

Acid Sulfate Soil Management Plan for Minor Works

Lodge Plan at Ballina Shire Council • 40 Cherry Street Ballina (Mon-Fri 8.15am to 4.30pm)
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This request will be processed as part of your Development Application (DA) and will be included in the consent conditions in the Notice of Determination from Council.

1. Land Description

DA Number *if known*

Property Address

Lot/DP or Lot/Section/DP or Lot/Strata Plan Number

2. Proposed Development

The development is considered as **Minor Works** as defined in the attached Management Plan:

- Dwelling
- Dwelling Additions
- On Site Sewage Management Systems and associated works
- Dividing Fence and other Residential Fence
- Domestic Swimming Pool (proposed excavation less than 10 tonnes of Acid Sulfate Soil)
- Other Development considered by Council's Planning & Environmental Health Division to be **Minor Works**

3. Soil Type

- Sandy Material
- Clayey or Other Materials

4. Soil Class

- Class 1 *refer to map on page 4 for acid sulfate soil classifications (more detailed maps are available through Council's Interactive Mapping at ballina.nsw.gov.au)*
- Class 2
- Class 3
- Class 4
- Class 5

5. Owner's Consent

- Individual or Joint Ownership Organisation/Company Ownership Strata Property

Owner's Name

Owner's consent is required to be provided with Development Applications.

6. Applicant's Declaration

It is accepted that Acid Sulfate Soils are present on the site and may be disturbed during the proposed development of the site. It is confirmed that the proposed project will be carried out in compliance with the attached Acid Sulfate Soil Management Plan.

Applicant Name

Applicant Signature

Date

Explanatory Notes

This plan provides guidance for the management of acid sulfate soils where they are disturbed during **minor** works including the installation of:

- Footings for single dwelling and duplex developments
- Sewer and storm water drainage associated with single dwellings and duplex developments
- Swimming pools (residential only)
- On Site Sewage Management Systems and associated works
- Other works determined by Council's Planning and Environmental Health Division as minor which disturb less than 10 tonnes of soil.

Acid Sulfate Soils

Acid Sulfate Soils (ASS) are extremely acidic and sulfur rich soils found within the floodplain of coastal areas generally below RL 5m AHD. Potential Acid Sulfate Soils (PASS) is the common name given to soil and sediment containing iron sulfide (usually pyrite). They can become Actual Acid Sulfate Soils (AASS) and produce sulfuric acid if they become exposed to air through excavation or lowering of the water table.

Problems caused by Acid Sulfate Soils can include:

- Fish kills and aquatic habitat changes
- Corrosion of concrete, iron and steel
- Reduced plant growth – bare patches and scalds
- Poor foundation bearing capacity (clay sediments only)
- Iron staining of paths, driveways and retaining walls

Where does this plan apply?

Under Clause 7.1 of Council's Local Environment Plan 2012 (and clause 36 of BLEP 1987) a person is required to obtain development consent to undertake works on land shown as being Class 1, 2, 3, 4 or 5 on the Acid Sulfate Soil Planning Maps.

Class of Land	Specified Works
1	<ul style="list-style-type: none">• Any works
2	<ul style="list-style-type: none">• Works below the ground surface• Works by which the watertable is likely to be lowered
3	<ul style="list-style-type: none">• Works beyond 1 metre below the natural ground surface• Works by which the watertable is likely to be lowered beyond 1 metre below the natural ground surface
4	<ul style="list-style-type: none">• Works beyond 2 metre below the natural ground surface• Works by which the watertable is likely to be lowered beyond 2 metres below the natural ground surface
5	<ul style="list-style-type: none">• Works within 500 metres of Class 1, 2, 3 or 4 land which are likely to lower the watertable below 1 metre AHD in adjacent Class 1, 2, 3 or 4 land

Council must not grant consent unless it has considered:

- a) A preliminary soil assessment to ascertain the presence or absence of acid sulfate soils within the area of proposed works unless the applicant agrees that acid sulfate soils are present within the area of proposed works
- b) Where the preliminary soil assessment ascertains (or the applicant agrees) that acid sulfate soils are present, the adequacy of an acid sulfate soils management plan prepared in accordance with guidelines, as amended from time to time.
- c) The likelihood of the proposed development resulting in the oxidation of acid sulfate soils and discharge of acid water from the area of the proposed works; and
- d) Any comments received from any relevant public authority the Council may consult with in respect of the application.

The guidelines nominated in (b) above (Acid Sulfate Soil Manual produced by the Acid Sulfate Soil Management Advisory Committee) require soil and water assessment including chemical analysis to develop a detailed management plan. However, the guidelines note that the level of assessment undertaken or the complexity of an acid sulfate soils management plan, should match the level of risks to the environment from the proposed activity. Council has concluded that the risk to the environment from the defined minor works is very low and the conservative liming rates adopted will address any likely negative impacts.

Exemption

If the applicant can demonstrate the land has been lawfully filled, and any excavation will not extend below the depth of the fill, an Acid Sulfate Soil Management Plan is not required.

Acid Sulfate Soil Planning Maps

The NSW Department of Land & Water Conservation have produced maps which indicate the likely presence of acid sulfate soils and what depth below natural ground surface they may be expected to occur, see attached. These maps may be viewed at Council offices or on Council's website.

Management

Where the applicant has agreed ASS are present on site the following management strategies are deemed satisfactory. Agricultural lime is recognised as a cost efficient method of neutralising acid generated by ASS.

Agricultural lime is to be used to treat ASS. Hydrated or slaked lime must not be used without specific approval from Council. Lime is to be thoroughly mixed with the excavation material. Treatment is to occur on-site unless previous approval has been obtained from Council's Planning and Environmental Health Division for alternative arrangements.

