed as correct. Minor clarifications and typographic amendments have been provided in the EIS (see **section 6**), including a description of the values and assumptions used to calculate emission factors. This also includes emission rates for xylene compared to overall VOCs. In addition, detailed impact contour plots, construction emission factors and speciated VOC tables have been provided in **Appendix H**. An increase in wind speed predictions is unlikely to have a practical difference to the management measures already proposed to control wind erosion. In addition, impacts from haul routes were over-predicted by TAPM, leading to a conservative assessment overall.
Comments related to suitability of impact ratings in the air quality index (AQI) and the consideration of cumulative impacts. • AQI suggests exceedances of the *Environmental Protection (Air) Policy* (EPP (Air)) are Moderate • Assessment of EPP (Air) exceedance frequencies is not clear • Poor assessment of cumulative construction impacts due to assessment of PM10 concentrations and dust deposition in isolation • Uncertainty as to impacts of air impacts on ecologically sensitive vegetation	AQI impact ratings are consistent with the risk assessment matrix adopted through the entire EIS, which scales impacts based on their area/scale of impact and importance to decision-making and environmental management. As exceedances of EPP (Air) would be localised and temporary only the impact rating is 'Moderate'. Frequency of exceedances cannot be presented in a meaningful way as exceedance frequency will depend on construction management. Additional contour plots have been provided for PM10 and dust deposition in **Appendix H**. These were not included in the EIS so as to increase readability. Compliance with air quality criteria for PM10 is predicted at the majority of sensitive receptor locations and at all sensitive receptors for dust deposition. The modelled air quality impacts in **Appendix H** do not include proactive or reactive mitigation measures beyond level 1 application of water to haul roads and topsoil scraping. Additional management actions are recommended on a proactive or reactive basis, including: • Applying additional watering during strong winds • Limiting work near sensitive receptors during calm conditions when the dispersive capacity of the atmosphere is poor • Minimising exposed areas These recommended management actions will significantly reduce the chances of potential impacts and dust related complaints and will not contribute to any cumulative impacts on air quality environmental values. As known threshold for impacts on vegetation are well above thresholds for amenity, adverse impacts on nearby vegetation are not predicted.

Table 3.3b Responses to Comments from DEHP on Air Quality and Noise (continued)

Comment	Response
Clarification required as to the mitigation measures proposed for wind generated dust from material stockpiles and cleared land areas.	Mitigation measures noted in **section B16.6.1.1** apply to material stockpiles and include watering, minimising surface area and shielding/enclosure. Additional management actions are recommended on a proactive or reactive basis, including additional watering during strong winds, limiting work to calm conditions where dispersive capacity of the atmosphere is poor, and minimising exposed areas. These are outlined in **Appendix H**.
Assessment should be provided in relation to 20 ANEF contour noise levels.	The assessment of social impacts of changes to the ANEF, including counts within the 20 ANEF noise contour for each suburb) are presented in **Chapter D5** of the EIS. Implications for land use as a result of these changes are discussed in **Chapter B2**. Information has been re-represented in **Appendix L**.
Comments that noise impacts of dredging and pump out operations on residential areas at Bribie Island (Woorim) and Marcoola should be assessed and mitigated.	The noise impact of dredging operations in the Spitfire Channel dredging area will not have an impact on residential areas of Bribie Island as these areas are over 7.5 km away. Noise impacts from low frequency noise are unlikely to cause an impact more than 2 km from operations. Noise impacts have been assessed at the pump out location and for the operation of a booster pump station and mitigation measures proposed to ensure adequate control.
Comment that while it is acknowledge helicopter noise impacts are likely to decrease due to proposed movement of the heliport, noise mitigation measures should be proposed to help control helicopter noise and respond to complaints from affected residents and other noise sensitive receptors.	Movement of the heliport is independent to the Project and has been included in noise impacts for completeness. SCA will continue current approach to dealing with noise complaints which includes liaising with operators to identify if flight paths can be amended to avoid noise impacts.

3.3.3.2Threatened Species and Biodiversity Offsets

DEHP has provided comments in relation to the management of species listed as MSES and offsets including the application of relevant offset calculations from the Queensland Environmental Offset Policy and Guidelines.

MSES species identified in the EIS are:

- Ground parrot (Pezorporus wallicus wallicus)
- Wallum sedgefrog, wallum froglet (Crinia tinnula) and wallum rocketfrog (Litoria freycineti) (i.e. acid frogs)
- Water mouse
- Grey-headed flying-fox
- Mount Emu swamp she-oak.

A draft Biodiversity Offsets Strategy (BOS) was prepared by the proponent and circulated to DEHP in early 2015. Comments on the draft document are outlined below, and have been addressed in the final BOS contained in **Appendix B**.

Table 3.3c provides more detail on SCA response to DEHP comments.

Table 3.3c: Responses to Comments from DEHP on Threatened Species and Biodiversity Offsets

Comment	Response
Uncertainty whether the conversion of dry heath to wet heath will require offsetting.	As noted in **sections 7.6.3, 7.6.4 and 7.7.1.1** of **Chapter B7**, 5.8 ha of dry heath will be offset alongside the 49.9 ha of remnant regional ecosystem (RE) to be cleared (despite SCA's clearing exemption under the *Vegetation Management Act 1999*).
Comments as to the adequacy of assessments and offsets to manage impact to threatened fauna and flora. • *Ground parrot:* research on habitat quality and ground parrot ecology may be required before offset proposals can be adequately assessed. • *Water mouse:* increases to salinity and turbidity downstream of the Marcoola Drain during tailwater discharge have significant potential for deleterious impact and all practicable options to limit impacts should be explored. • *Acid frogs:* while translocation of acid frogs may not be successful, no alternative actions are proposed to offset impacts. • *Acid frogs:* only breeding habitat of the wallum sedgefrog has been included in calculation of offset areas rather than the entire essential habitat. • *Mount Emu swamp she-oak:* translocation should be classed as a mitigation action and not an offset. More information on risks and demonstration of success is required.	In response to these comments, the following points are relevant: • Considerable research is noted in relation to documented ground parrot values, including population estimation and habitat use. Management of impacts to the ground parrot include retention of habitat areas in the wallum heath management area (WHMA) in perpetuity under a Wallum Heath Management Plan (WHMP), and establishment of new habitat adjacent to the northern perimeter drain, connected by a vegetated strip along the Sunshine Motorway. • Habitat along the Marcoola Drain is considered marginal for the water mouse and is unlikely to support significant numbers of the species. As no significant impacts to water quality or habitat are expected in the Maroochy River from the Project (including during the tailwater discharge phase), no impacts to the water mouse are expected. This assessment conclusion from the EIS was confirmed in comments received from the Queensland Department of Science, Information, Technology, Innovation and the Arts (DSITIA). • Acid frog translocation and habitat creation activities have been based on expert hydrogeology and acid frog opinion and are expected to have high success rate. Offsetting and habitat creation is proposed for 60.36 ha of wet heath, sedgeland and melaleuca woodland at Palmview. Breeding ponds will also be created to offset the lost 1.67 ha of breeding habitat for acid frogs. While offsetting the entire Essential Habitat is not seen as necessary due to use of only a 1.67 ha by acid frogs, the provision of an additional 60.36 ha for frog habitat and dispersal is intended to adequately offset impacts. Further information about offsets is contained in the final BOS in **Appendix B**. • Translocation of Mount Emu swamp she-oak is considered an offset as it relates to a significant residual impact after mitigation. Offset calculations have been based on the DoE Offset Assessment Guide. Further information about offsets are contained in the final BOS in **Appendix B**.

Table 3.3c: Responses to Comments from DEHP on Threatened Species and Biodiversity Offsets (continued)

Comment	Response
Comments regarding uncertainty as to the viability of a connectivity corridor between sections of the Mt Coolum National Park and whether impact species will use habitat given susceptibility to weed management issues and proximity to Sunshine Motorway.	Measures proposed for maintaining connectivity consist of creation of a 100 m wide vegetated corridor around north-western end of the runway, installation of culverts to provide dry passage over drainage lines, installation of fauna proof fencing, and ongoing monitoring and management of weeds within revegetated areas.
Revegetation and rehabilitation methods for disturbed areas are not clear.	Additional measures that may be implemented include construction of fencing excluding feral predators from the runway and SCA lands and widening of the 100 m corridor to 150 m where practicable. These measures are deemed to be sufficient to ensure safe passage of fauna between northern and southern sections of Mt Coolum National Park. This will make loss of connectivity a short-term problem only, unlikely to threaten long-term viability of populations. The Wallum Heath Management Plan (WHMP) will provide more detail on connectivity and revegetation works.
Comment that cumulative impact assessment for MSES and MNES species should include consideration of impacts in conjunction with known and likely development and other threats in the subregion or local area.	Regional occurrence and extent of habitat for threatened species listed as MSES or MNES were included in consideration of impact significance for MSES and MNES and **Chapter B8** of the EIS.
In addition to the identified species in the EIS, DEHP has noted the potential to identify other threatened flora species in the Project Area as part of pre-construction surveys.	This has been noted by SCA and added as a commitment to the project (refer **section 4** of this AEIS).
Comment on the suitability of the draft Biodiversity Offsets Strategy (BOS) and application of relevant calculators and metrics as outlined in the Queensland Environmental Offset Strategy.	These comments have been addressed in the Final Biodiversity Offsets Strategy (BOS) – refer **Appendix B**.

3.3.3.3 Acid Sulfate Soils, Salinity, Sediment and Turbidity and Contaminated Land

DEHP comments in relation to Acid Sulfate Soils (ASS), salinity, sediment and turbidity and contaminated land are addressed in **Table 3.3d**.

Table 3.3d: Response to Comments from DEHP on Acid Sulfate Soils, Salinity, Sediment and Turbidity and Contaminated Land

Comment	Response
Detail on why other discharge options for tailwater are not considered feasible including: • for ocean discharge option: detail the engineering issues and other impacts that SCA considers makes this option not reasonable or practicable compared to the Marcoola Drain option • for the Maroochy River option: compare environmental outcomes for salinity of a river discharge and the EIS specific drain discharge in comparing these options	**Appendix F** contains a technical memorandum on this issue. While both alternative discharge options provide potentially improved water quality outcomes over the preferred option of discharge to Marcoola Drain (through more rapid and direct mixing with a larger volume of saline water), they involve disproportionate cost impacts for the improved water quality outcome and involve other direct environmental impacts to habitats and species of conservation significance.

