

## Jaclyn McKirdy

---

**From:** Ross Ullman <Ross.Ullman@sunshinecoast.qld.gov.au>  
**Sent:** Thursday, 23 February 2017 9:44 AM  
**To:** Steven Tarte; [Access refused under s6]@bmtwbm.com.au); James Ulyate  
**Cc:** Jaclyn McKirdy  
**Subject:** Potential Parallel Taxiway  
**Attachments:** SCA\_EIS\_Chapter A5 sand.jpg

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Steven, Greg, James,

Further to my comments at the last meeting in relation to the proposal by Palisade to consider construction of a parallel taxiway for approximately half the length of the new runway, I have reviewed the EIS and I have discovered that, whilst the parallel taxiway is not referred to specifically, the spread sand platform was always intended to cover the area that included the ultimate parallel taxiway alignment.

I have attached a copy of Figure A5-133 from the EIS which depicts the extent of the spread sand platform. The ultimate alignment of the parallel taxiway extends from end-loop to end-loop which places it inside the marked perimeter of the spread sand placement area as you will see.

My apologies for the misleading comments.

Regards

*Ross*

**Ross Ullman** | Project Director (Sunshine Coast Airport Expansion)  
Economic Development and Major Projects Department | Sunshine Coast Council

Phone: 07 5453 1541  
Mobile: [Access refused]  
Email: [ross.ullman@sunshinecoast.qld.gov.au](mailto:ross.ullman@sunshinecoast.qld.gov.au)  
Website: [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au)  
Mail: Locked Bag 72 Sunshine Coast Mail Centre Qld 4560

Please consider the environment before printing this email

Figure 5.4p: Sand rehandling



## Gerald Schmidt

---

**From:** GLEESON Kelly <Kelly.Gleeson@des.qld.gov.au>  
**Sent:** Friday, 16 March 2018 4:25 PM  
**To:** Steven Tarte  
**Subject:** RE: Sunshine Coast Airport

Sorry Steven. I'll send through a calendar invite for early next week? Thanks.

Kind regards,



Queensland  
Government

**Kelly Gleeson**  
A/Director  
Industry and Development Assessment  
Environmental Services and Regulation  
Department of Environment and Science

-----  
Level 8, 400 George Street, Brisbane  
GPO Box 2454, Brisbane Qld 4001  
Tel 07 3330 5066 | Mobile **Access refused**

...moving the move

connect

### Register to be a Connect Customer

The Department of Environment and Science (DES) have changed the way we do business. We have a new digital platform for online services and transactions called Connect. Connect allows for fast, efficient and 24/7 access with us on any device (i.e. desktop, mobile, tablet). Benefits of being a Connect customer include being able to manage your contact details and business information, submit and pay instantly for environmental applications, lodge annual returns and communicate with us via email.

We encourage you to do business with us online and register to become a Connect customer. Please visit our website at [www.ehp.qld.gov.au/connect](http://www.ehp.qld.gov.au/connect).

If you are an existing DES customer, your details are already in Connect and you can get your Connect DES Customer Reference by emailing [connecthelp@ehp.qld.gov.au](mailto:connecthelp@ehp.qld.gov.au).

**From:** Steven Tarte [mailto:Steven.Tarte@coordinatorgeneral.qld.gov.au]  
**Sent:** Thursday, 15 March 2018 3:57 PM  
**To:** GLEESON Kelly  
**Subject:** FW: Sunshine Coast Airport

Hi Kelly,

I called and must have missed you. Could we please set a time to discuss this one?

Steven



Queensland  
Government

**Steven Tarte**  
A/Director  
Office of the Coordinator-General  
Department of State Development,  
Manufacturing, Infrastructure and Planning

-----  
P 07 3452 7455 M **Access refused**  
Level 17, 1 William Street, Brisbane QLD 4000

PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** Steven Tarte  
**Sent:** Tuesday, 13 March 2018 12:40 PM  
**To:** 'GLEESON Kelly' <[Kelly.Gleeson@des.qld.gov.au](mailto:Kelly.Gleeson@des.qld.gov.au)>  
**Subject:** RE: Sunshine Coast Airport

Hi Kelly,

I called to discuss this one.

Could you call back later today if you are available? Any time around the meetings that I have from 1-2 and 330-4.

Thank you,

Steven



**Queensland  
Government**

Steven Tarte  
A/Director  
**Office of the Coordinator-General**  
Department of State Development,  
Manufacturing, Infrastructure and Planning  
P 07 3452 7455 M **Access refuse**  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** GLEESON Kelly [<mailto:Kelly.Gleeson@des.qld.gov.au>]  
**Sent:** Wednesday, 7 March 2018 1:09 PM  
**To:** Steven Tarte <[Steven.Tarte@coordinatorgeneral.qld.gov.au](mailto:Steven.Tarte@coordinatorgeneral.qld.gov.au)>  
**Cc:** GRAY Amanda <[Amanda.Gray@des.qld.gov.au](mailto:Amanda.Gray@des.qld.gov.au)>; PETERKEN Claire <[Claire.Peterken@des.qld.gov.au](mailto:Claire.Peterken@des.qld.gov.au)>  
**Subject:** Sunshine Coast Airport

Hello Steven, as discussed yesterday please find attached some correspondence concerning the Sunshine Coast Airport expansion.

We are happy to talk through any options you may think appropriate. We are also engaging with the Council in a similar way.

Thanks again.

Kelly.

Kind regards,



**Queensland  
Government**

Kelly Gleeson  
A/Director  
**Industry and Development Assessment  
Environmental Services and Regulation**  
Department of Environment and Science

Level 8, 400 George Street, Brisbane  
GPO Box 2454, Brisbane Qld 4001  
Tel 07 3330 5066 | Mobile **Access refuse**

...moving the move

connect

**Register to be a Connect Customer**

The Department of Environment and Science (DES) have changed the way we do business. We have a new digital platform for online services and transactions called Connect. Connect allows for fast, efficient and 24/7 access with us on any device (i.e. desktop, mobile, tablet). Benefits of being a Connect customer include being able to manage your contact details and business information, submit and pay instantly for environmental applications, lodge annual returns and communicate with us via email.

We encourage you to do business with us online and register to become a Connect customer. Please visit our website at [www.ehp.qld.gov.au/connect](http://www.ehp.qld.gov.au/connect).

If you are an existing DES customer, your details are already in Connect and you can get your Connect DES Customer Reference by emailing [connecthelp@ehp.qld.gov.au](mailto:connecthelp@ehp.qld.gov.au).

-----  
The information in this email together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. There is no waiver of any confidentiality/privilege by your inadvertent receipt of this material.

Any form of review, disclosure, modification, distribution and/or publication of this email message is prohibited, unless as a necessary part of Departmental business.

If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.

-----

This email and any attachments may contain confidential or privileged information and may be protected by copyright. You must not use or disclose them other than for the purposes for which they were supplied. The confidentiality and privilege attached to this message and attachment is not waived by reason of mistaken delivery to you. If you are not the intended recipient, you must not use, disclose, retain, forward or reproduce this message or any attachments. If you receive this message in error please notify the sender by return email or telephone, and destroy and delete all copies. The Department does not accept any responsibility for any loss or damage that may result from reliance on, or use of, any information contained in this email and/or attachments.



Department of  
Environment and Science

Ref 070/0001982

6 March 2018

Mr Steven Tarte  
A/Director, Office of the Co-ordinator General  
Department of State Development, Manufacturing, Infrastructure and Planning  
Level 17, 1 William Street,  
Brisbane QLD 4000

Dear Mr Tarte,

I refer to a recently lodged application by Sunshine Coast Regional Council (Council) to amend their environmental authority under the *Environmental Protection Act 1994* for approved activities as part of the Sunshine Coast Airport Expansion project. I understand that the Office of the Co-ordinator General has facilitated pre-lodgement meetings between the Council and officers from the Department of Environment and Science (DES) to discuss the amendments.

The scale and nature of the proposed changes to the delivery of this project appear to be a significant variation from the project as described and approved by the Co-ordinator General in the evaluation report under the *State Development and Public Works Organisation Act 1971*. Based on the application material received, DES is considering the application as a major amendment.

I therefore seek clarification concerning the reasoning for not requiring further assessment of these changes by your office. In particular, considering the appreciable community interest in the Airport Expansion process.

I look forward to your reply, however, please note that concurrently the assessment of the proposed amendments to the environmental authority will continue in accordance with the provisions of the *Environmental Protection Act 1994*.

Should you wish to discuss this further, please contact me on telephone (07) 3330 5066.

Yours sincerely

Access refused under section 47(3)(b)

Kerry Gleeson  
A/Director

Level 8  
400 George Street Brisbane  
GPO Box 2454 Brisbane  
Queensland 4001 Australia  
Telephone + 61 7 3330 5066

## Gerald Schmidt

---

**From:** Steven Tarte  
**Sent:** Thursday, 22 March 2018 11:11 AM  
**To:** Steven Tarte  
**Subject:** Re: Sunshine Coast Airport

Hi Kelly,

Thank you discussing this matter with me on Monday.

As discussed, unfortunately the Coordinator-General cannot compel the proponent to lodge a change application and it is normal practice for regulatory authorities to manage the conditions when they form part of approvals subsequent to the Coordinator-General's Evaluation Report. Further, our office is not aware of the community concern indicated either through direct enquirers or from your office.

I am following up on your proposed course of action noting that the proponent appears amenable to addressing your concerns without affecting their timeframes given the stage of the application.

Please let me know if I can assist with engaging with the proponent.

Steven Tarte  
A/Director  
Office of the Coordinator-General  
Department of State Development  
P 07 3452 7455 M [Access refused u](#)  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15517, City East QLD 4002  
[www.statedevelopment.qld.gov.au](http://www.statedevelopment.qld.gov.au)

---

**From:** Steven Tarte <[steven.tarte@coordinatorgeneral.qld.gov.au](mailto:steven.tarte@coordinatorgeneral.qld.gov.au)>  
**Sent:** Thursday, March 15, 2018 3:56 PM  
**Subject:** FW: Sunshine Coast Airport  
**To:** GLEESON Kelly <[kelly.gleeson@des.qld.gov.au](mailto:kelly.gleeson@des.qld.gov.au)>

Hi Kelly,  
I called and must have missed you. Could we please set a time to discuss this one?  
Steven



**Queensland  
Government**

Steven Tarte  
A/Director  
Office of the Coordinator-General  
Department of State Development,  
Manufacturing, Infrastructure and Planning  

---

P 07 3452 7455 M [Access refuse](#)  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** Steven Tarte  
**Sent:** Tuesday, 13 March 2018 12:40 PM  
**To:** 'GLEESON Kelly' <[Kelly.Gleeson@des.qld.gov.au](mailto:Kelly.Gleeson@des.qld.gov.au)>  
**Subject:** RE: Sunshine Coast Airport  
Hi Kelly,

I called to discuss this one.

Could you call back later today if you are available? Any time around the meetings that I have from 1-2 and 330-4.

Thank you,

Steven



**Queensland  
Government**

Steven Tarte

A/Director

**Office of the Coordinator-General**

Department of State Development,  
Manufacturing, Infrastructure and Planning

P 07 3452 7455M **Access refuse**

Level 17, 1 William Street, Brisbane QLD 4000

PO Box 15009, City East QLD 4002

[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** GLEESON Kelly [<mailto:Kelly.Gleeson@des.qld.gov.au>]

**Sent:** Wednesday, 7 March 2018 1:09 PM

**To:** Steven Tarte <[Steven.Tarte@coordinatorgeneral.qld.gov.au](mailto:Steven.Tarte@coordinatorgeneral.qld.gov.au)>

**Cc:** GRAY Amanda <[Amanda.Gray@des.qld.gov.au](mailto:Amanda.Gray@des.qld.gov.au)>; PETERKEN Claire <[Claire.Peterken@des.qld.gov.au](mailto:Claire.Peterken@des.qld.gov.au)>

**Subject:** Sunshine Coast Airport

Hello Steven, as discussed yesterday please find attached some correspondence concerning the Sunshine Coast Airport expansion.

We are happy to talk through any options you may think appropriate. We are also engaging with the Council in a similar way.

Thanks again.

Kelly.

Kind regards,



**Queensland  
Government**

**Kelly Gleeson**

A/Director

**Industry and Development Assessment**

**Environmental Services and Regulation**

Department of Environment and Science

Level 8, 400 George Street, Brisbane

GPO Box 2454, Brisbane Qld 4001

Tel07 3330 5066 | Mobile **Access refuse**

*connect*

*...make the move*

#### **Register to be a Connect Customer**

The Department of Environment and Science (DES) have changed the way we do business. We have a new digital platform for online services and transactions called Connect. Connect allows for fast, efficient and 24/7 access with us on any device (i.e. desktop, mobile, tablet). Benefits of being a Connect customer include being able to manage your contact details and business information, submit and pay instantly for environmental applications, lodge annual returns and communicate with us via email. We encourage you to do business with us online and register to become a Connect customer. Please visit our website at [www.ehp.qld.gov.au/connect](http://www.ehp.qld.gov.au/connect).

If you are an existing DES customer, your details are already in Connect and you can get your Connect DES Customer Reference by emailing [connecthelp@ehp.qld.gov.au](mailto:connecthelp@ehp.qld.gov.au).

-----  
The information in this email together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. There is no waiver of any confidentiality/privilege by your inadvertent receipt of this material.

Any form of review, disclosure, modification, distribution and/or publication of this email message is prohibited, unless as a necessary part of Departmental business.

If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.



## Jaclyn McKirdy

---

**From:** Access refused under section 47(3)(b)@bmtglobal.com>  
**Sent:** Monday, 16 April 2018 4:18 PM  
**To:** Jaclyn McKirdy; Steven Tarte  
**Cc:** James Ulyate <James.Ulyate@sunshinecoast.qld.gov.au>  
**Subject:** BRID0035 Information Request  
**Attachments:** Tech Memo to support EA amendment application\_r04.pdf; DOC00169662.pdf; APP0014380\_BRID0035\_Amendment\_application\_Information\_request\_ATTACHMENT.pdf

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Steve and Jaclyn,

Ahead of tomorrow's meeting to discuss the SCAEP EA Amendment information request, I have attached the original EA Amendment Application for your reference, together with the Information Request received from DES on the application.

Warm regards

Access refused under section 47(3)(b)

Tel: +61 (07) 3831 6744  
Fax: +61 (07) 3832 3627  
Web: www.bmt.org



[LinkedIn](#) | [Twitter](#) | [Facebook](#) | [YouTube](#)

BMT WBM Pty Ltd, Level 8, 200 Creek Street, Brisbane, Queensland, 4000, (or PO Box 203, Spring Hill, QLD 4004), Australia

Registered in Australia, Registered no. 010 830 421, Registered office Level 8, 200 Creek Street, Brisbane QLD 4000, Australia.

**E-mail confidentiality notice and disclaimer:** The contents of this e-mail are intended for the use of the mail addressee(s) shown. If you are not that person, you are not allowed to read, action, copy, forward, distribute or disclose the contents and you should delete it from your system. BMT accepts no liability for any errors or omissions in the content of this e-mail, nor does it accept liability for statements which are those of the author and clearly not made on behalf of the company.

**Commercial Terms and Conditions:**

Unless otherwise agreed by BMT in writing, all services or products supplied by BMT shall be subject to and governed by BMT's standard terms and conditions, which are available upon request.

Please consider the environmental impacts of printing this email, and only do so if really necessary



BMT WBM Pty Ltd  
Level 8, 200 Creek Street  
Brisbane Qld 4000  
Australia  
PO Box 203, Spring Hill 4004

Tel: +61 7 3831 6744  
Fax: + 61 7 3832 3627

ABN 54 010 830 421

[www.bmlwbm.com.au](http://www.bmlwbm.com.au)

# Technical Memorandum

To:	DES Permit and Licence Management		
Attention:	Raphael Borough, Claire Peterken	Date:	21 February 2018
Document Ref:	Tech Memo to support EA amendment application_r04.docx	From:	Sunshine Coast Council

RE: SUPPORTING INFORMATION FOR AMENDMENT APPLICATION FOR EA BRID0035

## 1 Background

This technical memorandum has been prepared to support an application for an amendment to Environmental Authority (EA) BRID0035 held by Sunshine Coast Council (SCC or Council) for environmentally relevant activity (ERA) 16(1)(d). This EA relates to the dredging, pump-out and hydraulic placement works required for the Sunshine Coast Airport Expansion Project (SCAEP or the Project).

EA BRID0035 was originally provided to Council to undertake works consistent with the project description set out in the Environmental Impact Statement (EIS) for the SCAEP, as approved by the Coordinator-General's evaluation report (CGER). During the development of the reference design for the project, and subsequent to receipt of the EA, several changes to the project design were identified. Implementation of these changes requires amendment to the EA. These changes consist of the following:

- (1) Extension and movement of the runway
- (2) Alteration in the methodology for hydraulic placement
- (3) Modification of drainage approach
- (4) Provision for movement of the air traffic control (ATC) tower
- (5) Amendment of dredge plume monitoring sites.

This application presents the proposed changes and an assessment of the environmental risks posed where they may differ from what was originally presented in the EIS and original EA application. **While there are multiple changes, they are considered to constitute only a MINOR AMENDMENT, as discussed in Section 7 below**, subject to final determination by the Department.

In addition to this application, amendment applications are being made for the Marine Parks Permit and Quarry Material Allocation also held by SCC for the SCAEP, to the extent the changes affect these approvals.

For further information on the SCAEP and original environmental assessment, refer to the EIS, Additional Information to the EIS (AEIS) and the CGER, available at the Department of State Development, Manufacturing, Infrastructure and Planning (DSDMIP) website:

<https://www.statedevelopment.qld.gov.au/assessments-and-approvals/sunshine-coast-airport-expansion.html>

G:\Admin\B21223.g.gwf.SCA Supplementary\Approvals\Applications\ERA 16\Amendment application\Tech Memo to support EA amendment application\_r04.docx

## 2 Extension and Movement of the Runway

### 2.1 Original Proposal

SCC originally proposed the construction of a 45 m wide and 2,450 m long Code E runway (RWY 13/31), replacing the existing, shorter and narrower runway (RWY 18/36). The new runway will have a northwest/southeast orientation, requiring flights over parts of residential areas in Marcoola and Mudjimba. While the original design of the runway was located further to the northwest, it was moved approximately 310 m to the southeast during the EIS phase to mitigate the potential flooding impacts to residential properties in Marcoola from filling in the Maroochy River floodplain. This movement also avoided construction over underlying marine clays that occur at the north-western end of the proposed runway.

The bulk of the new runway will be constructed in areas of remnant vegetation and cane fields located to the west of the existing airport. Construction will require filling of land within this area to a level appropriate for runway integrity and flood immunity. This will be achieved using marine sands, extracted from the Spitfire Realignment Channel within northern Moreton Bay. Based on initial design specifications for the runway, a total of 1.1M m<sup>3</sup> of material was identified as sufficient for construction purposes. The extraction within the realignment channel is additional to the dredging already approved for the Port of Brisbane Pty Ltd (PBPL) in this area. Thus, SCC proposed a total dredge depth of -17.05 m LAT, noting that the SCAEP dredging would occur prior to any PBPL dredging (and would therefore occur to a shallower depth). Although dredging has been approved across the entire realignment channel area, actual extraction will occur only in a subset of this area, as agreed with PBPL. There is no seagrass throughout any of the channel, based on post-EIS surveys.

As part of the EIS and AEIS, SCC also proposed a biodiversity offset strategy (BOS) to offset some of the environmental impacts of the project (dated 3 September 2015). One of the actions within the BOS is the development of a wildlife movement corridor along the western boundary of the airport site, providing a connection between the blocks of the Mount Coolool National Park that occur to the north and south of the airport (which are not currently connected). This would involve planting of a corridor around the end of the new runway, bordering to the Sunshine Motorway in the west. The minimum width of 120 m was set for this corridor in the BOS but modified to 100 m in the CGER based on a commitment by Council. This corridor was subsequently approved in the ODP for the SCAEP.

### 2.2 Proposed Change and Justification

Following receipt of Coordinator-General approval of the EIS and AEIS, a review was undertaken of the design, considering the implications of Obstacle Limitation Surfaces (OLS) required for the new runway. During this review, it was identified that the height of existing buildings in Mudjimba, southeast of the new runway and within the flight path for departing/arriving aircraft, would penetrate the OLS. This necessitates the movement/extension of the runway in a northwest direction, providing for a new OLS that avoids these buildings. This will result in RWY 13/31 extending up to 175 m further to the northwest than originally provided for in the EIS and EA. This may also lead to a movement in the tailwater polishing pond location but will not change the overall function or basic design of this pond.

This alteration extends the portion of the runway embankment in the Maroochy River floodplain east of the Sunshine Motorway. While filling within this zone was originally found to have had an unacceptable impact on flooding for Marcoola, updates to the flood modelling have allowed a solution to be identified that enables the runway extension without adversely affecting flood afflux levels.

The movement/extension has the following implications for project design and construction:

- Increase in the volume of sand required for construction, and subsequent tailwater discharge

- Narrowing of part of the proposed connectivity corridor
- Changes to construction timelines

An increased volume of sand is required to construct the additional 175 m of the runway embankment. As this will now move the runway over marine clays, this volume needs to account for a surcharge to allow for consolidation of the clay. During design, it was also identified that an additional volume of sand was required, comparative to what was identified during the EIS, as a result of more detailed ground survey and an updated calculation methodology, accounting for sand compaction when placed and unavoidable losses of fines during dredging, transportation and placement. Considering these factors, the total volume required for dredging and placement is now 1.65M m<sup>3</sup> (i.e. an extra 0.55M m<sup>3</sup>).

An increase in dredging volume is expected to require a deepening of the total dredge depth in the Spitfire Realignment Channel. While detailed bathymetric surveys have not been undertaken, the total maximum depth required will be -17.40 m LAT, an increase of up to 0.35 m from what was considered in the EIS and EA. SCC has received in-principle support from PBPL to dredge to this depth (see attached) and will provide updated channel design figures as part of an amendment application for Quarry Material Allocation. Application for a prescribed tidal works permit to the deeper depth will be undertaken by PBPL (who will be the 'owners' of the final channel). However, to remove any doubt, the additional dredging will be fully contained within the footprint currently approved under the EA, Quarry Material Allocation and Marine Park Permit (i.e. no change to the surface area footprint required).

An increase in volume for dredging will also require an increase in time for dredging, pump-out and sand placement works. Up to four weeks of extra dredging is anticipated, requiring pump-out facilities (e.g. mooring at Marcoola, pipeline under David Low Way) to remain in place over this time. The actual changes to overall construction is uncertain, and will depend on contractor scheduling. However, the contractor will still be required to avoid any dredging related activity within the turtle nesting period from 1 November to 31 March each year.

Movement of the end of the runway also marginally decreases the space available for the wildlife movement corridor. At the end of the runway it will be necessary to construct a fence and landside road for maintenance, as well as a potential swale drain feature. This will provide a corridor ~100 m fence-to-fence at its narrowest point for a 120 m continuous stretch. The ODP approved for the project will require amendment to account for the changed design. Regardless, the corridor will cover a minimum 42 ha (reduction from 48 ha in original proposal) and will provide the connectivity outcomes intended in the EIS. See Figure 2-1.

Geotechnical investigations were undertaken in the extension area of the runway during the EIS. These include acid sulphate soil (ASS) testing and geotechnical boreholes. Based on the EIS, the underlying material in the extension area is high plasticity clay, overlain with thin layers of silty sand and sandy clay (BH7/12). The acidity levels of this soil are similar to that in the approved runway footprint and thus can be managed in accordance with the ASS management plan required by the EA. The soil was also identified to be saline, with laboratory analysis identifying an EC<sub>1.5</sub> of 0.565 in this area (TP17), which is significantly higher than areas to the southeast.

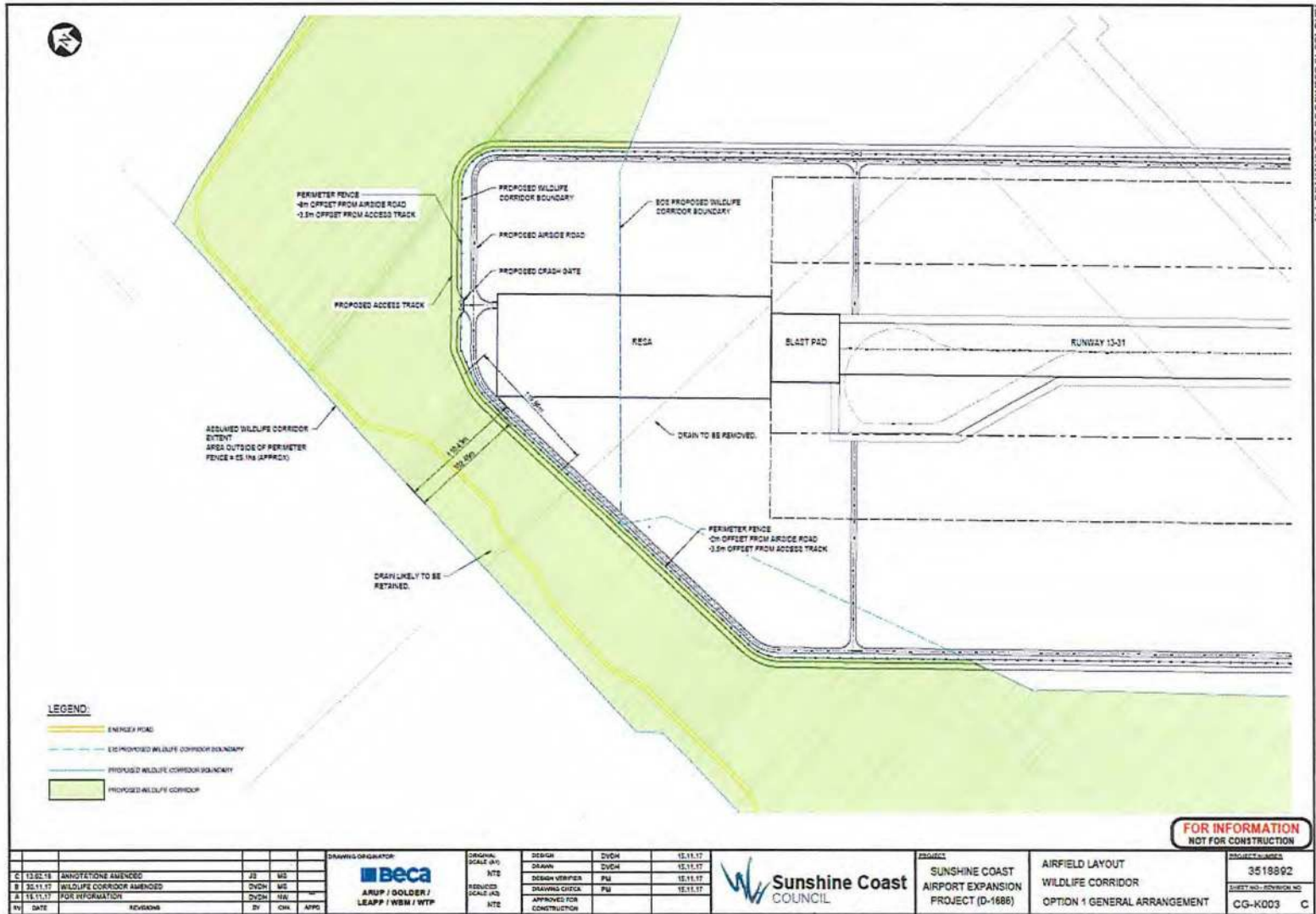


Figure 2-1 Revised connectivity corridor at end of RWY13/31

### Additional Considerations for Preferred Contractor

A preferred contractor for the dredging works has been selected, providing greater certainty in the type of dredge plant and associated equipment to be used for the dredging and pump-out. The dredge vessel selected is a large trailer suction hopper dredge (TSHD) (capacity 17,000-24,000 m<sup>3</sup>) able to complete the dredge campaign in a shorter period than that modelled during the EIS and with a lower volume of tailwater.

With the selection of a preferred contractor, a detailed methodology is now in place for the works. This will include the following performance outcomes/specifications:

- Pump-out of dredge sand to a lined dewatering area at an average rate of ~20,000 m<sup>3</sup>/day (24 hours), based on three dredging cycles per day. For the new total volume, dredging is expected to take up to 68 days, accounting for contingency and unsuitable weather.
- Dewatering of placed material in dewatering area, with tailwater discharge via weir boxes into a polishing pond designed to achieve a continuous discharge rate of 0.6-0.7 m<sup>3</sup>/s of material (i.e. discharge of 50,000-60,000 m<sup>3</sup>/day) with a dissolved solids concentration of no more than 50 mg/l. The pond would be designed with storage of at approximately 140,000 m<sup>3</sup> and would be operated to ensure water quality requirements for discharge from the pond. Discharges from the polishing pond would occur throughout the dredging process. The pond design allows for additional containment of rain from a 72-hour rainfall event with a 50% annual exceedance probability (AEP).
- If ever the combined capacity of the dewatering area and polishing pond could be exceeded (accounting for additional filling from rainfall events), dredging and pump-out works would cease to prevent overtopping and uncontrolled discharges. At any point in time there will approximately 20% additional capacity in the combined areas to provide for filling from rainfall.
- No change in the discharge point into the Marcoola Drain.

Considering this methodology, Table 2-1 summarises the assumptions in tailwater impact modelling in the EIS (as approved under the EA) against the proposed methodology. As seen in this table, the proposed methodology is either equivalent to or better than the assumed tailings discharge methodology from the EIS and therefore will be able to achieve the discharge requirements of the EA. Conservative estimates during the EIS, therefore, account for the increases associated with the changed runway alignment.

**Table 2-1 Comparison of tailings discharge methodologies**

Assumption	EIS methodology	Contractor methodology
Dredging/discharge duration (weeks)	14*	10
Discharge rate (m <sup>3</sup> /s)	0.7*	0.7
TSS concentrations (mg/l)	29.6-100	50
Settling velocity (m/s)	1.0x10 <sup>-4</sup> (expected)	1.0x10 <sup>-4</sup> (expected)
	3.6x10 <sup>-6</sup> (conservative)	3.6x10 <sup>-6</sup> (conservative)

\*The EIS numerical modelling adopted a worst-case scenario of 33 weeks of dredging with a 0.3 m<sup>3</sup>/s discharge. This was found to be the equivalent of 14 weeks of dredging with a 0.7 m<sup>3</sup>/s discharge (i.e. the impact of a longer duration and lower flow is the same as for a shorter duration and higher flow) and thus the shorter dredging period/higher discharge rate is adopted here for better comparison.

## 2.3 Environmental Risk Assessment

The implications of the above changes are described below in the context of environmental risk.

Table 2-2 Assessment of environmental risks associated with proposed changes

Value	Implications and environmental risk
Marine environment	<p>Considering the increases volume of sand required, the total dredging campaign duration is expected to be up to 10 weeks. This is a decrease from the period indicated in the EIS. There is no expected increase in the risk of turbid plumes or megafauna strike than considered in the EIS, and as the additional dredging volume will still all be taken from the Spitfire Realignment Channel, there is no new threat of direct removal of seagrass.</p> <p>Dredging and pump-out works will be completed prior to 1 November, to avoid potential impacts to turtle nesting at Marcoola Beach, consistent with the EA.</p>
Land	<p>ASS and contaminated land studies conducted for the EIS included sampling around the runway extension. This indicated no contaminated sites and acidity of a similar nature to the remainder of the footprint. For this reason, risks of ASS disturbance can be managed in accordance with the ASS testing and management regime established for the original runway proposal.</p>
Surface water	<p>The increased volume for the placement does not impact on the ability to achieve water quality limits established during the EIS due to the conservative assumptions adopted during the tailwater modelling.</p>
Groundwater	<p>The proposed runway extension will not necessitate any change in groundwater management. However, Section 3 identifies changes associated with a differing placement methodology.</p>
Flooding and drainage	<p>Extension of the runway further into the floodplain increases the displacement of floodwaters caused by the SCAEP, leading to increased risk of flooding to residential properties in Marcoola. However, based on updated flood modelling for the SCAEP, it was identified that this risk could be removed by the raising of the existing bund along the eastern edge of the Mount Coolum National Park north of the airport site (near David Low Way). As a result, there will be no increase in overall flood risk.</p> <p>The proposed extension will not necessitate changes in drainage management but see Section 3 and 4 in relation to changes in methodology and approach to drainage channels.</p>
Flora and fauna	<p>The land in which the runway extension will be developed is degraded cane fields and thereby does not contain any important ecological values. The reduction in the proposed wildlife corridor, while inconsistent with the minimum 100 m width identified in the EIS, will not affect the functioning of this proposed area to support fauna movement between the national park blocks.</p>
Noise	<p>The area in which the extension will occur is away from sensitive receptors and thereby will not generate any additional noise impacts.</p>
Cultural heritage	<p>There are no items, objects or places of cultural heritage significance in the extended footprint, based on a recent site investigation. The revised project design will be included in the Cultural Heritage Management Plan (CHMP) agreed with the Kabi Kabi and will not change any of the procedures required within this plan.</p>
Air	<p>The change will not impact on air emissions comparative to the original design.</p>
Transport	<p>There will be no design changes to transport networks or arrangements for the project. Increased dredging time will require additional use of a mooring and exclusion zone off Marcoola Beach but this is not considered to pose a significant impact to maritime navigation. The pipeline under David Low Way is intended to be kept in perpetuity (filled with concrete after works complete) so the additional time will not impact on this road crossing.</p>
Landscape and visual	<p>The change will not impact on landscape and visual amenity comparative to the original design.</p>

SCC is not seeking a change to any emission standards or thresholds as set out in the EA. All discharges to the environment as part of the works will continue to be designed to meet these thresholds.

