

19/08/2019

Bayside Council
PO Box 21
Rockdale NSW 2216
Job Number: 5728

For the attention of : - Howard Taylor
CC: Pulak Saha, Clare Harley, Michael McCabe, Debbie Fransen

Dear Howard,

Qantas Flight Training Facility
Northern Boundary Flood Impact Mitigation

Thank you for the review of our report "Qantas Group Flight Training Centre Flood Impact Assessment" dated 12/08/2019. Council's review of the report (via email 16/08/2019) notes there is an increase in flood levels of up to 60mm along a part of Qantas' northern boundary as a result of the above project, and that:

"Future development on the adjoining northern lot would be impacted by the increase in flood level and this impact should be considered and mitigated if possible."

As part of the detailed design process, it is anticipated that this impact will be able to be suitably mitigated. We have undertaken an initial investigation on lowering the access road / overland flow route around the car park by up to 100mm. Initial modelling shows this results in no increase in flood levels on the northern boundary.

This matter could be suitably addressed as part of a condition of consent. The following wording is proposed:

"Plans demonstrating no additional impact on adjacent properties to the north of Lot 133 DP 659434, as a result of overland flow paths are to be provided to the Certifier prior to issuance of any Construction Certificate for the car park."

Should you have any questions on the above matter, please do not hesitate to contact me.

Yours Sincerely,



for
enstruct group Pty Ltd

Tim Henderson
Senior Engineer

From: [Howard Taylor](#)
To: [Phillip Lambley](#)
Cc: [Emma Fitzgerald](#); [William Hodgkinson](#); [Debbie Fransen](#); [Pulak Saha](#); [Josh Ford](#); [Charlotte Lowe](#)
Subject: RE: Qantas Flight Training Facility - WSUD
Date: Friday, 23 August 2019 1:26:32 PM
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)

Thanks Phillip.
I'll include it as part of the RtS response.

Regards,
Howard

From: Phillip Lambley [mailto:phillip.lambley@enstruct.com.au]
Sent: Friday, 23 August 2019 1:16 PM
To: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>
Cc: Emma Fitzgerald <efitzgerald@urbis.com.au>; William Hodgkinson <William.Hodgkinson@planning.nsw.gov.au>; Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>; Josh Ford <Josh.Ford@bayside.nsw.gov.au>; Charlotte Lowe <Charlotte.Lowe@bayside.nsw.gov.au>
Subject: RE: Qantas Flight Training Facility - WSUD

Hi Howard,
Thanks for this. Do you need us to revise our letter back to Council or are you going to recommend this condition as part of the SSDA response?
Regards
Phillip

Phillip Lambley
Civil Group Leader

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1 July 2019

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From: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>
Sent: Friday, 23 August 2019 1:13 PM
To: Phillip Lambley <phillip.lambley@enstruct.com.au>
Cc: Emma Fitzgerald <efitzgerald@urbis.com.au>; William Hodgkinson <William.Hodgkinson@planning.nsw.gov.au>; Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>; Josh Ford <Josh.Ford@bayside.nsw.gov.au>; Charlotte Lowe <Charlotte.Lowe@bayside.nsw.gov.au>
Subject: RE: Qantas Flight Training Facility - WSUD

Hi Phillip,
Council staff have reviewed the letter 'Northern Boundary Flood Impact Mitigation' prepared by enstruct, dated 19/08/2019, and comment as follows:

The condition should be amended to read as follows:

"Plans demonstrating no additional impact on adjacent properties as a result of overland flow paths are to be provided to the Certifier prior to issuance of any Construction Certificate for the car park."

Regards,
Howard.

From: Phillip Lambley [mailto:phillip.lambley@enstruct.com.au]

Sent: Thursday, 22 August 2019 6:18 PM

To: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>

Cc: Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>; Tim Henderson <tim.henderson@enstruct.com.au>; Terrett, Michael <Michael.Terrett@app.com.au>; Emma Fitzgerald <efitzgerald@urbis.com.au>

Subject: FW: Qantas Flight Training Facility - WSUD

Hi Howard,

Thanks for your comments below and we did noted the impact on the adjacent property in our report and we are planning at designing it out during detailed design. We have already done some preliminary modelling and by lowering the road by up to 100mm will remove the issue. Please see attached a letter explaining this and requesting if this could be added as a condition of consent.

Should you have any questions, please do not hesitate to contact me.