Table 3.3d: Response to Comments from DEHP on Acid Sulfate Soils, Salinity, Sediment and Turbidity and Contaminated Land (continued)

Comment	Response
Comments on potential impacts from salinity in tailwater discharge to the Marcoola Drain and the Maroochy River. • Tailwater discharge is expected to be quite salinity compared to surrounding groundwater and surface drainage. • Lime treatment of ASS is expected to provide an additional source of salinity to groundwater and surface water runoff. • Seepage of saline water in the Marcoola Drain will cause a saline recharge to the aquifer, circumventing the proposed groundwater cut-off trench.	**Chapters B6** (water quality) provided details on the impacts of tailwater release into the Marcoola Drain that has been used to inform ecological assessments to flora and fauna values (in **Chapter B7 – B10**). The modelling assessment was considered to be conservative through the modelling of the longest duration tailwater scenario (33 weeks) as a 'worst case'. The modelling also did not take into account the benefits of the tailwater mixing with ambient water in the Northern Perimeter Drain prior to entering Marcoola Drain (which would reduce ambient salinity). Temporary water quality impacts from tailwater in the Marcoola Drain (particularly increased salinity) are predicted by the modelling but are not considered to present an ecological risk to the Maroochy River as a Fish Habitat Area or result in the loss of environmental values of water prescribed for the Maroochy River and tributaries under the EPP Water. **Appendix D** outlines a range of additional surveys, assessments and mitigation planning that has been undertaken since the EIS to address agency concerns about the potential salinity impacts upstream of the tailwater discharge point in Marcoola Drain and potential impacts on the Mount Coolum National Park. This included: • further ecological surveys of the mid and upper reaches of the Marcoola Drain including riparian areas of the Mount Coolum National Park. These surveys have confirmed that the riparian areas upstream of the Finland Road culvert contain a range of salt tolerant vegetation communities (mangroves and melaleuca species) and are unlikely to support acid frog species due to the high ambient pH of these habitats and presence of in-stream predators (Gambusia sp.); • further numerical modelling studies of the proposed tailwater release which confirm that the tailwater operations do not increase the risk of overtopping or otherwise significantly raise the ambient water level in the drain; • a conceptual model of groundwater hydrology around the Marcoola Drain which indicates the risk to adjacent groundwater in the National Park from increased salinity in the Marcoola Drain during the tailwater phase are low; • A water quality (salinity) management plan for the tailwater phase of the project in Marcoola Drain to monitor and control upstream salinity intrusion. Use of lime and rates is outlined in greater detail in the Environmental Management Framework for ASS (see below and refer **Appendix C**) noting the need to limit liming rates particularly when adjacent to acid dependant ecosystems. The EMF document also outlines how potential salinity impacts on groundwater during the reclamation phase will be controlled and managed.
Significant environmental risks associated with ASS have been identified in the EIS (**Chapter B3**). Management measures identified are preparation of an ASS Management Plan and conduct of additional ASS investigations. Investigations should consider quality of discharges from treatment areas and potential groundwater seepage quality form ASS treated soils.	An Environmental Management Framework for ASS has been prepared in accordance with the Queensland ASS Technical Manual. This is attached in **Appendix C**.

Table 3.3d: Response to Comments from DEHP on Acid Sulfate Soils, Salinity, Sediment and Turbidity and Contaminated Land (continued)

Comment	Response
Water quality monitoring of the Maroochy River and Coolum Creek shows that turbidity and suspended solids water quality objectives (WQOs)[1] are currently being exceeded. Any discharge in exceedance of the WQOs for the river, therefore, would be inconsistent with the EPP (Water).	As WQOs for turbidity and suspended sediments in the Maroochy River are already exceeded, the EIS proposes reasonable and practical measures that seek to achieve a no net worsening of long-term water quality in the Maroochy River. As described in **Chapters A5 and B6** of the EIS, these measures include management of tailwater via a polishing pond before discharge via the Northern Perimeter Drain into the Marcoola Drain. The Marcoola Drain, as an artificial waterway, will function as a mixing zone for tailwater prior to entering the Maroochy River main channel. Modelling outlined in **Chapter B6** indicated that operation of the sedimentation pond will be effective to ensure exceedance of turbidity and suspended solids objectives in the Maroochy River from tailwater discharge will be minor and short-term only. This minor change is not expected to impact on the environmental values of the waterway or on its values as a Fish Habitat Area. Further discussions with EHP have indicated a discharge limit of 50 mg/L should be defined for the proposed tailwater polishing pond. This performance standard is likely to be achievable noting the low fines present within the clean sand dredge material from Spitfire Banks and through the establishment of an HDPE liner across the site. The HDPE liner's purpose is to protect infiltration of saltwater into groundwater resources on the site but will also limit the entrainment of fines in the reclamation area during placement. A tailwater monitoring programme with performance limits for suspended solids is already outlined in the EIS in **Chapter E4** (Dredge Management Plan) which will be implemented during the tailwater discharge period. As outlined in the DMP, the plan sets out commitments to monitor turbidity (NTU) and TSS from the polishing pond as well as in the receiving waters of the Marcoola Drain and Maroochy River. Corrective actions that can be implemented to further control turbidity (if required) include: increasing holding times on the site and engineered sedimentation pond; installation of baffles and sediment curtains within the pond and addition of flocculent agents if necessary. This plan will be amended where required to address any conditions of approval related to tailwater release from the site following a determination on the Project. NB – no tailwater discharge will occur in Coolum Creek.
Comments regarding contaminated land assessments in **Chapter B3** and failure to discuss proposed mitigation measures to address environmental significant contamination identified. In particular, existing and potential contamination of shallow groundwater by hydrocarbons needs to be addressed.	As stated in **Chapter B3**, contaminated soil was identified at two farm sheds west of the proposed expansion area which will be affected by the Project. The contamination at these sheds does not present an immediate risk to human health or the environment under the current land use. A detailed investigation and risk assessment (including groundwater assessments) will be undertaken and a remediation plan prepared for approval by the relevant authority for these contaminated sites that could be affected by the Project. This will be pursued following a determination on the Project EIS and a commitment has been inserted in **section 4** of the AEIS. The area of concern raised in the comment around the fuel tanks is an existing site on Airport that is currently being monitored and managed by the relevant Airport tenant. This site (and all other contaminated sites identified on the Airport site as part of contaminated land register and environmental management register searches in **Chapter B3**) will not be affected by the new runway plans.

1 *See mid-estuary and constructed canal WQO in www.ehp.qld.gov.au/water/policy/pdf/documents/maroochy-ev-2010.pdf*

3.3.4 Queensland Department of State Development, Infrastructure, and Planning

Comments received from DSDIP related to coastal, water quality and flooding planning interests as outlined in the State Planning Policy (SPP). Specifically, these comments raised concerns with impacts to public access and coastal processes during dredge pipeline construction, impacts to water quality from stormwater runoff, and increased flooding risks to the surrounding area.

Table 3.3e provides detailed responses to these comments.

Table 3.3e: Responses to Comments from DSDIP

Comment	Response
Comment that the State Planning Policy (SPP) continues to be relevant to the Project where amendments are made that are not immediately reflection in the Sunshine Coast Planning Scheme 2014.	Noted; EIS amended to reflect this – see **section 6** of this AEIS.
Comments that the closure of beach access during dredge pipeline construction will have significant impacts to physical coastal processes, environmental matters, public safety and surf lifesaving activities. Clarification required as to mitigation measures and alternatives considered. Certain aspects of pipeline construction that affect coastal processes will need to be managed under a separate approvals process.	Closure of the beach during pipeline construction is a necessary part of the Project. The construction methodology has been designed to provide flexibility in construction operations to allow for the shortest possible timeframe for installation. The works would take at an unpatrolled, infrequently used beach during cooler months (where there are less beach goers). A detour will be provided for the two four week blocks required for installation and disassembly of the pipeline. Communication protocols will be established between the construction/dredging supervisor and the Marcoola and Mudjimba Surf Lifesaving Clubs to ensure appropriate access provisions in the event of an emergency.
Doubt as to the capacity to determine water quality impacts on the coastal environment from the project due to reliance on baseline stormwater quality data from the Brisbane Airport New Parallel Runway (NPR), combined with the likelihood of dredge 'fallout' offshore and the 'C' rating of the Maroochy River water quality.	Assessment and management of Project stormwater quality impacts on the coastal environment is effectively shown in the EIS within the following contexts: • Adoption of the Brisbane Airport NPR as a highly conservative surrogate for stormwater quality (as no monitoring was available from SCA), indicating that expected stormwater runoff from runways, taxiways and aprons could be effectively managed. • Assessment of dredge 'fallout' from the dredger at the Marcoola pump-out point, identifying spilled material as sand which mobilises and integrates into the local sand transport system with no water quality impact. • Mitigation of the potential for contaminants to reach receiving waters through proposed design which includes paved areas contained within a 300m wide grassed strip. These measures will be further addressed in the detailed design phase of the Project following a determination on the EIS.

Table 3.3e: Responses to Comments from DSDIP (continued)

Comment	Response
Comment that risk assessment matrix does not accurately assess the risk of flood impacts to surrounding dwellings as flood studies show some worsening of flood conditions and increased flood velocities in the Marcoola Drain at the Sunshine Motorway. Current assessment shows the risk as negligible despite being almost certain.	As identified in **Chapter B5** there are some residual flooding impacts (after mitigation) at North Marcoola from the Project. In this regard, properties that were considered to not be impacted by the Project were: • Properties that already experience over floor flooding at Q100 • Those properties that already experience flooding but would retain freeboard to flood level post runway project. Therefore, the risk management decisions of the EIS were predicated on the fact that the degree of flood damage would not change based on the Project. Properties that were identified as potentially experiencing new over floor flooding will be accurately surveyed and appropriate mitigation would be agreed with the property owner, leading to a negligible final impact (see revised commitments in Section 4 below). While there is a change in velocities in some areas, these do not reach erosive velocities (i.e. <2m/s), and therefore the integrity of structures will not be compromised. Further responses on flooding are provided in the response to DTMR submissions below.
Comment that houses affected by incremental damage in lesser floods than 100 year ARI event were not considered for mitigation measures.	It is industry best practice to use standard average recurrence interval (ARI) events to assess incremental damage. In this case, neglible impact was identified for the 50 year ARI event and a small impact was identified for the 100 year ARI event. Consequently, the 100 year ARI event was used as the basis to assess the incremental damage.

3.3.5 *Queensland Department of Agriculture, Fisheries and Forestry*

Comments received by DAFF related to the following issues:

- Representation and assessment of agricultural land (i.e. former cane land) and State-owned quarry materials (i.e. sand resources) within the Project footprint
- Consideration of offsets for seagrass and micro-algae (i.e. marine plants) disturbed by dredging and pump out operations
- Water Quality impact from the Marcoola Drain tailwater discharge
- Updates to the dredge management plan (DMP) in relation to marine pest corrective actions.

Table 3.3f provides detailed responses to these comments.