## 2.4 Recommended Approval Changes

In accordance with the changes nominated above, SCC seek the following changes to conditions of the EA:

**Table 2-3 Recommended changes to EA conditions associated with movement and extension of runway**

Condition number	Condition								
Agency Interest: General									
G1	<p>Activities conducted under this environmental <b>authority</b> must not be conducted contrary to any of the following limitations:</p> <ul style="list-style-type: none"> <li>(a) <b>dredging</b> is limited to sand extraction for the purposes of new runway and taxiway construction at the Sunshine Coast Airport;</li> <li>(b) <b>dredging</b> may only be undertaken using a trailing suction hopper dredge;</li> <li>(c) no more than <b>1.65 million cubic metres</b> of <b>dredge material</b> is to be removed from the <b>dredging</b> area;</li> <li>(d) <b>dredging</b> may only occur in the Spitfire Realignment Channel described in the EIS (Note: the co-ordinates of this channel are to be provided to the administering authority prior to an environmental authority application)</li> <li>(e) <b>dredge spoil</b> must be placed in the dredge spoil containment area, as identified in Schedule 1 – Approved Plans, Figure 7.2 <b><u>Revised Runway Design and Dredge Spoil Containment Area</u></b>.</li> <li>(f) <b>dredge spoil</b> must be transported to the dredge spoil containment area via the pipeline corridor shown in Schedule 1 – Approved Plans, Figure 7.3 <b><u>Revised Pipeline Alignment</u></b>.</li> </ul> <p>Note: Figure 1 shows the dredging footprint in the Spitfire Realignment Channel</p>								
Agency Interest: Surface water									
WT2	<p>The only contaminants to be released to surface <b>waters</b> from the placement and management of <b>dredge spoil</b> in the dredge spoil containment area is settled dredge tail waters and saline seepage from the release points specified in Table 7.2—Settled Tail Water and Saline Seepage from Dredge Spoil Placement- Release Points, Sources and Receiving Waters, and depicted in Schedule 1 – Approved Plans, - Figure 7.4 <b><u>Revised water release locations</u></b>, attached to this environmental authority.</p> <p><b>Table 7-2—Settled Tail Water and Saline Seepage from Dredge Spoil Placement- Release Points, Sources and Receiving Waters</b></p> <table border="1"> <thead> <tr> <th>Release Point (RP)</th> <th>Contaminant Source and Location</th> <th>Monitoring Point</th> <th>Receiving Waters Description</th> </tr> </thead> <tbody> <tr> <td>RP1</td> <td>Polishing Pond serving runway construction</td> <td>Pond outlet structure to Northern Perimeter Drain</td> <td>Northern Perimeter drain, then lower section of Maroola drain, then Maroochy River</td> </tr> </tbody> </table> <p>Note: The coordinates of the release point shall be provided to the <b>administering authority</b> no later than two (2) weeks after construction of the tail water discharge drain.</p>	Release Point (RP)	Contaminant Source and Location	Monitoring Point	Receiving Waters Description	RP1	Polishing Pond serving runway construction	Pond outlet structure to Northern Perimeter Drain	Northern Perimeter drain, then lower section of Maroola drain, then Maroochy River
Release Point (RP)	Contaminant Source and Location	Monitoring Point	Receiving Waters Description						
RP1	Polishing Pond serving runway construction	Pond outlet structure to Northern Perimeter Drain	Northern Perimeter drain, then lower section of Maroola drain, then Maroochy River						
WT12	Control structures such as weirs must be installed and maintained on drains traversing the Mount Coolool National Park and discharging into deeper drains to prevent lowering of the water table in the Park and contaminant ingress into the Park. This includes structures shown in Schedule 1 – Approved Plans, Figure 7.6 <b><u>Revised control structures on drains</u></b> attached to this Environmental Authority.								
Agency Interest: Biodiversity offsets									
B3	<p><b>Significant residual impacts</b> on <b>prescribed environmental matters</b> are not authorised unless:</p> <ul style="list-style-type: none"> <li>(i) the <b>holder</b> (in consultation with the <b>administering authority</b>) prepares a <b>notice of election</b> and an <b>offset delivery plan</b> <b><u>consistent with the <del>Sunshine Coast Airport Expansion Project Biodiversity Offset Strategy dated 3-</del></u></b></li> </ul>								



Condition number	Condition
	<p><del>September 2015 in Appendix B of the Additional Information to the Environmental Impact Statement</del> to address <b>significant residual impacts</b> on the <b>prescribed environmental matters</b> listed in Table 7.9-Significant Residual Impacts to Prescribed Environmental Matters.</p> <p>(ii) <del>the notice of election must address the significant residual impact for <i>Pezoporus wallicus wallicus</i> including 6.01ha that was not identified in the Biodiversity Offset Strategy dated 3 September 2015;</del></p> <p>(iii) the <b>notice of election</b> must be prepared in accordance with Division 2 (s18 (2-5) and s19) of the <i>Environmental Offsets Act 2014</i> and given to the entity with jurisdiction for this condition in a form approved under s92 of the <i>Environmental Offsets Act 2014</i>.</p>

Removal of the reference to the BOS prepared for the AEIS is proposed to allow for the ODP and Notice of Election to be amended as agreed with DES without change of the original BOS. Despite this, any future changes would be made consistent with the intent of the BOS and based on the significant residual impact calculations provided in Table 7.9 of the EA.

These changes require the replacement of the following plans attached to the EA:

- 7.2 EIS Chapter A5, Figure 5.4o – changed to show new runway design
- 7.3 EIS Chapter A5, Figure 5.4e – changed to show new runway design
- 7.4 Water release locations – changed to show new tailwater discharge location
- 7.6 Control structures on drains traversing the Mount Coolum National Park – changed to show new runway design.

Revised drawings are attached to this application.

### 3 Alteration in the Methodology for Hydraulic Placement

To select a contractor to undertake the construction of the SCAEP, SCC undertook a tender process in mid-to-late 2018. During this process, a preferred tenderer was identified for the works. Within their submission, this tenderer proposed the following two modifications for the project:

- (1) Change to the dredge spoil containment area and reclamation approach
- (2) Change to the specifications for the Northern Perimeter Drain and cut-off wall.

The latter of these two changes is discussed below in relation to general drainage changes for the project, while the former is considered within this section.

#### 3.1 Original Proposal

Construction of the SCAEP requires the hydraulic delivery of dredged sand from the dredge vessel at Marcoola Beach into the reclamation area for the RWY 13/31. As this sand will be pumped as a slurry, it requires dewatering. The EIS proposed a progressive sand placement and dewatering process, with sand delivery starting at the southeast corner of the reclamation area and then progressively moved to the northwest. This allows for placement to follow the natural topography of the land which generally drains towards the northwest. During this time, tailwater would be continually directed to a polishing pond near the end of the runway for treatment before discharge into the newly constructed Northern Perimeter Drain and then to Marcoola Drain. To minimise the seepage of saline tailwater into the ground, most of the reclamation area would be bunded and lined with a high density polyethylene (HDPE) liner. No HDPE liner would be required at the northwest end of the runway alignment due to the presence of marine clays which act as a natural barrier to potential infiltration.

Following placement and dewatering of the material, the bunds and associated HDPE liner would be removed, allowing the sand to be spread laterally. As a result, the final reclamation area would only be partially lined (along the centre).

The purpose of the HDPE liner placement is to avoid saline seepage into the groundwater of the Mount Coolum National Park during the hydraulic delivery of dredged sand. The groundwater system is predominantly a semi-perched freshwater system atop coffee rock. Seepage has the risk of both modifying the salinity levels of groundwater in the national park as well as causing a rise in the water table. The liner system will not prevent all infiltration, as losses will still occur through rips, seepage through the liner, and remnant dewatering from the runway following removal of the bund. The total seepage rates estimated in the EIS through the HPDE liner was 860 m<sup>3</sup>/day. This rate then formed the basis of numerical modelling of impacts and the subsequent setting of mitigation and monitoring measures.

#### 3.2 Proposed Change and Justification

The proposed alternate methodology is to relocate the dredge spoil containment area to the northwest end of the reclamation area, over the full width of the works. From here material would be dewatered and then rehandled as 'dry' material back towards the southeast. Thus, dredge spoil containment and dewatering would occur in a smaller subset of the runway length rather than across the entire length. As a result, the HDPE liner would be placed only within the new spoil containment area rather than along the full length of the runway. The dredge spoil containment area would be split into two cells. At any point in time, one cell would be used for dewatering (directly receiving pumped sand) and the other as the source of material for rehandling.

The following figure shows the changes in design of this methodology. NOTE: This figure does not show the runway extension discussed in Section 2.

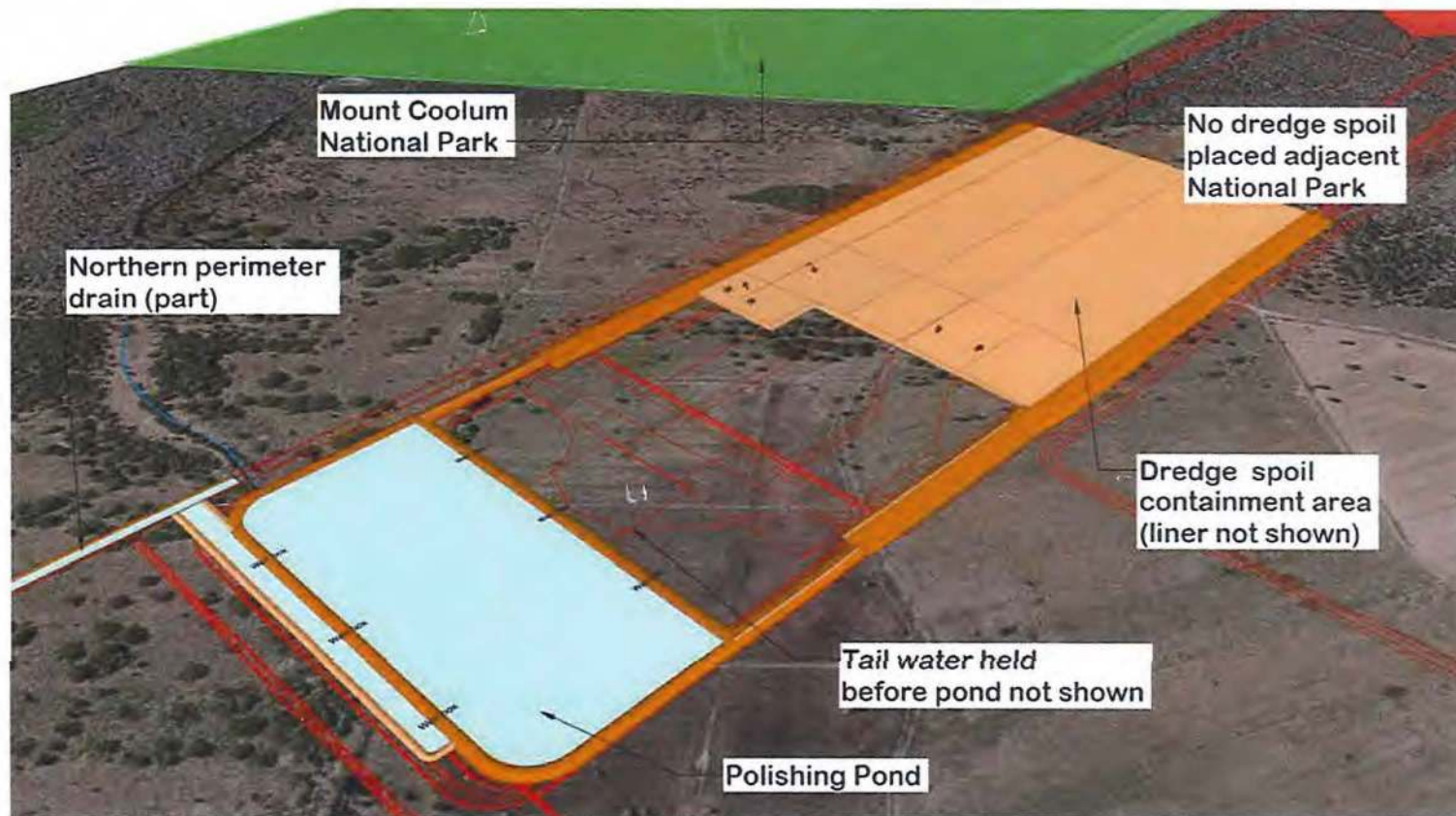


Figure 3-1 Location of dredge spoil containment area and other features in revised design

The total volume of material to be rehandled to unlined areas will be ~500,000 m<sup>3</sup> while the remainder will be retained in the lined dredge spoil containment area, covering 300,000 m<sup>2</sup>. This changed approach was identified to reduce the risk of impacts to groundwater in the national park, together with providing cost and program savings by reducing the area required for HDPE liner placement. The improved environmental outcomes are as follows:

- **Tailwater discharge to groundwater** – numerical modelling during the EIS assumed daily leakage of 860 m<sup>3</sup> of tailwater through the HDPE liner due to punctures, over a 90-day placement period. This was based on a total placement area of 600,000 m<sup>2</sup> and a HDPE defect rate of <3 punctures/ha. The revised methodology reduces the placement area to 300,000 m<sup>2</sup> and the dredging and placement to 68 days. Additionally, the contractor has advised that a HDPE liner can be installed with a significantly lower defect rate. This reduces the total expected tailwater leakage from 77,400 m<sup>3</sup> to around 5,000 m<sup>3</sup>, a reduction of over 90%. This leakage is also moved away from the boundary of the national park, increasing the lateral distance any saline water entering the groundwater would need to travel before reaching the national park boundary. Based on these reductions, the total impact to groundwater from tailwater is significantly reduced.
- **Saline leaching from sand into groundwater** – the methodology for sand placement in the EIS assumes dewatering of all material in a HDPE-lined reclamation area along the length of the runway, with subsequent removal of the reclamation area bund walls and lateral rehandling of marine sand to form the flanks of the new runway. Thus while the initial sand placement is along a HDPE liner, a significant volume of sand was proposed to be placed without any liner providing a separation from groundwater.

The new proposed methodology provides for the same outcome, by dewatering all marine sands and then placing within the reclamation footprint without a liner. The risk of saline seepage through the placed/rehandled sand will be minimal as salt in tailwater is dissolved, not suspended, and will therefore drain out during the dewatering process. This has been confirmed in testing commissioned by SCC (see attached). Drying and removal of salinity occurs most rapidly in the top layers of sand (within a period of days) so to the extent rehandling only uses dry sand from the top of the dewatering area, there would be negligible risk of saline leaching from placed sand. The salinity levels of any water draining through the placed sand is expected to be up to 800 ppm which is considered freshwater.

SCC/the contractor also sought further advice from other dredging operations. Advice from the Brisbane Airport Corporation regarding the New Parallel Runway (NPR), which adopted a similar methodology to that proposed for the SCAEP indicated that water leaching from the NPR reclamation area was near freshwater, despite leaching through marine sands. In the same way, Riverside Industrial Sands indicated similar results in water leaching through the stockpiles of their sand sourced from the Spitfire Triangle, immediately north of the Spitfire Realignment Channel.

To reduce the risk for the unlined reclamation areas, therefore, the contractor will be required to undertake verification testing on dewatered sand before the first instance of rehandling. This will provide an indicative timeline over which dewatering needs to occur to ensure only 'clean' marine sand is being rehandled. Additionally, it is proposed that sand will only be rehandled where it would have an electrical conductivity (EC) in solution of 1,500 µS/cm, based on a 1:5 solution. Water with this EC is considered fresh and has a lower salinity level than the 1,000 mg/L (~2,000 µS/cm) saline seepage assumed during the modelling for the EIS. Thus, rehandling of sand once it meets this standard minimises the risk of any latent salinity seeping into the groundwater and causing impacts to the national park.

See further Section 4 regarding linkages between the changed dewatering/placement methodology and drainage requirements.

### 3.3 Environmental Risk Assessment

The implications of the above changes are described below in the context of environmental risk.

Table 3-1 Assessment of environmental risks associated with proposed changes

Value	Implications and environmental risk
Marine environment	The change has no implications for the dredging campaign footprint other than a minor increase in the ultimate depth and will therefore not cause any changes to impact to the marine environment.
Land	There will be no change to the land used for the project and expected to be a lower level of saline seepage into land under the runway.
Surface water	The change will not impact the ability to achieve surface water quality objectives for tailwater discharge.
Groundwater	<p>The change is expected to improve outcomes for groundwater in terms of saline seepage. Placement of dewatered material without a liner is expected to have a lower risk of saline seepage than placement of untreated material on a HDPE liner as a liner will inevitably receive rips during construction that would allow tailwater discharge directly to the environment. Reducing the area where untreated material will be placed, therefore, reduces the seepage risk. There is still risk associated with seepage from any residual tailwater, but this risk also exists for the EIS scenario following the removal of the bunds and partial removal of the HDPE.</p> <p>The risk of rips and tailwater leaks still exists for the dredge spoil containment area but the total volume of material that could be leaked is reduced due to the smaller surface area. Movement of the containment area away from the boundary of the national park also reduces the risk of impacts to the perched freshwater system that supports the park.</p>
Flooding and drainage	There will be no change to upstream flooding impacts associated with the alternative sand placement methodology.
Flora and fauna	As the change will have positive impacts for saline seepage to groundwater, impacts to ecology generally should improve comparative to what was identified in the EIS.
Noise	The change means that night time noise generated by mechanical movement of the dredged sand at the pipe head is now over 1.5 kms further away from sensitive receptors.
Cultural heritage	The change involves no additional excavation or land disturbance and therefore will not impact on cultural heritage values.
Air	The change has no implications for air emissions.
Transport	The change has no implications for transport.
Landscape and visual	The change has no implications for landscape and visual amenity.

SCC is not seeking a change to any emission standards or thresholds as set out in the EA. All discharges to the environment as part of the works will continue to be designed to meet these thresholds.

### 3.4 Recommended Approval Changes

In accordance with the changes nominated above, SCC seek the following changes to conditions of the EA:

**Table 3-2 Recommended changes to EA conditions associated with movement and extension of runway**

Condition number	Condition				
Agency Interest: General					
G1	<p>Activities conducted under this environmental <b>authority</b> must not be conducted contrary to any of the following limitations:</p> <ul style="list-style-type: none"> <li>(a) <b>dredging</b> is limited to sand extraction for the purposes of new runway and taxiway construction at the Sunshine Coast Airport;</li> <li>(b) <b>dredging</b> may only be undertaken using a trailing suction hopper dredge;</li> <li>(c) no more than <u>1.65 million cubic metres</u> of <b>dredge material</b> is to be removed from the <b>dredging</b> area;</li> <li>(d) <b>dredging</b> may only occur in the Spitfire Realignment Channel described in the EIS (Note: the co-ordinates of this channel are to be provided to the administering authority prior to an environmental authority application)</li> <li>(e) <b>dredge spoil</b> must be placed in the dredge spoil containment area, as identified in Schedule 1 – Approved Plans, Figure 7.2 <u>-Revised Runway Design and Dredge Spoil Containment Area.</u></li> <li>(f) <b>dredge spoil</b> must be transported to the dredge spoil containment area via the pipeline corridor shown in Schedule 1 – Approved Plans, Figure 7.3 <u>-Revised Pipeline Alignment.</u></li> </ul> <p>Note: Figure 1 shows the dredging footprint in the Spitfire Realignment Channel</p>				
Agency Interest: Surface water					
WT10	The base and sides of the dredge spoil containment area and polishing pond must be lined with a HDPE liner, as shown in Schedule 1 – Approved Plans, Figure 7.5 <u>-Revised HDPE liner area,</u> attached to this environmental authority.				
<u>WT14</u>	<p><u>Dredge spoil must not be rehandled to any areas without HDPE liner except in the following conditions:</u></p> <ul style="list-style-type: none"> <li>(a) <u>the salinity limit in Table 7.6—Dredge Spoil Rehandling Limits: or</u></li> <li>(b) <u>as otherwise agreed with the administering authority.</u></li> </ul> <p><u>Table 7.6—Dredge Spoil Rehandling Limits</u></p> <table border="1"> <thead> <tr> <th><u>Limit</u></th> <th><u>Units</u></th> </tr> </thead> <tbody> <tr> <td><u>1,500</u></td> <td><u>µS/cm</u></td> </tr> </tbody> </table> <p><u>Notes:</u></p> <ul style="list-style-type: none"> <li>• <u>the salinity measurement would need to be achieved as an average of all sand sampled in the volume to be rehandled</u></li> <li>• <u>testing must be based on a 1:5 solution field test adjusted to 25°C</u></li> <li>• <u>samples for testing should be selected in a gridded pattern and at a density of no less than 4 tests per 10,000 m<sup>3</sup> at the start of each day unless otherwise agreed with the administering authority.</u></li> </ul>	<u>Limit</u>	<u>Units</u>	<u>1,500</u>	<u>µS/cm</u>
<u>Limit</u>	<u>Units</u>				
<u>1,500</u>	<u>µS/cm</u>				

These changes require the replacement of the following plans attached to the EA:

- 7.2 EIS Chapter A5, Figure 5.4o – changed to show new dredge spoil containment area
- 7.5 Extent of liner under dredge spoil containment area – changed to show new liner extent

Revised drawings are attached to this application.

## 4 Modification of Drainage Approach

### 4.1 Original Proposal

Two new drains were proposed during the EIS for the works:

- Northern Perimeter Drain, running from the junction of the new runway with RWY 18/36 through to the Marcoola Drain
- Western Perimeter Drain, draining the western part of the project site into the existing Southern Perimeter Drain.

Both drains had been proposed to provide for stormwater and flood management on the airport site. The Northern Perimeter Drain will also be the channel through which treated tailwater is discharged from the polishing pond before flowing into the Marcoola Drain.

The original design for the Northern Perimeter Drain was 1.5 m deep with a base width of 10 m, as this was anticipated to be required to provide drainage for the site in a manner which reduced flood impacts upstream. The drain was intended to also be built with a 'cut-off wall' along its northern side to provide some protection against drawdown of groundwater in the national park, caused by the depth of the drain, and to avoid associated ASS mobilisation risks. The wall was to be constructed using a plastic (HDPE) sheet pile founded into coffee rock. This cut-off wall also advantageously provided the potential to intercept any saline seepage from the reclamation area entering the perched groundwater of the national park,

The Western Perimeter Drain was also designed to be 1.5 m deep and therefore posed similar drawdown and acidity risks for the western part of the project site. While these risks were of lower significance than similar risks for the Northern Perimeter Drain, the CGER and EA included provisions for a cut-off wall to be installed along the western boundary of this drain if the final design warranted its inclusion.

### 4.2 Proposed Change and Justification

During the development of the reference design for the project, the parameters for the Northern Perimeter Drain were revised. This drain now is required to only have a depth of 0.5 m and a minimum base width of 2 m. Because of this, the risks of drawdown and ASS mobilisation have been removed, noting that groundwater in the area is typically at a depth greater than 0.8 m below ground level (BGL).

This shallower depth also decreases the risk of tidal water ingress through the Northern Perimeter Drain from the Marcoola Drain. During the EIS phase it was identified that the water depths in Marcoola Drain range between 0.2 m at the lower tide (0.1 m AHD) to 1.0 m at the highest (0.9 m AHD). This tidal range encompasses the area where the Northern Perimeter Drain will connect to the Marcoola Drain. As a result, tidal ingress into the drain will occur following connection but will be significantly less than expected in the EIS due to the shallower depth and smaller cross-section of the drain.

Additionally, as discussed in Section 3, a proposed change in the dewatering and placement methodology for the reclamation area decreases the risk of saline seepage into the groundwater by over 90%, isolating the risk area to the northwest end of the runway. This reduces the extent to which a cut-off wall is required and justifies a structure with a lower permeability than originally proposed (i.e. HDPE liner).

Based on these changes, it is proposed that a cut-off wall will be retained but isolated to the northeast boundary of the new dredge spoil handling area to create a partial groundwater 'shadow' towards the northeast. This will limit the movement of any saline seepage from this area towards the national park, without providing a separation of groundwater systems within the national park from those to the south. This wall would be constructed of bentonite rather than HDPE and meet the following parameters:

- Width of cut-off wall: 0.8 m
- Target permeability:  $10^{-8}$  m/s
- Nominal embedment into coffee rock: 0.5 m.

Bentonite is considered appropriate as the significant reduction in tailwater seepage and increased distance of seepage areas from the national park boundary reduce the overall volumes of groundwater that would need to be intercepted by the wall. The wall would still be retained over time and the progression of groundwater monitored as originally agreed with the ability to extend the wall further along the Northern Perimeter Drain if required.

To provide additional protection against groundwater intrusion into the national park, the cut-off wall will also be extended around to the eastern side of the dredge spoil handling area during dewatering to capture and redirect any tailwater seeping through the bund wall of the handling area. This seepage would be redirected to the Northern Perimeter Drain and into the Marcoola Drain.

The reference design process also modified the design for the Western Perimeter Drain to a shallow swale structure. This removes any risk of groundwater drawdown associated with this structure and therefore removes the need for a cut-off wall.

### 4.3 Environmental Risk Assessment

The implications of the above changes are described below in the context of environmental risk.

**Table 4-1 Assessment of environmental risks associated with proposed changes**

Value	Implications and environmental risk
Marine environment	The changes have no implications for the marine environment
Land	The removal of a cut-off wall for the Western Perimeter Drain and modification of the wall for the Northern Perimeter Drain will not cause the mobilisation of ASS in the soil as the depth of these drains is now above the groundwater level and therefore avoids drawdown occurring.
Surface water	The changes have no implications for surface water as all discharges will still meet the criteria set out in the EIS and EA.
Groundwater	Modification of the cut-off wall requirements will not have an impact on groundwater drawdown or contamination as these risks have been removed through the redesign of these drains to a shallow depth.
Flooding and drainage	The changes have no implications for drainage and flooding as they have been designed to ensure management of stormwater consistent with the EIS requirements.
Flora and fauna	As the change does not have impacts on groundwater in the national park, there are no implications for flora and fauna.
Noise	The changes have no implications for noise.
Cultural heritage	The changes have no implications for cultural heritage.
Air	The changes have no implications for air emissions.
Transport	The changes have no implications for transport arrangements.
Landscape and visual	The changes have no implications for landscapes and visual amenity.

SCC is not seeking a change to any emission standards or thresholds as set out in the EA. All discharges to the environment as part of the works will continue to be designed to meet these thresholds.



## 4.4 Recommended Approval Changes

In accordance with the changes nominated above, SCC seek the following changes to conditions of the EA:

**Table 4-2 Recommended changes to EA conditions associated with change in drainage approach**

Condition number	Condition
Agency Interest: Groundwater	
GW6	<p>A permanent <u>soil bentonite</u> cut off wall, extending from the ground-surface down to the confining coffee rock layer, must be installed and maintained <u>as shown in Schedule 1 – Figure 7.5 Revised HDPE Liner Area and Control Structures on Drains for the length of the northern perimeter drain</u> between the drain and the property boundary to the north.</p> <p>The drain must operate to:</p> <ul style="list-style-type: none"> <li>(a) prevent lowering of the water table on the Mt Coolum National Park side of the cut off wall distant from the drain;</li> <li>(b) oxidation of potential acid sulfate soils; or</li> <li>(c) ingress of contaminants to ground water beyond the wall.</li> </ul> <p><del>An impermeable ground-water cut-off wall must be installed along the western perimeter drain, westwards of the drain, where necessary to avoid:</del></p> <ul style="list-style-type: none"> <li><del>1. lowering the water table below potential acid sulfate soil;</del></li> <li><del>2. non-compliance with the ground-water and surface water limits; and</del></li> <li><del>3. protect conservation areas, as shown in Schedule 1 – Approved Plans, Figure 7.8 – EIS Appendix B3 Figure 3.7B.</del></li> </ul>

These changes require the replacement of the following plans attached to the EA:

- 7.5 Extent of liner under dredge spoil containment area – changed to show new cut-off wall extent.

Figure 7.8 should also be removed from the EA.

Revised drawings are attached to this application

## 5 Movement of the Air Traffic Control Tower

---

The EIS proposed the co-location of the ATC tower and Aviation Rescue and Fire Fighting Service (ARFFS) at a new site to the south of the new runway. This location would be accessible from an extension of airport drive. This site was one of several sites identified in a study commissioned by Air Services for the airport.

Subsequently, potential impacts on the line-of-sight from the tower at the proposed location were identified. These related to the obstruction of view to the southern part of RWY 18/36 from a proposed raising of the existing terminal. While RWY 18/36 is now intended to be decommissioned, it is possible that the proposed ATC tower location will not meet the requirements of the Civil Aviation Safety Authority (CASA) in the future.

To account for this, SCC intend to set aside a provisional ATC tower site, north of the new RWY 13/31. This site is one of those identified in the original Air Services study, and is shown overleaf. This site is located within Assessment Unit (AU) 9 of the current ODP. This unit is a linear patch of remnant broad-leaved paperbark forest that is proposed to be managed as wallum heath to provide habitat for ground parrot (*Pezoporus wallicus wallicus*) and to improve existing habitat for wallum frogs (*Litoria olongburensis*, *L. freycineti*, *Crinia tinnula*).

The total area required for the provisional site is 0.18 ha, from a total 5.8 ha within AU9. This site is accessible from an existing internal airport road that runs around the perimeter of the wallum heath management area (WHMA). The provisional area borders this road to the south, the national park to the northeast, and the remainder of AU9 to the northwest and south. In addition to the ATC tower, this area would provide carparks for and ancillary facilities for works, which would be included within the nominated footprint. These structures would be designed to direct all surface runoff towards the drainage system of the access road, rather than to the WHMA, AU9 or the national park. This area will also be fenced off to prevent access of fauna species from AU9 or the national park to enter the carpark and ATC tower area, without impacting the ability to cross between these locations and the WHMA.

Lighting from the ATC tower are not likely to have impacts on the suitability of adjoining habitat for wallum sedge frogs and wallum froglets. Available evidence suggests neither of these species are detrimentally affected by artificial light spill at night. While the wallum rocketfrog and ground parrot are more likely to suffer impacts from artificial lighting, it is noted that the ATC tower will not be operational 24/7 and that both species currently utilise much of the airport site and surrounds, including the WHMA, which are adjacent to existing sources of artificial lighting. This exposure does not appear to have had a detrimental effect on the value of this existing habitat for these species. Because of this, the new ATC tower is unlikely to have an impact on the WHMA or national park, and will not undermine the value of AU9 as offset habitat for these species.

During reference design, it was identified that an additional 0.18 ha could be added to this unit due to the reduction in the width of the Northern Perimeter Drain from 10 m to 2 m at the base. This land contains the same remnant community as that within the remainder of AU9. Thus, the new total area for AU9 is 5.8 ha, with no change from the original offset.

This change will be included in a revision of the ODP to be submitted to DES for approval. Condition B3(i) of the EA requires the ODP to be consistent with the BOS dated 3 September 2015 submitted as part of the AEIS. This BOS specifically identified the area for AU9 as including the now provisional ATC tower site and not the additional land available from the narrowing of the Northern Perimeter Drain. As proposed in Section 2, it is requested that this condition be changed to refer to the ODP agreed with the relevant agency only, rather than to the BOS, to allow for a revised (and approved) ODP to be implemented. The adequacy of the changed offset design will be assessed further as part of this ODP process.

# Sunshine Coast Airport Expansion Project

SCA Vegetation Management Area A - with ATC Tower Included (2018-02-15)



**Legend**

**Property Boundaries**

- Orange outline: 18 Borens Road Pty Ltd
- Red outline: 18 Borens Road Pty Ltd
- Blue outline: 18 Borens Road Pty Ltd
- Green outline: 18 Borens Road Pty Ltd
- Yellow outline: 18 Borens Road Pty Ltd

**Other**

- Blue line: 18 Borens Road Pty Ltd
- Green line: 18 Borens Road Pty Ltd
- Yellow line: 18 Borens Road Pty Ltd

**Metadata**

DDA\_1394\_MCA\_Ter4\_16  
 WGS84 23564 Authority: EPSG  
 Datum: WGS 1984 UTM Zone  
 Georeferenced PDF at A3 size

**Scale**

SCALE: 1:3,500

© 2018 Nearmap, Inc. All rights reserved. © 2018 Nearmap, Inc. All rights reserved.

## 6 Amendment of Dredge Plume Monitoring Sites

The dredging has the potential to cause a turbid plume that could impact on the Marine National Park (MNP) Zone 03 High Ecological Value (HEV) site north of the Spitfire Realignment Channel. To monitor the movement of a plume into this location, both the Dredge Management Plan of the EIS (Chapter E4) and EA Condition WT1 recommended a marine water quality monitoring approach. These approaches differ in the following ways (see Table 6-1):

- EIS Chapter E4 proposes two distinct monitoring sites (control and impact) with continuous monitoring at both
- EA Condition WT1 proposed one single monitoring site, with 'control' based on conditions 1 hour prior to dredging and 'impact' based on conditions during dredging.

**Table 6-1 Alternative dredge plume monitoring approaches**

Monitoring approach	Impact site		Control site	
	Coordinates	Methodology	Coordinates	Methodology
EA Condition WT1	27.0355 S, 153.2795 E	During dredging	27.0355 S, 153.2795 E	Hour before dredging
	27° 2.13' S, 153° 16.77' E		27° 2.13' S, 153° 16.77' E	
EIS Chapter E4	27.00 S, 153.27 E	Continuous	27.10 S, 153.26 E	Continuous
	27° 0.00' S, 153° 16.20' E		27° 6.00' S, 153° 15.6' E	

Council is seeking an amendment to EA Condition WT1 to more closely align with the originally proposed monitoring methodology. Adverse turbidity at the impact site during dredging could be the result of either natural conditions (e.g. strong winds) or a turbid plume generated by the dredging. Continuous monitoring at distinct impact and control sites allows for greater differentiation between these types of events, especially where prevailing weather conditions differ during dredging compared to what was experienced in the hour before dredging commenced.

Without these distinct monitoring sites, it is possible that turbidity caused by natural processes at the impact site would trigger a technical non-compliance of the EA by the dredge vessel, despite not generating a significant plume. And, alternatively, it is possible that adverse conditions prior to the dredging could justify generation of a turbid plume at the impact site even after the weather has settled.

For this reason, the changes below are proposed for Condition WT1.

**Table 6-2 Recommended changes to EA conditions associated with amendment of dredge plume monitoring sites**

Condition number	Condition
Agency Interest: Surface Water	
WT1	<p><b>Dredging</b> in the Spitfire Realignment Channel and unloading of dredge spoil at the handling site offshore of Marcoola Beach, must not cause:</p> <p>(a) any visual discolouration of the surf zone at Marcoola Beach;</p> <p>(b)</p> <p>(i) the 80th percentile turbidity of the receiving <b>waters</b> at any point in the Moreton Bay National Park Zone MNP 03, described in the Moreton Bay Marine Park Zoning Plan, to exceed 1 NTU; or</p> <p>(ii) the 80th percentile turbidity to exceed a value 10 percent greater than the background 80th percentile turbidity (NTU) value only when background 80th percentile turbidity of the receiving waters within 50m of <u>27° 6.00' S, 153° 15.6' E south of the Spitfire Realignment Channel</u> exceeds 1 NTU for reasons other than the dredging;</p>

Condition number	Condition
	<p>(c) any release to <b>waters</b> of petroleum products, hydraulic fluids nor any other contaminants capable of causing environmental harm; and</p> <p>(d) any erosion or damage to the banks of <b>waters</b>, riparian vegetation growing thereon, lawfully authorised structures within any <b>waters</b>, nor cause any unauthorised interference to the flow of any <b>watercourse</b>.</p> <p><i>Associated monitoring requirements:</i></p> <ul style="list-style-type: none"> <li>• Visual monitoring of the extent of turbid plumes at the Marcoola beach surf zone must be undertaken daily during unloading of dredge spoil.</li> <li>• Monitoring of turbidity in MNP 03 zone must occur within 50 metres of 27° 02.130' S 153° 16.770' E at all times.</li> <li>• Determination of the 80<sup>th</sup> percentile turbidity values shall be calculated from continuous monitoring data collected at least every 5 minutes at all times.</li> <li>• Continuous measurements for establishing background turbidity must be taken <u>at all times</u>.</li> <li>• Dredge vessel position must be continuously monitored and recorded at all times.</li> </ul> <p>Note: "Background: means the corresponding background water quality at the <u>control site located south of the Spitfire Realignment Channel, measured at the same time as the impact site</u>. Background values are calculated from the full background monitoring program results obtained <u>during the dredging</u>. For example, 80<sup>th</sup> percentile means the 80<sup>th</sup> percentile value of the background data.</p>

## 7 Minor or Major Amendment

As per Guideline ESR/2015/1684 *Major and minor amendments*, a proposed change to an EA will be a minor amendment (threshold) if it meets the following:

- (a) is not a change to a standard condition identified in the EA as a standard condition, other than a condition conversion or replacing a standard condition with a standard condition for the ERA; and
- (b) does not significantly increase the level of environmental harm caused by the relevant activity; and
- (c) does not change any rehabilitation objectives in the EA in a way likely to result in significantly different impacts on environmental values than the impacts previously permitted under the EA; and
- (d) does not significantly increase the scale or intensity of the relevant activity; and
- (e) does not relate to a new relevant resource tenure for the EA that is—
  - (i) a new mining lease; or
  - (ii) a new petroleum lease; or
  - (iii) a new geothermal lease under the *Geothermal Energy Act 2010*; or
  - (iv) a new greenhouse gas injection and storage lease under the *Greenhouse Gas Storage Act 2009*; and
- (f) increases the existing surface area for the relevant activity by 10% or less; and
- (g) for an EA for a petroleum activity:
  - (i) involves constructing a new pipeline that does not exceed 150km in length; and
  - (ii) involves extending an existing pipeline by no more than 10% of the existing length of the pipeline; and
- (h) is for a new relevant resource tenure for the authority that is an exploration permit or greenhouse gas permit—where the amendment application seeks an EA that is subject to the standard conditions for the relevant activity, to the extent it relates to the permit.

