



## Acid Sulfate Soil Management Plan for Minor Works

### 1. Land Description

DA No.	
Property Address	
Lot / DP / Sec / SP	

### 2. Proposed Development

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

<input type="checkbox"/>	Dwelling
<input type="checkbox"/>	Dwelling Additions
<input type="checkbox"/>	Sewage Management Facility
<input type="checkbox"/>	Effluent Land Application Area
<input type="checkbox"/>	Dividing or Other Residential Fence
<input type="checkbox"/>	Domestic Swimming Pool (proposed excavation less than 10 Tonnes of Acid Sulfate Soil)
<input type="checkbox"/>	Other development considered by BSC's Environmental Health Unit to be "Minor Works"

*Please note: Council may consider that some works do not meet the definition of minor works and a soil investigation and report from a duly qualified consultant prepared in accordance with ASSMAC, 1998 will be required as per [Cl 6.1 of BSC LEP 2014](#).*

### 3. Soil Type

<input type="checkbox"/>	Sandy material
<input type="checkbox"/>	Clay or other materials

### 4. Soil Class

N/A	Class 1- Acid sulfate soils will require a management plan developed by a duly qualified person.
N/A	Class 2 - Acid sulfate soils will require a management plan developed by a duly qualified person.
<input type="checkbox"/>	Class 3
<input type="checkbox"/>	Class 4
<input type="checkbox"/>	Class 5

*Refer to map on page 4 for acid sulfate soil classifications. More detailed maps are available through [Council's online mapping tool](#).*

### 5. Applicants Declaration

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

<b>Applicants Name</b>		<b>Applicants Signature</b>	
<b>Date</b>			

### **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 stormwater drainage associated with single dwellings and duplex developments
- Swimming pools (residential only)
- Domestic sewage management facilities and associated land application areas.
- Other works determined by Council's Environmental Health Services Unit as minor which disturb less than 10 tonnes of soil

### **Acid Sulfate Soils**

Acid Sulfate Soils (ASS) are extremely acidic and sulphur 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 watertable.

Problems caused by Acid Sulfate Soils 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 6.1 of Council's Local Environment Plan 2014](#) 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	– Any works
2	– Works below the ground surface – Works by which the watertable is likely to be lowered
3	– Works beyond 1 metre below the natural ground surface – Works by which the watertable is likely to be lowered more than 1 metre below the natural ground surface
4	– Works beyond 2 metres below the natural ground surface – Works by which the watertable is likely to be lowered more than 2 metres below the natural ground surface
5	– Works within 500 metres of adjacent Class 1, 2, 3 or 4 land that is below 5 metres Australian Height Datum and by which the watertable is likely to be lowered below 1 metre Australian Height Datum on adjacent Class 1, 2, 3 or 4 land.

Council must not grant consent unless it has considered:

- 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; and
- 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, published by the Environment Protection Authority; and
- 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
- Any comments received from any relevant public authority the Council may consult with in respect of the application.

The guidelines nominated in (b) above 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***