Table 3.3f: Responses to Comments from DAFF

Comment	Response
• Representation and assessment of agricultural land (i.e. former cane land) within the Project footprint	There is no current agricultural land within the project area. All land required for the project is zoned as "Community Facilities – Air Services" under the Sunshine Coast Planning Scheme. The designation of the site for airport expansion was first made in the Maroochy Shire Strategic Plan of 1985. This theme has been consistently maintained through subsequent planning instruments to the present day. Parts of the site have previously been used for sugar cane production, however in common with much of the Sunshine Coast, caneland commercial production ceased with the closure of the Moreton Sugar Mill at Nambour in 2003. Council has since the mid 1980's been acquiring land within the Project site in accordance with the 1985 strategic plan. A review of the DAF WALI maps indicates that three lots within the project site – • Lot 5 RP 133655, • Lot1105 SP 206553, • Lot 1103 SP 206552, totalling 65 hectares are identified as "current sugar cane production areas". This is incorrect. As identified above, the last cane production on site wound up with the property acquisitions by Council for the planned airport expansion in 2008, although cane can still be found growing wild on the site today. The considerations relevant to the protection of agricultural land as set out in the State Planning Policy relate primarily to the making of planning instruments. Within the context of this project the deliberations on matters raised in the SPP have been made in the land use planning policy decisions that lead to the making of the 1985 Maroochy Strategic Plan, the Maroochy Planning Scheme of 2000 and the Sunshine Coast Planning Scheme of 2014. In short the land use strategy for this part of the Sunshine Coast has been in place for many years and the project as proposed is entirely consistent with it. As a general note, Council, landowner groups, the CSIRO and State agencies, including DAF have since the closure of the Nambour sugar mill in 2003 attempted with only limited success to identify commercially viable agricultural uses for the 10,000 hectares of caneland that existed on the Sunshine Coast at the time of the mill closure – listed below are some of the studies that have been undertaken: • Vision and Action Plan – Towards a rural future for the Canelands in Maroochy Shire (Maroochy Shire Council, 2003); • Future Use of Sunshine Coast Cane Landscapes (CSIRO, 2006); • Achieving Sustainable Lands Use on the Sunshine Coast Former Canelands: Scoping solutions beyond land use planning (CSIRO, 2008); • Cane Lands Discussion Paper (Sunshine Coast Regional Council, 2009); and • Rural Futures Strategy (Sunshine Coast Council, 2013)." Given the above, the development of the site as proposed by the Project will have no impact upon existing or potential agricultural production on the site as there is none occurring. At a regional level the project offers significant new potential to uplift freight from the Airport meaning that for the first time the export of high value fresh/chilled agricultural or seafood products from the Sunshine Coast by air is possible. The current runway at SCA is not long enough to allow for any significant freight uplift.

Comment	Response
• Consideration of offsets for seagrass and micro-algae (i.e. marine plants) disturbed by dredging and pump out operations	Under the new Queensland Environmental Offsets framework, including the *Environmental Offsets Act 2014* and the Environmental Offsets Policy 'Significant Residual Guidelines' (December 2014) an action is likely to have a significant residual impact on marine plants where private infrastructure works impact on more than 17m^2 of fish habitat, including seagrass and algae. As there may be loss of seagrass and macroalgae in the dredge footprint (i.e. Spitfire Channel Realignment Area), DAFF has noted the potential need for an offset where this impact area exceeds 17m^2. Based on the surveys presented in the EIS and nature of the habitats present, there will be no impacts to marine plants (due to their absence) at the pump out location. In the context of the dredge footprint, DAFF has acknowledged that based on the surveys undertaken in the EIS, the total impacts to marine plants maybe a small percentage of the overall dredge area. However, if the total area of marine plant disturbance required for dredging is not yet quantified, it could be that a significant residual impact requiring an offset may exist. In responding to the applicability of offsets for marine plants in the dredge footprint at the Spitfire Channel Realignment Area, the following points are relevant: • The design option assessment for the Project concluded that utilisation of a previously disturbed seabed area for sand extraction (an area of the Bay that has been used previously for capital sand extraction campaigns) was preferable to a new 'greenfield' site in the Bay. • The Spitfire Channel Realignment Area, which is allocated for use by the Port of Brisbane Pty Ltd (PBPL), was chosen as a preferred site over the Middle Banks Area allocated for use by the Brisbane Airport Corporation for its new runway. This was based on its closer proximity to the Sunshine Coast and known high quality of material (clean sands with very low fine percentage). • Port of Brisbane has long term approval to dredge the Spitfire Channel Realignment Area into a new navigational channel that will ultimately be 500 m wide and to a depth of -16.5 m Chart Datum (CD), These works involve the extraction of about 15 M m^3 of material. To develop a combined extraction area of 16.1 M m^3 (i.e. Port of Brisbane's 15 M m^3 allocation and 1.1 M m^3 for the Project) the base of the realignment would need to extend to approximately -17.05 m CD. • On the basis of the above, the focus of the seagrass surveys and impact assessment presented in the EIS was on adjacent seagrass resources at Western and Spitfire Banks from the sand dredging noting the sparse, low density assemblages present in both areas. • Key impacting processes such as turbidity plumes and sedimentation have been modelled and assessed in **Chapter C4** of the EIS to have a low – negligible risk of impact from the dredging owing to: (i) the sparse, ephemeral nature of the seagrass that is present; (ii) the very low percentage of fine material present in the clean sand dredge material; and (iii) the active coastal processes that naturally occur on these banks. • A targeted water quality monitoring programme is outlined in the EIS Dredge Management Plan (Chapter E4) for the purpose of protecting the adjacent marine park green zone and the ephemeral seagrass that may be present outside of the approved footprint at the time of dredging.

Comment	Response
	Noting the above points, it is asserted that application of the environmental offsets policy by DAFF for seagrass loss in the dredge footprint is not appropriate to the Project on the basis of the following: a. The SCA dredge footprint falls within an existing approved sand extraction/works site that was granted to the Port of Brisbane in 2005. The area has been dredged as part of three major sand extraction campaigns since 2005 including as recently as December 2014 and may be lawfully dredged at any time in the future to the approved depth and volumetric limit; b. Approval was granted by the then Department of Primary Industries and Fisheries (DPIF) in 2005 to the Port of Brisbane to remove the marine plants that were surveyed in the footprint (note that the original seagrass survey data was also shown and reproduced in Chapter C4 of the SCA EIS). The Port of Brisbane's application to remove marine plants in 2005 would have been subject to an offset arrangement for the seagrass with the then DPIF in accordance with their laws and policies (which included the marine habitat offset policy). c. Conceptually, SCA are seeking approval for deepening of the Spitfire Channel Realignment Area beyond the channel profile that was approved by PBPL in 2005; if the PBPL completed its dredging and took its full sand allocation before the SCA Project's dredging was commenced, seagrass would be unlikely to be present in this deeper channel area below the design depth of -16.5m CD due to poor light availability at that depth and active channel hydrodynamics.[2] d. The seagrass that was surveyed within the footprint (as per the BMT WBM survey of 2013 presented in Chapter C4 of the EIS) is ephemeral and not a continuous meadow with cover ranging from 0% to 5% along surveyed transects (but up to 15% in one transect). e. The seagrass present is also effectively 'regrowth'; noting that it had re-established in the area following the two previous major capital sand extraction campaigns in the Spitfire Channel Realignment Area by the Port of Brisbane in the late 2000s. f. The seagrass surveyed in the footprint in 2013 and reported in the EIS is very likely to have been removed, noting that the Port of Brisbane lawfully dredged the channel with the very large TSHD *Charles Darwin* as recently as December 2014 down to depths at or below -12m LAT. Based on the above, it is clear that the extent of seagrass and coverage density that is within the SCRA footprint at any time is affected by a combination of natural coastal processes, light availability, seasonal factors, and the frequency of disturbance by broad scale dredging by the Port of Brisbane. While a seagrass survey can be undertaken immediately prior to the Sunshine Coast Airport dredging campaign to ascertain the extent of any seagrass present, the need to obtain a further permit to disturb marine plants and the associated requirement for environmental offsets are considered to be unreasonable given the history of disturbance of the site. Further, noting an offset for the dredge footprint was accounted for as part of the previous marine plant approvals for PBPL, any additional seagrass loss should not have to be offset anew by SCA unless the seagrass to be removed is present in the additional footprint depth area between -16.5 m CD and -17.05 m CD which is beyond the observed depth limit for seagrass species in that location in the Bay. On the basis of the above, no changes to the EIS are recommended in response to these comments.

2 *Seagrass depth limits in Eastern Moreton Bay are described in www.nprsr.qld.gov.au/parks/moreton-bay/zoning/information-sheets/seagrass.html as being recorded in water depths up to 12 metres which is consistent with observed seagrass depth limits from surveys that have been conducted in the area by BMT WBM since 2005 and associated references about deep seagrass habitats within Udy and Levy (2002), University of Queensland.*

Comment	Response
• Water Quality impact from the Marcoola Drain tailwater discharge	Similar to EHP, DAFF raised concerns about salinity impacts in the upper Marcoola Drain to freshwater fish and brackish vegetation communities and the level of survey undertaken in the mid and upper Marcoola Drain. Further field surveys have been undertaken upstream of the culvert area to characterise the riparian vegetation communities present. These results are presented in **Appendix D** along with a Water Quality (Salinity) Management Plan for Marcoola Drain that has been prepared to address these concerns. The water quality management plan in **Appendix D** includes a combination of mitigation and reactive monitoring programmes (involving in situ and visual monitoring cues) to protect upstream environmental values. In particular, the plan proposes installation of a waterway barrier (tidal flap or gate) at the culvert under Finland Road during active tailwater discharge periods as a further control for any upstream salinity impacts. This structure will be re-opened daily (outside of active discharge periods) to facilitate normal fish passage. DAFF also raised the issue of the need to determine the extent to which the works associated with the Project would involve assessable or self-assessable waterway barrier works. This will be resolved as part of the detailed approval phase of the project noting on-airport drains are generally not mapped as waterways and the Marcoola Drain is mapped as an 'amber' waterway under the DAF mapping. As noted above, the temporary tidal gate or similar structure at the existing culverts under Finland Road to prevent intrusion of salinity upstream would likely require a waterway barrier works approval pursuant to the *Fisheries Act 1994*. This change is noted in **section 6** as an amendment to the approvals required for the Project from **Chapter A6** of the EIS.
• Updates to the dredge management plan (DMP) in relation to marine pest corrective actions.	In relation to the DMP (Chapter E4) DAF has requested an additional corrective action in regards to ballast water and marine pest incursion. This corrective action (treating marine pests in accordance with DAF instructions) has been included in the DMP (see **section 6**) and the table of commitments in **section 4** of the AEIS.

3.3.6 Queensland Department of Transport and Main Roads

The comments received from DTMR related to flooding and stormwater impacts to transport infrastructure, changes to airport public safety areas, and maritime safety considerations. Meetings were held with DTMR as part of the review of their comments.

Table 3.3g provides detailed responses to DTMR's comments.

Table 3.3g: Response to Comments from DTMR

Comment	Response
Some concerns have been raised as to the accuracy and comprehensiveness of flood modelling and impact assessment: • No assessment of local flooding event for Maroochy River Flooding Event quantifying impacts on the state-controlled road network, especially at Marcoola Drain Cross-Bridge crossing. • Failure to identify all drainage paths and interim culverts in Chapters B5 and B6, suggesting inaccuracies in modelling and impact assessment. • Insufficient information on origin of input data for modelling, suggesting no validation. • Flooding impacts on David Low Way are beyond the accepted limit (i.e. no worsening). • Impact assessment at assessment point 7 (David Low Way Bridge near Bli Bli) does not allow DTMR to provide an accurate assessment of impacts. • No stormwater management plan has been provided.	It is intended that more detailed flooding advice will be available as part of the detailed design of the airfield and drainage infrastructure. SCA have also provided the Flood Modelling Package to DTMR providing more details on the flood model and identified impacts. This information about the flood modelling is contained in **Appendix J** to the AEIS. While figures in **Chapters B5 and B6** do not show interim culverts, these have been captured through a review of DTMR-owned drainage structures listed in the 2010 Traffic and Speed Census (the most recent census available at the time). Culverts were included in the modelling based on as-constructed drawings or field-based measurements. Modelling was based on the existing Maroochy River flood model used regularly by SCC for planning and development purposes. This model has also been tested in the Land and Environment Court and found suitable for impact assessment. Flood modelling suggests a minor reduction in peak flood level through culverts beneath David Low Way (between ~10 and ~4 mm, i.e. no change) considered negligible in the context of stormwater infrastructure. An increase in peak flood levels will occur to the west of David Low Way at the northern end of RWY 18/36 but will be restricted to the drainage channel west of the road and will not encroach on the road itself. Assessment location 7 is located within the Maroochy River and is shown as permanently inundated in the flood model. Further advice has been provided to DTMR as part of the Flood Modelling Package. Operational stormwater and flooding impacts will be further assessment and managed through the project's detailed design phase. Stormwater requirements during construction will be managed through management plans prepared by the contractor during the detailed design phase.

