

ACID SULFATE SOILS LETTER

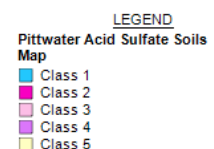
13 Iluka Road, Palm Beach NSW

AscentGeo completed a detailed geotechnical assessment of the above site (AG 20223 8 March 2023) relating to the proposed new dwelling swimming pool and landscaping. This assessment included ground testing which extended to a depth below the depth of the proposed works.

With reference to the Northern Beaches Council (PLEP) Acid Sulfate Soils Map, the site is classified as “Class 3” (**Image 1**).



Image 3. Pittwater Acid Sulfate Soils Map: 13 Iluka Road, Palm Beach NSW
(© NBC Maps)



Acid sulfate soils is the common name given to naturally occurring soil and sediment containing iron sulfides. When these natural occurring sulfides are disturbed and exposed to air, oxidation occurs and sulfuric acid is ultimately produced. For every tonne of sulfidic material that completely oxidises, 1.6 tonnes of pure sulfuric acid are produced. This sulfuric acid can drain into waterways and cause severe short and long-term socioeconomic and environmental impacts.

Despite the Class 3 mapping, the soil materials in the area of the proposed work are comprised of marine sand deposited in a foredune environment. These materials lack the required organic material and were not subject to the reducing environment necessary to permit the formation of acid sulfate soils. Based on the material encountered in our testing onsite, field acid sulfate soils testing was not considered necessary for this site.

Based on the scope of the proposed works, the results of the ground testing carried out, and our prior experience in the local area, the site and the proposed works present a very low risk of encountering potential or actual acid sulfate soils. Any further acid sulfate soils investigation, or the preparation of an acid sulfate soils management plan is not considered necessary for this development.

As a basic precaution during construction, excavated material from the pool and from footing excavations should be placed on plastic sheeting and covered to prevent interaction with rainwater, and potential runoff prior to appropriate offsite disposal.

If you have any questions or require any clarification, please call us on **9913 3179**.

For and on behalf of **AscentGeo**,



Ben Morgan BScGeol MAIG RPGeo
Managing Director | Engineering Geologist