Excavated material is to be treated within 48 hours of excavation or the following measures are to be in place:

1. Provide a bed of agricultural lime beneath excavated material
2. Provide non-ASS bunds to excavated material to contain any leachate
3. Treat excavated material within 7 days of excavation.

Liming Rates

- Sandy material (assuming maximum 1% pyrite): apply a minimum 50kg agricultural lime per tonne of excavated soil.
- Clayey material (assuming maximum 3% pyrite): apply a minimum 150kg agricultural lime per tonne of excavated soil.

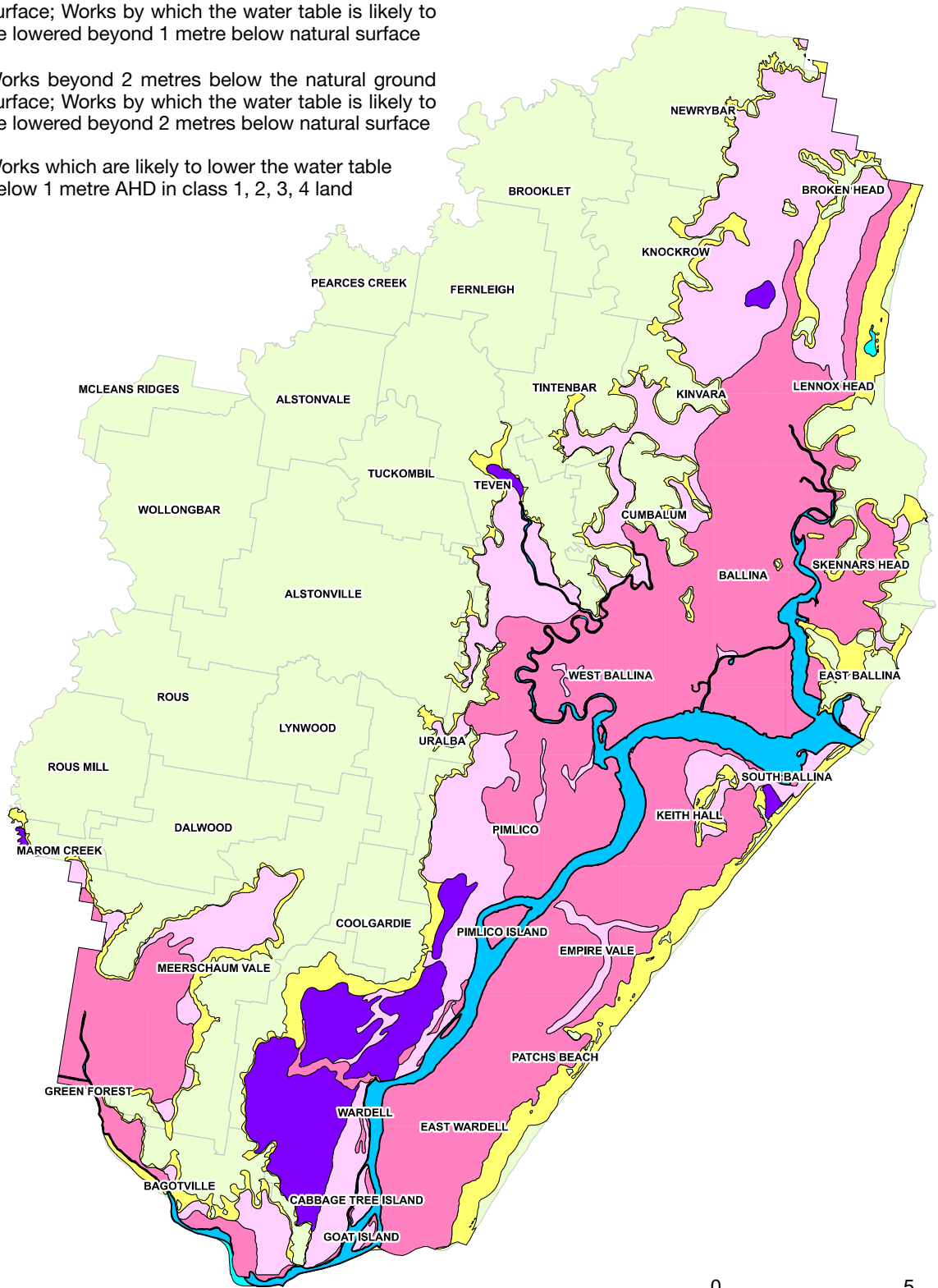
NOTE: Treated ASS shall be retained on site or disposed of to a licensed waste management facility unless a specific resource recovery order and exemption has been granted by the NSW EPA (see epa.nsw.gov.au/your-environment/recycling-and-reuse/resource-recovery-framework/apply-for-an-order-and-exemption).

Privacy Protection Notice

The completed Acid Sulfate Soil Management Plan for Minor Works form contains personal information which is being collected for the purpose of assessing this plan and to enable Council to perform any other duty or task under any relevant legislation. The information will be processed by the Planning and Environmental Health Division and may be made available to public enquiries under the Government Information (Public Access) Act. The information supplied is required under the Government Information (Public Access) Act. The information will be stored in Council's electronic document management system.

Acid Sulfate Soils Map

- Class 1** Any Works
- Class 2** Works below the ground surface; Works by which the water table is likely to be lowered
- Class 3** Works beyond 1 metre below the natural ground surface; Works by which the water table is likely to be lowered beyond 1 metre below natural surface
- Class 4** Works beyond 2 metres below the natural ground surface; Works by which the water table is likely to be lowered beyond 2 metres below natural surface
- Class 5** Works which are likely to lower the water table below 1 metre AHD in class 1, 2, 3, 4 land



Acid Sulfate Soils



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