Table 3.3g: Response to Comments from DTMR (continued)

Comment	Response
Comments in regards to the identification of impacts in the Surface Transport report (Chapter B14). Figures in **Table 14.13a and 14.13e** for degree of saturation of intersections suggest a decrease between 2012 and 2018, with and without the project, despite an accepted growth level of traffic of 3% per year. No mitigation measures provided for impacts identified above the 95th percentile at state-controlled road, David Low Way/Airport Drive intersection, which exceed queue length capacity storage in the PM peak hour. Sight distance assessments at David Low Way/Finland Road intersection require a technical assessment in accordance with Austroads Guide to Road Design, Part 4A, Chapter 3.	Further assessments and clarifications have been provided in response to these issues raised regarding the surface transport chapter. Refer **Appendix I** for a response to these issues.
Comment that as the new RWY 13/31 will be of a design standard meeting the Public Safety Areas (PSA) threshold criteria in the SPP Guideline for Strategic Airports and Aviation Facilities, a risk assessment should be undertaken. This should include: a. A cadastral map identifying the PSA risk contours applicable to the proposed runway (13/31) b. a zoning plan identifying PSA risk contours with land use zone allocation (in accordance with the Sunshine Coast Planning Scheme 2014) Currently the Sunshine Motorway has 20,000 vehicles per day, with spikes in the AM, Midday and PM peak periods. Traffic along the Sunshine Motorway will increase into the future, where traffic modelling for 2031 shows an additional 2500 vehicles per hour in peak periods. Modelling shows that traffic will be reasonably free flowing, and impacts on the motorway will be dependent on flight scheduling. Regardless, the risk to the Sunshine Motorway with reference to the PSA needs to be adequately understood. Also, TMR acknowledges that Sunshine Coast Regional Council has adopted the possible (new) national public safety zone (PSZ) policy and risk contours/area which was noted in their Risk Assessment (E6). If the assessment has been undertaken, TMR requests a plan or plans showing the 1:10,000 and 1:100,000 (if calculated for the currently proposed runway alignment and location) PSZ risk contours/areas overlaid on a cadastral map, zoning map and air photo (in accordance with the SCPS 2014).	While the new runway will meet PSA threshold criteria, international flights of aircraft of up to 300 seat capacity, commencing beyond 2030, are not expected to exceed more than a couple a week before 2040. The bulk of aircraft traffic to the year 2040 has been confirmed as domestic narrow bodied jets of up to 180 seat capacity (cf. Chapter A4). A risk assessment has been completed by SCA reflecting the traffic forecasts. The assessment confirms that the 1:10,000 risk area specific to the projected operations on 13/31 is far smaller than the trapezoid identified in the SPP and does not include any dwellings. The risk assessment report on the PSAs, including relevant maps and plans sought by the comments have been supplied to DTMR and will be considered as part of the determination of the Project. The revised PSA map is contained at **Appendix K**.
Comment that while the Sunshine Coast Planning Scheme 2014 reflects the SPP, changes to the airport environs overlay mapping will continue to occur from time to time, including changes subsequent to the submission of the EIS (August 2014). Updated mapping is required to be provided by SCA to DTMR as necessary.	If an EIS approval is forthcoming the Sunshine Coast Council Planning Scheme will be updated accordingly and TMR will be provided with the appropriate information to enable updating of their mapping.

Table 3.3g: Response to Comments from DTMR (continued)

Comment	Response
Comment that the following legislation has been missed from the list of legislation in Chapter A6: • *Maritime Safety Queensland Act 2002* • Maritime Safety Queensland Regulation 2002 • Transport Operations (Marine Safety) Regulation 2004 • Transport Operations (Marine Pollution) Regulation 2008 • *Marine Safety (Domestic Commercial Vessel) National Law Act 2012*.	Noted. See **section 6** for errata and addenda to the EIS.
Comments received regarding potential impacts to maritime navigation and safety. • Placement of pennant buoys to mark the dredge pump-out pipeline requires approval by Maritime Safety Queensland (MSQ) and the Regional Harbour Master (RHM) before installation. • Creation of a temporary exclusion zone for the footprint of the pump-out site during construction and dredge operations will require consultation with MSQ and the RHM, with potential community consultation as directed by MSQ and the RHM. • Consultation is required with MSQ and the RHM regarding timing of re-floating of the submerged steel pipeline, as required, with any additional temporary exclusion zones required to be approved by MSQ and the RHM. • All vessels contracted for the Project must have suitable ship-sourced pollution prevention and sewage management plans (to be included in vessel contracts). • Compliance with the RHM and Vessel Traffic Service (VTS) directions for shipping safety also applies outside of the Brisbane pilotage area. • Patrolling of the temporary exclusion zone by enforcement agencies to be discussed with and approved by MSQ and the RHM where necessary. • Where placement of monitoring sensors is required, this is to be discussed with the RHM to ensure no hazard to navigation. • VHF call sign 'Brisbane Harbour' is now changed to 'Brisbane VTS'.	Noted. See **section 6** for errata and addenda to the EIS.

3.3.7 *Queensland Department of National Parks, Recreation, Sport and Racing*

DNPRSR provided comments in relation to protected areas, including the Moreton Bay Marine Park, the Maroochy River Fish Habitat Area and the Mt Coolum National Park, and threatened species. Implementation and management of offsets for threatened species are dealt with under the final Biodiversity Offsets Strategy (**Appendix B**) which was supplied as a draft for comment to the Agency in early 2015.

Table 3.3h provides responses to these comments.

Table 3.3h: Response to Comments from DNPRSR

Comment	Response
Some minor comments related to the Moreton Bay Marine Park and associated permitting requirements: • Project dredging will require Port of Brisbane (PBPL) marine park permit to be amended to cover additional dredge depth • EIS did not make mention of Marine Park Material Extraction Area MEA01 – Spitfire Banks • Environmental Management Plan (Chapter E3) did not mention *Marine Parks Act 2004* as governing legislation	The marine park permitting process will be managed subsequent to the EIS process, noting a new permit may be required to be obtained by the Sunshine Coast Airport. Other comments noted and EIS amended as necessary. See **section 6** for list of addenda to the EIS.
Liaison between DNPRSR and DEHP suggest additional technical detail may be required in relation to salinity impact assessment associated with tailwater discharge, including third party review of modelling. Comment that any additional salinity impact assessment and/or modelling could change impacts identified for Maroochy River Fish Habitat Area.	In the context of potential upstream impacts during tailwater discharge, additional surveys and modelling assessments have been undertaken and a salinity water quality management plan for the Marcoola Drain has been prepared. These matters are discussed in **section 5** and **Appendix D**. Management of any groundwater impacts to the Mount Coolum National Park are outlined in the Environmental Management Framework for ASS as contained in **Appendix C**. This includes a commitment to install an additional groundwater monitoring bore in the Park along the Marcoola Drain to characterise groundwater resources (subject to DNPSR approval). The model used for water quality impact assessment in the EIS (and subsequently used in AEIS, **Appendix D**) has previously undergone third party peer review by CSIRO and other parties through the Healthy Waterways Partnership Science Panel. It is fit for purpose and fully meets the requirements of the Terms of Reference (TOR) for the EIS. In terms of downstream impacts on the FHA, modelling from the EIS demonstrates that salinity changes are well within the bounds of natural variability and only significant within the artificial Marcoola Drain (outside of the FHA), noting rapid mixing once the waters reach the main arm of the Maroochy River.

Table 3.3h: Response to Comments from DNPRSR (continued)

Comment	Response
Comment that there may be scope for more revegetation works than proposed in the EIS for the purposes of mitigating loss of connectivity between north and south Marcoola sections of Mt Coolum National Park. This would help offset loss of connectivity, revegetate cleared land in Mt Coolum National Park, maximise offset for Mount Emu she-oak and maximise likely movement of the ground parrot (Pezoporus wallicus). Comment that relocation proposed for Mount Emu she-oak may require ongoing weed management and resourcing. Weed management will also be required for offset habitat for acid frogs.	Offsets for vegetation loss, especially for loss of Mount Emu she-oak and ground parrot habitat, have been calculated under the Environmental Offsets Policy (October 2012) and Offset Assessment Guide. These offsets are further described in the Biodiversity Offsets Strategy (**Appendix B**). SCA is proposing to fund a Recovery Team and Recovery Plan to identify other mitigation measures to support the ground parrot in the wider region. SCA is also committed to ongoing weed management and resourcing of rehabilitation works for Mount Emu she-oak and Wallum sedgefrog habitat. Discussions with DNPRSR officers to date have indicated that rehabilitation works should not be proposed as part of the Biodiversity Offsets Strategy for the Project within the boundaries of the National Park. If required, further discussions with the Department can occur on this matter as part of a determination on the Project.
Comment that narrow (100 m wide) vegetation corridor proposed east of Sunshine Motorway will be susceptible to edge impacts including weed invasion and predation of species.	Studies conducted for the EIS identified that existing edge effects appear to have little impact on fauna/habitat values within the area, with diversity and abundance of terrestrial fauna along disturbance edged similar to that further back. Edge effects are unlikely to lead to significant degradation unless new pest species are introduce and/or pest species abundance increases. Measures to address edge effects such as weed invasion and increased predation have already been proposed (e.g. weed monitoring and management, installation of predator-proof fencing (see Chapter E3).

3.3.8 Queensland Public Safety Business Agency, Queensland Fire and Emergency Service, Queensland Police Service and Queensland Ambulance Service

Comments received from PSBA and the QFES, QPS and QAS related to the potential for fire hazards at the SCA site as well as the adequacy of existing emergency service representation. These comments (reproduced below) have been noted and integrated into the EIS as necessary (see Clarification and Errata in **section 6**):

- PSBA: Based on the identification of bushfire risks in **Chapter B18**, future bushfire hazard site assessments and bushfire management plans should be prepared in accordance with the State-wide mapping of bushfire prone areas.1 The main buildings and structures likely to be susceptible to bushfire prone areas include upgrades to the existing terminal, relocated helipads, community viewing platform, new ATC and ARFFS, and located VHF omnidirectional radio range and navigation aid.
- QFES: In accordance with QFES' function in providing advisory services to promote fire prevention, fore control; and safety, the following are noted:
  - Hazard analysis and risk assessment undertaken in accordance with ISO31000
  - Implementation of emergency response plans to achieve outcomes in the SPP (natural hazards, risk and resilience)
  - Transport, storage and management of dangerous goods, explosives and hazardous substances in accordance with relevant legislation
  - Development of safety management plans and emergency response procedures
  - Compliance with *Fire and Emergency Services Act 1990*.
  - QPS: Strategies and Road Use Management Plan related to increased surface transport during the construction phase are noted as reasonable. Police representation on Sunshine coast Airport Security Committee is appropriate for advocacy of QPS needs.
  - QAS: Local ambulance network representation on Sunshine coast Airport Security Committee is appropriate for advocacy of QAS needs.