Of these criteria, (a), (c), (d), (g) and (h) are not applicable to the SCAEP EA. Evaluation of the proposed changes against the remaining criteria (i.e. (b), (e) and (f)) is presented in Table 7-1.

Based on this evaluation, **it is expected that the proposed amendment will be a Minor Amendment.** However, this is subject to final determination by the Department.

Table 7-1 Evaluation of proposed EA changes against minor amendment criteria

Criteria		Evaluation
(b)	Significant increase in environmental harm	<p>As set out above, none of the proposed changes are expected to cause a significant increase in environmental harm for the following reasons:</p> <ul style="list-style-type: none"> <li>• duration of the dredging and pump-out campaign and associated water quality impacts are within the limits modelled and assessed for the EIS</li> <li>• changes in the extent of HDPE-lined area and cut-off wall extent is compensated for by the proposed placement of only inert and dewatered sand</li> <li>• areas of higher risk of tailwater leakage have been moved away from the national park boundary</li> <li>• drainage channels proposed in the EIS have been redesigned with lower impact of ASS mobilisation and groundwater drawdown.</li> </ul>
(e)	Significant increase in scale or intensity	<p>The extension and movement of the runway (and refined design calculations) increases the volume of dredged material required by 50%. However, as the EIS provided conservative estimates for the dredge campaigns, the proposed dredging and pump-out duration and specifications are less than what was indicated in the EIS. Therefore, despite an increase in volume, there will be no impacts beyond indicated in the EIS for:</p> <ul style="list-style-type: none"> <li>• turbid plumes at the dredging site</li> <li>• duration of the dredging campaign</li> <li>• dredge movements</li> <li>• quality or rate of tailwater discharge</li> <li>• vegetation clearing and habitat loss.</li> </ul> <p>No other proposed changes present any change in scale or intensity of the approved project.</p>
(f)	Increase in surface area	<p>The only proposed change that impacts surface area is the extension and movement of the runway. The total change from this is approximately 7% more than approved in the EA. There will be no change in the surface area of the dredging area as all new dredging will be contained within the approved Spitfire Realignment Area.</p> <p>No other proposed changes materially affect the surface area of the approved project.</p>

## 8 Plans for Amendment

---

The following plans, attached to this amendment, are required to update those in Schedule 1 of the EA to achieve the changes requested above:

- **Figure 7.2 Revised Runway Design and Dredge Spoil Containment Area** – replaces Figure 7.2 EIS Chapter A5, Figure 5.4o
- **Figure 7.3 Revised Pipeline Alignment** – replaces Figure 7.3 EIS Chapter A5, Figure 5.4e
- **Figure 7.4 Revised water release locations** – replaces Figure 7.4 Water release locations
- **Figure 7.5 Revised HDPE Liner Area and Control Structures on Drains** – replaces Figure 7.5 Extent of liner under dredge spoil containment area and Figure 7.6 Control structures on drains traversing the Mount Coolum National Park.

As noted in Section 4, it is also recommended that Figure 7.8 EIS Appendix B3, Figure 3.7B and Figures 001, 002 and 004 be removed from the EA.



Figure 7.2 Revised Runway Design and Dredge Spoil Containment Area



G:\Admin\B21223.g.gwf.SCA Supplementary\Approvals\Applications\ERA 16\Amendment application\Tech Memo to support EA amendment application\_r04.docx

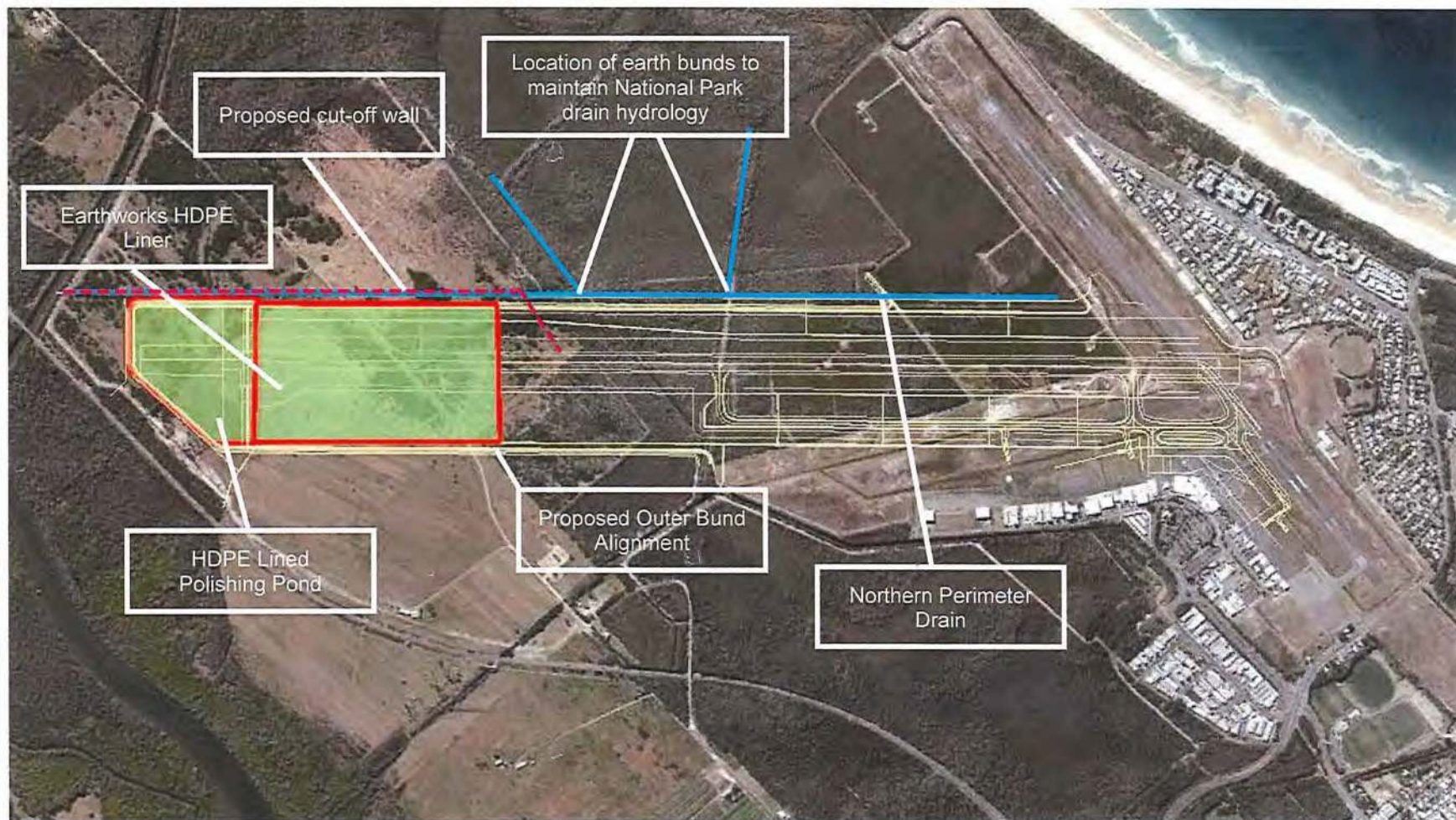
Figure 7.3 Revised Pipeline Alignment



Figure 7.4 Revised Water Release Location



Figure 7.5 Revised HDPE Liner Area and Control Structures on Drains



## 9 Other Supporting Information

---

The following supporting information is attached to this memo:

- Support from PBPL regarding deepening of Spitfire Realignment Channel to access additional sand
- Results of marine sand salinity testing.

Access refused under

**From:** Ross Ullman <Ross.Ullman@sunshinecoast.qld.gov.au>  
**Sent:** Tuesday, 16 January 2018 12:08 PM  
**To:** James Ulyate  
**Subject:** FW: Dredged Sand Volume from Spitfire Realignment Channel  
**Attachments:** 1735.pdf

James,

Advice from Port of Brisbane as discussed.

Regards

*Ross*

**Ross Ullman - Project Director**

Sunshine Coast Airport Expansion Project  
 Economic and Community Development Group

Phone: Landline: 07 5453 1541 Mobile: Access refused  
 Email: [ross.ullman@sunshinecoast.qld.gov.au](mailto:ross.ullman@sunshinecoast.qld.gov.au)  
 Website: [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au)  
 Mail Locked Bag 72 Sunshine Coast Mail Centre Qld 4560



Please consider the environment before printing this email

**From:** Access refused under section 47(3)@portbris.com.au  
**Sent:** Tuesday, 16 January 2018 9:36 AM  
**To:** Ross Ullman <Ross.Ullman@sunshinecoast.qld.gov.au>  
**Cc:** Access refused under section 47(3)@portbris.com.au  
**Subject:** RE: Dredged Sand Volume from Spitfire Realignment Channel

Hi Ross,

In regards to the enquiry below, we have held discussions internally and done some work to understand the impact of the additional volume request on our allocation and dredging operations.

From our calculations, the requirement of an additional 550,00m<sup>3</sup> will require a depth change across the Spitfire Channel area of 0.3m (from the proposed 17.0m to 17.3m). This will require a minor amendment to the proposed tidal works however this is not a major issue. There would likely be a minor increase in the proposed fee (~\$10k) to capture the additional time to amend plans and permit applications.

Given the impact on increased depth on dredging efficiency for the THSD Brisbane, we would proposed that the additional allocation is taken from the northern section of Spitfire Channel (see attached diagram). I believe this would suit you the best also as it is outside of the white spot movement control zone. As per your email below, we would need to confirm that the volume require is available in this area however it appears likely.

In summary, PBPL is amenable to your request based on the acceptance of the conditions above. If you would like to discuss further, please contact me direct. Happy to meet if you wish to discuss in more details.


Regards

Access refused under section 47(3)

Port of Brisbane Pty Ltd

Locked Bag 1818 | Port of Brisbane QLD | Australia 4178

Access refused under section 47(3)(b) of the [www.portbris.com.au](http://www.portbris.com.au)

Please consider the environment before printing this e-mail 



**From:** Ross Ullman [mailto:Ross.Ullman@sunshinecoast.qld.gov.au]

**Sent:** Friday, 15 December 2017 2:44 PM

**To:** Access refused

**Subject:** Dredged Sand Volume from Spitfire Realignment Channel

Good Afternoon Access

During the development of the detailed design for the Sunshine Coast Airport Expansion Project, three issues that have an impact on the volume of sand required from the Spitfire Realignment Channel dredge footprint have arisen.

1. Firstly, it appears that, at the time of the EIS, some uncertainty existed in relation to the means by which the sand volume should be calculated. The volume of 1,100,000 cubic metres was calculated on the basis of the solid volume of sand embankment required to construct the new runway and taxiways. Unfortunately, this figure did not allow for a contingency to cover a number of issues as follows:
  - The unavoidable reduction in volume between the sand in its natural state and when it is compacted to the density required to provide adequate bearing capacity in the embankment.
  - Loss of fines during dredging, transportation and placement. Based on advice from industry, it is estimated that these losses typically amount to approximately 15% to 20%, depending on the particular sand being used.
2. Secondly, following the completion of a total station on-ground survey, more accurate terrain detail became available. This identified that the actual ground surface level was in fact lower than the ground level interpreted by the Aerial Laser Survey on which the concept design had been based. As the runway height was set based on flood levels, this meant additional material was required.
3. Thirdly, during the EIS process, the location of the runway was moved along its centreline by a distance of approximately 300 metres towards the south-east. This alteration was included in an effort to mitigate the flood level impacts in Marcoola, upstream of the runway. It also minimised the extent of construction over underlying marine clays at the north-western end of the runway. During the air space design process, it was identified that this alteration had the effect of causing three buildings at the south-eastern end of the runway to then penetrate the Obstacle Limitation Surface.

In an effort to solve the flooding impact problem associated with revised flood modelling input parameters that had been updated since the original flood modelling associated with the EIS was undertaken, a solution has now been identified that will allow the runway to be moved back towards the north-west to avoid the buildings, without adversely affecting flood afflux levels. However, to achieve this outcome, a further 175 metres of runway will need to be constructed. Together with surcharge material required to consolidate the underlying clays, this will amount to approximately 250,000 cubic metres of sand in solid volume in the embankment.

In summary, the cumulative effect of the three issues outlined above means that the approved volume of sand to be dredged from the Spitfire Realignment Channel will not be sufficient to complete the project. There will be a shortfall of approximately 550,000 cubic metres of sand, as measured in its natural state in the Spitfire Realignment Channel.

Our preference would be to win the additional sand from the footprint currently allocated within the Spitfire Channel and therefore the intent of this email is to seek your willingness to increase the currently identified dredge location to ensure that 1.65m<sup>3</sup> of sand would be available. We have received advice from tenderers that it appears that the dredge footprint and depth that has been provided previously may already contain this volume, but that would have to

be confirmed. In any case, we would prefer that the southern boundaries of the area that has been identified not be extended any further south as this would then encroach on the Movement Control Zone declared by Department of Agriculture and Fisheries in conjunction with the White Spot Syndrome virus outbreak. We would not be permitted to accidentally dredge up polychaete worms or decapod crustaceans and transport them to our pump out site as this is outside of the zone.

If this request is acceptable to PBPL would you please mind providing SCC with a written statement confirming PBPL's authorisation of the intended change so that we can submit this to the Department of Environment and Science to include with our application to amend the quarry materials allocation permit.

Regards

*Ross*

**Ross Ullman - Project Director**

Sunshine Coast Airport Expansion Project  
Economic and Community Development Group

Phone: Landline: 07 5453 1541 Mobile: Access refused u  
Email: [ross.ullman@sunshinecoast.qld.gov.au](mailto:ross.ullman@sunshinecoast.qld.gov.au)  
Website: [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au)  
Mail: Locked Bag 72 Sunshine Coast Mail Centre Qld 4560



Please consider the environment before printing this email.



To find out more about the Sunshine Coast Council, visit your local office at Caloundra, Maroochydore or Nambour, or visit us online at [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au). If correspondence includes personal information, please refer to [Council's Privacy Policy](#).

This email and any attachments are confidential and only for the use of the addressee. If you have received this email in error you are requested to notify the sender by return email or contact council on 07 5475 7272, and are prohibited from forwarding, printing, copying or using it in anyway, in whole or part. Please note that some council staff utilise mobile devices, which may result in information being transmitted overseas prior to delivery of any communication to the device. In sending an email to council, you are agreeing that the content of your email may be transmitted overseas. Any views expressed in this email are the author's, except where the email makes it clear otherwise. The unauthorised publication of an email and any attachments generated for the official functions of council is strictly prohibited. Please note that council is subject to the *Right to Information Act 2009 (Qld)* and *Information Privacy Act 2009 (Qld)*.

**Note:**

This message is for the named person's use only. It may contain confidential, proprietary or legally privileged information. No confidentiality or privilege is waived or lost by any mistransmission. If you receive this message in error, please immediately delete it and all copies of it from your system, destroy any hard copies of it and notify the sender. You must not, directly or indirectly, use, disclose, distribute, print, or copy any part of this message if you are not the intended recipient. The **Port of Brisbane** reserves the right to monitor all e-mail communications through its networks.

If you have received this transmission in error please let us know by contacting us on +61 7 3258 4888 or by reply E-Mail to the sender.

Any views expressed in this message are those of the individual sender, except where the message states otherwise and the sender is authorised to state them to be the views of any such entity.

**Thank You.**



15 February 2018

J000030-021-L-Rev2

James Ulyate  
Coordinator Health, Safety and Environment  
Sunshine Coast Airport Expansion Project  
Sunshine Coast Council  
Locked Bag 72  
Sunshine Coast Mail Centre QLD 4560

Email: [james.ulyate@sunshinecoast.qld.gov.au](mailto:james.ulyate@sunshinecoast.qld.gov.au)

**SALINITY ASSESSMENT OF SAND  
SUNSHINE COAST AIRPORT EXPANSION PROJECT, MARCOOLA**

Dear James,

**INTRODUCTION**

Sunshine Coast Council (SCC) commissioned Core Consultants Pty Ltd (Core) to undertake a study of retained salinity, in the beach sand (Mudjimba Beach), along with an assessment of salinity levels in natural sands across the Sunshine Coast Airport (SCA) Expansion Project Area.

Our understanding of SCC requirements is based on our recent discussions (Access refused James Ulyate and Ross Ullman) and your emails dated 19 and 29 January 2018.

This salinity assessment was carried out by Core in accordance with our proposal Q001415-001-L-Rev1, dated 29 January 2018.

**SCOPE OF WORK**

The scope of work included the following (undertaken on 30 January 2018):

- Ten beach sand samples were collected from five shallow boreholes hand augered within the tidal zone of Mudjimba Beach. Samples were collected at 0.0-0.1 m and 0.4-0.5 m depth. Boreholes started beyond the high tide mark and extended towards the low tide mark (bottom of the tide).
  - This allowed for an assessment of:
    - Sand that has had no recent saturation;
    - Sand that was saturated 6 hours previously (i.e. high tide); and
    - Sand that was saturated 3 hours previously (mid tide) and so on.
- Twenty sand samples were collected from ten shallow boreholes hand augered across the SCA Expansion Project Area. Samples were collected at depths ranging from 0.1 to 0.2 m to 0.4 to 0.5 m depth. Boreholes were undertaken in areas of known natural sand deposits.

Sample locations from the SCA Expansion Area are shown on Figure 1, while sampling locations within Mudjimba Beach are shown on Figure 2, attached.

**METHODOLOGY, SAMPLING AND HANDLING PROCEDURES**

All sample collection, in-situ testing and dispatch were performed in accordance with Core procedures for soil sampling and Australian Standard (AS4482.1).

Samples were collected by experienced personnel in accordance with Australian Standards. These procedures include decontamination, sample handling, sample storage and chain of custody documentation.

A brief outline of key procedures is provided below:

- All equipment used in the sampling process was decontaminated on arrival at site and prior to collection of each sample.
- Nitrile gloves were replaced for each investigation location and sampling procedures used were aimed at preventing cross-contamination of samples.
- Collected soil samples were field tested for salinity (1:5 solution) using a calibrated soil pH meter at our Sunshine Coast office.
- Sample containers appropriate for the analysis proposed were supplied by the testing laboratories. Sample containers were marked with a unique sample number, the sample location, the sample depth, date and Core job number.
- Samples were immediately placed in airtight containers supplied by the testing laboratory and then placed into a chilled insulated esky for transportation to the laboratory.
- Collected samples were also dispatched to Eurofins / MGT, a NATA accredited laboratory, for analysis of moisture content and salinity (determined from Electrical Conductivity). Laboratory certificate of analysis, quality assurance and quality control documentation are presented in Attachment A. Chain of custody and analysis request forms were completed and sent with water samples to the testing laboratory.

## INVESTIGATION RESULTS

### Subsurface Conditions

Samples recovered from the shallow boreholes (BH1 to BH5) at Mudjimba Beach all comprised medium to coarse grained sands. Image 1 below shows the site conditions at the time of sampling.

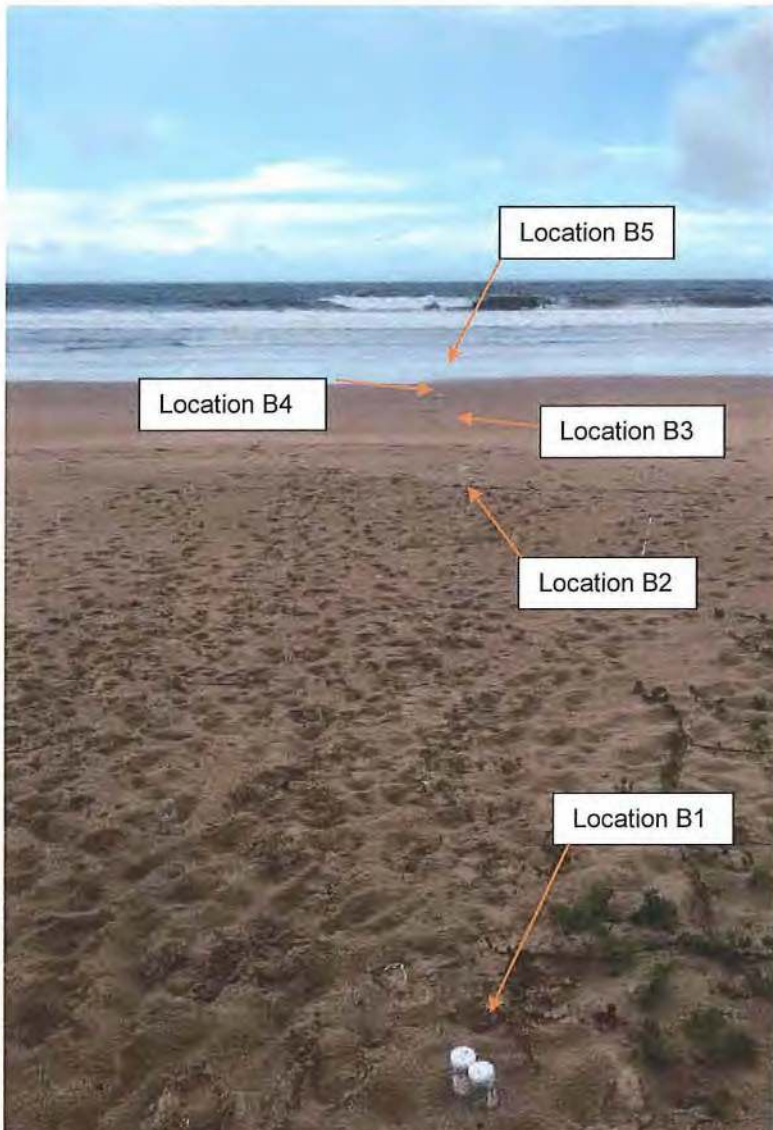


Image 1: Mudjimba Beach Soil Sample Locations

The boreholes (L1 to L10) undertaken at the SCA Expansion Area generally comprised 100 mm of silty sand topsoil over fine to medium grained alluvial sands. Recovered soil samples were collected below the existing topsoil layer in boreholes collected within the SCA Expansion Project.

### Laboratory QA/QC

The laboratory prepared and analysed the following QA/QC samples:

- Laboratory duplicates (DUP);
- Method blanks (MB);
- Surrogate spikes;

- Matrix spikes (MS);
- Laboratory control samples (LCS).

The following are noted from the laboratory QC reports:

- All samples were received under the appropriate chain of custody documentation in appropriately preserved containers and within appropriate holding times;
- Soil Batch 582756-S Eurofins/MGT: No outliers were identified.

QA/QC results are provided in Attachment A.

In conclusion, the review of the data quality for the investigation concluded that the results are acceptable for interpretation.

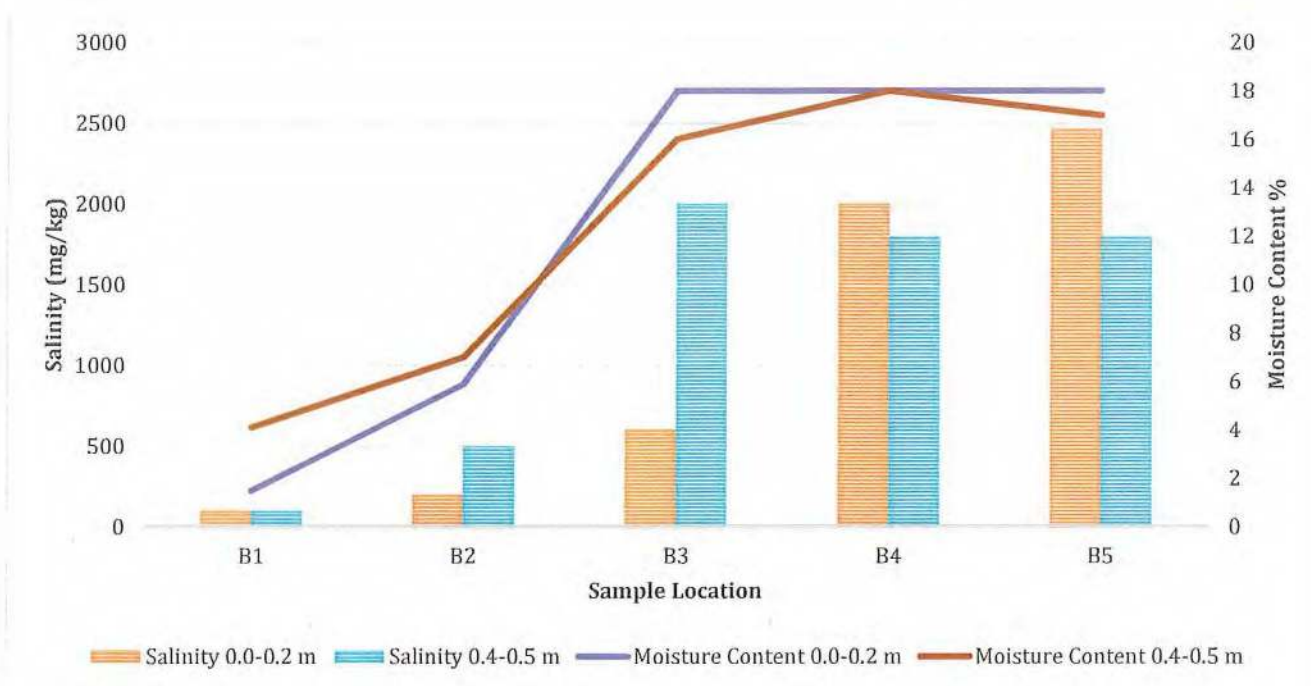
**Field Results and Laboratory Analysis**

The results of field in-situ testing and laboratory analysis are summarised in Table 1 (Tidal Zone).

**Table 1: Field and Analytical Salinity Results – Tidal Zone Mudjimba Beach**

Borehole Location	Depth (m)	Field	Laboratory Analysis	
		Salinity* mg/kg (ppm)	Moisture Content (%)	Salinity** mg/kg (ppm)
B1	0.0-0.1	100	1.5	32
	0.4-0.5	100	4.1	20
B2	0.0-0.1	200	5.9	120
	0.4-0.5	500	7.0	450
B3	0.0-0.1	600	18.0	590
	0.4-0.5	2000	16.0	1200
B4	0.0-0.1	2000	18.0	1200
	0.4-0.5	1800	18.0	1000
B5	0.0-0.1	2470	18.0	780
	0.4-0.5	1800	17.0	1100

\* converted to mg/kg from %  
\*\* determined from EC



**Graph 1: Salinity and Moisture Content for Beach Sand Samples**

**Table 2: Field and Analytical Salinity Results – SCA Expansion Area**

Borehole Location	Depth (m)	Field		Laboratory Analysis	
		Salinity* mg/kg	Moisture Content (%)	Salinity** mg/kg	
L1	0.1-0.2	100	15	<20	
	0.4-0.5	100	5.3	<20	
L2	0.1-0.2	100	4.6	<20	
	0.4-0.5	100	6	<20	
L3	0.0-0.2	100	5.4	27	
	0.4-0.5	100	4.8	<20	
L4	0.1-0.2	100	10	<20	
	0.4-0.5	100	7.3	<20	
L5	0.1-0.2	100	4.2	<20	
	0.4-0.5	100	5.6	<20	
L6	0.2-0.3	100	11	<20	
	0.4-0.5	100	3.3	<20	
L7	0.0-0.2	100	3.6	<20	
	0.4-0.5	100	7.6	<20	
L8	0.1-0.2	100	9.9	<20	

	0.4-0.5	100	7.6	<20
L9	0.1-0.2	100	14	22
	0.4-0.5	100	11	<20
L10	0.1-0.2	100	3.3	<20
	0.4-0.5	100	9.4	<20

\* converted to mg/kg from %

\*\* determined from EC

## SUMMARY OF RESULTS

The results of the salinity investigation undertaken at both Mudjimba Beach and the SCA Expansion Area are summarised below:

- Retained salinity (%) of sand collected from the high tide mark to the low tide mark (BH1 to BH5), at Mudjimba Beach, reported increases in retained salinity with moisture content until saturated conditions had been met (i.e. saturated conditions approx. 18% moisture content).
- Retained salinity (%) of sand collected from the investigation locations (L1 to L10) located within SCA Expansion Project Area, reported negligible levels of retained salinity.

## CONCLUSIONS

The following conclusions can be made:

- The influence of retained salinity (%) between the high tide mark and the low tide mark at Mudjimba Beach is based on the moisture conditions present in each sample. Higher salinity is reported closer to the low tide mark compared to the high tide mark and is likely a result of saline water influence.
- The results from the beach salinity survey indicate a correlation between moisture content and levels of retained salinity (i.e. with a reduction in moisture content a reduction in retained salinity is found). This indicates that introduced saline water is rapidly diluted through the soils.
- The results of retained salinity (%) testing from L1 to L10 within the SCA Expansion Project Area reported low salinity levels (consistent for sands in coastal environments that have been subject to years of high levels of rainfall) irrespective of moisture content, borehole location and depth. These results indicate that the natural sands do not retain or accumulate salt even when subject to inundation at the Highest Astronomical Tide (HAT) (Site L9).

**CLOSURE**

Your attention is drawn to the document Limitations, which is attached to this report. Should you require any further information, please contact Access refused under section 47(3)

Yours sincerely,

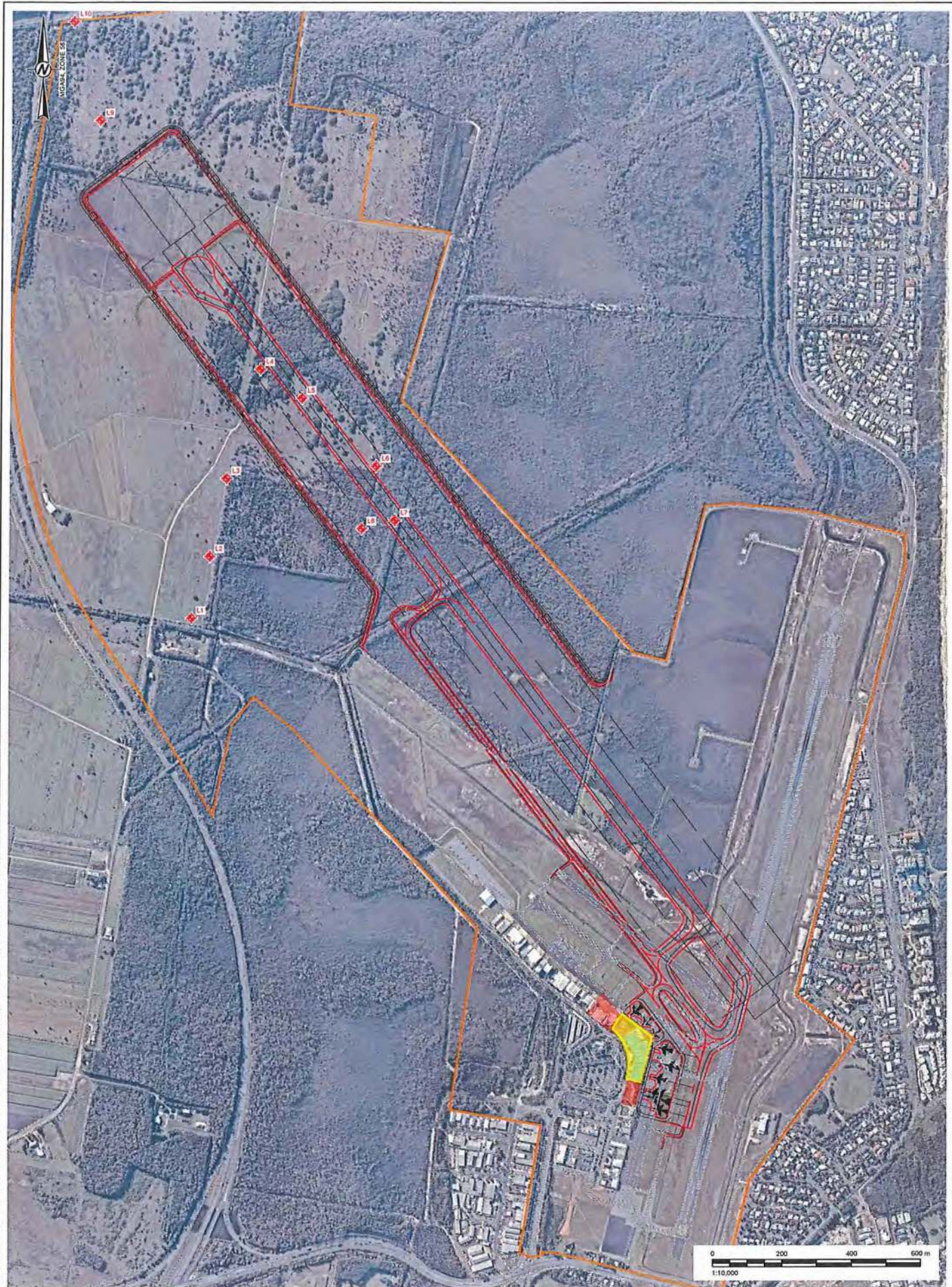
**CORE CONSULTANTS PTY LTD**

Access refused under section 47(3)(b) of the RTI

Access refused under section 47(3)(b) of the RTI Act

Access refu

- Attachments:
- Figure 1: SCA Expansion Project Test Location Plan
  - Figure 2: Beach Sample Test Location Plan
  - Attachment A: Laboratory Certificates of Analysis and Chain of Custody Documentation
  - Attachment B: Limitations



Plot Date: 9 February 2018 Time: 11:00:18 AM By: CAD Path: J:\2015-J1 to J181\Environmental\000030 - SCC-SCA Expansion-ASSMPT\TASK - Salinity Assessment - File Name:000030-021-L-F001.dwg

**LEGEND**

- ◆ Denotes hand auger borehole location

Base plan supplied by Sunshine Coast Council.




www.coreconsultants.com.au

CLIENT SUNSHINE COAST COUNCIL		PROJECT SUNSHINE COAST AIRPORT EXPANSION			
DRAWN BY BH	DATE 09/02/2018	DRAWN TITLE  SALINITY ASSESSMENT TEST LOCATION PLAN			
CHECKED BY JM	DATE 12/02/2018				
SCALE 1:10,000	SHEET SIZE A3	PROJECT No. J000030	DWG No. 021	DWG TYPE L	FIGURE No. 001
					REVISION 0
					SHEET 1 OF 1




© CORE CONSULTANTS PTY. LTD. INFORMATION CONTAINED ON THIS DRAWING IS THE COPYRIGHT OF CORE CONSULTANTS PTY. LTD. UNAUTHORIZED USE OR REPRODUCTION OF THIS PLAN EITHER WHOLLY OR IN PART WITHOUT WRITTEN PERMISSION INFRINGES COPYRIGHT.



**LEGEND**  
 Denotes hand auger borehole location

Aerial image sourced from State of Queensland (Queensland Globe), Copyright © State of Queensland 2015, under license. Annotations by Core Consultants Pty Ltd.

 clarity • commitment • passion www.coreconsultants.com.au	CLIENT SUNSHINE COAST COUNCIL		PROJECT MUDJIMBA BEACH, MUDJIMBA						
	DRAWN BY BH	DATE 09/02/2018	DRAWING TITLE SALINITY ASSESSMENT BEACH TEST LOCATION PLAN						
CHECKED BY JM	DATE 12/02/2018	SCALE 1:500	SHEET SIZE A3	PROJECT No J000030	DOC No 021	DOC TYPE L	DRAWING No 002	REVISION 0	SHEET 1 OF 1

Plot Date: 9 February 2018 Time: 11:11:26 AM By: CAD Path: J:\2015 - J1 to J181\Environmental\J000030 - SCC-SCA Expansion-ASSMP\TASK 13000 - Salinity Assessment - File Name: J000030-021-L-F002.dwg

## **Attachment A – Laboratory Reports**

## Certificate of Analysis

Core Consultants Pty Ltd  
55 Kingford Smith Parade  
Maroochydore  
QLD 4558



NATA Accredited  
Accreditation Number 1261  
Site Number 20794

Accredited for compliance with ISO/IEC 17025 – Testing  
The results of the tests, calibrations and/or  
measurements included in this document are traceable  
to Australian/national standards.