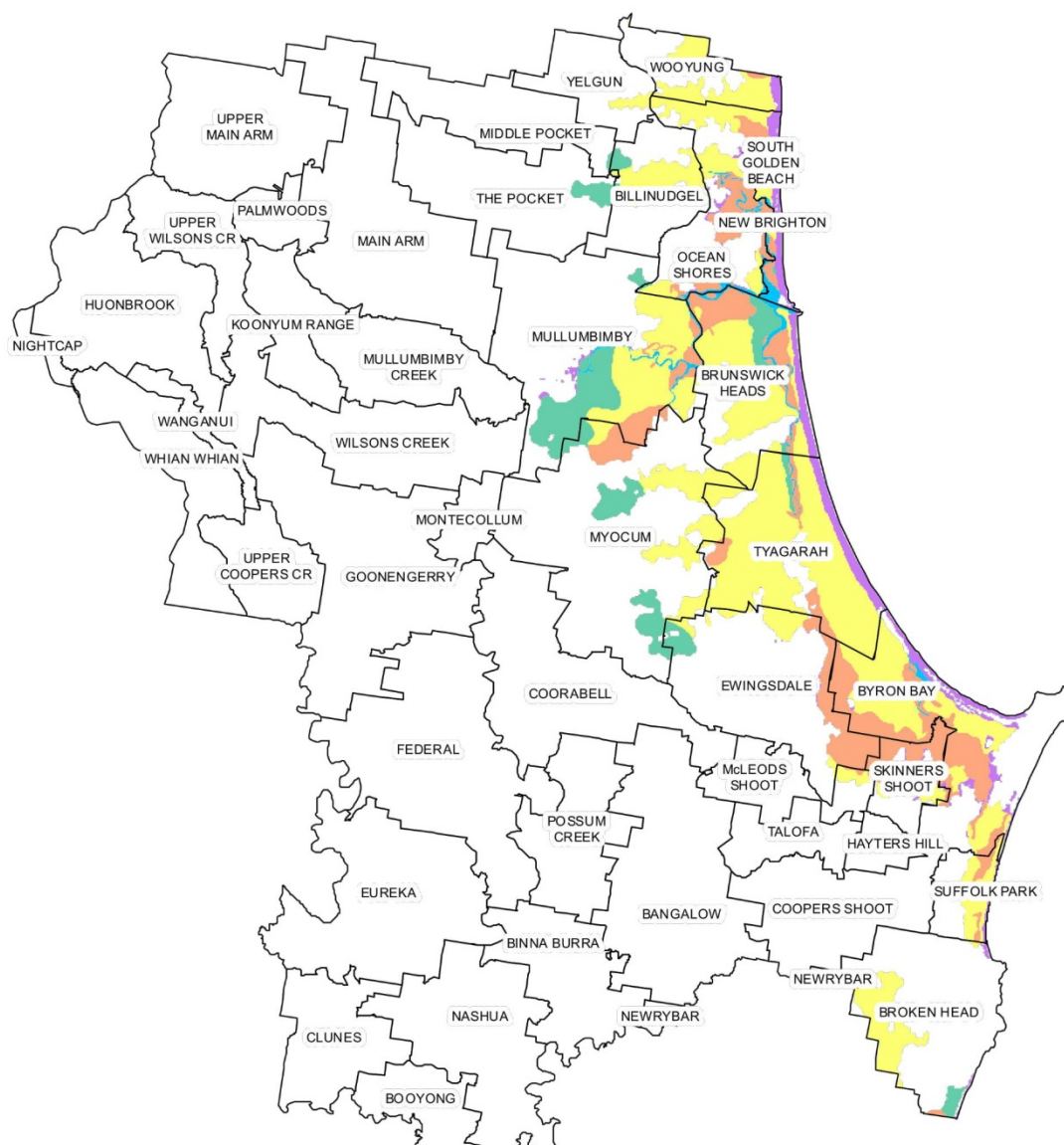
If the applicant can demonstrate the land has been lawfully filled, and any excavation will not extend below the depth of the fill, consent and thus an Acid Sulfate Soil Management Plan is not required.

### ***Acid Sulfate Soil Planning Maps***

[Acid Sulfate Soils Maps](#) within Byron Local Environmental Plan 2014 indicate the likely presence on acid sulfate soils and what depth below natural ground surface they may be expected to occur.

The Acid Sulfate Soils over the page below is indicative only. Please contact Council on (02) 6626 7000 for further information on acid sulfate soils on a particular property.

- |   |   |
|---|---|
| <p><b>Class 1</b> All works highly likely to have an impact on ASS.</p> <p><b>Class 2</b> Works below the natural ground surface, or where the water table is likely to be lowered, likely to have ASS impact.</p> <p><b>Class 3</b> Works more than 1 metre below the natural ground surface, or where the water table is likely to be lowered by more than 1 metre below the natural ground surface, likely to have ASS impact.</p> | <p><b>Class 4</b> Works more than 2 metres below the natural ground surface, or where the water table is likely to be lowered by more than 2 metres below the natural ground surface, may have ASS impact.</p> <p><b>Class 5</b> Works within 500 metres (on land &lt; 5m AHD) of adjacent Class 1,2,3 or 4, where the water table is likely to be lowered below 1 metre AHD on the adjacent Class 1,2,3 or 4 land.</p> |
|---|---|



## Acid Sulfate Soils



### DISCLAIMER

Although all care is taken in the preparation of this plan, Byron Shire Council accepts no responsibility for any misprints, errors, omissions or inaccuracies. The information contained within this plan is for pictorial representation only. Do not scale. Accurate measurements should be undertaken by survey.

## **Management**

Where the applicant has agreed ASS is 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 onsite unless previous approval has been obtained from Council's Environmental Health Services Unit 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 14 days of excavation.

## **Liming Rates**

Material	Rates
Clayey material (assuming maximum 3% pyrite)	minimum 150kg agricultural lime per tonne of excavated soil.
Sandy material (assuming maximum 1% pyrite)	minimum 50kg agricultural lime per tonne of excavated soil.

**This page is for information. It is not required to be submitted with your application.**