3.3.9 Queensland Department of Aboriginal and Torres Strait Islander Multicultural Affairs

DATSIMA provided comments in relation to the identification of indigenous populations and opportunities associated with the Project. These have been integrated into the EIS (see **section 6**).

As part of this, the SCC has noted that it will act in accordance with its Reconciliation Action Plan 2011-2016 which states that 'SCC will support Aboriginal and Torres Strait Islanders in employment opportunities, through traineeships, skilling Queenslanders for Work Program and cadetships.'

3.3.10 Queensland Department of Energy and Water Supply

DEWS has noted that Lot 781 CG3891, proposed as an area for Mount Emu She-oak offsets, is identified as an area for potential future bulk water supply infrastructure, a use which, if progressed by DEWS, would constrain or otherwise prohibit the use of the site for environmental offset purposes.

This bulk water supply infrastructure proposal has been previously identified by SCA, with the following comments raised:

- The site provides the best and likely only local offset area for Mt Emu She-oak translocation (as part of the current Project) due to local soil chemistry and hydrology replicating that of the area to be cleared;
- The site is proposed for aeronautical uses including installation of navigation aids, extending into the adjoining Lot 753 which will also house two new helicopter training pads displaced by the new runway construction;
- The Project would cause a loss of access to Lot 781 caused by the Project cutting of Finland Road, thereby requiring new roads through the Mt Coolum National Park to access any non-airport infrastructure developed on Lot 781. It is unlikely that these roads could be approved without a revocation or amendment of park boundaries;
- There is a high likelihood of negative impact of bulk water supply infrastructure at Lot 781 on the use of helicopter training pads and navigation aids on Lot 753; and
- There are significant constraints to above ground reticulation of power and access to water (for the bulk water supply infrastructure facility) caused by presence of the SCA and the Mt Coolum National Park.

In view of these constraints, SCA is currently in consultation with DEWS and SEQ Water to identify alternative sites that are fit for purpose for the proposed bulk water supply infrastructure facility, noting it is considered that Lot 781 is best used for the purposes of environmental offsets and aeronautical activities associated with the Project.

3.3.11 Queensland Department of Natural Resources and Mines

DNRM identified two key resource areas (KRAs) that have not been identified in the EIS and could be affected by the proposal. Council's Development Assessment Branch advised that there are no current approvals or pending applications for either KRA 150 or KRA 156.

In particular, it has been raised by DNRM that an increase in air traffic as a result of the Project may increase the need to mitigate bird strike. This may lead to a restriction on the development of KRAs within aircraft approaches as these developments typically lead to water voids which attract birds and increase bird strike risk.

This impact is acknowledged but identified as posing a low risk to resource extraction due to the availability of design and management techniques to minimise the occurrence of water voids associated with extractive activities

3.3.12 Queensland Health

Queensland Health has identified the potential for increased noise impacts to residents in the new flight path due to an increased frequency of flights. SCA has committed to providing an opportunity for ongoing consultation with residents regarding potential noise constraints.

3.3.13 Queensland Department of Education, Training and Employment

Given the proximity of Pacific Paradise State School to the airport, DETE has requested the opportunity for further consultation on construction and operational phase impacts and mitigation. It is noted that impacts to Pacific Paradise State School have been considered in Chapter D3 and D5 of the EIS.

This consultation will occur as part of the implementation of the project, following a decision on the EIS and has been noted as an additional commitment in **section 4**.

3.3.14 Other State Agencies

Other Queensland Government agencies consulted included:

- Department of Housing and Public Works
- Department of Justice and Attorney-General
- Department of Local Government and Community Recovery and Resilience
- Department of Tourism, Major Events and Small Business.

No comments were received from these agencies.

4 REVISIONS TO PROJECT AND APPROVAL PROCESS

4.1 Revisions to the Project since the release of the EIS

Based on the submissions received, there have been no significant revisions or changes to the Project since the release of the EIS.

The current Project design, construction and operation are consistent with what has been provided in Chapters A4 and A5 of the EIS.

However, as noted in **section 3** of this AEIS, a range of supplementary surveys, assessments and information have been undertaken and are described in **section 5** of the AEIS below. This information should be read in addition to information presented in the EIS. Specific changes and alterations to the EIS are notated in **section 6**.

Following the notification period, Council has continued to respond to enquiries and correspondence on the Project including providing assistance to the local State Member of Parliament in responding to enquiries she has received particularly on aircraft noise (refer **Table 3.2a** for example text of responses).

Council has also engaged with the 14 property owners at Marcoola to carry out detailed floor level surveys as discussed in Chapter B5 of the EIS.

4.2 Updated Project Approvals

In addition to the EIS process, the Project will need to obtain a range of approvals under Queensland legislation before the revised Project can commence. Further approvals will also be required from the Civil Aviation Safety Authority (CASA) and Airservices Australia regarding the change to airspace pursuant to *Air Services Act 1995* and the *Civil Aviation Act 1988*.

The subsequent approvals required were listed in tables within **section 6.6** of **Chapter A6** of the EIS, presented as follows:

- Commonwealth approvals (**Table 6.6a**)
- Construction of the runway, taxiway, and aprons (**Table 6.6b**)
- Installation of dredge mooring (**Table 6.6c**)
- Installation of sand delivery pipeline (**Table 6.6d**)
- Dredging activities in Moreton Bay (**Table 6.6e**).

In general there have been only minor changes required to the list of approvals contained in the EIS, reflecting further detail, changes to Departmental names and minor amendments to Acts and Regulations. These changes and amendments are notated in **section 6** of the AEIS.

4.3 Updated Project Commitments

Chapter E7, section 7.4 of the EIS listed out the key commitments of the Project.

These commitments included:

7.4.1 Management plans and approvals

- *The EMP, DMP, AMP will be implemented and complied with*
- *All necessary permits and approvals will be sought and complied with*
- *CHMP's will be completed in a timely manner and complied with*
- *The WHMA will continue to be managed by SCA.*

7.4.2 Ecology

- *Offsetting 4.41 ha of Mt Emu she-oak on airport land*
- *Compensating for loss of 55 ha of broadleaved paperbark forest, heathland Regional Ecosystem and state listed acid frogs through rehabilitation of a site at Palmview*
- *Offsetting 1.67 ha within the WHMA*
- *On-site compensation of 5.84 ha for Ground Parrot on airport land*
- *Indirect offsets will involve contribution to ground parrot research*
- *Construction of the airside perimeter fence will be staged to ensure the ground parrot habitat (existing and proposed) is maintained at all times.*

7.4.3 Flooding and groundwater

- *Groundwater mitigation including a high quality liner and cut off wall will be provided to mitigate saline tailwater*
- *Work with Council, State and Commonwealth agencies to make sure that the impacts of the runway are recognised in a regional climate change strategy.*
- *For the small number (5) properties that are predicted to experience minor over floor flooding as a result of the Project proceeding, Council will negotiate property specific building modifications to each affected dwelling with the property owners*

7.4.4 Construction

- *During dredging the booster pump will be mitigated for noise including a temporary barrier*
- *Finland Road will be upgraded, the intersection signalised with David Low Way and used by construction traffic during daylight hours as much as possible*
- *Safe, convenient pedestrian and emergency vehicle access will be maintained during pipeline construction and sand delivery*

– *The dune will be rehabilitated once the sand delivery works are complete.*

7.4.5 Aircraft noise

– *All RPT jet traffic would be on RWY 13/31 not 18/36*

– *The Community Aviation Forum will be expanded include representatives from newly noise affected areas.*

7.4.6 Community engagement

– *Commit to ongoing community engagement throughout the construction phase*

These commitments from the EIS are confirmed by the AEIS as being relevant to be maintained.

Additional commitments in response to the public and advisory agency submissions (refer Chapter 3 of this AEIS) are as follows:

- Implementation of the Biodiversity Offsets Strategy (refer **Appendix B**);
- Implementation of the Environmental Management Framework for Acid Sulfate Soils including relevant surface and groundwater monitoring (refer **Appendix C**);
- Implementation of a Water Quality Management Plan for the Marcoola Drain to control salinity impacts from dredge tailwater (refer **Appendix D**);
- Development of contaminated land risk and management plans for the remediation and management of the contaminated sites (farm sheds) in the Project area that will be affected;
- Conducting pre-clearing surveys for all threatened flora species from clearing areas (refer **Appendix G**);
- Commitment to additional dust suppression mitigation measures to protect air quality as outlined in **Appendix H**;
- Commitments to notification of any marine pest incursions;
- Further commitments to pre-clearing surveys for turtle and migratory bird nesting areas along the pipeline alignment and associated contingency measures;
- Development of contingency plans for stabilisation of the dredge pipeline from extreme weather as part of the detailed design process for the project; and
- On-going consultation with residents, schools and other essential community infrastructure that can be affected by future aircraft noise.

A summary table of commitments incorporating both EIS and AEIS commitments is contained in **Table 4.1a**.

Table 4.1a: Combined List of Commitments from EIS and AEIS

Issue Area	EIS and AEIS Commitments
General Commitments	EIS commitments – • All necessary permits and approvals required subsequent to a determination on the EIS will be sought and complied with • Implementation of commitments within the Management Plans (**Chapters E3, E4, E5 and E6**) within the EIS (as detailed further in the table below) • Commit to ongoing community engagement throughout the construction phase • If the project is to be built by Council its procurement policies which promote local suppliers and employment opportunities, would come into play. In this regard Council has already engaged with the Industry Capability Network with a view to maximising the opportunities for local participation in the project.
Commitments related to the Airport and Surrounds (Part B of the EIS)	
Erosion and Sediment Control	EIS commitments – • Implementation of commitments within **Chapter E3** (EMP) of the EIS (**section 3.4.5** – Erosion and Sediment Control Management Plan)

Table 4.1a: Combined List of Commitments from EIS and AEIS (continued)

Issue Area	EIS and AEIS Commitments
Groundwater	EIS commitments - • Implementation of commitments within Chapter E3 (EMP) of the EIS (**section 3.4.10** – Groundwater Management Plan) including use of the HDPE liner and cut off wall to protect groundwater resources adjacent to the works that may be affected by tailwater salinity Additional commitments from the AEIS – • Implementation of commitments as outlined in the Environmental Management Framework for Acid Sulfate Soils including relevant surface and groundwater monitoring (refer **Appendix C** to the AEIS) • Implementation of the Water Quality Management Plan in **Appendix D** as it relates to protecting groundwater adjacent to the Marcoola Drain
Acid Sulfate Soils	EIS commitments – • Implementation of commitments within Chapter E3 (EMP) of the EIS (**section 3.4.6** – Acid Sulphate Soils Management Plan) Additional commitments from the AEIS – • Implementation of commitments as outlined in the Environmental Management Framework for Acid Sulfate Soils including relevant surface and groundwater monitoring (refer **Appendix C** to the AEIS)
Contaminated Land	EIS commitments – • Development of site-based contaminated land risk and management plans for the remediation and management of the contaminated sites (two farm sheds) in the Project area that will be affected by the Project • Remediation of the sites to occur prior to the commencement of bulk earthworks for that portion of the site.
Flooding	EIS commitments - • For the small number (5) properties that are predicted to experience minor over floor flooding as a result of the Project proceeding, Council will negotiate property specific building modifications to each affected dwelling with the property owners
Water Quality and Aquatic Ecology	EIS commitments – • Implementation of the commitments within Chapter E3 (EMP) of the EIS as they relate to aquatic ecology (**section 3.4.9**) • Implementation of commitments within Chapter E4 (DMP) of the EIS, as they relate to tailwater management (**section 4.4.6**) • Further development of drainage and stormwater design for the new airfield as part of detailed design and engineering approvals for the project Additional commitments in the AEIS – • Implementation of the Water Quality Management Plan for Marcoola Drain in **Appendix D**