Attention: Access refused

Report **582756-S**  
Project name SCC/SCA EXPANSION/FINLAND ROAD  
Project ID J000030  
Received Date Jan 31, 2018

Client Sample ID			B1 0.0-0.1	B1 0.4-0.5	B2 0.0-0.1	B2 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins   mgt Sample No.			B18-Fe00734	B18-Fe00735	B18-Fe00736	B18-Fe00737
Date Sampled			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Test/Reference	LOR	Unit				
Salinity (determined from EC)*	20	mg/kg	32	20	120	450
% Moisture	1	%	1.5	4.1	5.9	7.0

Client Sample ID			B3 0.0-0.1	B3 0.4-0.5	B4 0.0-0.1	B4 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins   mgt Sample No.			B18-Fe00738	B18-Fe00739	B18-Fe00740	B18-Fe00741
Date Sampled			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Test/Reference	LOR	Unit				
Salinity (determined from EC)*	20	mg/kg	590	1200	1200	1000
% Moisture	1	%	18	16	18	18

Client Sample ID			B5 0.0-0.1	B5 0.4-0.5	L1 0.1-0.2	L1 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins   mgt Sample No.			B18-Fe00742	B18-Fe00743	B18-Fe00744	B18-Fe00745
Date Sampled			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Test/Reference	LOR	Unit				
Salinity (determined from EC)*	20	mg/kg	780	1100	< 20	< 20
% Moisture	1	%	18	17	15	5.3

Client Sample ID			L2 0.1-0.2	L2 0.4-0.5	L3 0.0-0.2	L3 0.4-0.5
Sample Matrix			Soil	Soil	Soil	Soil
Eurofins   mgt Sample No.			B18-Fe00746	B18-Fe00747	B18-Fe00748	B18-Fe00749
Date Sampled			Jan 30, 2018	Jan 30, 2018	Jan 30, 2018	Jan 30, 2018
Test/Reference	LOR	Unit				
Salinity (determined from EC)*	20	mg/kg	< 20	< 20	27	< 20
% Moisture	1	%	4.6	6.0	5.4	4.8

<b>Client Sample ID</b>			<b>L4 0.1-0.2</b>	<b>L4 0.4-0.5</b>	<b>L5 0.1-0.2</b>	<b>L5 0.4-0.5</b>
<b>Sample Matrix</b>			<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>
<b>Eurofins   mgt Sample No.</b>			<b>B18-Fe00750</b>	<b>B18-Fe00751</b>	<b>B18-Fe00752</b>	<b>B18-Fe00753</b>
<b>Date Sampled</b>			<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>
<b>Test/Reference</b>	LOR	Unit				
<hr/>						
<b>Salinity (determined from EC)*</b>	20	mg/kg	< 20	< 20	< 20	< 20
<b>% Moisture</b>	1	%	10	7.3	4.2	5.6

<b>Client Sample ID</b>			<b>L6 0.2-0.3</b>	<b>L6 0.4-0.5</b>	<b>L7 0.0-0.2</b>	<b>L7 0.4-0.5</b>
<b>Sample Matrix</b>			<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>
<b>Eurofins   mgt Sample No.</b>			<b>B18-Fe00754</b>	<b>B18-Fe00755</b>	<b>B18-Fe00756</b>	<b>B18-Fe00757</b>
<b>Date Sampled</b>			<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>
<b>Test/Reference</b>	LOR	Unit				
<hr/>						
<b>Salinity (determined from EC)*</b>	20	mg/kg	< 20	< 20	< 20	< 20
<b>% Moisture</b>	1	%	11	3.3	3.6	7.6

<b>Client Sample ID</b>			<b>L8 0.1-0.2</b>	<b>L8 0.4-0.5</b>	<b>L9 0.1-0.2</b>	<b>L9 0.4-0.5</b>
<b>Sample Matrix</b>			<b>Soil</b>	<b>Soil</b>	<b>Soil</b>	<b>Soil</b>
<b>Eurofins   mgt Sample No.</b>			<b>B18-Fe00758</b>	<b>B18-Fe00759</b>	<b>B18-Fe00760</b>	<b>B18-Fe00761</b>
<b>Date Sampled</b>			<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>
<b>Test/Reference</b>	LOR	Unit				
<hr/>						
<b>Salinity (determined from EC)*</b>	20	mg/kg	< 20	< 20	22	< 20
<b>% Moisture</b>	1	%	9.9	7.6	14	11

<b>Client Sample ID</b>			<b>L10 0.1-0.2</b>	<b>L10 0.4-0.5</b>
<b>Sample Matrix</b>			<b>Soil</b>	<b>Soil</b>
<b>Eurofins   mgt Sample No.</b>			<b>B18-Fe00762</b>	<b>B18-Fe00763</b>
<b>Date Sampled</b>			<b>Jan 30, 2018</b>	<b>Jan 30, 2018</b>
<b>Test/Reference</b>	LOR	Unit		
<hr/>				
<b>Salinity (determined from EC)*</b>	20	mg/kg	< 20	< 20
<b>% Moisture</b>	1	%	3.3	9.4

**Sample History**

Where samples are submitted/analysed over several days, the last date of extraction and analysis is reported. A recent review of our LIMS has resulted in the correction or clarification of some method identifications. Due to this, some of the method reference information on reports has changed. However, no substantive change has been made to our laboratory methods, and as such there is no change in the validity of current or previous results (regarding both quality and NATA accreditation).

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Salinity (determined from EC)*	Melbourne	Feb 06, 2018	0 Day
% Moisture	Melbourne	Feb 01, 2018	14 Day

- Method: LTM-GEN-7080 Moisture

<b>Company Name:</b> Core Consultants Pty Ltd	<b>Order No.:</b>	<b>Received:</b> Jan 31, 2018 4:30 AM
<b>Address:</b> 55 Kingford Smith Parade Maroochydore QLD 4558	<b>Report #:</b> 582756	<b>Due:</b> Feb 7, 2018
	<b>Phone:</b> Access refuse	<b>Priority:</b> 5 Day
	<b>Fax:</b>	<b>Contact Name:</b> Access refuse
<b>Project Name:</b> SCC/SCA EXPANSION/FINLAND ROAD		
<b>Project ID:</b> J000030		

Eurofins | mgt Analytical Services Manager : Access refuse

Sample Detail						Salinity (determined from EC)*	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
External Laboratory							
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID		
1	B1 0.0-0.1	Jan 30, 2018		Soil	B18-Fe00734	X	X
2	B1 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00735	X	X
3	B2 0.0-0.1	Jan 30, 2018		Soil	B18-Fe00736	X	X
4	B2 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00737	X	X
5	B3 0.0-0.1	Jan 30, 2018		Soil	B18-Fe00738	X	X
6	B3 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00739	X	X
7	B4 0.0-0.1	Jan 30, 2018		Soil	B18-Fe00740	X	X
8	B4 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00741	X	X
9	B5 0.0-0.1	Jan 30, 2018		Soil	B18-Fe00742	X	X

<b>Company Name:</b> Core Consultants Pty Ltd	<b>Order No.:</b>	<b>Received:</b> Jan 31, 2018 4:30 AM
<b>Address:</b> 55 Kingford Smith Parade Maroochydore QLD 4558	<b>Report #:</b> 582756	<b>Due:</b> Feb 7, 2018
	<b>Phone:</b> Access refuse	<b>Priority:</b> 5 Day
	<b>Fax:</b>	<b>Contact Name:</b> Access refuse
<b>Project Name:</b> SCC/SCA EXPANSION/FINLAND ROAD	<b>Eurofins   mgt Analytical Services Manager</b> Access refuse	
<b>Project ID:</b> J000030		

Sample Detail						Salinity (determined from EC)*	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
10	B5 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00743	X	X
11	L1 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00744	X	X
12	L1 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00745	X	X
13	L2 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00746	X	X
14	L2 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00747	X	X
15	L3 0.0-0.2	Jan 30, 2018		Soil	B18-Fe00748	X	X
16	L3 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00749	X	X
17	L4 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00750	X	X
18	L4 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00751	X	X
19	L5 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00752	X	X
20	L5 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00753	X	X
21	L6 0.2-0.3	Jan 30, 2018		Soil	B18-Fe00754	X	X

<b>Company Name:</b> Core Consultants Pty Ltd	<b>Order No.:</b>	<b>Received:</b> Jan 31, 2018 4:30 AM
<b>Address:</b> 55 Kingford Smith Parade Maroochydore QLD 4558	<b>Report #:</b> 582756	<b>Due:</b> Feb 7, 2018
	<b>Phone:</b> Access refused	<b>Priority:</b> 5 Day
	<b>Fax:</b>	<b>Contact Name:</b> Access refused
<b>Project Name:</b> SCC/SCA EXPANSION/FINLAND ROAD	<b>Eurofins   mgt Analytical Services Manager :</b> Access refused	
<b>Project ID:</b> J000030		

Sample Detail						Salinity (determined from EC) <sup>+</sup>	Moisture Set
Melbourne Laboratory - NATA Site # 1254 & 14271						X	X
Sydney Laboratory - NATA Site # 18217							
Brisbane Laboratory - NATA Site # 20794							
Perth Laboratory - NATA Site # 23736							
22	L6 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00755	X	X
23	L7 0.0-0.2	Jan 30, 2018		Soil	B18-Fe00756	X	X
24	L7 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00757	X	X
25	L8 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00758	X	X
26	L8 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00759	X	X
27	L9 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00760	X	X
28	L9 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00761	X	X
29	L10 0.1-0.2	Jan 30, 2018		Soil	B18-Fe00762	X	X
30	L10 0.4-0.5	Jan 30, 2018		Soil	B18-Fe00763	X	X
<b>Test Counts</b>						30	30



## Internal Quality Control Review and Glossary

### General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples are included in this QC report where applicable. Additional QC data may be available on request.
2. All soil results are reported on a dry basis, unless otherwise stated.
3. All biota results are reported on a wet weight basis on the edible portion, unless otherwise stated.
4. Actual LORs are matrix dependant. Quoted LORs may be raised where sample extracts are diluted due to interferences.
5. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds.
6. SVOC analysis on waters are performed on homogenised, unfiltered samples, unless noted otherwise.
7. Samples were analysed on an 'as received' basis.
8. This report replaces any interim results previously issued.

### Holding Times

Please refer to 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours prior to sample receipt deadlines as stated on the Sample Receipt Advice.

If the Laboratory did not receive the information in the required timeframe, and regardless of any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the date of sampling, therefore compliance to these may be outside the laboratory's control.

**\*\*NOTE:** pH duplicates are reported as a range NOT as RPD

### Units

mg/kg: milligrams per kilogram

ug/L: micrograms per litre

ppb: Parts per billion

org/100mL: Organisms per 100 millilitres

MPN/100mL: Most Probable Number of organisms per 100 millilitres

mg/L: milligrams per litre

ppm: Parts per million

%: Percentage

NTU: Nephelometric Turbidity Units

### Terms

<b>Dry</b>	Where a moisture has been determined on a solid sample the result is expressed on a dry basis.
<b>LOR</b>	Limit of Reporting.
<b>SPIKE</b>	Addition of the analyte to the sample and reported as percentage recovery.
<b>RPD</b>	Relative Percent Difference between two Duplicate pieces of analysis.
<b>LCS</b>	Laboratory Control Sample - reported as percent recovery.
<b>CRM</b>	Certified Reference Material - reported as percent recovery.
<b>Method Blank</b>	In the case of solid samples these are performed on laboratory certified clean sands and in the case of water samples these are performed on de-ionised water.
<b>Surr - Surrogate</b>	The addition of a like compound to the analyte target and reported as percentage recovery.
<b>Duplicate</b>	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
<b>USEPA</b>	United States Environmental Protection Agency
<b>APHA</b>	American Public Health Association
<b>TCLP</b>	Toxicity Characteristic Leaching Procedure
<b>COC</b>	Chain of Custody
<b>SRA</b>	Sample Receipt Advice
<b>QSM</b>	Quality Systems Manual ver 5.1 US Department of Defense
<b>CP</b>	Client Parent - QC was performed on samples pertaining to this report
<b>NCP</b>	Non-Client Parent - QC performed on samples not pertaining to this report, QC is representative of the sequence or batch that client samples were analysed within.
<b>TEQ</b>	Toxic Equivalency Quotient

### QC - Acceptance Criteria

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is 30% however the following acceptance guidelines are equally applicable:

Results <10 times the LOR : No Limit

Results between 10-20 times the LOR : RPD must lie between 0-50%

Results >20 times the LOR : RPD must lie between 0-30%

Surrogate Recoveries: Recoveries must lie between 50-150%-Phenols & PFASs

PFAS field samples that contain surrogate recoveries in excess of the QC limit designated in QSM 5.1 where no positive PFAS results have been reported have been reviewed and no data was affected.

### QC Data General Comments

1. Where a result is reported as a less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch, but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown is not data from your samples.
3. Organochlorine Pesticide analysis - where reporting LCS data, Toxaphene & Chlordane are not added to the LCS.
4. Organochlorine Pesticide analysis - where reporting Spike data, Toxaphene is not added to the Spike.
5. Total Recoverable Hydrocarbons - where reporting Spike & LCS data, a single spike of commercial Hydrocarbon products in the range of C12-C30 is added and it's Total Recovery is reported in the C10-C14 cell of the Report.
6. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
7. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of Recovery the term "INT" appears against that analyte.
8. Polychlorinated Biphenyls are spiked only using Aroclor 1260 in Matrix Spikes and LCS.
9. For Matrix Spikes and LCS results a dash " - " in the report means that the specific analyte was not added to the QC sample.
10. Duplicate RPDs are calculated from raw analytical data thus it is possible to have two sets of data.

Quality Control Results

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Salinity (determined from EC)*	B18-Fe00734	CP	mg/kg	32	32	2.0	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
% Moisture	B18-Fe00737	CP	%	7.0	6.7	5.0	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Salinity (determined from EC)*	B18-Fe00739	CP	mg/kg	1200	1100	2.9	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Salinity (determined from EC)*	B18-Fe00744	CP	mg/kg	< 20	< 20	<1	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
% Moisture	B18-Fe00747	CP	%	6.0	6.0	<1	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
Salinity (determined from EC)*	B18-Fe00754	CP	mg/kg	< 20	< 20	<1	30%	Pass	
<b>Duplicate</b>									
				Result 1	Result 2	RPD			
% Moisture	B18-Fe00757	CP	%	7.6	9.0	18	30%	Pass	

**Comments**

**Sample Integrity**

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

**Comments**

**Authorised By**

Access refused under section 47(1) b) of the Information Access Act 2009  
 Access refused under section 47(1) b) of the Information Access Act 2009  
 Access refused under section 47(1) b) of the Information Access Act 2009

Analytical Services Manager  
 Senior Analyst-Metal **Acc**  
 Senior Analyst-Inorganic **Acc**

Final report - this Report replaces any previously issued Report

- Indicates Not Requested

\* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

Eurofins | mgt shall not be liable for loss, cost, damages or expenses incurred by the client, or any other person or company, resulting from the use of any information or interpretation given in this report. In no case shall Eurofins | mgt be liable for consequential damages including, but not limited to, lost profits, damages for failure to meet deadlines and lost production arising from this report. This document shall not be reproduced except in full and relates only to the items tested. Unless indicated otherwise, the tests were performed on the samples as received.

## Sample Receipt Advice

Company name: Core Consultants Pty Ltd  
Contact name: Access refused  
Project name: SCC/SCA EXPANSION/FINLAND ROAD  
Project ID: J000030  
COC number: TR1  
Turn around time: 5 Day  
Date/Time received: Jan 31, 2018 4:30 AM  
Eurofins | mgt reference: 582756

### Sample information

- A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- All samples have been received as described on the above COC.
- COC has been completed correctly.
- Attempt to chill was evident.
- Appropriately preserved sample containers have been used.
- All samples were received in good condition.
- Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- Appropriate sample containers have been used.
- Split sample sent to requested external lab.
- Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

### Notes

PLEASE BE ADVISED THAT L4 HAS A SAMPLE DEPTH OF 0.3-0.4 ON THE JAR BUT COC STATES 0.4-0.5.

### Contact notes

If you have any questions with respect to these samples please contact:

Access refused on Phone : or by e.mail: Access refused@eurofins.com

Results will be delivered electronically via e.mail to Access refused - Access refused@coreconsultants.com.au.



<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	# CON NOTES	POST CODE
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>		MASS

31/1/18 4.30PM

~~20.4~~  
~~21.4~~ 20.8°C  
~~20.9~~

## **Attachment B - Limitations**



## LIMITATIONS

This Document has been provided by Core Consultants Pty Ltd ("Core") subject to the following limitations:

This Document has been prepared for the particular purpose outlined in Core's proposal and no responsibility is accepted for the use of this Document, in whole or in part, in other contexts or for any other purpose.

The scope and the period of Core's Services are as described in Core's proposal, and are subject to restrictions and limitations. Core did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Core in regards to it.

Conditions may exist which were undetectable given the limited nature of the enquiry Core was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Document. Accordingly, additional studies and actions may be required.

In addition, it is recognised that the passage of time affects the information and assessment provided in this Document. Core's opinions are based upon information that existed at the time of the production of the Document. It is understood that the Services provided allowed Core to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any assessments made in this Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Document.

Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by Core for incomplete or inaccurate data supplied by others.

Core may have retained subconsultants affiliated with Core to provide Services for the benefit of Core. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any direct legal recourse to, and waives any claim, demand, or cause of action against, Core's affiliated companies, and their employees, officers and directors.

This Document is provided for sole use by the Client and is confidential to it and its professional advisers. No responsibility whatsoever for the contents of this Document will be accepted to any person other than the Client. Any use which a third party makes of this Document, or any reliance on or decisions to be made based on it, is the responsibility of such third parties. Core accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this Document.



## ATTACHMENT - INFORMATION REQUEST APP0014380

### Issue 1 – Material rehandling proposal incompatible with character (soil salinity) of receiving environment

The application seeks to:

- Authorise transfers of settled dredged sand outside the lined bunded dredged material containment area once soil salinity concentrations meet an average concentration of 1,500  $\mu\text{S}/\text{cm}$  using a 1:5 field test solution adjusted to 25° C.;
- Field testing of settled dredged sand at a rate of 1 test per 2,500  $\text{m}^3$  of dredge spoil; and
- Remove the requirement to install a groundwater cut off wall along the entire length of the runway footprint and the Mount Coolum National Park (Marcoola north section). The cut off wall will be restricted to the north east section of the runway, and extend to the east of the runway.

Concerns with this proposal relate to incompatibility of the proposed criteria with the receiving environment, the practicality of meeting relevant salinity concentration requirements and, potentially, the proposed testing regime. These are discussed below.

- Soil salinity in the area has been well characterised in the EIS via 1:5 field testing of soils. Units of salinity in the EIS are in  $\text{mS}/\text{cm}$ , rather than  $\mu\text{S}/\text{cm}$ .
- To compare levels, note that the conversion factor of 1,000  $\mu\text{S}/\text{cm}$  equals 1 $\text{mS}/\text{cm}$  applies. Hence, the proposal is for the sand to be taken out of the bund and spread around the site at an average concentration of 1.5  $\text{mS}/\text{cm}$ , with no maximum proposed. There were a large number of soil samples taken and assessed in the EIS. These are shown in EIS Figure 3.2a in Appendix B3. Unlike the Core Consultants' February 2018 study which was included with the application (refer section 9 of Technical memorandum), the EIS study also include samples taken in relation to the potentially affected National Park areas (see figure below).
- The EIS sampling and analysis found soil salinity generally all very low, with results as low as 0.002  $\text{mS}/\text{cm}$ . Note also that the level of reporting was much lower than utilised in the more recent Core Consultant's study.
- The EIS finding of many on-site salinity levels much less than the LOR used in the Core Consultant's study is consistent with that study's findings that all bar one soil sample tested was below the LOR used. [Note: All on-site soil results in the Core Consultant's study except site L3 at surface are less than LOR used i.e. < 20 ppm which equates to <0.030  $\text{mS}/\text{cm}$ . The Core Consultant study site L3 surface result is 27 ppm which equates to 0.040  $\text{mS}/\text{cm}$ .]

Figure 3.2a: Field investigation locations



The EIS field salinity data is reproduced below (refer EIS Appendix B3 Table 3.5n page B3-61).

Table 3.5n: EC field results

Location	Electrical conductivity (mS/cm) at soil depth				
	Surface	300 mm	600 mm	900–1,000 mm	1,000–1,200 mm
TP1	0.013	0.015	0.009	0.013	0.019
TP2	0.025	0.009	0.014	0.014	0.023
TP3	0.005	0.024	0.004	0.002	0.003
TP4	0.076	0.021	0.015	0.029	0.039
TP5	0.021	0.016	0.013	0.024	0.017
TP6	0.015	0.012	0.009	0.011	0.014
TP7	0.014	0.013	0.014	0.021	0.036
TP8	0.034	0.014	0.005	0.013	0.008
TP9	0.030	0.024	0.039	0.029	0.032
TP10	0.042	0.025	0.011	0.027	0.030
TP11	0.031	0.016	0.016	0.011	0.016
TP12	0.034	0.012	0.010	0.034	0.035
TP13	0.033	0.018	0.012	0.010	0.015
TP14	0.023	0.023	0.020	0.010	0.010
TP15	0.023	0.013	0.010	0.017	0.019
TP16	0.025	0.014	0.038	0.010	0.013
TP17	0.035	0.028	0.015	0.009	0.012
TP18	0.037	0.031	0.023	0.025	0.038
TP19	0.032	0.038	0.025	0.022	0.015
TP20	0.064	0.040	0.028	0.017	0.028
TP21	0.028	0.016	0.019	0.017	0.020
TP22	0.339	0.915	0.844	0.567	0.948
TP23	0.035	0.012	0.009	0.013	0.024

These EIS soil results show that no soil tested was as saline as that proposed to be placed outside the bund, with most results between 250 and 1000 times less saline.

The following extracts of EIS figure 3.2a show test pits in National Park areas. These include TP2 and TP3 in the southern section and TP6, TP7, TP8 and TP9 in the northern section.

These also illustrate that soils in conservation areas are very non-saline (refer results above).



Map of Site showing all test pits in Mt Coolum National Park (Marcoola North Section) which soil salinity was measured



*Map of Site showing all test pits in Mt Coolum National Park (Marcoola South Section) which soil salinity was measured.*

The dredged material placement strategy outlined in the EIS for the project envisaged material being placed in a lined repository, served by a leachate collection system which minimised head of the liner and removed collected rainfall seepage for treatment and eventual discharge. The placed material was then allowed to settle and be infiltrated by rainfall for many months prior to trimming profiles and spreading the sand from the impoundment to form batter slopes to the runway.

The new approach relies on draining the sand for a very short time (day to days) before spreading it outside the lined areas. This affords minimal likelihood that rainfall will leach out the residual salt. It also involves removal of the cut off wall protecting Mount Coolum National Park Marcoola North section that was incorporated into the currently approved EIS proposal.

Based on the proposed very high soil salinity concentration (i.e. average concentration of 1,500  $\mu\text{S}/\text{cm}$ ) and removal of the cut-off wall protecting the National park, the proposal is considered likely to increase likelihood of environmental harm to flora and fauna in protected areas and hence not constitute a necessary or desirable condition.

The application did include some information suggesting that sand left out in the weather and allowed time to drain would be able to achieve salinity levels of a similar order to those prevalent in the receiving environment (refer beach sample B1 below in Core Consultant's study). However, the history of sample B1 was not known and the degree to which it is relevant to the material handling strategy is unclear.

Soil Tests for Beach Sands – Core Consultant’s Study

Beach sample Location	Depth (m)	Salinity* ppp	Salinity of 1:5 extract mS/cm **
B1	0.0 – 0.1	32	0.048
	0.4 – 0.5	20	0.030
B2	0.0 – 0.1	120	0.179
	0.4 – 0.5	450	0.671
B3	0.0 – 0.1	590	0.881
	0.4 – 0.5	1200	1.791
B4	0.0 – 0.1	1200	1.791
	0.4 – 0.5	1000	1.493
B5	0.0 – 0.1	780	1.164
	0.4 – 0.5	1100	1.642

\* Based on electrical conductivity

\*\* Based on conversion back to electrical conductivity EC mS/cm = ppm/0.67)

While keeping dredged material in a lined impoundment until it is no longer saline is a reasonable management approach to avoid releasing salinity to what are essentially freshwater environments when constructing the new runway, there is insufficient information to give confidence that this will be a practical solution given the short turnaround times implicit in the placement strategy and ambient soil salinity concentrations of the affected areas.

It is considered that representative testing to discern an acceptable drainage and handling strategy may resolve this issue. This would involve testing such as leach column testing with conditions mimicking material handling.

*Information requested*

1. Provide a strategy for removal of the settled dredge material from the lined banded area that produces soil salinity concentrations similar to those measured in the receiving environment (refer EIS and Core Consultant’s report data).
2. For the selected strategy, provide results of soil salinity testing of representative sand material when it is ready for removal, for example, column testing. The column testing should mimic, as close as practicable the selected strategy, and take account of the following:
  - a. Sand similar to that expected, including fines content
  - b. The depth of material placed
  - c. The minimum time allowed to drain the material
  - d. The depth of any residual sea water in the impoundment
  - e. The placement of additional sand and sea water material periodically on the material e.g. 3 times per day
  - f. The minimum time allowed to dry out the material

- g. Sampling of surface and at intervals to the planned depth of removal
- h. The need to utilise limits of reporting consistent with the EIS
- i. The need for laboratory analysis to validate field test results.
- j. Collation of average and maximum soil salinity concentrations achieved.

**Issue 2 – Removal of ground water cut-off wall of the northern perimeter drain between the drain and the property boundary to the north without addressing potential ingress of PFAS contamination into National Park.**

The application seeks removal of ground water cut-off wall of the northern perimeter drain between the drain and the property boundary to the north. The cut-off wall is currently required by condition GW6.

*A permanent impermeable ground water cut off wall, extending from the ground surface down to the confining coffee rock layer, must be installed and maintained for the length of the northern perimeter drain between the drain and the property boundary to the north. The drain must operate to:*

- (a) prevent lowering of the water table on the Mt Coolum National Park side of the cut off wall distant from the drain;*
- (b) oxidation of potential acid sulfate soils; or*
- (c) ingress of contaminants to ground water beyond the wall.*

This cut off wall serves several functions, one of which is to prevent ingress of contaminants to ground water beyond the wall. EIS studies (appendix B3) have inferred groundwater gradients are relatively flat, but flowing in a northerly direction to the national park.

One source of contamination on the airport derives from previous use on site of aqueous film forming foams (AFFF) used for fire –fighting foam. The compounds in AFFF, namely per and poly fluoroalkyl substances (PFAS), are highly mobile in groundwater and, for some compounds in the formulations, water quality objectives to protect environmental values are very low e.g. objectives for PFOS are as low as 0.00023 µg/L.

The location and concentration of PFAS contamination on site has not been notified to the administering authority, and hence it is unclear what the extent of PFAS contamination is, what management measures are being applied and whether removal of the cut off wall would expose protected areas to PFAS contaminated groundwater. This issue was raised in the EIS. The current environmental authority conditions require a site investigation for the contamination and incorporates the protection of the cutoff wall for the National Park. A site investigation should be provided as part of this information request.

*Information requested*

1. A PFAS investigation and report must be completed by an appropriately qualified person that details the source and extent of PFAS contamination of the airport.
2. The investigation must be conducted in accordance with the National Environmental Protection (Assessment of Site Contamination) Measure 1999 (NEPM) and must consider best practice for PFAS investigation and management.
3. The report must include:

- a. Advice of the nature of PFAS materials that are or have previously been stored and used on site e.g. AFFF products derived from electrochemical fluorination or telomerisation
  - b. Explanation of activities that may have released PFAS into the environment, including soils, sediment and groundwater (for example any spills, equipment testing, leaching from concrete, disposal of AFFF foam or affected stormwater)
  - c. Analysis of potentially affected media including soil, sediments and groundwater in identified source areas and any identified pathways to receptors to characterise the contamination. To comply with Queensland Government PFAS policy, this must include analysis for the suite of 20 to 28 standard fluorinated organic compounds by LC/MS/MS and total oxidisable precursor assay reported as the analyses for the resulting perfluorinated carboxylates for C4 to C14 carbon chain length (TOP C4-C14).
  - d. Analysis of environmental media sufficient to identify the extent of the contamination and assessment of potential environmental harm to receptors, including environmental and human.
  - e. Information on how activities including site preparation, construction and the long term management may affect PFAS distribution, transformation and impact
  - f. Information on how environmental harm due to PFAS will be avoided.
  - g. Any necessary treatment and or disposal of PFAS.
  - h. Where PFAS affected soil may be disturbed, fate and management measures for this.
  - i. Where PFAS affected water may be disturbed, fate and management measures for this.
4. Using the information in the site investigation, discuss risk of PFAS ingress into the National Park causing environmental harm. Note that as PFAS compounds bio-accumulate, bioaccumulation risks must be addressed.

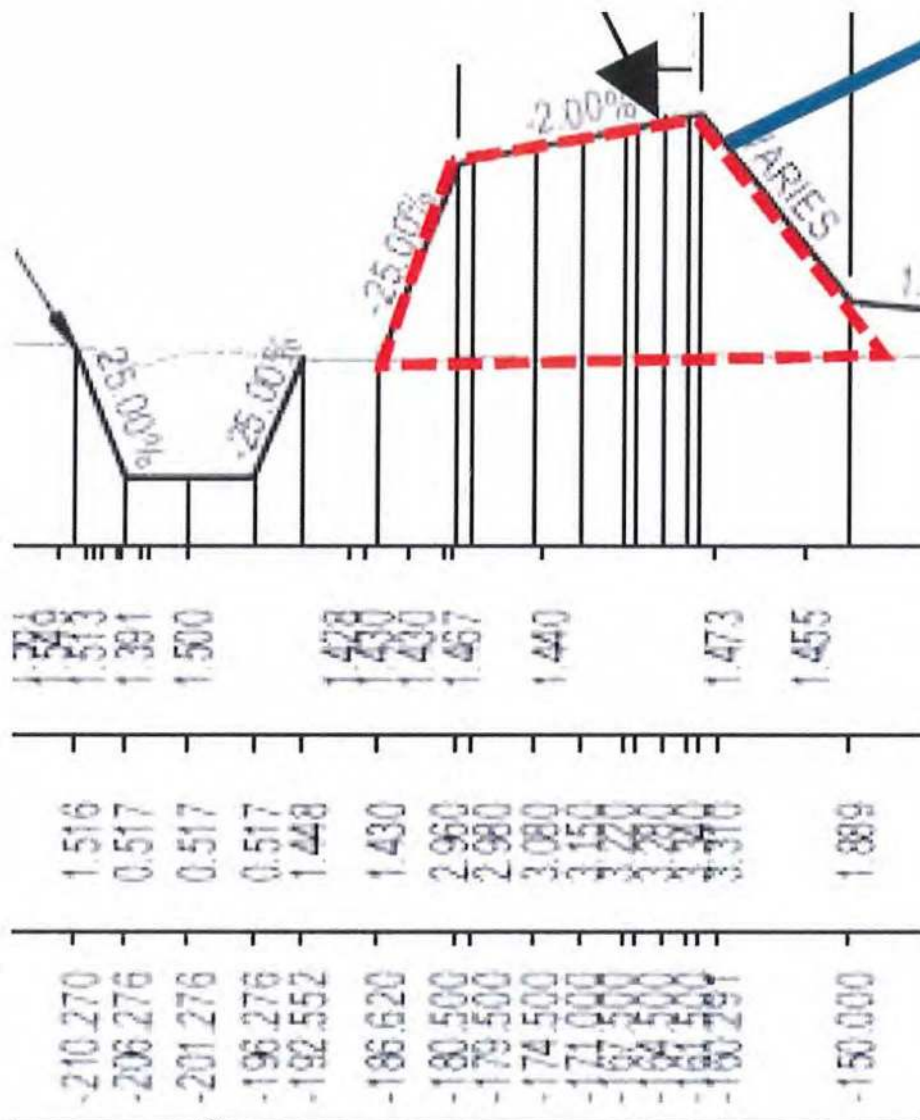
### **Issue 3 - Inconsistencies in maximum depth and dimensions of proposed drains**

The amendment application advises that the geometry and depth of the northern and western perimeter drains have been revised to decrease their depth and width (see section 4 Modification of Drainage Approach). These include

- Northern perimeter drain limited to base width of 2 metres and maximum depth of 0.5 metres
- Western perimeter drain limited to a "shallow swale structure"

However, the detailed cross sectional plan for the dredge spoil placement area shows construction of a 1 metre deep drain with a base width of 10 metres (see figure below).





This suggests a number of potential adverse consequences, namely:

- Greater drain footprint, which may encroach upon areas prescribed for biodiversity offset purposes;
- Greater depth inferring groundwater drawdown where shallow groundwater exists;
- Exposure of acid sulfate soils to oxidation (e.g. in north-western area, the EIS reports grey clays from 0.5 metres depth with very high net acidity > 600 moles of H<sup>+</sup>/tonne.)

The proposed amendments rely on modification of drainage approach and request deletion of the EIS approved mitigation measures. The amendments however do not incorporate the basis of the proposed deletion e.g. limitations on drain depth and geometry.

*Information requested*

1. Clarify the inconsistencies in maximum depth and dimensions of proposed drains in the EA amendment documentation.

2. Provide georeferenced plans illustrating drain locations and dimensions in plan and cross-sectional view.
3. Depending upon which drainage proposal is correct, propose environmental authority conditions for incorporation that reflect relevant limitations of drain depths and dimensions that form the basis for removing EIS approved mitigation measures.

**Issue 4– Uncertainty concerning flow direction of drains and fate of any overtopping or failure of the bunded areas**

The hazard assessment for the dredged material containment area (including the tail water collection and polishing pond) considers that all surface water flows will be directed around the structures and into Marcoola drain (see diagram below). This contrast with drainage plans in the EIS (e.g. see appendix A4, Figure 4.1a) which showed surface flows also being directed into the southern perimeter drain.

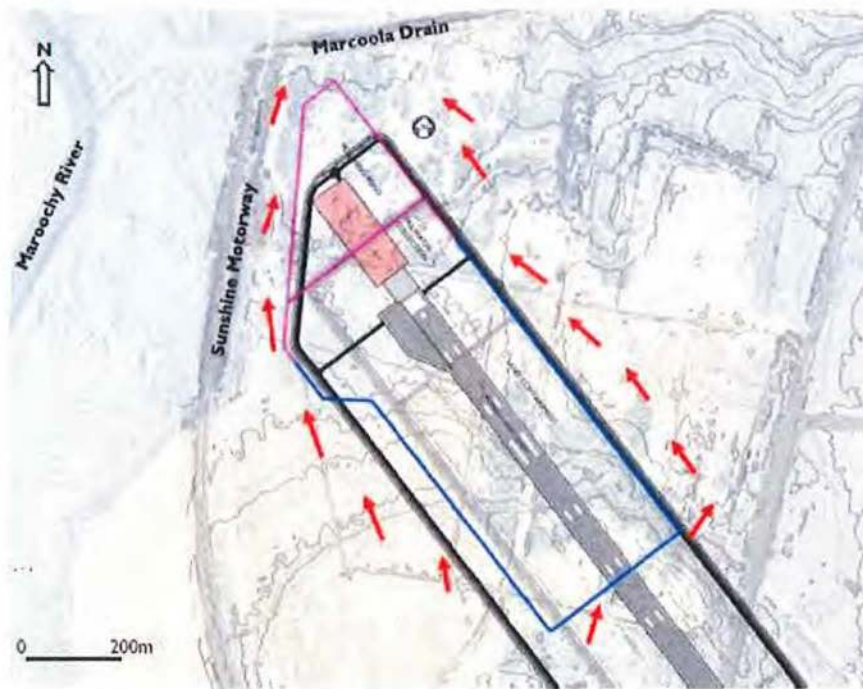


Diagram 5 - Ground Elevation Contours and General Direction of Surface Water Flow (scale as shown)

Any flow of saline waste water or seepage into the southern perimeter drain would pose environment risks to the freshwater wetlands in the Mount Coolum National Park (south Marcoola section) and the Council Environmental Reserve.

