

ATTACHMENT M ACID SULFATE SOIL PRELIMINARY ASSESSMENT

This Preliminary Assessment should be completed for minor works on ASS Class 2, 3 or 4. It should also be used on Class 5 where works are likely to lower the watertable on adjacent ASS. The Assessment will establish whether the DECC's *Standard ASS Management Plan for Minor Works* may be used or whether a full ASS Management Plan will be required.

1. Site Characteristics

- Elevation of the soil surface (AHD):

0-1m
1-2m
2-4m
4-10m
> 10m

- Depth to watertable (m)
- Within range of planned excavation) OR
- Deeper than excavation

- Vegetation species present:

Mangrove
Melaleuca
Casuarina
Reeds
Rushes
Sedges
Grass
Eucalypts
Other

2. Description of the proposed works

- How long will earth works take?

1 day
2 days
< 1 week
up to 1 month
1 month

- What is the depth of disturbance of the soil?

- How much soil will be disturbed?

< 1 ton
1 – 5 tons
>5 tons (how many)?:

- Will soil material be:
removed from the site
stockpiled
reused on site?

- Will the works disturb acid sulfate soils? Yes No
- Will the works lower the watertable? Yes No

3. Site Indicators: Are any of these conditions present at or near the site

- Water of pH < 4.0 Yes No
- Clear or milky green water Yes No
- Rust coloured iron stained water Yes No
- Sulfurous (rotten egg gas) smell Yes No
- Scalded bare soil Yes No
- Corrosion of concrete and/or steel Yes No

4. Soil Profile Description

Complete the following table for each different soil layer thicker than 10cm to a depth of 50cm below proposed excavations. Choose options from the list below:

Layer Depth (cm)	Colour (1)	Texture (2)	Mottle Colour (3)	Stones or Shells(4)	Water table(5)	pH (6)	Peroxide Reaction(7)

- (1) Black, Dark Brown, Light Brown, Dark Grey, Light Grey, Orange, Red, Yellow, Pale
- (2) Peat, Sand, Loam, Clay, Clay Loam, Silty Clay
- (3) Rusty, Brown, Red, Pale Yellow, Orange, Black
- (4) Present / Absent, Size?, Amount?
- (5) Measure depth to free water in the soil.
- (6) Record soil pH
- (7) Record reaction with hydrogen peroxide reaction as nil, mild, or vigorous

The extent of works and location of soil test holes should be clearly marked on a scaled map

5. Assessment

- LEP Zone
- ASS Planning Map Class (1-5)
- ASS Risk Map Class (eg: Ap1)
- Land elevation
- DECC Soil Landscape Map Class
- Depth of soil disturbance
- Depth of Actual ASS
- Depth of Potential ASS

Summary:

- Acid sulfate soils are present but will not be impacted by the proposed works
- Acid sulfate soils may be impacted by the proposed works
- Acid sulfate works form part of the development works
- The proposed works require an ASS Management Plan
- The proposed works are minor and can be dealt with using an ASS Management Plan for Minor Works (See DECC Guideline *Acid Sulfate Soil Management Plan for minor works*)