Table 4.1a: Combined List of Commitments from EIS and AEIS (continued)

Issue Area	EIS and AEIS Commitments
Terrestrial Flora and Fauna (including MNES)	EIS commitments – • Implementation of commitments within **Chapter E2** (MNES) of the EIS; • Implementation of commitments within **Chapter E3** (EMP) of the EIS, **sections 3.4.7 and 3.4.8** including continued management of the Wallum Heath Management Plan; • Implementation of commitments within the **Chapter E4** (DMP) of the EIS, **section 4.4.8** Additional commitments from the AEIS – • Implementation of on–site mitigation and offset commitments and measures as outlined in the Biodiversity Offsets Strategy **Appendix B** of the AEIS; • As outlined in **Appendix G** to the AEIS, undertaking pre-clearing surveys in works area for any protected plants. If any protected plants are identified during pre-clearing surveys, options to avoid clearing will be examined initially. If it is not possible due to design and/or operational constraints to retain any populations or plants of this species, the plants will be salvaged for translocation into an area of suitable habitat.
Cultural Heritage	EIS commitments – • Implementation of commitments within **Chapter E3** (EMP) of the EIS (**section 3.4.15** – Cultural Heritage Management) • Completion of Cultural Heritage Management Plans (CHMPs) for the Project in a timely manner and subsequent implementation of the responsibilities and actions under these plans
Transport and Traffic	EIS commitments – • Implementation of commitments within **Chapter E3** (EMP) of the EIS (**section 3.4.14** – Traffic and Transport Management Plan) • Finland Road will be upgraded, the intersection signalised with David Low Way and used by construction traffic during daylight hours as much as possible
Waste and Materials Management Plan	EIS commitments – • Implementation of commitments within **Chapter E3** (EMP) of the EIS (**section 3.4.13** – Waste and Materials Management Plan)
Noise (Construction)	EIS commitments – • Implementation of commitments within **Chapter E3** (EMP) of the EIS (**section 3.4.12** – Terrestrial Noise and Vibration Management Plan) • Implementation of commitments within **Chapter E4** (DMP) of the EIS (**section 4.4.14** – Noise and air quality) as they relate to dredge and booster pump noise issues including installation of a temporary barrier to control noise from any required dredge booster pump
Air quality	EIS commitments – • Implementation of commitments within the Air Quality and Dust Management Plan in the EMP, **Chapter E3** of the EIS Additional commitments in the AEIS – • Implementation of additional proactive dust suppression measures as outlined in **Appendix H** to the AEIS including: – Applying additional watering during strong winds – Limiting work near sensitive receptors during calm conditions when the dispersive capacity of the atmosphere is poor – Minimising exposed areas

Table 4.1a: Combined List of Commitments from EIS and AEIS (continued)

Issue Area	EIS and AEIS Commitments
Climate Change	EIS commitments – • Work with Council, State and Commonwealth agencies to make sure that any impacts of the runway are recognised in a regional climate change strategy
Dredge Pipeline and Pump Out Mooring	EIS commitments – • Implementation of commitments within Chapter E4 (DMP) of the EIS related to the dredge pipeline and pump out mooring including timing of the works to avoid peak turtle nesting season • Safe, convenient pedestrian and emergency vehicle access will be maintained during pipeline construction and sand delivery • The dune and pipeline alignment will be fully rehabilitated once the sand delivery works are complete. Additional commitments in the AEIS – • Development of contingency plans for stabilisation of the dredge pipeline from extreme weather as part of the detailed design process for the Project • Conducting detailed pre-work surveys in and around the pipeline alignment at Marcoola Beach so as to avoid impacts to any possible turtle or shorebird nesting sites (see further in **Appendix G** to the AEIS) • Further investigation of potential impacts to coastal processes and morphology of the beach environment will be considered as part of subsequent State approvals processes related to coastal works
Commitments related to the Dredging at Spitfire Channel (Part C of the EIS)	
Dredging	EIS commitments - • Implementation of commitments within the Chapter E4 (DMP) of the EIS as they relate to the following elements: – Marine water quality and benthic ecology (including proposed water quality monitoring during dredging) – Marine megafauna management – Navigation and maritime safety – Vessel wastewater management – Ballast water and marine pest incursion – Vessel solid waste management – Fuel management and oil spills – Noise and air quality – Cultural heritage Additional commitment from the AEIS – • Inclusion of procedures in the DMP to notify relevant authorities (Commonwealth and State agencies [Biosecurity Queensland]) if a marine pest incursion is detected.
Commitments related to Airspace (Part D of the EIS)	
Aircraft noise	EIS commitments – • Implementation of commitments within the Airspace Management Plan (AMP), Chapter E5 of the EIS • The Community Aviation Forum will be expanded include representatives from newly noise affected areas • On-going consultation with residents, schools and other essential community infrastructure that can be affected by future aircraft noise • Continuing to manage helicopter noise at the airport in accordance with current policies and procedures

4.4 Process for finalisation of the EIS/AEIS

In accordance with the assessment processes under the SDPWO Act, the EIS, the properly made submissions and AEIS document form the information that will be submitted to the Coordinator-General to make a decision to accept the EIS as a Final EIS.

As part of this process, the Coordinator-General may request further information from the proponent.

If the Coordinator-General decides to accept the EIS as the Final EIS, the Coordinator-General must prepare a report evaluating the EIS.

In evaluating the EIS, the Coordinator-General may—

- Evaluate the environmental effects of the project and any other related matters;
- State conditions; and
- Make recommendations.

After completing the evaluation report, the Coordinator-General must publicly notify the report.

Following completion of the evaluation report by the Coordinator-General, the Commonwealth Minister for the Environment (or his delegate) will also assess the EIS and AEIS against the relevant provisions of the EPBC Act.

Once the Minister has received the evaluation report, there is a 30 business day period under the EPBC Act within which a final decision to approve (with or without conditions) or refuse the controlled action.

To gain approval for the airspace change associated with the Project, advice must be obtained from the Commonwealth Minister for the Environment under section 160 of the EPBC Act. This would involve the consideration of the environmental impacts of the Project (considered in this EIS and AEIS) including noise, air, social, heritage, biodiversity and ecological sustainability issues.

Once approval of the controlled actions under the EPBC Act are obtained (as outlined above), approval for the airspace change from CASA's Office of Airspace Regulation can be sought. The determination of this approval is reliant upon approved and final detailed construction specifications of the runway, and as such, would occur closer to the completion of the construction of the runway.

5 ADDITIONAL ASSESSMENTS AND REPORTS

This section briefly summarises the additional assessment, surveys and reports that have been undertaken since the public notification period of the EIS, with any studies and plans contained in technical appendices to the main document

As outlined previously, the information outlined below and contained in the Appendices should be read in addition to information presented in the EIS, except where indicated.

5.1 Biodiversity Offsets Strategy – Appendix B

This Appendix has been prepared to address public and agency comments about the adequacy of proposed environmental offset for Federal and State threatened species and includes assessments of the proposal against relevant Commonwealth and Queensland offset calculators as well as greater detail about the proposed on and off site initiatives.

The BOS was released to Agencies as a draft in early 2015 and additional consultation and comments have been considered in development it to its final status in **Appendix B**.

Clearing will result in a loss of 56 ha of remnant vegetation communities on the Airport site and of this, 50 ha would be cleared and permanently replaced by the proposed airport infrastructure.

"Clearing associated with the habitat of protected species includes:

- *Mount Emu She-oak Allocasuarina emuina (4.41ha)*
- *Reduction in the extent of breeding and non-breeding habitat of State-listed acid frog species (total 60.63 ha) of which 1.67 ha is Wallum Sedgefrog Litoria olongburensis (a Commonwealth listed species)*
- *Eastern Ground Parrot Pezoporus wallicus (State listed species) involving a reduction in the extent of known habitat (7.88ha)*

The proposed direct offsets for the remnant vegetation clearing and disturbance to habitat for protected species were provided in the EIS and are further described in a detailed Biodiversity Offset Strategy that has been prepared as part of the AEIS and includes both:

- *on-site habitat rehabilitation (tiling and replanting of the she-oak habitat lost, as well as other vegetation rehabilitation activities proposed over an area of 83 ha); and*
- *off-site (at the Palmview site to the south) where 63 ha of that site has been identified for vegetation and habitat rehabilitation.*

Indirect offset actions have been included and focus on improving Ground Parrot understanding and knowledge, particularly within the Sunshine Coast region, as well as public education. These actions will be directed by a Ground Parrot Recovery Plan, developed by a Ground Parrot Recovery Team.

The Sunshine Coast Airport has been zoned for the intended purpose of the airport expansion project since the mid 1980's. As a result of the mitigation measures inherent in the design, and the additional mitigation and offsets as proposed as part of the Biodiversity Offset Strategy, the project will result in no significant residual impacts upon protected flora and fauna species on airport land or in surrounding areas."

5.2 Environmental Management Framework for Acid Sulfate Soils – Appendix C

This Appendix has been prepared to address public and agency comments about the management of ASS on the site including associated impacts to surface and groundwater quality.

The management framework outlines the scope, management objectives, actions and performance management information for the management of ASS as well as the following implementation and management procedures:

- A – Stockpiling, Handling and Transport of ASS
- B – Treatment and Validation of Excavated ASS
- C – Monitoring of (Surface) Water Quality
- D -Groundwater Quality Monitoring.

5.3 Water quality management plan and additional survey and assessments for Marcoola Drain – Appendix D

This Appendix has been prepared to address public and agency comments and concerns about the proposed discharge of dredge tailwater into the Marcoola Drain and Maroochy River system.

It includes four report components:

- A technical memorandum outlining further ecological surveys of the mid and upper reaches of the Marcoola Drain including riparian areas of the Mount Coolum National Park. These surveys have confirmed that the riparian areas upstream of the Finland Road culvert contain a range of salt tolerant vegetation communities (mangroves and melaleuca species) and are unlikely to support acid frog species due to the high ambient pH of these habitats and presence of in-stream predators (Gambusia sp.);
- A technical memorandum outlining further numerical modelling studies of the proposed tailwater release which confirm that the tailwater operations do not increase the risk of overtopping or otherwise significantly raise the ambient water level in the drain;
- A technical memorandum outlining a conceptual model of groundwater hydrology around the Marcoola Drain which indicates the risk to adjacent groundwater in the National Park from increased salinity in the Marcoola Drain during the tailwater phase are low; and
- A water quality (salinity) management plan for the tailwater phase of the project in Marcoola Drain to monitor and control upstream salinity intrusion.