Regards

Phillip

Phillip Lambley
Civil Group Leader

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From: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>

Sent: Friday, August 16, 2019 2:45:05 PM

To: Emma Fitzgerald <efitzgerald@urbis.com.au>

Cc: Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>; Tim Henderson <tim.henderson@enstruct.com.au>

Subject: FW: Qantas Flight Training Facility - WSUD

Hi Emma,

Please see comments below from Council's officers:

Flooding:

Staff have reviewed the revised flood assessment report by Enstruct and the external peer review of the flood model.

- The peer review of the flood model was completed by Catchment Simulation Solutions (CSS) on 06/08/2019. CSS confirmed that TUFLOW model updates (Enstruct) were reasonable and reflect modern best practice.
- The proposed finished floor level is acceptable and includes the necessary freeboard above the 1% AEP flood level.
- It is noted that the proposal will have an impact to the adjacent property (along the northern boundary of the site).
- The Flood impact map "1% AEP Event-Revised" shows the flood level will be increased by 30mm to 60mm and more in some locations. The velocity and flood hazard will also increase in these locations. The report notes the adjacent development to the north is built above the modelled height of the flood waters. Future development on the adjoining northern lot would be impacted by the increase in flood level and this impact should be considered and mitigated if possible.



Regards,
Howard



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From: Tim Henderson [<mailto:tim.henderson@enstruct.com.au>]
Sent: Wednesday, 14 August 2019 2:11 PM
To: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>
Cc: Josh Ford <Josh.Ford@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>; Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; David Hoy <dhoy@urbis.com.au>; Emma Fitzgerald <efitzgerald@urbis.com.au>; Phillip Lambley <phillip.lambley@enstruct.com.au>; Terrett, Michael <michael.terrett@app.com.au>; Nicholas Lawler (nicholas.lawler@qantas.com.au) <nicholas.lawler@qantas.com.au>; Charlie Westgarth <charlie.westgarth@qantas.com.au>
Subject: RE: Qantas Flight Training Facility - WSUD

Hi Howard,

Below is a link to our updated Civil SSDA report, along with a Flood Impact Assessment and Peer Review of the flood model.

These reports respond to your below comments regarding WSUD and flooding.

<https://wsi.li/kXTQDDmLawm1CV>

Regards,

Tim

Tim Henderson
Senior Engineer

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From: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>
Sent: Wednesday, August 14, 2019 1:06 pm
To: Emma Fitzgerald
Cc: Josh Ford; Christopher Thompson; Pulak Saha; Debbie Fransen
Subject: RE: Qantas Flight Training Facility - WSUD

Hi Emma,

Please find below Council engineers comments in relation to the WSUD strategy referred to in the email below:

WSUD

Please note that Council does not have access to the software required to open the file provided by enstruct.

It is noted that whilst the report includes the water quality requirements contained in the Botany Bay DCP 2013, it does not provide details of an assessment.

Sydney Water should be consulted on the water quality report, as the final stormwater discharge point is the existing Sydney Water Channel which runs east/ west across the site.

Flooding:

Council notes that this report does not include a response to Council's previous comments regarding the external peer review of the TUFLOW model and the impact of the proposed fill in the northern car park area.

Regards,
Howard.



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From: Tim Henderson [<mailto:tim.henderson@enstruct.com.au>]
Sent: Friday, 9 August 2019 3:40 PM
To: Howard Taylor <Howard.Taylor@bayside.nsw.gov.au>; Clare Harley <Clare.Harley@bayside.nsw.gov.au>; Josh Ford <Josh.Ford@bayside.nsw.gov.au>; Debbie Fransen <debbie.fransen@bayside.nsw.gov.au>; Charlotte Lowe <Charlotte.Lowe@bayside.nsw.gov.au>; Pulak Saha <Pulak.Saha@bayside.nsw.gov.au>
Cc: Eliza Scobie <escobie@urbis.com.au>; Emma Fitzgerald <efitzgerald@urbis.com.au>; Terrett, Michael <michael.terrett@app.com.au>; Phillip Lambley <phillip.lambley@enstruct.com.au>
Subject: Qantas Flight Training Facility - WSUD

Hi Howard,

With reference to Council's submission regarding the Qantas Flight Training Facility (SSD-10154), the attached information has been prepared to respond to the comments regarding WSUD.

Attached is a MUCIC model which indicates that the development meets the stormwater quality targets outlined in "Botany Bay and Catchment Water Quality Improvement Plan", and the SSDA report which includes information on the WSUD strategy.

Can you please confirm that the information attached is sufficient to address Council's submission with respect to WSUD.

Regards,
Tim

Tim Henderson

Senior Engineer

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