Attachment 1

REFERENCE

ACID SULFATE SOILS (ASS)[1] ON RELATIVELY UNDISTURBED LAND

	Depth	Depth Code	Depth to Actual Acid Sulfate Soil[2] (pH ≤4.0)	Depth to Potential Acid Sulfate Soil[3]
	0 - 0.5m	0	A0	S0
	0.5 - 1m	1	A1	S1
	1 - 2m	2	A2	S2
	2 - 3m	3	A3	S3
	3 - 4m	4	A4	S4

- The depth codes above imply that a predominance of profiles in the map unit fall within the nominated depth range.
- Actual acid sulfate soil layers (designated with an A code) often overlie potential acid sulfate soil layers (designated with an S code). Where this occurs e.g. A0S2 the map unit is coloured according to the depth of the upper surface of the 'actual' layer (A0) and overlayed with yellow dots. A0S2

1 **Acid sulfate soil** is the generic term used to define soils derived from estuarine sediments containing iron sulfides (pyrite) or containing the acidic products of the oxidation of sulfides. The term includes actual and potential acid sulfate soils.

2 An "A" preceding the soil depth code indicates the probable depth to a soil layer or horizon where a field pH of ≤4.0 is first encountered. A field pH of 4.0 or less is used as an indicator of an Actual Acid **Sulfate Soil (AASS)** which has mobile acidity in the form of ionic hydrogen, aluminium, iron or acid salts. Extensive areas with high actual acidity derived from sulfide oxidation may constitute a significant environmental hazard. Some soils with high organic matter may have low pH from organic acids.

3 An "S" preceding the soil depth code indicates the probable depth to a **Potential Acid Sulfate Soil (PASS)** layer or horizon. PASS are soils where the oxidisable sulfur percentage exceeds the prescribed 'action criteria' at which treatment is required if disturbed. Testing for Oxidisable sulfur is conducted by a range of methods which commonly include - Chromium Reducible Sulfur (S_{CR}), and Suspension Peroxide Oxidation Combined Acidity and Sulfur (SPOCAS)

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SCALE IN KILOMETRES 0 5 10 20

STUDY AREA

Caloundra, Beachmere, Redcliffe, Moreton Bay, BRISBANE, SOUTH PACIFIC OCEAN

Queensland Government
Natural Resources and Water

Moreton Bay Regional Council

BEACHMERE AREA

SPECIAL ACID SULFATE SOILS MAP

SCALE 1: 12500

metres 0 500 1,000 metres

Projection: Transverse Mercator (MGA Zone 56)
Horizontal Datum: GEOCENTRIC DATUM OF AUSTRALIA (GDA94)
Note: This map is GDA94 compliant

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