5.4 Targeted survey for Lesser Swamp Orchid – Appendix E

This Appendix contains a short report that presents the results of a targeted survey for Lesser Swamp Orchid (Phaius australis) carried out on the SCC reserve land to the north of the existing 18/30 runway in November 2014.

The survey responds to submitter and agency comments on Chapter B7 of the EIS about this species. Future works associated with the Project will not impact the local population encountered on this land as detailed in the survey and report.

5.5 Engineering advice about alternative tailwater discharge options – Appendix F

This Appendix contains a memorandum that has been prepared to compare alternative options for the discharge of tailwater into the Marcoola Drain.

The two alternative options examined include pumping the tailwater back to sea (offshore from the Marcoola Beach) and the construction of a drain to facilitate discharge of the tailwater directly to the Maroochy River.

5.6 Summary of the likelihood of occurrence and potential impacts for relevant MNES species – Appendix G

This Appendix has been prepared to address comments from the Commonwealth DoE to provide a consolidated list of MNES species that could be affected by the Project.

It includes summary information on the likelihood of occurrence and an impact assessment summary for threatened and migratory species that are MNES under the EPBC Act as contained in the original Referral, EIS and associated studies.

5.7 Additional air quality information – Appendix H

This Appendix has been prepared to respond to comments from the Queensland DEHP about the air quality assessment.

5.8 Additional surface transport information – Appendix I

This Appendix responds to comments received from Queensland DTMR regarding surface transport associated with the Project. The three issues addressed relate to the degree of saturation of intersections, impacts at the David Low Way/Airport Drive intersection, and sight distances at the David Low Way/Finland Road intersection.

5.9 Additional flood modelling information – Appendix J

This Appendix contains additional information about the flood model used as part of the EIS investigations by AECOM. This information was provided to the Queensland DTMR as part of the review of the EIS.

5.10 Revised Public Safety Area (PSA) Map for the Airport – Appendix K

This Appendix contains the Public Safety Area map for runway 13/31 that would apply if the Project was approved, constructed and the new runway commissioned. This map responds to advice agency comments raised by the Queensland DTMR as part of the review of the EIS.

5.11 Additional aircraft noise maps and information – Appendix L

This Appendix contains a re-presentation of noise impacts discussed in **Chapters D3 and D5**.

5.12 Additional economics information – Appendix M

This Appendix contains a further economic benefit assessment of the Project undertaken by the AEC Group.

6 ERRATA AND CLARIFICATONS ON THE EIS

In response to public and agency submissions it is necessary to clarify or amend aspects of the EIS. **Table 6.1** identifies each of these clarifications and errata based on EIS Chapter. Refer to **section 3** of the AEIS for the context of some suggested changes.

The Appendices contained in this AEIS have also been cross referenced against the relevant EIS Chapter in **Table 6.1a** – noting these represent additional work for consideration as part of the determination of the Project.

Table 6.1a: Errata and Clarifications on the EIS by Chapter

Chapter	Errata/Clarification
Summary of Major Findings	• Page 43 refers to Chapter D6 rather than Chapter D5
A1 Introduction	• n/a
A2 Need for the Project	• **Section 2.2.1** – under sub-heading 'Runway width' clarification to be made as to change in CASA rule as follows: – *'On 30 October 2014 a new regulation was made that moves the primary responsibilities for the operation of aircraft on "Narrow Runways" from airports to airlines. The change came into effect on 13 November 2014. This change does not affect the fundamental need for the project, it does not affect the Airport Expansion EIS nor does it affect what it contains. The impact of the change is that airlines applying to operate under the provisions of the Regulation for a "Narrow Runway Operation" will need to demonstrate to CASA that they have taken the necessary steps to satisfy the requirements of the new regulations and that the need for airports to hold current an exemption against this standard is now no longer necessary. Recent changes to "Narrow Runway" arrangements have not altered the fact that current RPT jet operations at SCA remain constrained and are subject to bespoke operational arrangements between CASA and airlines on a case by case basis. The arrangements for "Narrow Runway" operations have changed a number of times over the years and it is possible that they may change again with significant impact on the regional economy of the Sunshine Coast. SCA's risk exposure to further regulatory change is minimised by unconditional compliance with CASA standards.* – *At 30m wide the existing main runway 18/36 remains an operational constraint to the airport and potential regulatory risk. The existing runway does not allow "standard operations" to be undertaken by the aircraft currently servicing the Sunshine Coast.* – *The EIS discussion in relation to the constraints and concerns of narrow runway operations at SCA remain unchanged. The combined issues of runway length, width and orientation remain the principal reasons for undertaking the project.'* • Refer new **Appendix M** – Additional economics information
A3 Options and Alternatives	• **Section 3.1.1.2** – clarification made as to change in CASA rule as of 13 November 2014 (same text as above) • **Section 3.1.3.4** – advice received from Wilkinson Murray on noise impact of 310 m shift to be included – – *'Moving the runway 310 metres to the south-east along the same runway centreline is likely to result in a negligible increase of 1 to 2 decibels in the noise levels experienced at the residential properties in the Mudjimba area. The change is so slight as to be imperceptible to most people.'* • Refer new **Appendix F** – Alternative tailwater discharge options

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

Chapter	Errata/Clarification
A4 Project Description	• n/a
A5 Project Construction	• n/a
A6 Planning and Legislation Review	• **Sections 6.3 and 6.3.1**: amend date of *Aboriginal and Torres Strait Islander Heritage Act* from '1994' to '1984' • **Sections 6.3 and 6.3.3**: add '1995' to *Air Navigation (Aircraft Engine Emissions) Regulations* • **Section 6.4**: list of Queensland legislation relevant to the Project to include *Maritime Safety Queensland Act 2002*, *Maritime Safety Queensland Regulation 2002*, *Transport Operations (Marine Safety) Regulation 2004* and *Transport Operations (Marine Pollution) Regulation 2008* • **Section 6.4** – to be amended to include, the *Forestry Act 1959*, with the following text inserted into **Section A6.5.4.1** – – The *Forestry Act 1959* provides for forest reservations, the management, silvicultural treatment and protection of State forests, and the sale and disposal of forest products and quarry material, the property of the Crown on State forests, timber reserves and on other lands; and for other purposes – The Project will not impact or otherwise affect management of State forests or involve the winning of quarry material from State forests based on the current proposal. • **Section 6.4.4**: remove '*Environmental Protection (Waste Management) Regulation 2000*' from list of regulations and policies • **Section 6.4.4**: remove 'Concrete batching (ERA)...' from list of ERAs; • **Section 6.4.4**: remove 'These ERAs are all listed…Regulation 2008' • **Section 6.4.15**: amend 'being the Director-General of the Department of State Development, Infrastructure and Planning (DSDIP)' to 'being the Director-General of the Department of Infrastructure, Local Government and Planning (DILGP) • **Section 6.4.15**: amend 'SARA makes the DSDIP the single…' to 'SARA makes the DILGP the single…' • **Section 6.5.2.1**: amend 'The Minister has identified that the State Planning Policy is reflected in the Sunshine Coast Planning Scheme 2014' to 'The Minister has identified that the Sunshine Coast Planning Scheme 2014 reflects the State Planning Policy December 2013'. • **Section 6.5.2.1**: under sub-heading 'Marine Parks (Moreton Bay) Zoning Plan 2008' add 'The Spitfire Realignment Channel is within a designated material extraction area (MEA01 – Spitfire Banks) under the *Marine Parks (Moreton Bay Zoning Plan 2008)*.' • **Section 6.5.3**: under heading 'Sunshine Coast Regional Council Local Laws' add 2011 to first four dot points • **Section 6.5.3**: under heading 'Other SCC strategic policies and strategies' reference to 'the Sunshine Coast as social infrastructure…' under '**Social Infrastructure Strategy (2011)**' to read 'the SCA as social infrastructure…' • **Section 6.6.2**: add following paragraph after '**Figure 6.6a** summarises the key approvals required for the various stages of the Project. (see **tables 6.6-e**)' • 'Works that may involve the temporary or permanent blocking of a waterway as mapped by the Department of Agriculture and Fisheries (DAF) under the Queensland Waterways for Waterway Barrier Works GIS layer will be self-assessable work to the extent it complies with the following self-assessable codes (as applicable): • WWBW01-P3: Construction and maintenance of culverts

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

Chapter	Errata/Clarification
	• WWBW02: Temporary waterway barrier works • This will include the proposed Marcoola Drain floodgate structure. Where these works do not comply with self-assessable codes, they will require a development permit.' • **Section 6.6.2**: add following paragraph after above: • 'Installation of a navigation and pennant buoys and creation of a temporary exclusion zone as part of pump-out operations will require approval by the Regional Harbour Master and Maritime Safety Queensland. The exact requirements of approval, including community consultation expectations, will be confirmed with both authorities as part of subsequent approvals processes.' • Tables 6.6b, 6.6c, 6.6d and 6.6e: all references to 'Department of State Development, Infrastructure and Planning' to now refer to 'Department of Infrastructure, Local Government and Planning' • Tables 6.6d and 6.6e: Approval Agency for following approvals to be amended to 'Chief Executive of the Department of Infrastructure, Local Government and Planning': • 'Development Permit for operational works (that is removing or interfering with coastal dunes… within the erosion prone area)' • 'Development Permit for operational work that is the removal…for a material change of use' • 'Development Permit for operational work…works in tidal water' • 'Development permit for a material change of use of an Environmentally Relevant Activity (ERA 16(1))' • Development Permit for operational work (that is removal…marine plant as part of dredging activities' • **Table 6.6d**: add 'Department of Transport and Main Roads' as Approval Agency for approval 'If a road is to be temporarily or permanently closed, an application for permanent or temporary road closure will be required.'
A7 Stakeholder Engagement	• See **section 2** of the AEIS and **Appendix A**
A8 Sustainability	• n/a
A9 Environmental Impact Assessment Process	• n/a
B1 Introduction	• n/a
B2 Land Use and Tenure	• **Section 2.2.1**: amend 'Two additional lots…has also be transferred from state land to freehold land' to 'In addition, Lot 101 CG6395 has been transferred from state land to freehold land while the transfer of Lot 781 CG3891 is being finalised.' • As discussed in **Table 3.3f** of the AEIS, **Chapter B2**, **section 2.4**, EIS is to be amended to note that, 'no agricultural land use is present within the Project area. Future development of the site as proposed by the Project will have no impact upon existing or potential agricultural production on the site as there is none occurring'. • Refer new **Appendix K** – Revised Public Safety Area (PSA) Map for the Airport.
B3 Geology, Soils and Groundwater	• Refer new **Appendix C** – Environmental Management Framework for ASS • Refer new **Appendix D** – Water Quality Management Plan for Marcoola Drain (and associated conceptual model of groundwater interaction in Marcoola Drain).