Although the hazard assessment proposed removal and replacement of near surface soils in the event of an unplanned saline release, this is likely to be an ineffectual solution in this sandy environment with high groundwater table.

*Information requested*

1. Clarify the likely fate of any inadvertent saline release from seepage, overtopping or failure of the dredged material containment area, including drainage arrangements and potential environmental impacts including on:

- a. the freshwater wetlands in Mount Coolum National park (south Marcoola section); and
  - b. the Council's adjacent environmental reserve (section of Coolum Creek and Lower Maroochy River Wetlands); and
  - c. environmentally significant areas under the biodiversity offset delivery plan.
2. Clarify apparent inconsistencies in drainage arrangements between the EA amendment application documents and the EIS.

#### **Issue 5 – Issues implicit in construction of bentonite slurry groundwater cut off walls**

The amendment application envisages construction of a bentonite groundwater cut-off wall of permeability no greater than  $10^{-8}$  m/s. There are a number of uncertainties that arise from the proposal, including the practicality of construction and waste management.

##### *Information requested*

1. Describe how the trench for the cut-off wall, which is to be constructed in sand with a high water table down through the water table and into underlying coffee rock at depth, can be prevented from collapsing before the bentonite slurry is installed.
2. Provide quality assurance details of how the performance criteria permeability no greater than  $10^{-8}$  m/s will be measured and validated to ensure compliance and protection of the groundwater values adjacent the site.
3. Clarify the need for any drain dewatering during construction and how potential impacts of this will be managed, including any waste discharge and acid sulfate soil management,
4. Clarify how excavated soils will be managed, particularly acid sulfate soils which in the relevant location have been found to possess very strong net acidity.
5. Clarify how slurry generation and placement be managed to avoid adverse impacts on stormwater drains and wetlands.

#### **Issue 6 - Relocation of polishing pond and tail water collection and need for groundwater monitoring**

The amendment involves an extension and movement of the runway footprint towards the northwest. This results in the polishing pond and tail water collection area being moved a significant distance to the northwest into low lying land with high groundwater elevations. It is unclear what groundwater monitoring will be undertaken to monitor the effectiveness of the proposed lining systems to allow prevention of adverse changes to groundwater quality in this area. The monitoring locations need to consider likely groundwater flow directions with the proposed cut off wall implemented.

##### *Information requested*

1. Identify likely groundwater flow directions with the proposed cut off wall implemented, including basis of the conclusions
2. Propose additional or amended groundwater monitoring condition(s) to monitor the effectiveness of lining systems in preventing adverse changes to groundwater quality, particularly in the environmentally sensitive areas at the north-western area of the project site

(including biodiversity offset areas and the broad-leaved paperbark open forest and palustrine wetland on the opposite side of the Sunshine Motorway that (refer EIS Appendix B7 - Figure 7.4a: Regional Ecosystems within the study area).

#### **Issue 7 – Location and design of reclamation bund, polishing ponds, dewatering area etc.**

There is insufficient information on the design and location of key containment, treatment and management structures for the sand placement activity (refer condition G10 in the current environmental authority) to enable assessment of their capabilities to contain and manage impacts from the sand placement activity.

##### *Information requested*

1. Provide further clarity around the location of key structures referenced in condition G10 of the environmental authority by providing coordinates for the intended structures and locating them on a georeferenced plan.
2. Supply engineering drawings with cross-sectional view plans for the structures referenced in condition G10
3. Supply engineering drawings for any other structures relied on for the Consequence Category Assessment for the Airport Expansion Project.

#### **Issue 8 – Protection of HDPE liner in reclamation bund due to continuing material extraction**

The EIS approved method of dredge material placement was for hydraulic placement of the dredged material, followed by dozer spreading and then progressive movement along the lined runway as further dredge loads of fill were delivered. The proposed method is for placement to occur in the one location with sand material continually extracted and placed back on the runway footprint. This infers a much greater degree of heavy equipment operation on one liner location with greater potential for liner damage due to heavy equipment.

##### *Information requested*

1. Provide information describing how the risk of damage from concentration of machinery, sand delivery and treatment to the HDPE liner system at the proposed containment are will be avoided.
2. Also supply evidence of the significantly lower liner defect/puncture rate resulting in reduced saline seepage from the liner.

#### **Issue 9 – Decommissioning of the reclamation bund and polishing pond**

It is unclear how decommissioning of the reclamation bund and polishing pond will occur

##### *Information requested*

1. Explain how the decommissioning of the reclamation bund and polishing pond will occur without releasing saline waste into the surrounding environment. A detailed description of this process is required.

#### **Issue 10 – Extension of the runway into Offset Assessment Unit 7**

Extension of the runway into offset area 7 will result in a reduction in the corridor area from 48 ha to 42 ha. Mention is made of construction of a maintenance access road, swale and fencing infrastructure in Offset Area 7 associated with the runway extension. The footprint of these elements should be excluded from calculation of the total area of land based offset in Offset Area 7.

*Information requested*

1. Clarify whether the extension as proposed will impact on the total area of land based area of offset proposed within the corridor.
2. Clarify whether the land based area of offset includes the footprint of the maintenance access road, fencing, swale and any other infrastructure elements.
3. Demonstrate that the land based offset area has not been reduced as a result of the proposed runway extension and associated infrastructure.

**Issue 11 – Relocation of control structure on drains traversing the Mount Coolum National Park.**

Condition WT12 requires the installation of control structures on drains traversing the Mount Coolum National Park to prevent lowering of groundwater levels in the park and contaminant ingress into the Park. The amendment application proposes changes to the approved location of these control structures, however there is no justification provided for their relocation.

*Information requested*

1. Provide justification for the relocation of control structures on drains traversing the Mount Coolum National Park and for their new proposed locations.

**Issue 12 – Additional fines lost in dredging, transportation and placement**

One reason given for the underestimation of the volume of sand required for the project is the unavoidable losses of fines during dredging, transportation and placement. It is not clear how this loss was omitted from the original calculation and whether the miscalculation was based on underestimating the fines content of the dredged material or an increase in fines content due to mechanical abrasion and wear from the extraction, transport and placement process. It is also not clear whether dredge plume modelling produced and tailwater treatment relating to turbidities as a result of fines is still relevant.

*Information requested*

1. Demonstrate the validity of dredge plume modelling and impact assessment given the apparent increase in fines loss.
2. Detail the capacity of the tailwater treatment methodology to treat tailwater with increased fines content and enable releases in accordance with discharge limits set out in the current environmental authority..
3. Provide information on the handling and disposal of the additional residual fines following decommissioning of the treatment ponds.

**Issue 13 – Incorporation of a separate control site for water quality monitoring adjacent to the dredge site**

No map was provided locating the proposed control site. A georeferenced map identifying its location is required for compliance purposes.

*Information requested*

1. Please provide a georeferenced map showing the proposed monitoring site for background (control) water quality values, the dredged footprint and water quality monitoring site MNP 03.

# Notice

## Environmental Protection Act 1994

### Information request major amendment application

This information request is issued by the administering authority under section 140 of the Environmental Protection Act 1994 to request further information needed to assess an application for a major amendment to an environmental authority.

To: Sunshine Coast Regional Council  
 Locked Bag 72  
 SUNSHINE COAST MC  
 QLD 4560

Email: mail@sunshinecoast.qld.gov.au

ATTN: Access refused ur Bmt Wbm Pty Ltd

Our reference: APP0014380

### Further information needed to assess an application for a major amendment to an environmental authority

#### 1. Application details

The application to amend environmental authority BRID0035 was received by the administering authority on 21 February 2018.

The application reference number is: APP0014380

Land description: Adjacent to Adjacent to Lot 36/NPW662

#### 2. Information request

The administering authority has considered the abovementioned application and is writing to inform you that further information is needed to assess the application (an information request). The information requested is provided below:

Insufficient information was supplied to adequately assess and mitigate potential impacts caused by the proposed amendment. Please refer the attached Information Request.

#### 3. Actions

The abovementioned application will lapse unless you respond by giving the administering authority -

- (a) all of the information requested; or
- (b) part of the information requested together with a written notice asking the authority to proceed with the assessment of the application; or
- (c) a written notice –
  - i. stating that you do not intend to supply any of the information requested; and
  - ii. asking the administering authority to proceed with the assessment of the application.

A response to the information requested must be provided by 10 October 2018 (the information response period). A request to extend the information response period must be made at least 10 business days before the last day of the information response period.

The response to this information request or a request to extend the information response period can be submitted to the administering authority by email to palm@ehp.qld.gov.au.

If the information provided in response to this information request is still not adequate for the administering authority to make a decision, your application may be refused as a result of section 176 of the Environmental Protection Act 1994, where the administering authority must have regard to any response given for an information request.

Notice

## Information request environmental authority application

---

Should you have any questions about the notice, please contact Department of Environment and Heritage Protection on the details provided below.

Kerynne Birch  
Department of Environment and Heritage Protection  
Delegate of the administering authority  
Environmental Protection Act 1994

**Enquiries:**  
Coastal and Marine Assessment  
Department of Environment and Heritage Protection  
Phone: 1300 130 372  
Email: palm@ehp.qld.gov.au

**Date issued: 06 April 2018**





## Gerald Schmidt

---

**From:** Jaclyn McKirdy  
**Sent:** Tuesday, 17 April 2018 9:17 AM  
**To:** Steven Tarte  
**Subject:** FW: Sunshine Coast Airport

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

Jaclyn McKirdy, Senior Project Officer  
Coordinated Project Delivery Division | Office of the Coordinator-General | Department of State Development  
t. 07 34527436 | e. [jaclyn.mckirdy@coordinatorgeneral.qld.gov.au](mailto:jaclyn.mckirdy@coordinatorgeneral.qld.gov.au)

**From:** BRAIN Tim (DES) [<mailto:Tim.Brain@des.qld.gov.au>]  
**Sent:** Tuesday, 10 April 2018 3:33 PM  
**To:** Jaclyn McKirdy <[Jaclyn.McKirdy@coordinatorgeneral.qld.gov.au](mailto:Jaclyn.McKirdy@coordinatorgeneral.qld.gov.au)>  
**Cc:** GLEESON Kelly <[Kelly.Gleeson@des.qld.gov.au](mailto:Kelly.Gleeson@des.qld.gov.au)>; BIRCH Kerynne <[Kerynne.Birch@des.qld.gov.au](mailto:Kerynne.Birch@des.qld.gov.au)>; CONNOR Andrew <[Andrew.Connor@des.qld.gov.au](mailto:Andrew.Connor@des.qld.gov.au)>  
**Subject:** RE: Sunshine Coast Airport

Hi Jaclyn

Thanks for sending this over. I'm happy to respond in Kelly's absence.

As we discussed this afternoon, during the EIS process, there was significant public consultation undertaken to communicate the scope and details of the Sunshine Coast Airport project. I understand that members of the community held some concerns regarding environmental impacts that may be caused by the project. As such, there may be concern expressed by the community if they become aware of the proposed changes to the project after the assessment process for the amendment is finalised. The community may be particularly concerned if there has been no consultation opportunity with respect to the change. It is likely that some of the proposed changes will be visible to the public, hence the community would likely become aware that the proposal has been changed.

I don't think it's appropriate for me to step out specific issues of concern to the community as we are not reacting to community concerns, rather I'd suggest a proactive approach by Sunshine Coast Regional Council to be transparent with the community.

As Kelly advised in the letter, the department's assessment of the proposed amendments is continuing in accordance with the relevant legislative requirements.

Please let me know if you would like to discuss further.

Thanks and Regards

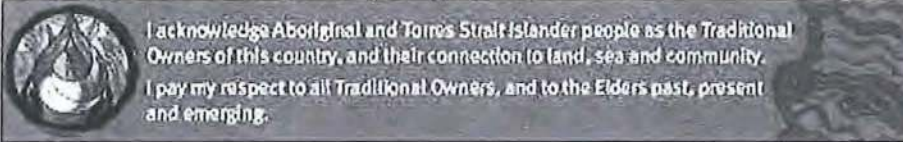
Tim



Queensland  
Government

**Tim Brain**  
Acting Director  
**Industry and Development**  
Environmental Services and Regulation  
Department of Environment and Science

P 07 4302 8585 (VoIP Ext: 38585)  
Ground Floor, 102 Lennox Street, Maryborough, QLD 4650  
PO Box 145 Maryborough QLD 4650



**From:** Jaclyn McKirdy [<mailto:Jaclyn.McKirdy@coordinatorgeneral.qld.gov.au>]  
**Sent:** Tuesday, 10 April 2018 3:03 PM  
**To:** BRAIN Tim (DES) <[Tim.Brain@des.qld.gov.au](mailto:Tim.Brain@des.qld.gov.au)>  
**Subject:** FW: Sunshine Coast Airport

Hi Tim

As discussed, please see attached original letter sent from DES and the email train below.

Kind Regards

Jaclyn McKirdy, Senior Project Officer  
Coordinated Project Delivery Division | Office of the Coordinator-General | Department of State Development  
t. 07 34527436 | e. [jaclyn.mckirdy@coordinatorgeneral.qld.gov.au](mailto:jaclyn.mckirdy@coordinatorgeneral.qld.gov.au)

**From:** Jaclyn McKirdy  
**Sent:** Tuesday, 10 April 2018 8:06 AM  
**To:** 'kelly.gleeson@des.qld.gov.au' <[kelly.gleeson@des.qld.gov.au](mailto:kelly.gleeson@des.qld.gov.au)>  
**Cc:** Scott Taylor <[Scott.Taylor@coordinatorgeneral.qld.gov.au](mailto:Scott.Taylor@coordinatorgeneral.qld.gov.au)>; 'Steven Tarte' <[Steven.Tarte@coordinatorgeneral.qld.gov.au](mailto:Steven.Tarte@coordinatorgeneral.qld.gov.au)>  
**Subject:** RE: Sunshine Coast Airport

Good morning Kelly

In Steven's absence, I am just following up on his email below. If an email has been sent directly to Steven, are you able to please forward me a copy so I can discuss with the proponent as soon as possible?

Otherwise, can you please advise of when DES will be providing a proposed course of action regarding the community engagement concerns raised.

Kind Regards



Queensland  
Government

**Jaclyn McKirdy**  
Senior Project Officer, Coordinated Project Delivery  
**Office of the Coordinator-General**  
Department of State Development,  
Manufacturing, Infrastructure and Planning

P: 07 3452 7436 | E: [jaclyn.mckirdy@coordinatorgeneral.qld.gov.au](mailto:jaclyn.mckirdy@coordinatorgeneral.qld.gov.au)  
Level 17 | 1 William Street | Brisbane QLD 4000

PO Box 15517 | City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** Steven Tarte  
**Sent:** Monday, 26 March 2018 1:26 PM

To: 'GLEESON Kelly' <Kelly.Gleeson@des.qld.gov.au>  
Subject: RE: Sunshine Coast Airport

Hi Kelly,

Thank you discussing this matter with last Monday.

I am following up on your proposed course of action noting that the proponent appears amenable to addressing your concerns without affecting their timeframes (given the current stage of the application and previous pre-lodgement meetings).

As discussed, our office is not aware of the community concern indicated either through direct enquirers or from your office. Further, the Coordinator-General cannot compel the proponent to lodge a change application and it is normal practice for regulatory authorities to manage the conditions when they form part of approvals subsequent to the Coordinator-General's Evaluation Report.

Given the concerns that you have raised in correspondence, please advise your intend course of action.

I would be happy to provide any assistance to engage with the proponent on this matter.

Regards,

Steven



Steven Tarte  
A/Director  
**Office of the Coordinator-General**  
Department of State Development,  
Manufacturing, Infrastructure and Planning  
P 07 3452 7455 M **Access refuse**  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** Steven Tarte  
**Sent:** Thursday, 15 March 2018 3:57 PM  
**To:** 'GLEESON Kelly' <Kelly.Gleeson@des.qld.gov.au>  
**Subject:** FW: Sunshine Coast Airport

Hi Kelly,

I called and must have missed you. Could we please set a time to discuss this one?

Steven



Steven Tarte  
A/Director  
**Office of the Coordinator-General**  
Department of State Development,  
Manufacturing, Infrastructure and Planning  
P 07 3452 7455 M **Access refuse**  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** Steven Tarte  
**Sent:** Tuesday, 13 March 2018 12:40 PM  
**To:** 'GLEESON Kelly' <Kelly.Gleeson@des.qld.gov.au>  
**Subject:** RE: Sunshine Coast Airport

Hi Kelly,

I called to discuss this one.

Could you call back later today if you are available? Any time around the meetings that I have from 1-2 and 330-4.

Thank you,

Steven



**Queensland  
Government**

Steven Tarte  
A/Director  
**Office of the Coordinator-General**  
Department of State Development,  
Manufacturing, Infrastructure and Planning  
P 07 3452 7455 M **Access refused**  
Level 17, 1 William Street, Brisbane QLD 4000  
PO Box 15009, City East QLD 4002  
[www.dsdmip.qld.gov.au](http://www.dsdmip.qld.gov.au)

**From:** GLEESON Kelly [<mailto:Kelly.Gleeson@des.qld.gov.au>]  
**Sent:** Wednesday, 7 March 2018 1:09 PM  
**To:** Steven Tarte <[Steven.Tarte@coordinatorgeneral.qld.gov.au](mailto:Steven.Tarte@coordinatorgeneral.qld.gov.au)>  
**Cc:** GRAY Amanda <[Amanda.Gray@des.qld.gov.au](mailto:Amanda.Gray@des.qld.gov.au)>; PETERKEN Claire <[Claire.Peterken@des.qld.gov.au](mailto:Claire.Peterken@des.qld.gov.au)>  
**Subject:** Sunshine Coast Airport

Hello Steven, as discussed yesterday please find attached some correspondence concerning the Sunshine Coast Airport expansion.

We are happy to talk through any options you may think appropriate. We are also engaging with the Council in a similar way.

Thanks again.

Kelly.

Kind regards,



**Queensland  
Government**

Kelly Gleeson  
A/Director  
**Industry and Development Assessment  
Environmental Services and Regulation**  
Department of Environment and Science  
-----  
Level 8, 400 George Street, Brisbane  
GPO Box 2454, Brisbane Qld 4001  
Tel 07 3330 5066 | Mobile **Access refuse**

...m... the move  
connect

**Register to be a Connect Customer**

The Department of Environment and Science (DES) have changed the way we do business. We have a new digital platform for online services and transactions called Connect. Connect allows for fast, efficient and 24/7 access with us on any device (i.e. desktop, mobile, tablet). Benefits of being a Connect customer include being able to manage your contact details and business information, submit and pay instantly for environmental applications, lodge annual returns and communicate with us via email.

We encourage you to do business with us online and register to become a Connect customer. Please visit our website at [www.ehp.qld.gov.au/connect](http://www.ehp.qld.gov.au/connect).

If you are an existing DES customer, your details are already in Connect and you can get your Connect DES Customer Reference by emailing [connecthelp@ehp.qld.gov.au](mailto:connecthelp@ehp.qld.gov.au).

-----  
The information in this email together with any attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. There is no waiver of any confidentiality/privilege by your inadvertent receipt of this material.

Any form of review, disclosure, modification, distribution and/or publication of this email message is prohibited, unless as a necessary part of Departmental business.

If you have received this message in error, you are asked to inform the sender as quickly as possible and delete this message and any copies of this message from your computer and/or your computer system network.

-----

This email and any attachments may contain confidential or privileged information and may be protected by copyright. You must not use or disclose them other than for the purposes for which they were supplied. The confidentiality and privilege attached to this message and attachment is not waived by reason of mistaken delivery to you. If you are not the intended recipient, you must not use, disclose, retain, forward or reproduce this message or any attachments. If you receive this message in error please notify the sender by return email or telephone, and destroy and delete all copies. The Department does not accept any responsibility for any loss or damage that may result from reliance on, or use of, any information contained in this email and/or attachments.

## Jaclyn McKirdy

---

**From:** Jacinta Glover <Jacinta.Glover@sunshinecoast.qld.gov.au> on behalf of Ross Ullman <Ross.Ullman@sunshinecoast.qld.gov.au>  
**Sent:** Wednesday, 14 November 2018 1:24 PM  
**To:** Steven Tarte; Jaclyn McKirdy  
**Cc:** Ross Ullman  
**Subject:** HPE CM: SCAEP - Draft Letter Proposal Amendments  
**Attachments:** Letter to OCG re Proposal Amendments V3.docx

**Follow Up Flag:** Follow up  
**Flag Status:** Completed

**Record Number:** E2018/000252368

Afternoon Steven and Jaclyn

Please find attached the draft letter for discussion at this afternoon's meeting with Ross Ullman regarding Sunshine Coast Airport Expansion Project.

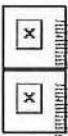
Regards

Jacinta Glover - Project Officer  
Sunshine Coast Airport Expansion Project (SCAEP)  
Built Infrastructure Group

Phone: Landline: (07) 5453 1544 Mobile: Access refused u  
Email: [jacinta.glover@sunshinecoast.qld.gov.au](mailto:jacinta.glover@sunshinecoast.qld.gov.au)  
Website: [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au)  
Mail: Locked Bag 72 Sunshine Coast Mail Centre Qld 4560



 Please consider the environment before printing this email



To find out more about the Sunshine Coast Council, visit your local office at Caloundra, Maroochydore or Nambour; or visit us online at [www.sunshinecoast.qld.gov.au](http://www.sunshinecoast.qld.gov.au). If correspondence includes personal information, please refer to [Council's Privacy Policy](#).

This email and any attachments are confidential and only for the use of the addressee. If you have received this email in error you are requested to notify the sender by return email or contact council on 07 5475 7272, and are prohibited from forwarding, printing, copying or using it in anyway, in whole or part. Please note that some council staff utilise mobile devices, which may result in information being transmitted overseas prior to delivery of any communication to the device. In sending an email to council, you are agreeing that the content of your email may be transmitted overseas. Any views expressed in this email are the author's, except where the email makes it clear otherwise. The unauthorised publication of an email and any attachments generated for the official functions of council is strictly prohibited. Please note that council is subject to the *Right to Information Act 2009 (Qld)* and *Information Privacy Act 2009 (Qld)*.

## **DRAFT**

Mr Steven Tarte  
Director Coordinated Project Delivery  
Office of the Coordinator-General  
Department of State Development, Manufacturing, Infrastructure and Planning

Dear Steve

### **Sunshine Coast Airport Expansion Project: Detailed Design Development of "Issue for Construction" (IFC) Design Documents**

Thank you taking the time to meet with myself and Graham Fraine on 30 October 2018 to discuss the Sunshine Coast Airport Expansion Project (SCAEP).

SCAEP represents a game-changing project for the Sunshine Coast and for Queensland more broadly. The airport has been instrumental in the development of the Sunshine Coast economy over its 55 years of operation. As the region continues to grow, the airport's expansion will meet the needs of the community and continue to support the development of the region's economy.

Sunshine Coast Council (Council) has welcomed the collaborative approach taken by the Coordinator-General throughout this project and our meeting on 30 October was, as always, informative and productive.

As we discussed, Council is seeking your confirmation that a number of minor amendments to the project, that have been identified through the detailed design development of the Issue For Construction (IFC) Design Documents, do not constitute material amendments.

These amendments have been addressed as either agenda items or the subject of technical notes at coordination meetings that were held regularly since the receipt of the Coordinator-General's Evaluation Report on 19<sup>th</sup> May 2016. Some have already been addressed in amendments to the EA BRID0035 for the project.

The following is a summary of the amendments:

- Replacement of taxiway end loops with part parallel taxiway
- Rationalisation of apron expansion to accommodate Code E aircraft on eastern side of terminal, relocating some Code C parking bays to northern side of terminal
- Connection between the new and existing runways to accommodate required flood immunity of new runway and taxiway access
- Location of RWY 31 threshold and length of starter extension runway
- Airservices Australia no longer plan to relocate the Air Traffic Control Tower, the ARFFS station and Nav aids
- Significant reduction in depth and width of the two major drains
- Extension of RWY 13/31 to the north west to achieve the 2450 m Landing Distance Available indicated in the EIS
- Improved flood impact associated with the development
- Changes to the methodology for the placement of the dredged sand
- Vegetation management in both approaches to clear Obstacle Limitation Surfaces
- Additional of lining to the polishing pond and settlement areas

- Changes to the volume of sand to be dredged, and
- The shape and extent of the Conservation Corridor.

The attached table contains further detail associated with these amendments.

We would be available to discuss the contents in more detail at a time that is convenient and we look forward to receiving your formal approval to these matters.



EIS	IFC	Rationale for Change
Taxiway end loops at each end of the new runway.	Provision of turning node on NW end and parallel taxiway to midpoint of runway in lieu of end taxiway loops.	Reduced impact on flood plain, greater efficiency for airport operations. Sand volume impact neutral.
Apron expansion originally shown indicatively on the northern end of the terminal.	Apron expansion on both northern and eastern sides of terminal.	Apron originally shown indicatively to be extended on the northern end. There is insufficient clearance to RWY 13/31 and Code E aircraft tails would penetrate the OLS if parked on the northern end. Now only Code C aircraft on northern end. Code E aircraft parking bays have been designed on eastern side of terminal. Aircraft tails will penetrate the OLS for the existing RWY 18/36, and the separation distances between the apron taxilanes and the RWY 18/36 do not meet CASA regulations. The southern portion of this runway is to become a taxiway only.
Connection between RWY13/31 and RWY 18/36.	Connection exists but new runway is approx. 400 mm above level of RWY18/36.	New runway has been designed to provide flood immunity for a 1% AEP event with 2100 climate change and sea level rise allowance as identified in the EIS. Taxiway grades down from that level to apron level from the connection point. This impacts RWY 18/36 over approx. 250m.
Starter extension runway for RWY 31 is 180m.	Starter extension runway for RWY 31 is now 355 m.	The displacement of the RWY 31 threshold was necessary to avoid penetrations of the approach OLS by buildings to the SE of RWY 13/31. This has moved the threshold further away from residences and allowed for a longer starter extension runway.
New ATC Tower and ARFFS station.	No longer being relocated.	ASA have advised that they no longer need to relocate these facilities.
Relocated VOR.	No longer being relocated.	ASA have advised that they no longer need to relocate this facility.

Western Perimeter Drain.	Significant drain no longer required – shallow swale drain only.	The proposed drain was found not to contribute to flood afflux mitigation. The removal of this deep drain now avoids possible disturbance of PASS and doesn't compromise the Conservation Corridor.
Northern Perimeter Drain and cut-off wall.	NPD reduced to < 1 metre in depth. Cut-off wall confined to the area adjacent to the bunded containment area. Cut-off wall on hold for length beyond bunded containment area.	This has been addressed in the EA amendment. The proposed drain was found not to contribute to flood afflux mitigation. The removal of this deep drain now avoids possible disturbance of PASS and the potential to drawdown the groundwater (GW) level in the National Park. The additional cut-off wall will only be included if salt water intrusion is detected in GW – additional sentinel wells installed to monitor this.
RWY LDA length shown as 2450 m.	Runway extension by 175 metres to the northwest required to achieve LDA of 2450 m.	This has again been addressed in the EA amendment. Due to displacement of 31 threshold. Required approx. 100,000 m <sup>3</sup> of additional sand.
Flood impact in Marcoola not to exceed +18.5 mm	Flood impact in Marcoola is now – 22 mm	This has been achieved by the inclusion of a flood levee wall along the western side of David Low Way. This will require work within the original National Park boundary. Discussions have been held with QNPWS and DES and agreement has been reached on NP revocation and acceptable offsets.
Bunded containment area runs full length of the runway.	Bunded containment area only occupies the last 840 m of runway.	This issue has been addressed in the EA amendment. DES applied additional conditions to address the alternative arrangement whereby sand will be transferred longitudinally along the runway rather than laterally as indicated in the EIS.  This significantly reduces the risk of saline intrusion into the National Park as the receiving

		area is now not adjacent to the National Park and sand will only be moved after the salt water content has fallen below a specified level that has been nominated in the amended conditions.
Airspace and Instrument Flight Procedures to be undertaken by Airservices Australia and approved by CASA in accordance with Federal Minister for the Environment's approval.	Airspace design has identified additional vegetation management required to clear OLS.	Trees in public open space, road reserves and private property have to be trimmed, lopped or removed to clear the OLS on both ends of the new runway. Area is significant on the NW end and Council will be acquiring some private property to facilitate this. Impacts on Council's Environmental Reserve will be generously offset (Approx. 10 : 1 which is twice the offset ratio required by State regulations) to provide an enhanced environmental outcome. All necessary approvals under the Nature Conservation Act and EPBCA will be obtained prior to commencement of vegetation management activities.
Polishing pond and settlement areas not lined	Full area of sand reclamation area and polishing pond have been lined with HDPE.	Reduced risk for salt water to infiltrate the GW.
Volume of sand to be dredged and placed on site not to exceed 1,100,000 cubic metres	Sand volume has increased to approximately 1,300,000 cubic metres.	Based on SCRC submission to the Department of Environment and Science, the amendment to the EA BRID0035 to allow additional sand to be dredged was deemed to constitute a major amendment. Approval of this amendment was advised on 26 June 2018. Quantity to be dredged was increased to 1,650,000 cubic metres and additional conditions were imposed.
Conservation Corridor at least 100 m wide and 21.5 ha in area.	Corridor is 104 m wide at its narrowest point and 40 ha in area.	The corridor identified in the OAMP was 120 m wide and 48 ha in area. This has since been reduced to 104 m wide and 40 ha which still exceeds the dimensions nominated in the CGER.

## SCAEP – Variation to design Environmental approvals implications

### Background

This memo has been prepared to provide advice on the implications associated with a recent design change to the Sunshine Coast Airport Expansion Project (SCAEP), which would see the proposed runway 13/31 extended to the NW by 170 to 180m.

A plan showing the extension (worst case 180m extension) is attached as Figure 1.

Potential changes to environmental impacts associated with this design change for the Project include:

- A reduction in the width of the proposed ecological conservation corridor approved under the BOS and Offset Delivery Plan.
- A requirement to source an additional ~ 500,000m<sup>3</sup> of sand from the approved footprint at the Spitfire Channel Re-alignment Area.
- An extension of the period required for dredging of the order of an extra 4 weeks (depending on the size of the plant selected to undertake the works but still within the timeframe from 1<sup>st</sup> April to 31<sup>st</sup> October).
- An extension of the period of required for reclamation filling and associated tailwater release from the site of the order of an extra 4 weeks.

An extension of the reclamation footprint (presumably in depth) including the requirement to source and place additional liner in the extended runway footprint. The implications of these changes to the Coordinator-General's evaluation report (CGER) and existing or impending approvals for the SCAEP are discussed below.

### Coordinator-General's Evaluation Report

In reviewing the CGER on the SCAEP Environmental Impact Statement (EIS), the following matters are not expected to be affected –

- Dredging – the extension of the duration of dredging will not change the dredging methodology or expected impacts with only temporary dredge plumes during operation. The project will continue to target the clean Holocene sand in the existing approved dredge footprint which does not contain seagrass or other benthic habitats of significance. Further deepening of the ultimate channel will be required by PBPL (likely down to -17.5 m LAT) as outlined below but this is not expected to intercept any pre-Holocene sediments at the location (estimated to be below -20 m LAT).
- Pump Out and Pipeline – other than a longer duration of works (up to one month), the revised design and additional volume of material will not change pump out or dredge pipeline operations. It will continue that dredge pipeline operations do not occur during turtle nesting season on Maroola Beach (November to March)

- Land – based on acid sulfate soil (ASS) testing undertaken for the EIS, acidity in the extension area is similar to that in the original footprint and can be managed consistent with the ASS testing and ASS management plan requirements of the existing EA
- Surface Water – tailwater discharge location will not change from that nominated in the EIS. The location of the tailwater polishing pond may need to be altered but will not change in terms of its overall design and function. No changes are required to the water quality tailwater discharge standards or receiving water quality standards set in the EA and existing mitigations will be implemented (e.g. tidal flap). The EIS originally assessed tailwater release into the Marcoola Drain up to 33 weeks (using the small TSHD Brisbane) and impacts to salinity and TSS were acceptable; on that basis the extension of tailwater release duration is not expected to change EIS impact assessment findings.
- Groundwater – as per the existing EA, all areas of the reclamation footprint and tailwater pond will be underlain by the HDPE liner. The approved plans in the EA will need to be amended to reflect the revised design.
- Drainage - The revised design also indicates a smaller and shallower Northern Perimeter Drain. This will limit the extent of draw down from the national park and likely remove the requirement to construct the weir structures on the national park drains. However, a groundwater cut off wall will still be installed (in accordance with the EA conditions) to provide long term protection to the National Park to the north (in case of any long term groundwater movement to the north). Connection points of the proposed airport drains to existing tidal drains have yet to be applied for (development permits involving tidal works and disturbance of marine plants) and will be subject to the detailed design process.
- Flora/Fauna – see changes to the ecological corridor below – the extension of the runway footprint does not impact on any flora or fauna habitat of significance and does not impact marine plants.
- Noise – the noise limits set in the EA will be suitable for the revised design, noting the extension is occurring on the far northwestern end of the runway away from sensitive receptors
- Cultural heritage – confirm there are no items, objects or places of cultural significance in the extended footprint and noting this has been subject to a recent site investigation and will be covered by the project CHMP. No changes to impacts from the revised design
- Air – no changes to impacts from the revised design
- Contaminated land – there is no contaminated site or areas in the new footprint; no changes to impacts from the revised design
- Transport – no changes to impacts from the revised design; sourcing the additional sand from Moreton Bay will continue to be a beneficial impact in that it limits construction (truck) traffic impacts compared to sourcing this fill material from land-based sources
- Landscape and Visual – no changes to impacts from the revised design

Noting the above, the potential conflicts associated with this proposed design change in the context of the CGER are as follows:

### ***CGER Findings***

#### **5.8.1 Connectivity Areas (pg96-97)**

To compensate for this loss, the proponent proposes to revegetate/rehabilitate a **100-metre-wide** corridor around the western extent of the new runway to create a new ecological corridor between the sections of Mount Coolum National Park. The amendment potentially reduces that corridor width to 96 metres over approximately 100 metres length.

### **Appendix No.1 – Stated conditions**

#### Schedule 1 – Environmental authority

- Dredging is limited to 1.1 million m<sup>3</sup> – a greater volume is now required.
- The works, including placement of dredged material, must be in accordance with the Approved Plans of the EIS – revised plans are now required.

#### Schedule 2 – Tidal works

No changes required

### **Appendix No. 2 – Imposed conditions**

No changes required.

### **Appendix No. 3 – Coordinator-General's recommendations**

No changes required.

### **Appendix No. 4 – Proponent commitment**

- 41. There is a commitment to establish a 25ha vegetated corridor to create ecological connectivity between the northern and southern section of Mount Coolum National Park – this corridor will still be established but may be of a different configuration than originally provided for.

### **Other Approvals**

#### **Environmental Authority (ERA16) (BRID0035)**

Conflicts associated with this proposed design change are as per the Stated Conditions of the CGER, as well as the following:

- Some additional Approved Plans attached to the Environmental Authority (but not the CGER) conflict with the changed design

Solution:

- Once changes to the CGER, including the Stated Conditions, have been approved, submit for a major amendment to the Environmental Authority based on the larger dredging volume and new plans.

