

Memorandum

To	Cox Architects – Kate Macdonald		
cc	Rebecca Johnston – Barr Planning		
From	Patrick Heads	Date	2 September 2022
Subject	Acid Sulfate Soil Update, Newcastle Airport Terminal PDC Project	Project No.	211445.00

Kate,

Douglas Partners Pty Ltd (DP) is currently conducting contamination, geotechnical and acid sulfate soil assessment for the proposed terminal expansion and car park upgrade at the Newcastle Airport site.

Our current scope of work includes subsurface investigation, sampling and testing for acid sulfate soil (ASS) conditions within the proposed development footprint.

Our investigation suggests the following with regards to ASS conditions:

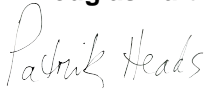
- ASS mapping indicates a low probability of ASS conditions at depths greater than 3 m below the ground surface;
- Investigation has been conducted to a depth of approximately 4.5 m below current site levels;
- Subsurface conditions generally comprise near surface fill (pavement materials) underlain by sand;
- Groundwater was encountered within the development area at depths around 1.0 m to 1.5 m depth below current ground levels;
- ASS testing on selected samples within the proposed development footprint indicated the following:
 - o Marginal indicators of ASS in screening test results;
 - o Existing and Potential Acidity results in the detailed acid sulfate soil tests (chromium suite) were below the adopted National Acid Sulfate Soil Guidance action criteria for sands.

On the basis of the results of the site-specific assessment, an acid sulfate soil management plan is not required for the proposed development for soils subject to the current assessment (i.e. within approximately 4.5 m of current ground levels).

Details of the assessment will be provided in our report to follow.

Please call myself or Matthew Blackert if you have any questions.

Douglas Partners Pty Ltd



Patrick Heads
Associate

Reviewed by



Matthew Blackert
Senior Associate

Limitations

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The results provided in this memorandum are indicative of the sub-surface conditions on the site only at the specific sampling and/or testing locations, and then only to the depths investigated and at the time the work was carried out. Sub-surface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during the investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

The assessment of atypical safety hazards arising from this advice is restricted to the environmental components set out in this report and based on known project conditions and stated design advice and assumptions. While some recommendations for safe controls may be provided, detailed 'safety in design' assessment is outside the current scope of this report and requires additional project data and assessment.

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