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

<table>
<tr><th>Chapter</th><th>Errata/Clarification</th></tr>
<tr><td>B4 Coastal Processes</td><td>Section 4.5.1: add the following words immediately before sub-heading ‘Pipeline assembly impact assessment’
‘Impacts to coastal processes and morphology of the beach environment will be considered in more detail as part of subsequent State approvals processes related to coastal works as described in Chapter A6.’</td></tr>
<tr><td>B5 Flooding</td><td>Refer new Appendix J – Additional flood modelling information
Revised Table 5.5(i) originally included in Chapter B5 of the EIS:
<table>
<tr><th>Project Name</th><th>Comment on potential for cumulative flood impacts</th><th>Status</th></tr>
<tr><td>Caboolture to Maroochydore Corridor Study (CAMCOS)</td><td>The CAMCOS Corridor follows the existing Sunshine Motorway alignment, and terminates at the airport site. It is anticipated that the project would need to show negligible changes to flood impacts.</td><td>No program for construction.</td></tr>
<tr><td>Bruce Highway upgrades</td><td>Located west of the Maroochy River near existing infrastructure. Consequently it is unlikely to affect the flood regime at the proposed project site.</td><td>Upgrades are underway to the south-west and north-west of the project site.</td></tr>
<tr><td>Sunshine Motorway upgrades</td><td>Upgrades to the motorway could affect the flooding regime in the area surrounding the project. It is anticipated that the project would need to show negligible changes to flood impacts.</td><td>No program for construction.</td></tr>
<tr><td>Desalination plant north of the proposed runway</td><td>Given the proximity to the project, there is potential for cumulative impacts from the desalination plant. This is explored in more detail in section 5.5.4.2.</td><td>No program for construction</td></tr>
<tr><td>Nambour Station upgrade</td><td>Located to the west of the Maroochy River in a developed area. Consequently it is unlikely to affect the flood regime at the proposed project site.</td><td>To commence in 2015.</td></tr>
<tr><td>Sunshine Coast Airport aeronautical precinct</td><td>Located at the airport, potential impacts would be related to local drainage rather than regional flooding. It is anticipated that the project would need to show negligible changes to flood impacts.</td><td>Construction underway.</td></tr>
<tr><td>Nambour Landfill</td><td>Located on Petrie Creek west of the Maroochy River. Expansion of the landfill is unlikely to have any measurable effect on regional flooding near the project.</td><td>Construction underway in stages, to be complete 2019/20.</td></tr>
<tr><td>Sand Extraction areas</td><td>The removal of sand from the flood plain is unlikely to reduce the flood plain storage capacity. It is not expected to negatively affect the flood plain near the project.</td><td>No development approvals or commencement programmed.</td></tr>
<tr><td>Sunshine Coast Entertainment, Convention and Exhibition Centre (SunCentral development)</td><td>Located at Maroochydore in a developed area. It is anticipated that the project would need to show negligible changes to flood impacts.</td><td>Commenced in 2015 and will be developed over a 20 year time frame.</td></tr>
<tr><td>Maroochy Bus Interchange</td><td>Located at Maroochydore in a developed area. It is anticipated that the project would need to show negligible changes to flood impacts.</td><td>Project complete.</td></tr>
</table></td></tr>
</table>

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

Chapter	Errata/Clarification
B6 Surface Water and Hydrology	• Refer new **Appendix D** – Water Quality Management Plan for Marcoola Drain
B7 Terrestrial Flora	• Refer new **Appendix B** – Biodiversity Offsets Strategy • Refer new **Appendix E** – Lesser Swamp Orchid Survey • Refer new **Appendix G** – Summary of the likelihood of occurrence for relevant MNES species
B8 Terrestrial Fauna	• Refer new **Appendix B** – Biodiversity Offsets Strategy • Refer new **Appendix G** – Summary of the likelihood of occurrence for relevant MNES species
B9 Aquatic Ecology	• Refer new **Appendix G** – Summary of the likelihood of occurrence for relevant MNES species
B10 Marine Ecology	• Refer new **Appendix D** – Water Quality Management Plan for Marcoola Drain (and associated surveys of aquatic vegetation along Marcoola Drain) • Refer new **Appendix G** – Summary of the likelihood of occurrence for relevant MNES species
B11 Indigenous Cultural Heritage and Native Title	• n/a
B12 Non-Indigenous Cultural Heritage	• n/a
B13 Social Impact	• **Section 13.5.4**: amend to read 'At 2011 the local government area of the Sunshine Coast had a level of population for Aboriginal and Torres Strait Islander people reported at 1.6 per cent (4,082) compared with 3.6 per cent (155,824) for the State. The proportion of residents who identify themselves as Aboriginal and Torres Strait Islander People in the Sunshine Coast has increased from 1.2 per cent in 2006.' • **Section 13.14**: include following paragraph at end of Section • 'The projected increase in passenger numbers and the flow on benefits to tourism and the resultant increased market (described in **Chapter A2**) significantly increases the potential for employment for Aboriginal and Torres Strait Islander people on the Sunshine Coast, surrounding districts and the Sunshine Coast hinterland. Similarly, increased tourism potential will also significantly increase the opportunity for tourism-related enterprise for Aboriginal and Torres Strait Islander people.'
B14 Surface Transport	• Refer new A**ppendix I** – Additional Surface Transport Information
B15 Noise and Vibration	• n/a
B16 Air Quality and Greenhouse Gas Emissions	• **Table 16.2a:** Clarification provided as to the construction emission factors • **Appendix B16:A:** amend to clarify that no data assimilation has occurred, to discuss justification for the use of TAPM meteorological modelling without data assimilation, and to clarify construction emission factors and xylene emission rates used in modelling • Refer new **Appendix H** – Additional Air Quality Information
B17 Landscape and Visual	• n/a

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

Chapter	Errata/Clarification
B18 Climate Change	• **Table 18.5a:** add following footnote to 'Increased bushfire' • 'State-wide mapping of bushfire prone areas provides an indication as to specific vulnerability of infrastructure to existing bushfire hazard areas and will be considered as part of future bushfire hazard site assessments. • Mapping is available at www.statedevelopment.qld.gov.au/about-planning/spp-mapping-online-system.html.
C1 Introduction	• n/a
C2 Marine Geology	• n/a
C3 Coastal Processes and Water Quality	• n/a
C4 Marine Ecology	• n/a
C5 Shipping Traffic	• n/a
C6 Other Considerations	• n/a
D1 Introduction	• n/a
D2 Airspace Architecture and Modes of Operation	• n/a
D3 Aircraft Noise	• **Section 3.3.2**: change reference to '**Table 3.3d**' to '**Table 3.3c**' • **Section 3.7.2.1**: remove first dot point and replace with 'The thresholds of the runway have been relocated in a southern-easterly direction 310 m along the same alignment.' • Refer new **Appendix L** – Additional aircraft noise maps and information
D4 Air Quality and Greenhouse Gas Emissions	• n/a
D5 Social and Visual Impacts	• **Section 5.5.1.5**: add 'Power Memorial Park' and 'Mudjimba Skate Park' to list of community facilities • Refer new **Appendix L** – Additional aircraft noise maps and information
E1 Introduction	• n/a
E2 Matters of National Environmental Significance	• n/a
E3 Environmental Management Plan	• **Section 3.1.3**: add '*Marine Parks Act 2004*' to list of State legislation considered in the development of the EMP

Table 6.1a: Errata and Clarifications on the EIS by Chapter (continued)

Chapter	Errata/Clarification
E4 Dredge Management Plan	• **Section 4.4.10**: for management action 'Effluent from the treatment system…' add following sentence • 'Dredge contractor to ensure vessel has suitable ship-sourced pollution prevent and sewage management plans.' • **Section 4.4.11**: for management action 'If requested by DAF hull inspections…' add following sentence • 'Any occurrence of marine incursion will be communicated to Biosecurity Queensland immediately.'
E5 Airspace Management Plan	• n/a
E6 Risk Management Plan	• n/a
E7 Summary of Benefits, Impacts, Commitments and Conclusion	• n/a

7 CONCLUSION

The principal element of the Sunshine Coast Airport Expansion Project, the new North-West to South-East aligned runway, has been a key feature of Council's strategic land use planning for the Maroochy North Shore since the Maroochy Shire Strategic Plan of 1985.

Then, as now, the limitations of the current main runway were known i.e. too short, too narrow and poorly aligned relative to the prevailing winds to allow unconstrained aircraft operations.

Without a new longer, wider and better aligned runway Sunshine Coast Airport (SCA) can only provide access to the east coast of Australia with, at best, payload reduced access to the closest New Zealand airport at Auckland. In addition, the current runway does not comply with CASA MOS Part 139 minimum width requirements for the current code 4C aircraft and likely future fleet. Recent changes to "Narrow Runway" arrangements have not altered the fact that current RPT jet operations at SCA remain constrained and are subject to bespoke operational arrangements between CASA and airlines on a case by case basis. The arrangements for "Narrow Runway" operations have changed a number of times over the years and it is possible that they may change again with significant impact on the regional economy of the Sunshine Coast. This risk has long been identified and the development of this project and unconditional compliance to the CASA MOS Part 139 standards remains Councils preferred approach to de-risk the airport and future proof the regional economy.

For the airport to continue to meet the needs of the growing Sunshine Coast community it needs to offer airline operators unconstrained operations to a wide range of destinations using larger, more fuel efficient aircraft. The new runway will do this.

The Environmental Impact Statement (EIS) is a lengthy document fully addressing the extensive Terms of Reference (ToR) issued in May 2012. To assist the community in its understanding of the Project, the EIS document and the EIS process Council undertook a comprehensive and innovative program of community consultation. In addition to the EIS (of 4 volumes), a summary document, noise information booklet, fact sheets, brochures, and on-line resources including an online aircraft noise tool were made widely available.

The EIS found, with the commitments and mitigations proposed, the Project:

- Could be delivered without any significant environmental impacts;
- Would result in a considerable reduction in the number of people exposed to aircraft noise;
- Would allow unconstrained operation of the current and likely future aircraft fleet; and
- Generate around $4 billion in regional GDP over the period to 2040.

As evidenced by the number of submissions received, the project generated considerable interest in the community. It is noted however that all of the matters raised in the submissions have been able to be addressed without the need to modify the project in any substantive way.

This document, the Additional Environmental Impact Statement (AEIS) has presented the responses to public and advisory agency submissions. Much of the information in the AEIS is in the nature of clarification or expansion of the information contained in the original EIS.

The key findings of the EIS, that is, that the Project has considerable social and economic benefits to the wider community and that there are no significant environmental impacts remain intact.

The project has been flagged in the public domain via a range of channels for more than 30 years. The EIS and AEIS demonstrate that it can be delivered with minimal adverse impact and considerable benefits to the broader community.

8 REFERENCES

Department of Environment and Resource Management (2010), *Environmental Protection (Water) Policy 2009: Maroochy River environmental values and water quality objectives*, Queensland Government

Department of Science, Information Technology, Innovation and the Arts 2014, *Queensland Acid Sulfate Soil Technical Manual: Soil Management Guidelines v4.0*, Queensland Government

Department of the Environment 2015, *Species Profile and Threats Database*, Commonwealth Government, www.environment.gov.au/cgi-bin/sprat/public/sprat.pl [Accessed March to April 2015]

Limpus, CJ 2008a, '1. Loggerhead turtle *Caretta caretta* (Linnaeus)', *A Biological Review of Australian Marine Turtles*, Queensland Government, Environmental Protection Agency

Limpus, CJ 2008b, '2. Green turtle *Chelonia mydas* (Linnaeus)', *A Biological Review of Australian Marine Turtles*, Queensland Government, Environmental Protection Agency