#### **Quarry material allocation (AQM0001)**

Conflicts associated with this proposed design change are as follows:

- The quarry allocation AQM0001 originally obtained is only for 1.1 million m<sup>3</sup>

Solution

- The current allocation permit requires amendment to include the additional sand; or
- A new or revised quarry allocation application will need to be submitted.

The ultimate depth of the channel will also need to change to accommodate the extra sand sought. The CGER approved an ultimate channel depth of -17.05 LAT. This will need to be deepened further (likely -17.5 m LAT) as part of a subsequent application for tidal works by the Port of Brisbane. This deepening is not expected to present any additional impacts or implications given that the Holocene sand resource is estimated to extend to -20 m LAT.

### ***Marine Parks***

Conflicts associated with this proposed design change are as follows:

- The marine parks permit MWP2017/MBMP0134, as amended 13<sup>th</sup> July 2017, originally obtained is only for 1.1 million m<sup>3</sup>.

Solution:

- Once a revised/new quarry material allocation is obtained, amend the existing permit to include the additional sand

### ***Notice of Agreement and Agreed Delivery Arrangement***

Conflicts associated with this proposed design change are as follows:

- The Corridor Connectivity referenced in the Offset Delivery Plan (ODP) cannot be achieved with the new changes and will need to be amended. This ODP was approved under the Notice of Agreement and Agreed Delivery Arrangement AR098426.

Solution:

- Resubmit a Notice of Election with a supporting modified Offset Delivery Plan for assessment.

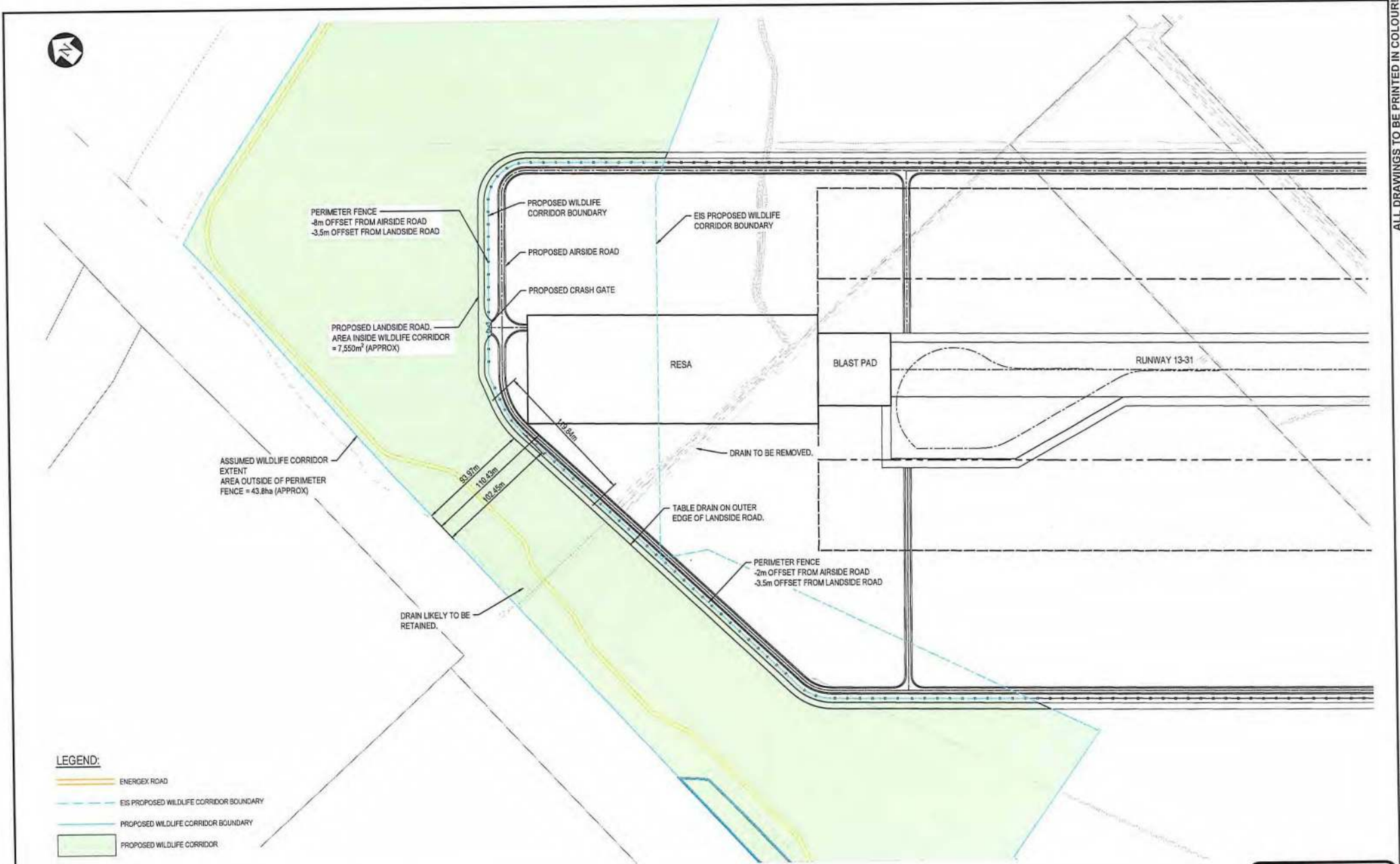
## Appendix

Please find attached four sketches for discussion outlining the 2 options for the Wild Life Corridor and landside road arrangements.

The below is a table of the areas. As you can see we are well over our 25ha minimum.

	Option 1	Option 2
<b>Wildlife Corridor – Estimated Area outside of Airside / Landside Perimeter Fence to the Motorway Fence</b>	43.8 ha	43.8ha
<b>Estimated Landside Road Width – Area inside Wildlife Corridor</b>	7,550m <sup>2</sup>	5,290m <sup>2</sup>
<b>Estimated Energex Road Width – Area inside Wildlife Corridor</b>	7,770m <sup>2</sup>	7,770m <sup>2</sup>
<b>Total Estimated Area of Wildlife Corridor</b>	<b>42.3 ha</b>	<b>42.5ha</b>





- LEGEND:**
- ENERGEX ROAD
  - EIS PROPOSED WILDLIFE CORRIDOR BOUNDARY
  - PROPOSED WILDLIFE CORRIDOR BOUNDARY
  - PROPOSED WILDLIFE CORRIDOR

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

REV	DATE	REVISIONS	BY	CHK	APPD
A	15,11,17	FOR INFORMATION	DVDH	NW	—

DRAWING ORIGINATOR:  
**Beca**  
 ARUP / GOLDR / LEAPP / WBM / WTP

DESIGN	DVDH	15.11.17
DRAMAN	DVDH	15.11.17
DESIGN VERIFIER	PM	15.11.17
DRAWING CHECK	PM	15.11.17
APPROVED FOR CONSTRUCTION		

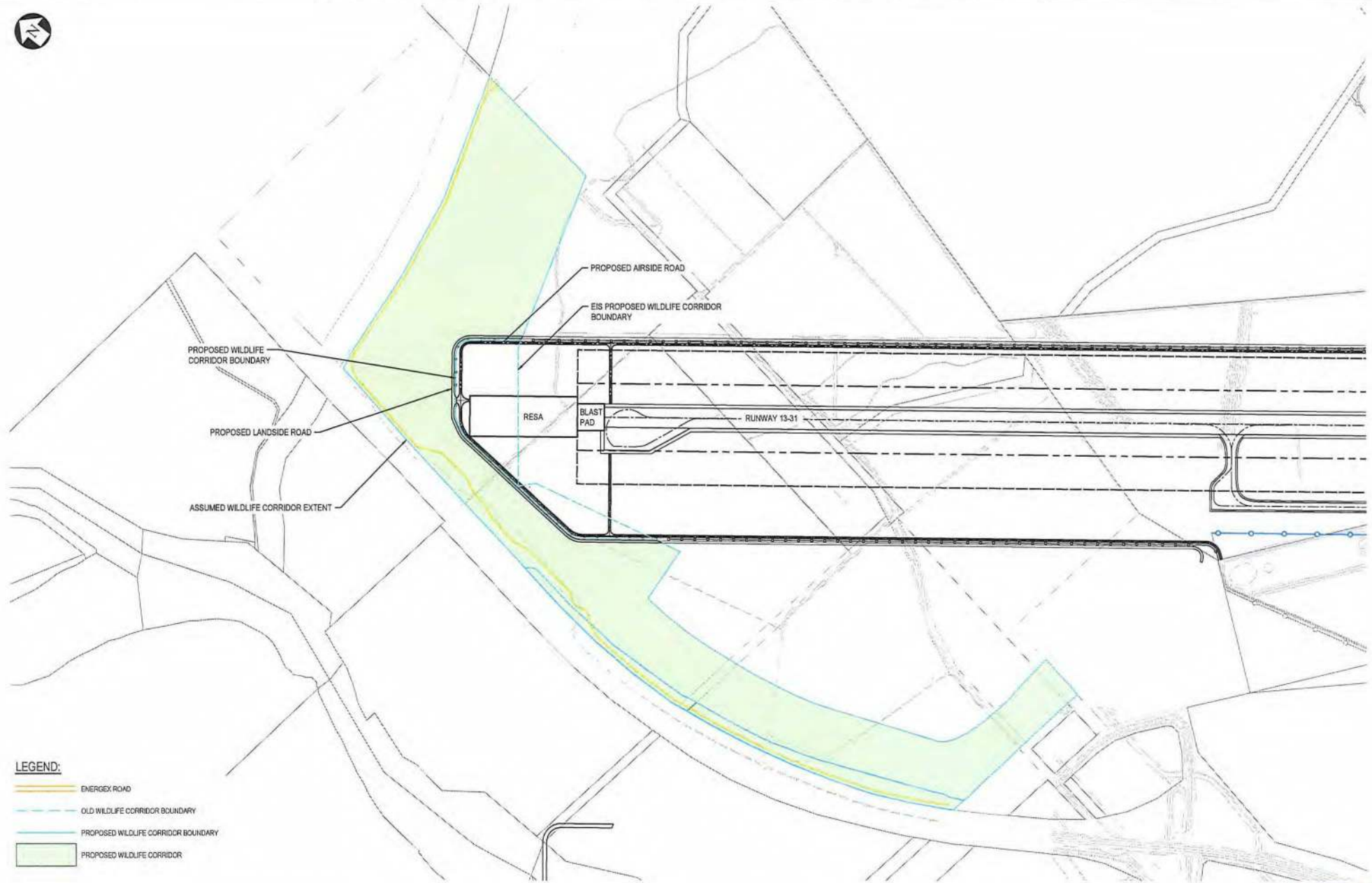
**Sunshine Coast COUNCIL**

PROJECT  
 SUNSHINE COAST AIRPORT EXPANSION PROJECT (D-1686)

AIRFIELD LAYOUT  
 WILDLIFE CORRIDOR  
 OPTION 1 GENERAL ARRANGEMENT

PROJECT NUMBER	SHEET NO. / REVISION NO.
3518892	CG-K003 A





**LEGEND:**

- ENERGEX ROAD
- OLD WILDLIFE CORRIDOR BOUNDARY
- PROPOSED WILDLIFE CORRIDOR BOUNDARY
- PROPOSED WILDLIFE CORRIDOR

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

A	16.11.17	FOR INFORMATION	DVDH	NW	--
RV	DATE	REVISIONS	BY	CHK	APPR

DRAWING ORIGINATOR  
**Beca**  
 ARUP / GOLDER /  
 LEAPP / WBM / WTP

ORIGINAL SCALE (A1)	DESIGN	DVDH	16.11.17
NTS	DRAWN	DVDH	16.11.17
REDUCED SCALE (A3)	DESIGN VERIFIER	PM	16.11.17
NTS	DRAWING CHECK	NW	16.11.17
	APPROVED FOR CONSTRUCTION		



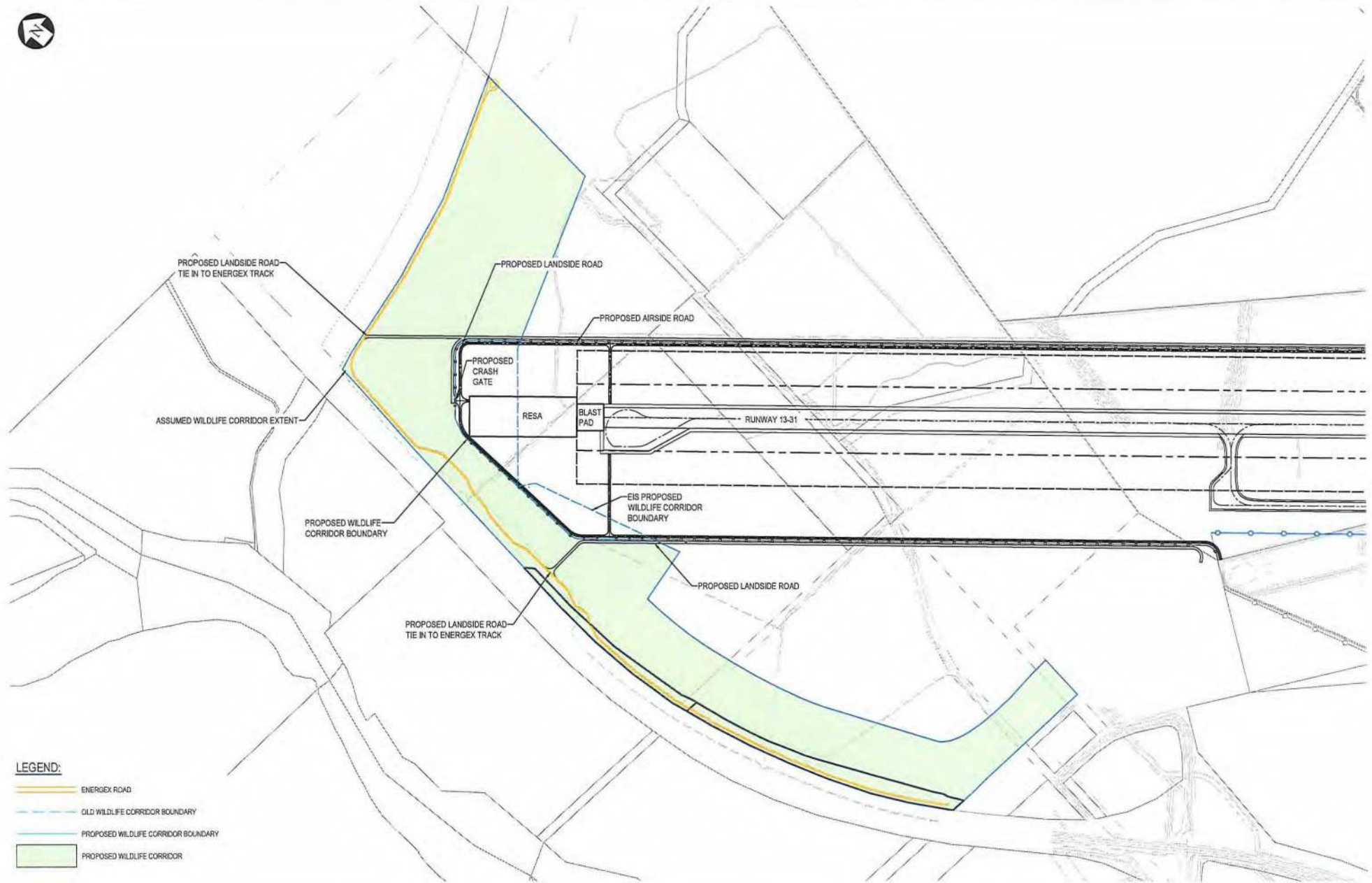
PROJECT  
 SUNSHINE COAST  
 AIRPORT EXPANSION  
 PROJECT (D-1686)

AIRFIELD LAYOUT  
 WILDLIFE CORRIDOR  
 OPTION 1 SITE PLAN

PROJECT NUMBER	3518892
SHEET NO. - REVISION NO.	CG-K005 A

ALL DRAWINGS TO BE PRINTED IN COLOUR

www.beca.com



**LEGEND:**

- ENERGEN ROAD
- OLD WILDLIFE CORRIDOR BOUNDARY
- PROPOSED WILDLIFE CORRIDOR BOUNDARY
- PROPOSED WILDLIFE CORRIDOR

**FOR INFORMATION  
NOT FOR CONSTRUCTION**

A	16.11.17	FOR INFORMATION	DVDH	NW	---
RV	DATE	REVISIONS	BY	CHK	APPO

DRAWING ORIGINATOR:  
**Beca**  
 ARUP / GOLDER /  
 LEAPP / WBM / WTP

ORIGINAL SCALE (A1)	NTS	DESIGN	DVDH	16.11.17
REDUCED SCALE (A3)	NTS	DRAWN	DVDH	16.11.17
		DESIGN VERIFIER	PM	16.11.17
		DRAWING CHECK	NW	16.11.17
		APPROVED FOR CONSTRUCTION		

**Sunshine Coast  
COUNCIL**

PROJECT:  
 SUNSHINE COAST  
 AIRPORT EXPANSION  
 PROJECT (D-1686)

AIRFIELD LAYOUT  
 WILDLIFE CORRIDOR  
 OPTION 2 SITE PLAN

PROJECT NUMBER	3518892
SHEET NO. - REVISION NO.	CG-K006 A

ALL DRAWINGS TO BE PRINTED IN COLOUR

www.beca.com

Officer: Ross Ullman  
Direct telephone: 07 5453 1541  
Email: [ross.ullman@sunshinecoast.qld.gov.au](mailto:ross.ullman@sunshinecoast.qld.gov.au)  
Our reference: SCAEP Detailed Design

4 December 2018

Mr Barry Broe  
Coordinator-General  
Department of State Development, Manufacturing, Infrastructure and Planning  
PO Box 15517  
CITY EAST QLD 4002

Email: [barry.broe@coordinatorgeneral.qld.gov.au](mailto:barry.broe@coordinatorgeneral.qld.gov.au)

Dear Barry

**Sunshine Coast Airport Expansion Project: Detailed Design Development Of  
“Issue For Construction” (IFC) Design Documents - Compliance Update**

I would like to thank your Acting Director Coordinated Project Delivery, Steven Tarte for taking the time to meet with Ross Ullman and Graham Fraine on 30 October 2018 to discuss the Sunshine Coast Airport Expansion Project (SCAEP).

SCAEP represents a game-changing project for the Sunshine Coast and for Queensland more broadly. The airport has played a key role in the development of the Sunshine Coast economy over its 55 years of operation. As the region continues to grow, the airport's expansion will meet the needs of the community and continue to support the development of the region's economy.

Sunshine Coast Council (Council) has welcomed the collaborative approach taken by the Coordinator-General throughout this project and our meeting with your officers on 30 October 2018 was, as always, informative and productive.

The project has now progressed to the stage that Issued for Construction Design Documentation has been released.

Sunshine Coast Council, as Proponent or John Holland as the Contractor engaged by Council have obtained all of the required approvals and permits to enable the works to proceed. The Contractor has now completed a number of the significant preliminary activities in accordance with these approvals, particularly the preparation for the dredging and the delivery of the sand to the site.

Attachment 1, in three parts, (1A, 1B, 1C) provides an update on project compliance with the Stated Conditions, Imposed Conditions, and Coordinator-General's recommendations as detailed in the Coordinator-General's Evaluation Report (CGER).

At the meeting we discussed, a number of amendments to the concept design as presented in the EIS have also been developed as refinements during the detailed design. Council considers that these amendments are entirely consistent with the intent of the EIS and that they do not constitute material changes to the project.

These amendments have been addressed as either agenda items or the subject of technical notes at coordination meetings that were held regularly since the receipt of the CGER on 19 May 2016. Some have already been addressed in amendments to the EA BRID0035 for the project.

Council is seeking confirmation from the OCG that the amendments are not in conflict with the requirements detailed in the CGER.

The following is a summary of the amendments:

1. Replacement of taxiway end loops with part parallel taxiway
2. Rationalisation of apron expansion to accommodate Code E aircraft on the eastern side of terminal, relocating some Code C parking bays to northern side of terminal
3. Connection between the new and existing runways to accommodate required flood immunity of new runway and taxiway access
4. Location of RWY 31 threshold and length of starter extension runway
5. Airservices Australia no longer plan to relocate the Air Traffic Control Tower, the Airport Rescue Fire Fighting Station and Nav aids
6. Significant reduction in depth and width of the two major drains
7. Extension of RWY 13/31 by 175 metres to the north west to achieve the 2450 m Landing Distance Available indicated in the EIS
8. Improved flood impact associated with the development
9. Changes to the methodology for the placement of the dredged sand
10. Airspace and Instrument Flight Procedures design to proceed in accordance with the Minister for the Environment's approval - Vegetation management in both approaches to clear Obstacle Limitation Surfaces
11. Addition of lining to the polishing pond and settlement areas
12. Changes to the volume of sand to be dredged, (which has been approved by DES
13. The shape and extent of the Conservation Corridor
14. Apron layout and impact on southern end of RWY 18/36; and
15. Error in conversion to magnetic bearings.

Attachment 2 contains further detail associated with these amendments.

Finally, Sunshine Coast Airport (a separate entity to Council) is about to undertake a Master Planning process. This process will address the planned development of the airport over the next 8 years. It is 11 years since the last plan was adopted. The SCAEP will deliver many of the features identified in the previous plan, and it is now prudent to extend the planning horizon into the future.

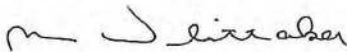
The following is an outline of the Master Plan process:

- A Preliminary Draft of the Master Plan is to be prepared by SCA with input from the aviation industry, regulatory stakeholders and specialist consultants
- Once prepared, the Preliminary Draft Master Plan will be the subject of a 50-business day (10 week) public comment period. It is anticipated that the public comment period will commence in early 2019
- Following the public comment period SCA will consider the submissions received before finalising the Draft Master Plan for submission to SCC
- Council will then consider Draft Master Plan
- Following an approval of the Draft Master Plan the Draft becomes the approved Master Plan until it is reviewed again within 8 years
- Copies of the Master Plan will be available on the SCA website for viewing and hard copies will be made available to the public for viewing at a number of locations; and
- Submissions on all aspects of the draft Master Plan will be welcomed by SCA once the public comment period commences.

A copy of an information sheet outlining the master planning process can be found at [sunshinecoastairport.com.au/masterplan2040](http://sunshinecoastairport.com.au/masterplan2040). This information has been prepared by Sunshine Coast Airport.

We would be available to discuss the contents of this letter and the attachments in more detail at a time that is convenient and we look forward to receiving formal approval to these matters.

Yours sincerely



**Michael Whittaker**  
**CHIEF EXECUTIVE OFFICER**

cc: [steven.tarte@coordinatorgeneral.qld.gov.au](mailto:steven.tarte@coordinatorgeneral.qld.gov.au)

**Attachment 1A - Sunshine Coast Airport Expansion  
Project - Compliance with CGER**



The following is an update on the status of the Sunshine Coast Airport Expansion Project in relation to the Coordinator-General's Imposed Conditions, Stated Conditions and Recommendations as detailed in the Coordinator-General's Evaluation Report (CGER) dated 18 May 2016.

All necessary environmental approvals, development permits and other statutory permits identified in the CGER have now been received. There are ongoing discussions relating to minor amendments to some of these approvals to reflect refinements identified during the detailed design stage of the project.

Attachment 1B contains a more detailed schedule of all required approvals and permits with a progressive account of status and issues identified during the process.

The project has now progressed to the stage of Issued for Construction (IFC) Design Documentation and the majority of the preliminary works have been completed.

The Contractor has completed the construction of the temporary regulated structures associated with the containment of the dredged sand. The dredged sand has also now been delivered to the site in accordance with the approvals obtained.

The following provides details associated with the various conditions included in the CGER.

## **CGER - Appendix 1 - Stated Conditions**

The details provided in this section relate to the conditions stated by the Coordinator-General under Section 39 of the *State Development and Public Works Act 1971*.

### **Schedule 1 - Environmental Authority**

On 29 September 2017, the Environmental Authority EA BRID0035 was approved by Department of Environment and Heritage (Subsequently Department of Environment and Science (DES)) for the Environmentally Relevant Activity 16 (1) (d) (dredging, extractive industry and screening) for the relevant sand dredging activity.

The Approved Works were described as "the dredging in Moreton Bay and hydraulic placement of dredge spoil on the Airport Land associated with the project".

The EA BRID0035 contained all of the General Conditions (G1 to G17), Air (A1), Noise (N1 to N3), Land (L1 to L9), Waste (WS1), Water (WT1 to Wt13), Groundwater (GW1 to GW7), Regulated Structures (X1 to X20) as identified in the CGER.

In addition, the EA BRID0035 contained the following additional conditions:

- Biodiversity Offsets - Conditions B1 to B8 which addressed the conditions detailed in the CGER under Appendix 1, Schedule 2, Environmental Offsets as well as imposing conditions in relation to financial settlement offsets and agreed delivery arrangements.
- PFAS - Conditions P1 to P5 which required that a PFAS investigative report be prepared by an appropriately qualified person, that set guidelines as to the required content of that report, including that it must provide an assessment of the potential impact the approved works will have on environmental values as a result of PFAS and that it must include a recommendation as to whether the approved works should proceed and details of the management practices to be implemented to prevent or minimise adverse impacts.

These conditions also required the installation of a groundwater monitoring system and a requirement that the testing procedures employ analytical quantification limits sufficiently low enough to enable reasonable comparisons to be made against water quality objectives.

## Environmental Authority Amendment

On 21 February 2018, Sunshine Coast Regional Council (SCRC) submitted a request for an amendment to EA BRID0035.

This amendment sought approval for the following changes.

- An extension of the new runway by 175m towards the north-west to allow a 175 m displacement of the RWY 31 threshold to avoid solid penetrations of the approach OLS surfaces to the south-east of the runway
- An increase in the approved volume of sand to be extracted to allow for the 175m extension and to allow for compaction and loss factors to ensure that the required volume of sand was available for use in the final construction
- A change to the area to be utilised for the contained storage of the hydraulically placed dredge material and the methodology for placement of the rehandled material
- Reduction of the depth of the Northern Perimeter Drain and replacement of the Western Perimeter Drain with a grass swale
- An alteration to the proposed extent of the Wallum Heath Management Area to safeguard an area for the potential relocation of the Air Traffic Tower at some future date.

On 6 March 2018, SCRC received notification of an Assessment Level Decision that this amendment was determined to be a major amendment and that DES would consider requesting additional information which might result in the application of additional conditions.

This request was subsequently received by SCRC on 6 April 2018 and a full and detailed response was provided on 2 May 2018.

On 26 June 2018, EA BRID0035 Amendment was approved with additional conditions as follows:

- L10 – The invert level of drains must be above the permanent water table.
- WT 14 – Setting salinity limits for the dredge spoil material before it can be rehandled outside of the containment area.
- WT15 – Condition on testing process to determine salinity levels.
- WT16 – Requirement for a report on the results of verification testing of dredge spoil.
- WT17 – Dredge spoil washing water must be potable water.
- GW6 – Requirement for a groundwater electrical conductivity (EC) plume-associated monitoring program to be developed by an appropriately qualified person.
- GW7 – Requirement for the submission of a groundwater electrical conductivity (EC) plume-associated monitoring plan.
- GW8 – Amendment of the details associated with the cut-off wall to condition the use of a bentonite wall for the extent of the revised HDPE Liner Area and Control Structures on Drains
- GW9 – Requirement to extend the bentonite cut-off wall for the remainder of the length of the runway if saline intrusion is detected in new sentinel groundwater wells or pre-existing wells GW3, GW9 and GW1.
- P6 – Requirement to carry out soil and sediment testing for PFAS.
- P7 – Development and implementation of management measures for disposal or reuse of soil and groundwater that minimises migration of PFAS impacted materials and ensures no additional PFAS contamination beyond the airport site.

## Schedule 2 - Tidal Works

A Tidal Works Permit was obtained on 8 May 2018 for the tidal works as detailed in the Approved Plans contained in Appendix 2 Approved Plans - Tidal Works in the CGER.

All work has been performed in accordance with that permit.

The dune crest height has been reinstated to its original height. This was completed within two weeks of completion of the dredging activities (CoG's condition 8 required this work to be completed within two months of completion of the dredging).

The dune area is currently being rehabilitated with native dune vegetation found in adjacent areas in accordance with the approved Dune Rehabilitation Plan.

## CGER - Appendix 2 - Imposed Conditions

The details provided in this section relate to the conditions imposed by the Coordinator-General under Section 54B of the *State Development and Public Works Act 1971*.

### Schedule 1 - Flooding

A suitably qualified and experienced person has certified the design plan for the airport infrastructure and has confirmed that

- A. The flood impacts associated with the development are not likely to create adverse consequences consistent with the impacts identified in Chapter B5 of the EIS
- B. The development does not change flood risk for adjacent areas beyond that identified in Chapter B5 of the EIS
- C. The design ensures that the risk of any impacts as a result of the development, but external to the site, has a manageable consequence, as assessed across a broad range of event possibilities.

That certificate was provided to Sunshine Coast Council as the entity with jurisdiction.

A further certification will be provided following completion of the works and will be based on as-constructed survey.

### Schedule 2 - Environmental Offsets

The condition for environmental offsets has been included in Conditions B1 to B8 of the EA BRID0035.

Council has methodically worked through the various steps required by these conditions.

- A Biodiversity Offset Strategy (BOS – Dec 2016) was developed and submitted as part of the original EA application.
- SCRC has submitted the required Notice of Election and Offset Delivery Plan to address significant residual impacts on the Prescribed Environmental Matters (PEMs).
- An Offset Delivery Plan (ODP) was finally agreed after release of Lot 898 from Air Services Australia.
- Version 3 of the Offset Delivery Plan (ODP Rep-01 03) was submitted to DES.
- An Agreed Delivery Arrangement between DES and SCC was executed on 20 December 2017. This conditioned the delivery of environmental offsets in accordance of with ODP Rep-01 03.
- A Financial Settlement Offset payment of \$1,078,806.04 for impacts to Ground Parrot Breeding habitat was paid to the Department on 2 March 2018.
- The current ODP (Rev 3) deals with all five impacted species (three acid frogs, Mt Emu she-oak, ground parrot) and connectivity corridor.

- Subsequent Offset Area Management Plans for the LMRER, Conservation Corridor and Acid Frogs and Ground Parrots sit beneath the ODP and provide more detailed management approaches for the impacted areas and species.
- Offsets for Wallum Sedge frog are addressed in the Offset Management Plan approved by Department of Environment and Education (DOEE).
- A Translocation Plan has also been developed for the Mt Emu She-oak. This plan was not required to be approved, but it has been posted on Council's website as required by DOEE.
- The first annual compliance report has been provided to the DOEE for matters relating to the EPBCA as required in the approval obtained from that department.

## **CGER - Appendix 3 - Coordinator-General's Recommendations**

This section deals with the Coordinator-General's recommended stated conditions under section 52 of the *State Development and Public Works Act 1971*.

### **Schedule 1 - Part A - Nature Conservation Act**

#### **Recommendation 1: Preclearance Surveys**

Pre-clearance surveys have been undertaken and the resultant reports included in applications for clearing permits under the *Nature Conservation Act*.

All clearing activities have been monitored by suitably qualified Fauna Spotters and Catchers.

#### **Recommendation 2: Maximum Disturbance Limits**

No project impacts on prescribed environmental matters have exceeded the extents identified in the CGER. The actual area of disturbance has been reduced in the Mount Emu She-oak population area and the Wallum Heath Management Area.

#### **Recommendation 3: Rehabilitation**

The area of essential habitat for the wallum sedge frog temporarily impacted during pipeline construction was less than 2.52 ha and rehabilitation will commence as soon as work in this area has been completed.

#### **Recommendation 5: Turtle Nesting**

No dredge pipeline works were undertaken on Marcoola Beach during the turtle nesting season. Surveys have been conducted during each turtle nesting season, and no nests were identified in the disturbance area.

#### **Recommendation 5: Marine mega-fauna interaction with dredge vessel**

There were no marine mega-fauna observed within 100 metres of the dredging activity for the duration of the dredge campaign.

#### **Recommendation 6: Vegetation slashing impacts on ground parrots**

Regular surveys of ground parrot activities have been undertaken.

No works of any nature were conducted within the WHMA during the ground parrot nesting season from August to December 2018.

#### **Recommendation 7: Vegetation slashing impacts on acid frogs**

A Species Management Plan for acid frogs has been adopted by the Contractor. This plan required that no works be undertaken in acid frog habitat areas after 100 mm of rainfall had fallen over a 7 day period. There have been a number of occasions when this threshold has been exceeded and work has ceased in the frog habitat areas.

## **Schedule 1 – Part B – Transport Infrastructure Act**

### **Condition 1: Road Impact Assessment and road-use management plan.**

A Road Impact Assessment (RIA) using Pavement Impact Assessment tools has been completed and has been submitted to Department of Transport and Main Roads (DTRM) for approval. This RIA has identified that the volume of development generated traffic and the timeframe over which that traffic operates does not trigger a requirement for contributions to DTMR.

### **Condition 2: Prepare a road-use management plan for each stage of the project**

Road-use Management Plans are being prepared to comply with DTMR standards, manuals and practices. The Contractor has also prepared Traffic Management Plans for all construction related traffic movements and Traffic Control Schemes for traffic management wherever interaction with the general public occurs.

### **Condition 3: Activities to be undertaken prior to the commencement of significant project-related construction works**

DTMR have agreed to the temporary signalisation using manually operated mobile traffic signals in accordance with the manual of Uniform Traffic Control Devices at the intersection of Finland Road with David Low Way.

A Road Corridor Permit has been obtained for the installation of the dredge pipeline under David Low Way at the north of the site and an Access Permit obtained for the temporary access to David Low Way in that vicinity to transport dredge pipes across the road corridor.

### **Condition 4: Infrastructure Agreements**

A Transport Infrastructure Agreement was not required.

## **Schedule 2 - MNES**

Recommendations 1 to 7 (Excl Recommendation 3) were included in the approval granted by the federal Minister for the Environment for disturbances under the EPBCA.

Explanations of compliance activities in relation to the MNES disturbance limits, management plans, biodiversity offset strategy and resultant plans and the Mount Emu impacts and translocation plan have been included previously under the section on Environmental Impacts with reference to Appendix 2, Schedule 2 of the CGER.

## **Schedule 3 - Aircraft Noise, Community Engagement and Community Information**

Progress on Recommendations 8 to 15 is the subject of a separate report which is attached as Attachment 1C.

## **Schedule 4 - Acid Sulphate Soils and Project Drainage**

### **Recommendation 16: Acid sulphate soil management**

An Acid Sulphate Soil Management Plan has been prepared in accordance with the Environmental Management Framework for Acid Sulphate Soils (Appendix C from the AEIS).

All acid sulphate spoils on the site are to be treated in the same manner regardless of whether or not they are specifically addressed by the EA BRID0035.

Treatment areas have been constructed and lined to minimise any seepage and are capable of accommodating rainfall from a 24 hour event with an Average Return Interval of 1 in 5 years in addition to any sediment storage, without release.

### **Recommendation 17: Project drainage**

As approved in the EA BRID0035 amendment, the extent of the impermeable groundwater cut-off wall has been modified to reflect the change to the design of the Northern Perimeter Drain. The

depth of this drain has been reduced to between 0.5 and 0.75 metres, and no longer intercepts the permanent groundwater table.

Additional sentinel groundwater wells have been installed to monitor groundwater adjacent to the northern section of the National Park to verify that assumption.

The Western Perimeter Drain has been replaced with shallow grassed swale drains which do not intercept the permanent groundwater table.

### **Schedule 5 - State Planning Policy Airport Environs Mapping**

Airservices Australia is currently undertaking airspace design, including Standard Instrument Departures (SID), Standard Instrument Arrivals (STAR) and Global Navigation Satellite System (GNSS) approach procedure design for Runway 13/31.

Once this design has advanced sufficiently, the noise modelling of the end state with aircraft traffic projected to 2040 will be reviewed and compared to the information provided in the EIS.

Should this process identify a significant increase in the extent and distribution of the ANEC / ANEF contours to the extent that people and communities in the vicinity of the airport are exposed to aircraft noise patterns that are significantly different to those presented and consulted on during the assessment process, a further round of consultation will be undertaken and the outcome reported both to the Coordinator-General and to the federal Minister for the Environment under the requirements of the EPBCA.

Airservices Australia, Sunshine Coast Council and Sunshine Coast Airport Pty Ltd will be undertaking joint Stakeholder Engagement activities associated with the flight procedure and airspace design over the next three months.

DTMR will be provided with updated GIS data and current ANEF contours for the airspace and flight procedures design within four weeks of endorsement by the relevant Commonwealth agencies to ensure that the DTMR can review the modelling to verify that it is consistent with the state interest for protecting the airport.

LEGEND – **green** = approved; **red** = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

## Attachment 1B - Approvals Schedule

### Approvals to be sought by SCA for the Airport Expansion Project

Date of this document: **31 October 2018** (Updates since last version in yellow)

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
1	Terrestrial Vegetation Clearing	Clearing permit for protected plants – NC Act Species Management Plans for damage to fauna habitat – NC Act	DEHP – Pauline Fitzgibbon – Conservation Officer (Wildlife assessment) - 3330 5121, <a href="mailto:Pauline.fitzgibbon@ehp.qld.gov.au">Pauline.fitzgibbon@ehp.qld.gov.au</a> Mary Starkey (Maroochydhore) <a href="mailto:Mary.starkey@ehp.qld.gov.au">Mary.starkey@ehp.qld.gov.au</a>	<b>Approved</b>	<ul style="list-style-type: none"> <li>Protected Plants permissions - Lodged 8 March 2017</li> <li>Approval received on 25/05</li> <li>SCC sent subsequent advice to DEHP (Claire) that the she oak translocation is outside of the sand placement footprint</li> <li>Notification requirement to EHP at least 48 hours prior to clearing.</li> <li>JHDI and SCC considering alternatives to clearing restriction in frog habitat area following significant rainfall events</li> <li>8-week period from last significant (100 mm) rainfall to end 20 April 2018</li> </ul>
2a	Environmental Offsets	Notice of Election (NOE) – Appendix 2, Sch 2 of the CGER - EO Act Offset Delivery Plan (ODP)	DEHP Carole Rayner (now seconded elsewhere) Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a>	<b>Approved</b>	<ul style="list-style-type: none"> <li>NOE application and documentation lodged with EHP 27 June 2017</li> <li>Agreed to lodge ODP as per EIS proposal; control tower issue and additional investigations to be dealt subsequently</li> <li>ASA consent obtained for NOE lodgement on 23 June</li> <li>James reviewing ODP and draft condition on 13/09 with EHP (Claire)</li> <li>ASA Signed ODP sent back to EHP on 11/10</li> </ul>
<b>Amendment – Lodged</b>				<ul style="list-style-type: none"> <li>Revision to ODP being prepared to reflect change in airport design and provision for new ATC tower</li> <li>Revised ODP submitted 21 February 2018</li> <li>Further revisions now required</li> <li>Advice sought from DES regarding preferred finalisation timing (noting 100% design will not occur until late September 2018)</li> <li>Version 6 in preparation</li> <li>Met with DES 23 October to discuss updates required for ODP version 6</li> <li>Revisions being undertaken</li> </ul>	
2b		WSF Management Plan (under EPBC approval)	DoEE (Cth) Hayes-Graham, Alex [ <a href="mailto:Alex.Hayes-Graham@environment.gov.au">Alex.Hayes-Graham@environment.gov.au</a> ]	<b>Lodged</b>	<ul style="list-style-type: none"> <li>Plan has to be lodged and approved by Cth Minister</li> <li>Received initial information request from Cth DoE</li> <li>Responded to information request and resubmitted report on June 5<sup>th</sup> to DoEE</li> <li>Response received from DoEE on revision 2 – new project manager</li> <li>Telecom held in late Sept to discuss comments.</li> <li>Key issues around timing of the works, the likely success of works and detail around location and design of ponds</li> <li>Version 3 in preparation – awaiting consultant to return – aim is to have completed before end of the year</li> <li>Version 3 completed – comments received from DoEE</li> <li>Meeting to be held with DoEE on 18 January 2018 to finalise amendment</li> <li>Response to comments provided; awaiting further DoEE advice</li> <li>Final review comments received from DoEE during week of 26 March</li> <li>Approved 12 April 2018</li> </ul>

LEGEND – **green** = approved; **red** = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
2c		She-oak translocation Plan (under EPBC approval)	DoEE (Cth) Hayes-Graham, Alex [ <a href="mailto:Alex.Hayes-Graham@environment.gov.au">mailto:Alex.Hayes-Graham@environment.gov.au</a> ]	<b>Completed</b> Ongoing compliance reporting obligations	<ul style="list-style-type: none"> <li>Plan has to be completed prior to works but not approved by Cth Minister</li> <li>Translocation works to be delayed until after ERA baseline water quality data collection (see below)</li> <li>Proposed works in spring (before end of Calendar year)</li> <li>Plan has to be published on SCA website prior to translocation works</li> <li>Draft plan received from Arup</li> <li>Plan to be included in contractor documentation for finalisation by contractor</li> <li>Plan to be finalised and works proposed to be undertaken during summer 2017/18</li> <li>IMP completed and published</li> <li>DoEE were notified 17 January 2018</li> <li>Update required in annual compliance reporting due 13 April 2018</li> </ul>
2d		Conservation agreement under EPBC for WHMA	DoEE (Cth) Blackwell, Peter < <a href="mailto:Peter.Blackwell@environment.gov.au">Peter.Blackwell@environment.gov.au</a> >	<b>Approved</b> <ul style="list-style-type: none"> <li>Revocation of conservation agreement condition requested by AirServices</li> <li>Approval granted 20 April 2018</li> </ul>	<ul style="list-style-type: none"> <li>EPBC approval (2009/4899) for the use of the ASA Land for conservation purposes (Wallum Health Management Area) requires SCC to enter into a conservation agreement with the Federal Environment Minister prior to the completion of the sale process</li> <li>Conservation agreement to deal with wallum sedge frog and ground parrot refer section 305 of the EPBC Act - <a href="https://www.legislation.gov.au/Details/C2013C00301/Html/Volume_2#_Toc360176670">https://www.legislation.gov.au/Details/C2013C00301/Html/Volume_2#_Toc360176670</a></li> <li>The final BOS and WSF Management Plan to be attached to the document</li> <li>With Council legal (Mark Cowan) to finalise and lodge</li> <li>Preliminary comments from DoEE by 9<sup>th</sup> March 2018</li> <li>Subsequent advice from DoEE that BOS may be sufficient such that a registered conservation agreement not necessary</li> <li>AirServices Australia applied for revocation of conservation agreement condition</li> <li>Approval granted 20 April 2018</li> </ul>
3	Placement of sand on Airport (note that this permit also relates to dredging)	EA for ERA 16 – Appendix 1, Sch 1 of CGER – EP Act	DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a> )	<b>Approved</b> <ul style="list-style-type: none"> <li>Lodged 23 February 2017</li> <li>Response to Information Request sent on 5/6</li> <li>Draft conditions pending week of 18 Sep</li> <li>Authority to be finalised by end of Sep 2017</li> <li>Approved 29 September 2017</li> </ul> <b>Amendment Approved</b> <ul style="list-style-type: none"> <li>Lodged 21 February 2018</li> </ul>	<ul style="list-style-type: none"> <li>Sent email advice that broad scale clearing agreed to be postponed and resolved that she oak translocation will be delayed until the completion of the baseline data collection (Oct 2017)</li> <li>Construction noise limits confirmed 20/06 – received update from EHP on noise limits in commercial places</li> <li>Extended decision making period to end of September and agreed to meet in early August with technical teams to resolve trigger issues – meeting held on 14 August.</li> <li>Received formal information request re. Unity Water works and potential impacts on water data collection. Have prepared and sent response to EHP (cc to OCG); awaiting response from EHP. Received advice from EHP Claire Peterken on 28/08 that the exclusion of the February data from the data set is not considered necessary</li> <li>Received advice from EHP on 28/08 that the performance trigger tables presented by BMT WBM for surface water and Core for groundwater were acceptable and will be placed into the EA conditions</li> <li>Undertook PFAS meeting with Andrew Connor –EHP will condition</li> <li>Approved 29 September 2017</li> <li>Amendment being sought to account for 175m extension and increase in dredging volume</li> <li>Memo prepared identifying differences</li> <li>Meeting to be held 1<sup>st</sup> December with OCG and DEHP</li> <li>Advice received regarding application requirements – 15<sup>th</sup> December 2017</li> <li>Draft amendment application presented to OCG and DES 25<sup>th</sup> January 2018</li> <li>Amended application being prepared together with JHDI and Core</li> </ul>



LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
				<ul style="list-style-type: none"> <li>Determined to be Major Amendment 7 March 2018</li> <li>Information request received 6 April 2018</li> <li>Response lodged 2 May 2018</li> <li>Decision-making period extended to 26 June 2018</li> <li>Approved 26 June 2018</li> </ul>	<ul style="list-style-type: none"> <li>Pre-lodgement to be held with technical officers 14<sup>th</sup> February 2018</li> <li>Lodged 21 February 2018</li> <li>Major amendment decision received 7 March 2018</li> <li>Information request received 6 April 2018</li> <li>Meetings held to discuss approach: SCA/BMT/Core (10 April), SCA/JH/BMT/Core (12 April) and SCA/OCG/BMT (17 April)</li> <li>IR response to be lodged 26 April 2018</li> <li>Meeting with DES and OCG 27 April 2018</li> <li>Lodged 2 May 2018</li> <li>Decision-making period extended to 26 June 2018</li> <li>Approved 26 June 2018</li> </ul>
				<p><b>Amendment Approved</b></p> <ul style="list-style-type: none"> <li>Lodged 24 July 2018</li> <li>Approved 4 September 2018</li> </ul>	<ul style="list-style-type: none"> <li>Condition related to cut-off wall depth requires amendment (not approved in amendment due to lack of time for assessment)</li> <li>Lodged 24 July 2018</li> <li>Currently being assessed</li> <li>Confirmed to be minor amendment</li> <li>Approved 4 September 2018</li> </ul>
				<p><b>Amendment – In Prep</b></p> <ul style="list-style-type: none"> <li>Met with DES 16 October</li> <li>Amendment to be prepared</li> </ul>	<ul style="list-style-type: none"> <li>Met with DES 16 October 2018 to discuss potential for further amendments associated with construction phase water quality monitoring and water quality performance limits</li> <li>Further advice being sought internally regarding definition of 'construction phase'</li> <li>Amendment to be prepared following advice</li> </ul>
4	Cultural Heritage Management Plan (CHMP)	CHMP (ACH Act)	DATSIP/DEHP	<p><b>Finalised (Kabi Kabi)</b></p> <ul style="list-style-type: none"> <li>Signed-off 21 February 2018</li> </ul>	<ul style="list-style-type: none"> <li>Cultural Heritage Management Agreement and Plan in preparation</li> <li>Conducted on-site inspections/ceremonies</li> <li>Agreement proceeding with Aboriginal parties</li> <li>SCC engaged historian and anthropologist for further surveys</li> <li>Draft CHMP being prepared</li> <li>Awaiting for sign-off by Kabi Kabi representatives</li> <li>Signed off 21 February 2018</li> </ul>
				<p><b>Finalised (Quandamooka)</b></p> <ul style="list-style-type: none"> <li>Signed-off 17 July 2018</li> </ul>	<ul style="list-style-type: none"> <li>CHMP with Quandamooka committed to as part of EIS process (and referenced in CGER)</li> <li>Scope of works developed to undertake sub-bottom profiling offshore to identify presence of cultural heritage values (i.e. Pleistocene land) in dredging area. Decision to move to RFQ pending further discussion with Quandamooka</li> <li>Development of plan pending further discussions and results of cultural heritage study</li> <li>CHMP approach/contacts being established</li> <li>In-principle agreement reached, subject to financial arrangements</li> <li>Agreement reached 17 July 2018</li> <li>Minor amendments being proposed to conditions regarding marine water quality</li> <li>Amendment accepted</li> </ul>
5	Contaminated Land	Disposal Permit (EP Act) for farm shed rehabilitation	DEHP – Kelly Gleeson 3330 5066, <a href="mailto:Kelly.gleeson@ehp.qld.gov.au">Kelly.gleeson@ehp.qld.gov.au</a>	n/a – approval not required	<ul style="list-style-type: none"> <li>Consultant (Core) has undertaken testing regime on the site</li> <li>Initial advice is that the future use of the site does not require the site to be listed on the CLR and material can be managed without a disposal permit</li> </ul>

LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
6a	Drainage works on airport (connection of new drains to existing tidal waterways)	Damage to marine plants (SPA/Fisheries Act)	DAF – Gemma MacKenzie – 5381 1369, <a href="mailto:gemma.mackenzie@daf.qld.gov.au">gemma.mackenzie@daf.qld.gov.au</a> CC in <a href="mailto:planningassessment@daf.qld.gov.au">planningassessment@daf.qld.gov.au</a>  SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a>	<b>Approved</b> <ul style="list-style-type: none"> <li>Lodged 21 December 2017</li> <li>RFI response provided 5 March 2018</li> <li>Further information provided 23 March 2018</li> <li>SARA approval received 26 March 2018</li> <li>SCC approval received 29 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Received final report for review on 25/07</li> <li>Required for drain connection to Marcoola Drain and to Southern Perimeter Drain</li> <li>On airport – need to determine extent of marine plants mangroves and saltmarsh that will be damaged by pipeline and drains</li> <li>Survey of on-airport marine plants completed – marine plant distribution on site largely confined to Marcoola Drain, Southern Perimeter drain)</li> <li>Design drawings to confirm drain width and habitat loss and associated offset</li> <li>Application lodged to SCC 21 December 2017 and referred to SARA 17 January 2018</li> <li>Revised drainage plans submitted 31 January 2018</li> <li>Offsets not expected as SCA Master Plan area is an ‘urban area’ for purposes of Planning Scheme and Environmental Offsets Act; confirmation not yet received from DAF, however</li> <li>Information request received 8 February 2018</li> <li>RFI response provided 5 March 2018 and further information 23 March 2018</li> <li>SARA approval received 26 March 2018</li> <li>SCC approval received 29 May 2018</li> <li>DSDMIP/DES confirmed need to amend permit to allow wider base</li> </ul>
				<b>Amendment Lodged</b> <ul style="list-style-type: none"> <li>Lodged 26 September 2018</li> </ul>	<ul style="list-style-type: none"> <li>Amendment application submitted to SCRC by JH 26 September 2018</li> <li>To be referred to DSDMIP upon SCRC confirmation</li> </ul>
6b		Prescribed Tidal Works/Tidal Works (drain connection to tidal water) – SPA/CPM Act	SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a>  SCC (Prescribed tidal work) Simon Aalbers – SCC  DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:clair.peterken@ehp.qld.gov.au">clair.peterken@ehp.qld.gov.au</a>	<b>Approved</b> <ul style="list-style-type: none"> <li>Lodged 21 December 2017</li> <li>RFI response provided 5 March 2018</li> <li>Further information provided 23 March 2018</li> <li>SARA approval received 26 March 2018</li> <li>SCC approval received 29 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Required for drain connection to Marcoola Drain and to Southern Perimeter Drain</li> <li>Undertook meeting with Claire and Kerry to overview the works and understand requirements</li> <li>Meeting with harbour master has confirmed MSQ not interested in drain applications as not navigable</li> <li>Detailed design drawings to confirm connection and hydrological changes (if any)</li> <li>Planning scheme does not apply as on Airport land</li> <li>Application lodged to SCC 21 December 2017 and referred to SARA 17 January 2018</li> <li>Revised drainage plans submitted 31 January 2018</li> <li>Information request received 8 February 2018</li> <li>RFI response provided 5 March 2018 and further information 23 March 2018</li> <li>SARA approval received 26 March 2018</li> <li>SCC approval received 29 May 2018</li> <li>DSDMIP/DES confirmed need to amend permit to allow wider base</li> </ul>
				<b>Amendment Lodged</b> <ul style="list-style-type: none"> <li>Lodged 26 September 2018</li> </ul>	<ul style="list-style-type: none"> <li>Amendment application submitted to SCRC by JH 26 September 2018</li> <li>To be referred to DSDMIP upon SCRC confirmation</li> </ul>
6c		Riverine protection permit (SPA/Water Act)	DNRM – Water Services (Gympie) – 5480 5316, <a href="mailto:water.servicesgympiespa@dnrm.qld.gov.au">water.servicesgympiespa@dnrm.qld.gov.au</a> (Amos Sarabar)	n/a – approval not required	<ul style="list-style-type: none"> <li>Undertook meeting with Amos Sarabar (DNRM) to overview the works and understand requirements</li> <li>DNRM has advised there are no defined watercourses under the Water Act on the site and therefore approval not required (email of 23 March)</li> </ul>

LEGEND – **green** = approved; **red** = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
6d		Water licences to take or interfere with the flow of water (Water Act)	DNRM – Water Services (Gympie) – 5480 5316, <a href="mailto:water.servicesgympiespa@dnrm.qld.gov.au">water.servicesgympiespa@dnrm.qld.gov.au</a> (Amos Sarabar)	n/a – approval not required	<ul style="list-style-type: none"> <li>Undertook meeting with Amos Sarabar (DNRM) to overview the works and understand requirements</li> <li>DNRM has advised there are no defined watercourses under the Water Act on the site and therefore approval not required (email of 23 March)</li> </ul>
6e		Waterway barrier works	DAF – Impact Assessment and Management Unit <a href="mailto:planningassessment@daf.qld.gov.au">planningassessment@daf.qld.gov.au</a> 5381 1330	<b>Approved</b> <ul style="list-style-type: none"> <li>Lodged 12 March 2018</li> <li>RFI response provided 29 March 2018</li> <li>Approved 3 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Gemma MacKenzie confirmed DA may be required for filling of waterways on WBW mapping</li> <li>DSDMIP advised submission of DA and subsequent preparation of material establishing waterways do not meet <i>Fisheries Act</i> definition – if established, application can be withdrawn and refunded</li> <li>OCG aware of approval and will act to expedite process where possible</li> <li>Lodged 12 March 2018</li> <li>RFI received 28 March 2018</li> <li>Response to RFI provided 29 March 2018</li> <li>Draft conditions provided 24 April 2018</li> <li>Approval received 3 May 2018</li> </ul>
7a	Culvert and tidal flap valve in Marcoola Drain under Finland Road	Waterway barrier works – tidal flap	DAF – Gemma MacKenzie – 5381 1369, <a href="mailto:gemma.mackenzie@daf.qld.gov.au">gemma.mackenzie@daf.qld.gov.au</a> CC in <a href="mailto:planningassessment@daf.qld.gov.au">planningassessment@daf.qld.gov.au</a>	n/a – approval not being sought  Code must be applied to the works by the Contractor	<ul style="list-style-type: none"> <li>Undertook meeting with Gemma to overview the works and understand requirements</li> <li>Reviewing self-assessable code to confirm applicability and if an application is required (depends on extent to which it is shut) – sent follow up email on 9 June re. implications of the new Planning Act</li> <li>Gemma sent response indicating self- assessable codes to continue under Planning Act</li> <li>Approach re. acceptable development (below) agreed – approval not being sought</li> </ul>
7b		Tidal works (culvert and tidal flap / valve works)	SCC (Prescribed tidal work) – Simon Aalbers SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a> DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:clair.peterken@ehp.qld.gov.au">clair.peterken@ehp.qld.gov.au</a>	n/a – approval not being sought  Code must be applied to the works by the Contractor	<ul style="list-style-type: none"> <li>Undertook meetings with EHP and Council to overview the works and understand requirements</li> <li>Design consultant appointed – will need to await Principals Reference Design (PRD)</li> <li>Harbour master has confirmed MSQ not interested</li> <li>To be incorporated into scope of work for the dredge contractor</li> <li>Acceptable Development report prepared by JHDI and reviewed by Council</li> <li>Approach re. acceptable development agreed – approval not being sought</li> </ul>
8a	Road works – Finland Road	Road Corridor Permit	DTMR – Belinda Walker, 5451 7061, <a href="mailto:Selinda.j.walker@tmr.qld.gov.au">Selinda.j.walker@tmr.qld.gov.au</a>	n/a  <ul style="list-style-type: none"> <li>In-principle approval obtained March 2018</li> <li>Drawings lodged April 2018</li> <li>Owners consent not reasonably provided by Maroochy River Golf Club</li> <li>Alternative (non-approval) arrangements identified with TMR</li> </ul>	<ul style="list-style-type: none"> <li>Ross Ullman has met with DTMR – discussed alternative arrangement (4 way stop at Godfrey’s Road)</li> <li>Permit to be obtained by SCC (direct) in consultation with DTMR</li> <li>As per CGER, Appendix 3 – needs to include Road Use Management Plan and Road Impact Assessment</li> <li>Consultation with stakeholders around tenure issues</li> <li>Design progressing but not yet complete – due 3 March 2018</li> <li>In detailed design</li> <li>In principle approval received from DTMR</li> <li>Design drawings submitted to DTMR with request for approval, subject to gaining owners consent</li> <li>Awaiting owners consent from Maroochy River Golf Course</li> <li>Alternative options arranged with TMR – no need for approval</li> </ul>
8b	intersection upgrade with DLW	Interference with a State controlled road – Development permit	DTMR – Belinda Walker, 5451 7061, <a href="mailto:belinda.j.walker@tmr.qld.gov.au">belinda.j.walker@tmr.qld.gov.au</a>		
8c		Traffic Control permit	DTMR –Belinda Walker, 5451 7061, <a href="mailto:Selinda.j.walker@tmr.qld.gov.au">Selinda.j.walker@tmr.qld.gov.au</a>		

LEGEND – **green** = approved; **red** = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
9a	Flooding Impacts Certification Flood mitigation works in National Park	CGER Appendix 2	Council to certify works and then notify Office of the Coordinator General (OCG) Steve Tarte	<b>Notification to OCG has been provided.</b> - Further certification required on completion	<ul style="list-style-type: none"> <li>Flooding part of design work package and contingent on additional survey and drain design</li> <li>Design consultant appointed – will need to await Principals Reference Design (PRD)</li> <li>Flood modelling and drainage design finalised – NPD likely to be less deep than previously thought (provides minimal flood mitigation)</li> <li>Certification provided from Council 17 January 2018</li> <li>Sign-off received 5 February 2018</li> <li>Lodged with OCG</li> </ul>
9b		National park works authorisation (Nature Conservation Act)	DNPSR/QPWS – Anthony Ross P 07 5459 6127   M 0459 873 056 <a href="mailto:Anthony.Ross@npsr.qld.gov.au">Anthony.Ross@npsr.qld.gov.au</a>  QPWS – Bart Klekar 07 5486 9950   0427 124 542 <a href="mailto:Bart.Klekar@npsr.qld.gov.au">Bart.Klekar@npsr.qld.gov.au</a>	<b>Approved</b> <ul style="list-style-type: none"> <li>Lodged 16 March 2018</li> <li>Approved 7 September 2018</li> </ul>	<ul style="list-style-type: none"> <li>Flood mitigation works possible to raise the existing bund in the Mt Coolum National Park adjacent to DLW</li> <li>Meeting held with DNPSR about the concept of bund raising works to provide flood immunity at Marcoola township</li> <li>Concepts, information and flood modelling provided to QPWS for review</li> <li>Meeting held 12 December 2017 to discuss approach</li> <li>Advice received – need to prepare EIS/Submission Report and EMP</li> <li>Drafting of EIS and EMP underway</li> <li>Ecological survey of bund completed week of 8<sup>th</sup> January 2018</li> <li>s63 survey application submitted and approved</li> <li>Topographical survey to be conducted, including clearing for survey lines</li> <li>Council prepare works statement for project</li> <li>EIS and EMP finalised based on works statement</li> <li>Lodged 16 March 2018 – confirmation of receipt 21 March 2018</li> <li>Amended EMP submitted 21 May 2018</li> <li>In-principle support provided, pending approval of revocation</li> <li>Approved 7 September 2018</li> </ul>
9c		National park revocation (Nature Conservation Act)	DES – Steve Christie 07 3330 5333 <a href="mailto:steve.christie@ehp.qld.gov.au">steve.christie@ehp.qld.gov.au</a>	<b>In-Principal – Approved</b> <ul style="list-style-type: none"> <li>Lodged 16 March 2018</li> <li>Undergoing assessment</li> <li>Review of proposed compensation sites 24 April 2018</li> <li>Meeting with QPWS 8 May 2018</li> <li>New revocation offset offer made 1 June 2018</li> <li>Approved 21 August 2018</li> </ul>	<ul style="list-style-type: none"> <li>Meeting held 12 December 2017 to discuss approach – works authorisation (above) only granted where application also made for revocation and revocation accepted in principle</li> <li>Application to progress in two parts: (1) in-principle support, and (2) full revocation</li> <li>For in principle support, need to prepare justification, preliminary sketch, compensation strategy, and undertaking to pay costs – preparation underway</li> <li>Topographical survey to be undertaken</li> <li>Historical tenure, planning and aerial imagery obtained for the bund</li> <li>Meeting held with DES 1 February 2018 to discuss offset requirements and opportunities – nominal support received for 10:1 ratio to exclude area under the bund and drainage channels (as artificial structures). Nominal support also received for dedication of Lots 101 and 1</li> <li>Meeting with SCC Property Team 7 February 2018 to confirm requirements for subdivision and dedication of land</li> <li>Survey plans being prepared for subdivision areas by SCAEP; to be provided to SCC Property Team for further comment</li> <li>Negotiations underway with Palisades for removal of Lot 1 from their lease</li> <li>Following confirmation from Palisades and SCC Property Team, cadastral plans to be prepared</li> <li>Legal advice being sought as to extinguishment of Native Title over national park land to be revoked</li> <li>Lodged 16 March 2018 – confirmation of receipt by DES on 21 March 2018</li> <li>QPWS staff reviewed proposed compensation sites 24 April 2018</li> </ul>

LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
					<ul style="list-style-type: none"> <li>QPWS staff to prepare recommendation report to DES</li> <li>Meeting with QPWS 8 May 2018</li> <li>Valuation undertaken on property</li> <li>New revocation offset offer (i.e. property and cash) made 1 June 2018</li> <li>In-principal approval received 21 August 2018</li> </ul>
				<b>Revocation – In Prep</b>	<ul style="list-style-type: none"> <li>Application to be made based on DES guidelines</li> <li>Native Title extinguishment confirmed</li> <li>Application checklist prepared – undergoing completion</li> </ul>
9d		Road corridor permit	TBA	<b>In Prep</b> To be included in tender specifications for bund contractor	<ul style="list-style-type: none"> <li>Required to northern part of the bund for construction works</li> <li>To be obtained by bund construction contractor prior to commencement of bund improvement works</li> <li>Included in design statement for works</li> </ul>
9e		Property Map of Assessable Vegetation (Vegetation Management Act)	TBA	n/a – approval not required	<ul style="list-style-type: none"> <li>Vegetation atop the bund is mapped as remnant (despite being regrowth)</li> <li>PMAV potentially required to correct vegetation mapping to allow clearing to occur</li> <li>Applies only to Lot 101 as VMA does not apply to National Park</li> <li>Seeking advice from DNRME on requirement and process</li> <li>Lodged 9 May 2018 – confirmation received 16 May 2018</li> <li>Advice received 15 October 2018 that clearing is exempt</li> </ul>
9f		Development Permit under SCC planning scheme	Simon Aalbers – SCC Celeste Bounds – DILGP	n/a – approval not required	<ul style="list-style-type: none"> <li>Bund raising and vegetation clearing works are potentially assessable works under the Planning Scheme, requiring a permit</li> <li>Not assessable under Planning Regulation but if assessable by Council may require referral to State</li> <li>Council confirmed works are Acceptable Development</li> </ul>
10a	Dredging at Spitfire Channel	Marine Parks Permit (Marine Parks Act)	DNPSR/QPWS Gay Deacon	<b>Approved</b>	<ul style="list-style-type: none"> <li>MPP – Lodged 13 March 2017</li> <li>Pre lodgement meeting 19/01</li> <li>Permit application lodged 13 March 2017</li> <li>Awaiting update on timing of decision – sent email to Gay Deacon on 7/6</li> <li>Approved 8/6</li> <li>Sought and granted minor amendment to ensure dredge footprint is same as allocation notice area (full footprint of the SCRA)</li> </ul>
				<b>Amendment Approved</b> <ul style="list-style-type: none"> <li>Lodged 13 March 2018</li> <li>Undergoing assessment</li> <li>Approved 18 June 2018</li> </ul>	<ul style="list-style-type: none"> <li>Amendment needed for additional dredging associated with 175m extension</li> <li>DNPSR informed of amendment; advice received</li> <li>Draft application completed</li> <li>Lodgement pending completion of EA amendment</li> <li>Lodged 13 March 2018</li> <li>Undergoing DNPSR assessment</li> <li>Approved 18 June 2018</li> </ul>
10b		Seagrass removal – marine plant permit (SPA/Fisheries Act)	DAF – Gemma MacKenzie – 5381 1369, <a href="mailto:gemma.mackenzie@daf.qld.gov.au">gemma.mackenzie@daf.qld.gov.au</a> CC in <a href="mailto:planningassessment@daf.qld.gov.au">planningassessment@daf.qld.gov.au</a>  SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a>	n/a – approval not required	<ul style="list-style-type: none"> <li>Have met with Gemma to discuss requirements</li> <li>Need to determine extent of marine plant damaged by dredging</li> <li>Survey completed – the survey confirms there is no seagrass present at the site.</li> <li>Survey report finalised and provided to DAF and OCG</li> <li>DAF noted the report and filed</li> </ul>
10c		Tidal works (SPA/CPM Act)	SARA – Garth Nolan , Manager (Planning)	<b>Approved</b>	<ul style="list-style-type: none"> <li>Need to apply to deepen the channel even though not accessing the material for the project – PBPL will be applicant</li> </ul>

LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
			<p>DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a></p> <p>DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a></p> <p>MSQ (Harbour Master) – Glenn Hale, 3638 7549, <a href="mailto:glenn.n.hale@msq.qld.gov.au">glenn.n.hale@msq.qld.gov.au</a></p> <p>Port of Brisbane (Peter Rumball/Craig Wilson)</p>	<ul style="list-style-type: none"> <li>• PBPL lodged as applicant</li> <li>• Approved 1 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>• PBPL has provide letter of support conditional on response from the Government that additional depth can be approved and other permits can be amended – OCG to provide SCA/PBPL with assurances</li> <li>• OCG/SARA have advised separate tidal works permit not required by SCC – but will need to amend existing tidal works permit or address in new tidal works permit by PBPL to recognise SCC can undertake works under the permit</li> <li>• Advice conveyed to PBPL to address as part of the new permit application</li> <li>• JFA has assisted with RPEQ for the channel</li> <li>• Advice is that PBPL have prepared application information and will lodge shortly</li> <li>• PBPL has provided in-principle support to deeper channel, required by EA amendment</li> <li>• PBPL has lodged application and will manage agency process</li> <li>• Approved 2 May 2018</li> </ul>
10d		Allocation of quarry material	DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a>	Approved	<ul style="list-style-type: none"> <li>• Lodged 13 March 2017</li> <li>• Steve Tarte from OCG to send Claire Peterken advice about suitability of the application based on CGER and additional allocation of 1.1 million m3</li> <li>• Email advice from Claire Peterken received during week 6 May is that additional information is not required to finalise assessment</li> <li>• Received approval on 11 July</li> <li>• Amendment received for change to royalty amount</li> </ul>
				Amendment Approved	<ul style="list-style-type: none"> <li>• Amendment needed for additional dredging associated with 175m extension</li> <li>• Following meeting with OCG and DEHP regarding EA/CGER amendment (see Items 3 and 12), application for AQM amendment to be lodged</li> <li>• Advice received for amendment</li> <li>• Draft application prepared for submission</li> <li>• Application lodged 21 February 2018</li> <li>• Approval received 24 April 2018</li> </ul>
10e		ERA 16 Environmental Authority	DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a>	Amendment Approved	<ul style="list-style-type: none"> <li>• See item 3 of this table</li> </ul>
10f		Permit to take biosecurity listed invertebrate species out of Moreton Bay (Biosecurity Act)	DAF <a href="mailto:Stephen.wesche@daf.qld.gov.au">Stephen.wesche@daf.qld.gov.au</a>	n/a	<ul style="list-style-type: none"> <li>• Have further discussed with DAF – on hold pending decision on extension of the ban.</li> <li>• Advice from DAF is that SCA can likely obtain a permit quickly based on nature of the works and the likely species present (polychaete worms)</li> <li>• Watching brief for now</li> <li>• Exclusion period extended but area dredging remains outside of exclusion area</li> </ul>
11a	Dredge Pipeline	Prescribed Tidal Works/Tidal Works – Appendix 1 Sch 2 of CGER – SPA/CPMA	<p>SCC (Prescribed tidal work ) Simon Aalbers – SCC</p> <p>SARA – Garth Nolan , Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a></p> <p>DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:clair.peterken@ehp.qld.gov.au">clair.peterken@ehp.qld.gov.au</a></p> <p>MSQ (Harbour Master) – Glenn Hale, 3638 7549, <a href="mailto:glenn.n.hale@msq.qld.gov.au">glenn.n.hale@msq.qld.gov.au</a></p>	Approved (PA)	<ul style="list-style-type: none"> <li>• Undertook meeting with Claire and Kerryn to overview the works and understand requirements</li> <li>• Undertook meeting with the Harbour Master (Glenn Hale)</li> <li>• Lodged PA application lodged with Council (PTW) 12 May</li> <li>• OCG to check in with SCC to make sure they are aware of OCG report and implications</li> <li>• Application assessment proceeding – no information request to be made (SARA advice)</li> <li>• Updated plans able to be attached to the PA – SARA conditions received</li> <li>• Draft advice received from MSQ to add to contractor documentation</li> <li>• Approved on 13 September with conditions</li> </ul>
				Approved (DP)	<ul style="list-style-type: none"> <li>• Prelodgement meeting held with SARA and Council 7 March 2018</li> <li>• Application lodged by FPE on 13 March 2018</li> </ul>

LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
				<ul style="list-style-type: none"> <li>Lodged 13 March 2018</li> <li>Approved 4 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Approved 4 May 2018</li> </ul>
11b		Marine plant clearing for pipeline – Damage to marine plants (SPA/Fisheries Act)	<p>DAF Gemma MacKenzie – 5381 1369, <a href="mailto:gemma.mackenzie@daf.qld.gov.au">gemma.mackenzie@daf.qld.gov.au</a> CC in <a href="mailto:planningassessment@daf.qld.gov.au">planningassessment@daf.qld.gov.au</a></p> <p>SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a></p>	n/a – approval not required	<ul style="list-style-type: none"> <li>Survey found no marine plants in dredge pipeline alignment</li> <li>Referral/approval not required</li> </ul>
11c		Clearing of dune vegetation and other earthworks on State land in a coastal management district (SPA/CPMA)	<p>DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a> Kerynne Birch – 3330 6016, <a href="mailto:kerynne.birch@ehp.qld.gov.au">kerynne.birch@ehp.qld.gov.au</a></p> <p>SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a></p>	<p><b>Approved (PA)</b></p> <p><b>Approved (DP)</b></p> <ul style="list-style-type: none"> <li>Lodged 13 March 2018</li> <li>Approved 4 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Undertook meeting with Claire and Kerryn to overview the works and understand requirements</li> <li>Dune vegetation rehabilitation plan prepared</li> <li>Need to understand methodology for clearing and trenching or directional drilling through the dune or assume either could be implemented</li> <li>All pipeline culverts/equipment to be removed after completion of works</li> <li>Lodged PA application on 12 May</li> <li>Received draft condition from SARA – approved</li> <li>May need to amend this approval in future to deal with pipe assembly in dune area if insufficient area on the beach</li> <li>Approved as part of the prescribed tidal works preliminary approval</li> <li>Pre-lodgement meeting held with SARA and Council 7 March 2018</li> <li>Application being prepared</li> <li>Application lodged by FPE on 13 March 2018</li> <li>Approved 4 May 2018</li> </ul>
11d		Owners Consent for works on State land (DNRM and DTMR)	<p>DNRM – Teresa Furnell – 5433 7749, <a href="mailto:Teresa.furnell@dnrm.qld.gov.au">Teresa.furnell@dnrm.qld.gov.au</a></p> <p>DTMR – Belinda Walker, 5451 7061, <a href="mailto:belinda.j.walker@tmr.qld.gov.au">belinda.j.walker@tmr.qld.gov.au</a></p>	<b>Approved</b>	<ul style="list-style-type: none"> <li>PTO not required – will be a permit under the Transport Infrastructure Act as the land is a road reserve</li> <li>Owners consent obtained from DNRM to proceed with application</li> <li>Owners consent obtained from DTMR to proceed with application</li> <li>Copies of owners consent applications and approvals (USL and SCR road reserve) provided to JHDI 7-8 March 2018</li> </ul>
11e		Road corridor permit (pipeline crossing under DLW)	<p>DTMR –</p> <p>Belinda Walker, 5451 7061, <a href="mailto:belinda.j.walker@tmr.qld.gov.au">belinda.j.walker@tmr.qld.gov.au</a></p> <p>Fiona Gray Program Support Officer   North Coast District   Maroochydhore Office P: (07) 5451 7055   F: (07) 5451 7098 E: <a href="mailto:norc.permits@tmr.qld.gov.au">norc.permits@tmr.qld.gov.au</a></p>	<p><b>Approved</b></p> <p>Road Corridor Permit</p> <ul style="list-style-type: none"> <li>Lodged during week of 22 May 2017</li> <li>Information request – June</li> <li>All information provided by 16 February 2018</li> <li>Approved 28 February 2018</li> </ul>	<ul style="list-style-type: none"> <li>Ross Ullman has met with Belinda</li> <li>Have prepared forms for lodgement with DTMR (contact is Fiona Gray)</li> <li>Lodged in week of 22 May</li> <li>DTMR review and requested additional information</li> <li>Addressed additional information sought by DTMR with SCC</li> <li>As per CGER, Appendix 3 – needs to include Road Use Management Plan and Road Impact Assessment</li> <li>DTMR to provide consolidated advice on further information required</li> <li>Additional drawings and technical information to be requested from JHDI</li> <li>Further information received and lodged with DTMR 16 February 2018</li> <li>Received 18 February 2018</li> </ul>
11f		Road Access Location/Road Access Works	<p>DTMR – Belinda Walker, 5451 7061, <a href="mailto:belinda.j.walker@tmr.qld.gov.au">belinda.j.walker@tmr.qld.gov.au</a></p>	<b>Approved</b>	<ul style="list-style-type: none"> <li>Development permit required for works on or on a State controlled road</li> <li>New permit required by DTMR for access track along pipeline route</li> <li>Further information sent to DTMR and considered as part of the road corridor permit</li> </ul>

LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
		(driveway) on a State-controlled road Application		<ul style="list-style-type: none"> <li>Lodged during week of 10 October 2017</li> <li>Information request – December</li> <li>All information provided by 16 February 2018</li> <li>Conditional approval received 15 May 2018</li> <li>Prestart conditions have been met</li> </ul>	<ul style="list-style-type: none"> <li>Detailed permit will need to be sought by Contractor</li> <li>As per CGER, Appendix 3 – needs to include Road Use Management Plan and Road Impact Assessment</li> <li>DTMR to provide consolidated advice on further information required</li> <li>Additional drawings and technical information to be requested from JHDI</li> <li>Further information received and lodged with DTMR 16 February 2018</li> <li>Conditional approval received 15 May 2018</li> <li>Prestart conditions have been met</li> </ul>
11g		SCC planning scheme approvals for temporary pipeline	SCC – Development Assessment Services Simon Aalbers – SCC SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a>	<p><b>Approved (PA)</b></p>	<ul style="list-style-type: none"> <li>Met with Simon Aalbers on 7 April, 2017</li> <li>Confirmed that Council's jurisdiction for the Pipeline PA application will be for: (i) prescribed tidal works (for the part of the pipeline alignment at or below high water mark – IDAS form 23) and (ii) operational works under the SCC planning scheme for the part of the pipeline above high water mark, extending under DLW and onto the airport boundary – IDAS form 6.</li> <li>Confirmed the following codes will apply – Acid sulfate soils overlay code; Biodiversity, waterways and wetlands overlay code; Coastal protection overlay code; Landscape code; Stormwater management code; Transport and parking code; and Works, services and infrastructure code</li> <li>Confirmation from SCC that the prescribed tidal works PA covers this</li> </ul>
				<p><b>Approved (DP)</b></p> <ul style="list-style-type: none"> <li>Lodged 13 March 2018</li> <li>Approved 4 May 2018</li> </ul>	<ul style="list-style-type: none"> <li>Prelodgement meeting held with SARA and Council 7 March 2018</li> <li>Application being prepared</li> <li>Application lodged by FPE on 13 March 2018</li> <li>Approved 4 May 2018</li> </ul>
12	Dredge Mooring	Tidal Works – Appendix 1 Sch 2 of CGER	SARA – Garth Nolan Manager (Planning) DILGP – 5352 9710, <a href="mailto:garth.nolan@dilgp.qld.gov.au">garth.nolan@dilgp.qld.gov.au</a>  DEHP (Coastal Contact – Claire Peterken – 3330 6031, <a href="mailto:claire.peterken@ehp.qld.gov.au">claire.peterken@ehp.qld.gov.au</a>  MSQ (Harbour Master) – Glenn Hale, 3638 7549, <a href="mailto:glenn.n.hale@msq.qld.gov.au">glenn.n.hale@msq.qld.gov.au</a>	<p><b>Approved (PA)</b></p>	<ul style="list-style-type: none"> <li>Undertook meeting with Claire and Kerryn to overview the works and understand requirements</li> <li>Undertook meeting with the Harbour Master (Glenn Hale)</li> <li>Will depend on preferred arrangement of Contractor once appointed</li> <li>Have prepared a plan showing these areas</li> <li>Lodged preliminary application for tidal works with EHP/DNRM for owners consent</li> <li>PA for mooring – lodged with EHP (tidal works) 12 May</li> <li>Sent some additional information to SARA re. MSQ concerns about mooring location and swinging vessels</li> <li>Application proceeding – no information request to be made (SARA advice)</li> <li>Preliminary Approval received – no conditions other than approved plan</li> </ul>
				<p><b>n/a – development permit not required</b></p>	<ul style="list-style-type: none"> <li>JHDI design does not require mooring block</li> <li>Confirmed no development permit required</li> <li>MSQ conditions (i.e. marine execution plan) to be attached to pipeline approval</li> </ul>
13	OLS Clearing	Marine plant disturbance (airport site)	DSDMIP – Celeste Bounds	<p><b>Lodged</b></p> <ul style="list-style-type: none"> <li>Application lodged 28 June 2018</li> <li>Information request received 16 July 2018</li> <li>Met with agencies 21 August 2018</li> </ul>	<ul style="list-style-type: none"> <li>Amendment required to clear tall trees within OLS</li> <li>Application being prepared but to be finalised following completion of design</li> <li>OLS design required to inform selection of trees for clearing/management</li> <li>Initial areas mapped</li> <li>Preparing scope of works to undertake targeted surveys</li> <li>Need to determine exact scope of approvals required</li> <li>Scope of works developed for survey and environmental assessment</li> <li>Undertaking assessment to identify presence of swamp oak TEC</li> <li>Application prepared to convert marine plant communities east of motorway</li> </ul>



LEGEND – green = approved; red = application lodged; purple = seeking to lodge application in short term (<3 months away); blue = lodging later (> 3 months away); grey – not applicable or not required

ID	Component	Approval Identifiers	Principal Agency to meet with	Lodgement Details	Status
				<ul style="list-style-type: none"> <li>Site-based assessment conducted 9 October 2018</li> <li>RFI response submitted 16 October 2018</li> <li>Revised RFI submitted 29 October 2018</li> </ul>	<ul style="list-style-type: none"> <li>Application lodged 28 June 2018</li> <li>Information request received 16 July 2018</li> <li>Initial response being prepared – requires contribution from OLS Vegetation Disturbance scope of works</li> <li>Met with agencies 21 August 2018 to refine IR scope</li> <li>Technical assessment of fisheries values to be completed for IR response</li> <li>Responses submitted 16 October 2018</li> <li>Revised response (clarifying MPD area) submitted 29 October 2018</li> </ul>
		EPBC Referral	DoEE	In Prep	<ul style="list-style-type: none"> <li>Pre-lodgement meeting to be held with DoEE to identify whether disturbance to swamp oak for OLS clearing will be considered a controlled action</li> <li>Depending on outcome of meeting, prepare EPBC Referral</li> </ul>
		Protected Plant Permit	DNRME	In Prep	<ul style="list-style-type: none"> <li>Need to conduct protected plant surveys to identify if any threatened species</li> <li>Depending on outcome of surveys, prepared protected plant permits</li> </ul>

## Attachment 1C - Status of EIS Aircraft Noise CoG's Recommendations and Council Commitments

16 November 2018

### Queensland Coordinator-General's Recommendations

#### Recommendation 8 - Additional Noise Management Measures

- a) The proponent should implement additional measures to those specified in the Sunshine Coast Airport Expansion Project (SCAEP) Environmental Impact Study (EIS) to manage increases in aircraft noise resulting from the expanded Sunshine Coast Airport (SCA).

**Status**

In light of the actions taken with respect to recommendations 9 to 15 and commitments 6 - 17 the only additional action that can be undertaken is to institute a ground running procedure to minimise noise.

The procedure could include controls on the time and nature of engine run ups and APU use.

- b) The additional measures specified in (a) above, should be reasonable and practical and focus on sensitive receptors (dwellings and community facilities) that experience an increase in noise emissions as predicted by ANEC and subsequent ANEF for the expanded Sunshine Coast Airport.

**Status**

See status (a) above

- c) To achieve the effective management of noise specified in (a) above, the proponent should consider implementing these reasonable and practical measures to manage noise either from the noise source or at the sensitive receptor (dwellings and community facilities).

**Status**

The procedure suggested in (a) above would address noise at its source.

- d) The proponent should engage directly with all affected sensitive receptors (dwellings and community facilities) that may experience a potential increase in noise emissions as predicted by the ANEC and subsequent ANEF for the Sunshine Coast Airport. The proponent should implement suitable measures as specified in (c) above to manage noise from those aircraft operations resulting from aircraft noise from the expanded Sunshine Coast Airport.

**Status**

Sunshine Coast Council (Council) / SCA is engaging when requested to do so, noting that extensive engagement occurred over the 6 years of the EIS / AEIS (Additional EIS) process.

- e) The proponent should report progress to the community to achieve the outcome specified in (a) above at the community aviation forum and on the proponent's website in a timely manner.

**Status**

The Community and Aviation Forum is regularly updated on the project. When drafted the ground running procedure will be referred to the next available Forum meeting. When finalised the ground running procedure will be included in the SCA website.

### Recommendation 9 - Helicopter Operations

- a) To manage impacts to sensitive receptors (dwellings and community facilities), the proponent should work with helicopter operators to seek to relocate helicopter operations from the southern general aviation area to the western general aviation area earlier than the 2027 proposed in the EIS.

**Status**

This recommendation is essentially the same as Council's commitment 9. The implementation of which has been ongoing since 2012.

### Recommendation 10 - Community Engagement and Information

- b) The proponent should update the ANEF and ANEI contours every five to ten years and publish them on the Sunshine Coast Airport website to inform the community of the predicted and actual aircraft noise contours

**Status**

This recommendation is essentially the same as Council's commitment 10. It is noted that work is currently underway as part of the drafting of a new SCA Master Plan. The draft Master Plan will be exhibited for public comment in 2018.

- c) Cooperate with Airservices Australia (ASA) on the implementation of the WebTrak online portal and the Noise and Flight Path Monitoring System (NFPMS) to provide real-time information to inform the community of property specific noise levels and flight path information.

**Status**

Web Trak is operational for SCA.

- d) Provide ASA with noise complaints made directly to Sunshine Coast Airport so that all noise complaints about the Sunshine Coast Airport are captured in the Airservices Australia quarterly online noise reports.

**Status**

This process is operational / ongoing.

### Recommendation 11 - Land Use Planning

- a) The proponent should provide the necessary data to enable the Sunshine Coast Planning Scheme 2014 to be updated to reflect the changes to Sunshine Coast Airport operations resulting from the project's development, including the Airservices endorsed ANEF contours for the expanded Sunshine Coast Airport and reflect the principles relating to noise in the National Airports Safeguarding Framework 2012.

**Status**

This will be addressed via the new SCA Master Plan referred to in 10(b) above.

### Recommendation 12 - Informing Prospective Property Buyers

- a) Seek to establish a memorandum of understanding with the Real Estate Institute of Queensland to promote real estate agents' use of WebTrak online portal and the Noise and Flight Path Monitoring System. This would provide flight path information and aircraft noise levels to prospective property buyer(s) and to ensure they are fully informed of potential aircraft noise impacts.

#### **Status**

Initial discussions have been held with the REIQ and ASA. A draft Memorandum of Understanding (MOU) is being prepared for discussion and further engagement will occur as part of the review and update of the SCA Master Plan.

### Recommendation 13 - Fly Neighbourly Policy

- a) Revise and maintain the Fly Neighbourly Policy to reflect the proposed east-west runway operations.

#### **Status**

Recommendation 13 is essentially the same as Council's commitment 15. The policy will be revised in two stages, initially to reflect changes to helicopter operations as discussed at commitment 9 and subsequently to reflect the airspace changes arising from the new runway.

### Recommendation 14 - Navigation Performance Procedures and Noise Abatement Procedures

- a) Work with Airservices Australia to revise the required navigation performance procedures and runway mode of operation procedures to reflect the proposed east-west runway and:
  - (i) implement the continuous descent approach allowing aircraft to approach the runway at a constant rate of descent, to reduce noise emissions.
  - (ii) mitigate noise impacts by prioritising departure over the coast where safe and operationally efficient.

#### **Status**

Recommendation 14 is essentially the same as Council's commitments 16 and 17. Procedure Design will follow further consideration by Civil Aviation Safety Authority (CASA) and Airservices Australia of the airspace architecture for SCA in the context of the broader airspace review of the Brisbane Basin.

It is expected that procedure design will occur from early 2019 onwards.

### Recommendation 15 - Community Aviation Forum

- a) Expand the Community Aviation Forum to include community groups from the newly affected suburbs.

#### **Status**

There are some potentially impacted rural residents in the locality of Yandina Creek. The terms of reference of the Community Aviation Forum are due to be reviewed in November 2017. Consideration will be given to introducing new members as part of that process.

In the meantime, SCA / Council continue to engage with the Yandina Creek Progress Association. The last briefing on the project to an association meeting occurred in 1 June 2017.

## Council Commitments

During the preparation of the SCAEP EIS Council committed to a number of actions to reduce the impact of the aircraft noise on the areas around the airport.

The commitments were documented at Volume E, Chapter E7 of the EIS and repeated in the Coordinator General's Evaluation report at appendix 4.

The discussion below provides a commentary as to the status of the implementation of each commitment as at 16 June 2017.

### Commitment 6

Work cooperatively with Airservices Australia when a Runway Operating Plan for all new runway operations is developed and implemented.

#### Status

Procedure Design will follow further consideration by CASA and Airservices Australia of the airspace architecture for SCA in the context of the broader airspace review of the Brisbane Basin.

It is expected that procedure design will occur from early 2019 onwards.

### Commitment 7

Expand the Community Aviation Forum to include representatives from newly noise affected areas.

#### Status

There are some potentially impacted rural residents in the locality of Yandina Creek. The terms of reference of the Community Aviation Forum were reviewed in November 2017 and were included in revamped membership.

### Commitment 8

Continue consultation with residents, schools and other essential community infrastructure that can be affected by future aircraft noise.

#### Status

Council and SCA will continue to engage with all airport stakeholders via the ongoing Community Aviation Forum, the upcoming review of the SCA Master Plan and any future Planning Scheme amendments that might arise.

### Commitment 9

Continue to manage helicopter noise at the airport in accordance with current policies and procedures.

#### Status

- Helicopter pad Juliet was created in the Western GA in 2012. The pad is lit for night time operations.
- Helicopter parking positions for Becker have been relocated to Western GA
- SCA policy is that current helicopter operator leases within the Southern GA area will not be renewed for use by helicopter operators.
- There are currently very few helicopter operations from Southern GA area
- SCA is continuing to work with Becker to remove remaining Becker activities to Western GA area.

### **Commitment 10**

Publish an updated ANEF on a regular basis at intervals of between 5-10 years.

#### **Status**

This work is underway as part of the drafting of a new Master Plan for SCA. The draft Master Plan will be exhibited for public comment in 2018 and updated regularly in the future.

### **Commitment 11**

Make the online aircraft noise tool publicly available.

#### **Status**

The online aircraft noise tool is available on Council and SCA websites.

### **Commitment 12**

Helicopter training operations will be relocated to the two new helicopter training pads that are to be created in the north-west area of the airport site.

#### **Status**

Two new helicopter training pads as identified in the EIS are included in the proposed new runway works.

### **Commitments 13 - 14**

13. The proponent will not renew or extend leases for helicopter operations within the Southern GA area beyond 2027.
14. The proponent will work with helicopter operators and lessees of helicopter operations sites within the Southern GA area to relocate helicopter operations to the Western GA area earlier than 2027 where possible.

#### **Status**

Council / SCA have implemented this commitment and are continuing to work with Becker Helicopters to relocate the remaining activities to the Western GA area.

### **Commitment 15**

Revise the Fly Neighbourly policy to reflect the proposed east-west runway.

#### **Status**

The policy will be revised in two stages, initially to reflect changes to helicopter operations as discussed at commitment 9 and subsequently to reflect the airspace changes arising from the new runway.

### **Commitment 16 - 17**

16. Work with Airservices Australia to develop noise abatement procedures and preferred runway arrangements to help improve aircraft noise outcomes for nearby residents.
17. Work in cooperation with ASA and CASA when they undertake the design of the RNP for the new runway approaches. RNP is a means of increasing efficiency of operations and improving aircraft noise outcomes.

#### **Status**

Procedure Design will follow further consideration by CASA and Airservices Australia of the airspace architecture in the context of the broader airspace review of the Brisbane Basin. It is anticipated that procedure design will occur from early 2019 onwards.

**Sunshine Coast Airport Expansion Project**  
Attachment 2 - Issued for Construction (IFC) versus EIS

The following table presents a comparison between the Sunshine Coast Airport Expansion Project Issued For Construction Design Documentation and the detail provided in the EIS.

	EIS	IFC	Rationale for Change
1.	Taxiway end loops at each end of the new runway. (Refer Fig 1)	Provision of turning node on NW end and parallel taxiway to midpoint of runway in lieu of end taxiway loops. (Refer Fig 2)	Reduced impact on flood plain, greater efficiency for airport operations. Sand volume impact neutral. Impact on noise by GA
2.	Apron expansion originally shown indicatively on the northern end of the terminal. (Refer Fig 1)	Apron expansion on both northern and eastern sides of terminal. (Refer Figs 2 and 7)	Apron originally shown indicatively to be extended on the northern end. There is insufficient clearance to RWY 13/31 and Code E aircraft tails would penetrate the OLS for RWY 13/31 if parked on the northern end. Now only Code C aircraft on northern end.  Code E aircraft parking bays have been designed on eastern side of terminal. Aircraft tails will penetrate the OLS for the existing RWY 18/36, and the separation distances between the apron taxilanes and the RWY 18/36 do not meet CASA regulations. The southern portion of this runway is to become a taxiway only.
3.	Connection between RWY13/31 and RWY 18/36.	Connection exists but new runway is approx. 400 mm above level of RWY18/36.	New runway has been designed to provide flood immunity for a 1% AEP event with 2100 climate change and sea level rise



			allowance as identified in the EIS. Taxiway grades down from that level to apron level from the connection point. This impacts RWY 18/36 over approx. 250m and the use of southern portion of RWY 18/36.
4.	Starter extension runway for RWY 31 is 180 m. (Refer Figs 4 and 5)	Starter extension runway for RWY 31 is now 355 m. (Refer Fig 6)	The displacement of the RWY 31 threshold was necessary to avoid penetrations of the approach OLS by buildings to the SE of RWY 13/31. This has moved the threshold further away from residences and allowed for a longer starter extension runway.
5a.	New ATC Tower and ARFFS station.	No longer being relocated.	ASA has advised that it no longer needs to relocate these facilities.
5b.	Relocated VOR.	No longer being relocated.	ASA has advised that it no longer needs to relocate these facilities.
6a.	Western Perimeter Drain.	Significant drain no longer required – shallow swale drain only.	The proposed drain was found not to contribute to flood afflux mitigation. The removal of this deep drain now avoids possible disturbance of Potential Acid Sulphate Soil and doesn't compromise the Conservation Corridor.
6b.	Northern Perimeter Drain and cut-off wall.	NPD reduced to < 1 metre in depth. Cut-off wall confined to the	This has been addressed in the EA amendment. The proposed

		area adjacent to the bunded containment area. Cut-off wall on hold for length beyond bunded containment area.	drain was found not to contribute to flood afflux mitigation. The removal of this deep drain now avoids possible disturbance of PASS and the potential to drawdown the groundwater (GW) level in the National Park. The additional cut-off wall will only be included if salt water intrusion is detected in GW – additional sentinel wells installed to monitor this.
7a.	RWY LDA length shown as 2450 m. (Refer Figs 3 and 4)	Runway extension by 175 metres to the northwest required to achieve LDA of 2450 m on RWY 31. (Refer Fig 6)	This has again been addressed in the EA amendment. Due to the displacement of RWY 31 threshold. Required approx. 100,000 m3 of additional sand.
7b.	Various declared distances as follows: RWY 13 TORA 2450 m RWY 13 ASDA 2450 m RWY 13 LDA 2450 m RWY 31 TORA 2630 m RWY 31 ASDA 2630 m RWY 31 LDA 2450 m	Runway extension by 175 metres to the northwest required to achieve LDA of 2450 m on RWY 31 now provides greater declared distances as follows  RWY 13 TORA 2625 m RWY 13 ASDA 2625 m RWY 13 LDA 2450 m (After Displacement removed.) RWY 31 TORA 2805 m RWY 31 ASDA 2805 m RWY 31 LDA 2450 m	Runway extension required to provide minimum 2450 landing distance on RWY 31 with approach OLS clear of solid penetrations.

8.	Flood impact in Marcoola not to exceed +18.5 mm	Flood impact in Marcoola is now – 22 mm	This has been achieved by the inclusion of a flood levee wall along the western side of David Low Way. This will require work within the original National Park boundary. Discussions have been held with QNPWS and DES and agreement has been reached on NP revocation and acceptable offsets.
9.	Bunded containment area runs full length of the runway.	Bunded containment area only occupies the last 840 m of runway.	<p>This issue has been addressed in the EA amendment. DES applied additional conditions to address the alternative arrangement whereby sand will be transferred longitudinally along the runway rather than laterally as indicated in the EIS.</p> <p>This significantly reduces the risk of saline intrusion into the National Park as the receiving area is now not adjacent to the National Park and sand will only be moved after the salt water content has fallen below a specified level that has been nominated in the amended conditions.</p>
10.	Airspace and Instrument Flight Procedures to be undertaken by Airservices Australia and approved by CASA in accordance with Federal Minister for the Environment's approval.	Airspace design has identified some additional vegetation management required to clear OLS.	Trees in public open space, road reserves and private property have to be trimmed, lopped or removed to clear the OLS on both

			ends of the new runway. The area that encompasses the majority of the vegetation is at the NW end and Council plans to acquire some private property to facilitate this initial vegetation management and to provide for ongoing maintenance. Impacts on Council's Environmental Reserve will be generously offset (Approx. 10 : 1 which is twice the offset ratio required by State regulations) to provide an enhanced environmental outcome. All necessary approvals under the Nature Conservation Act and EPBCA will be obtained prior to commencement of vegetation management activities.
11.	Polishing pond and settlement areas not lined	Full area of sand reclamation area and polishing pond have been lined with HDPE.	Reduced risk for salt water to infiltrate the groundwater.
12.	Volume of sand to be dredged and placed on site not to exceed 1,100,000 cubic metres	Sand volume has increased to approximately 1,300,000 cubic metres.	Based on SCRC submission to the Department of Environment and Science, the amendment to the EA BRID0035 to allow additional sand to be dredged was deemed to constitute a major amendment. Approval of this amendment was advised on 26 June 2018. Quantity to be dredged was increased to 1,650,000 cubic

			metres and additional conditions were imposed. Included in Attachment.
13.	Conservation Corridor at least 100 m wide and 21.5 ha in area.	Corridor is 104 m wide at its narrowest point and 40 ha in area.	The corridor currently included in the IFC design documents exceeds the dimensions nominated in the CGER.
14.	Runway 18/36 to be retained in its existing configuration.	Southern portion of RWY 18/36 repurposed as taxiway. RWY 36 threshold displaced to north of new runway strip.	A new taxi lane is required to enable aircraft to access the additional parking bays along the eastern side of the terminal. There is insufficient space within the airport land to provide separation between this taxi lane and the existing RWY 18/36 that is compliant with CASA's MoS Part 139. The remaining runway in the 18/36 alignment will be capable of supporting light GA aircraft as contemplated in the EIS.
15.	Alignment in EIS erroneously described as 128°/308° magnetic while all diagrams, drawings and noise modelling is based on 322.58° true north.	IFC design documentation maintains the alignment shown in all diagrams, drawings and the noise modelling diagrams and alignments.	No change to the information provided in diagrams and drawings included in the EIS.  The reference to the magnetic bearings is incorrect.

Fig 1. Sketch of Concept Design shown in EIS



Fig 2. Sketch of Design Layout in IFC Design Documentation



Attachment 2 - IFC versus EIS

Extracts from EIS

Fig 3. Declared Distances for RWY 13

Figure 4.6c: Declared distances for Runway 13

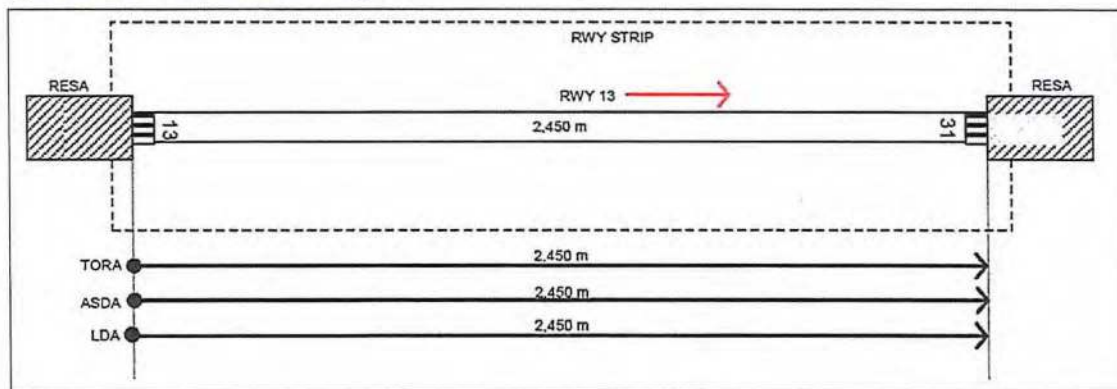
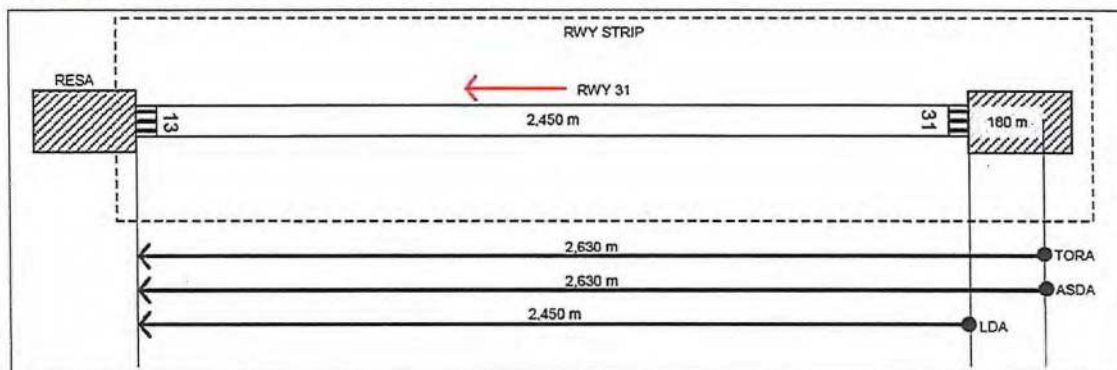


Fig 4. Declared Distances for RWY 31

Figure 4.6d: Declared distances for Runway 31



**Fig 5. Extract from EIS describing runway length**

**4.6.5 Runway length**

The runway length of both the existing RWY 18/36 and the proposed RWY 13/31 is constrained by existing development surrounding the airport.

RWY 13/31 has been designed to reduce the amount of existing development included within the associated runway Public Safety Areas. This resulted in the RWY 31 end being located approximately 180 m north-west of the intersection with the existing RWY 18/36. The 180 m of pavement between the RWY 31 threshold and RWY 18/36 intersection may be used for additional take off length for RWY 31 departures (refer **Figure 4.6d**). The runway includes Runway End Safety Areas (RESA) at each end that extend 240 m beyond the end of the runway strip (refer **Figure 4.6e**).

Preliminary declared distances for the proposed runway are summarised in **Table 4.6a**.



Fig 6. IFA Design Document - Declared Distances (Note: Displaced threshold for RWY 13 is temporary and will be removed on final commissioning in Dec 2020. LDA of 2275 m for RWY 13 will then become 2450m)

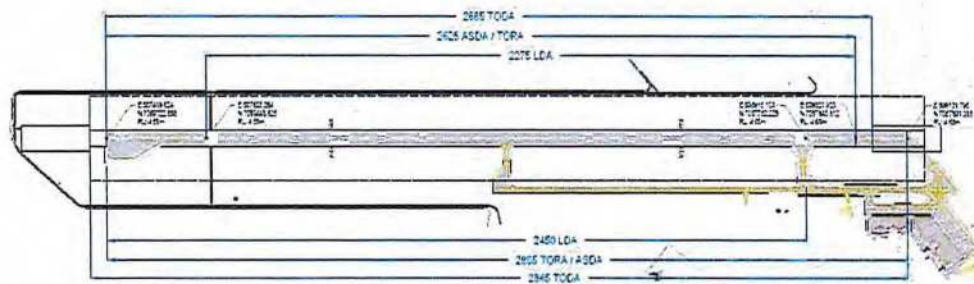
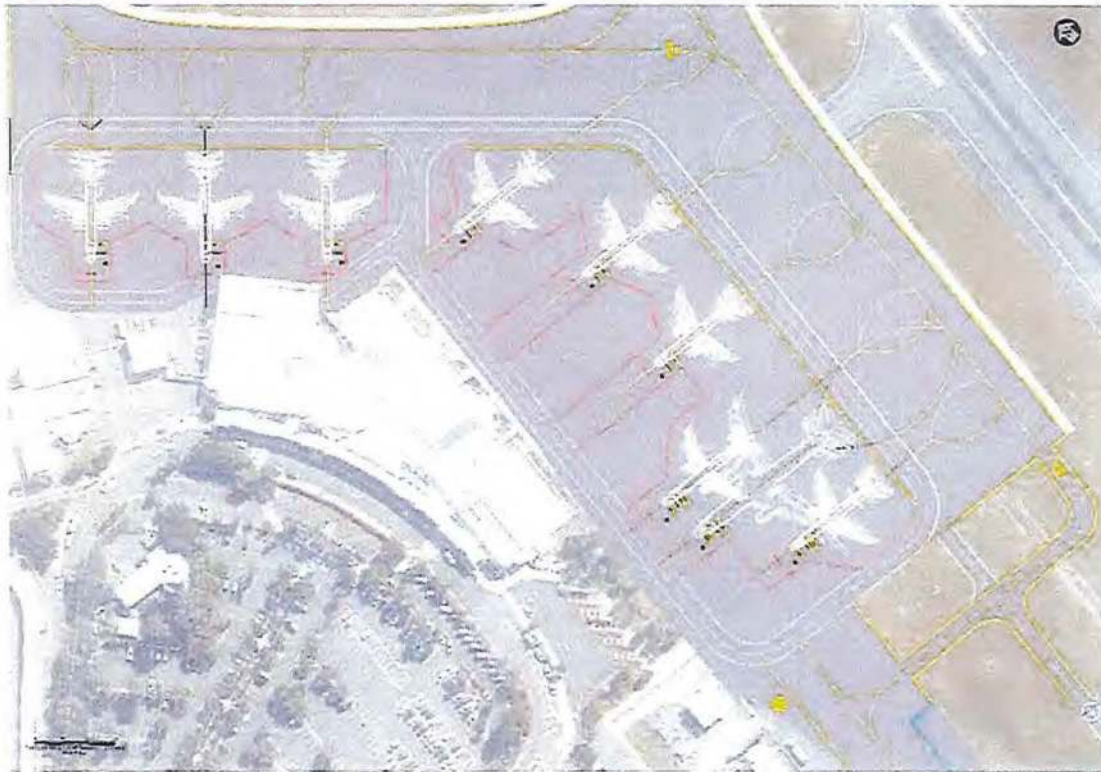


Fig 7. Current IFC Design Document - Apron Layout





Our ref: DGC18/1552

Your ref: SCAEP Detailed Design

Office of the  
**Coordinator-General**

16 JAN 2019

Mr Michael Whittaker  
Chief Executive Officer  
Sunshine Coast Regional Council  
Locked Bag 72  
SUNSHINE COAST MAIL CENTRE QLD 4560

Dear Mr Whittaker

Thank you for your letter dated 4 December 2018 regarding the Sunshine Coast Airport Expansion project (the project).

In your letter, you identified a number of amendments to the project since the environmental impact statement process because of further detailed design prior to the commencement of construction. All necessary approvals have been obtained which allowed construction of the project to commence in July 2017.

I understand that the Sunshine Coast Airport will be undertaking a Master Plan process and will seek a separate airspace change approval under the *Airspace Act 2007*. I note that community views will be sought on the Master Plan and airspace change and the proposed amendments will be included in these processes. I expect the Coordinator-General's conditions and recommendations to be incorporated in the Master Plan and airspace change evaluations as appropriate.

As a result, I confirm that no changes are required to the Coordinator-General's evaluation report for the project.

If you require any further information, please contact Mr Steven Tarte, A/Director, Coordinated Project Delivery, Office of the Coordinator-General, Department of State Development, Manufacturing, Infrastructure and Planning on 3452 7455 or [steven.tarte@coordinatorgeneral.qld.gov.au](mailto:steven.tarte@coordinatorgeneral.qld.gov.au), who will be pleased to assist.

Yours sincerely

A handwritten signature in black ink, appearing to read "S. Booth".

*Pod* Sonya Booth  
A/Assistant Coordinator-General  
Coordinated Project Delivery

1 William Street  
PO Box 15517 City East  
Queensland 4002 Australia  
Telephone +61 7 3452 7100  
[www.dsdmp.qld.gov.au](http://www.dsdmp.qld.gov.au)  
ABN 29 230 178 530