

TECHNICAL NOTE

TECHNICAL NOTE NUMBER: 02

DATE: 14 March 2019

SUBJECT: Construction methodology for management of Acid Sulfate Soils within the Waterways Wetlands

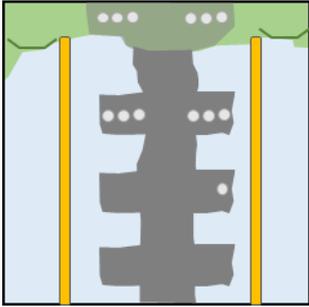
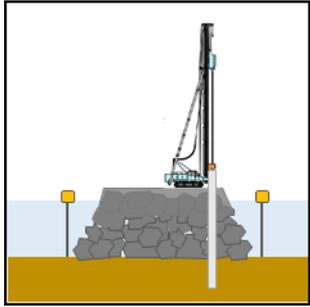
PURPOSE:

This technical note is provided to address the matters that the Inquiry and Advisory Committee has requested in respect of the management of Potential Acid Sulfate Soils within the Waterways Wetlands. This Technical Note builds upon the information provided in *Technical Note Number 01 - Predicted construction methodology and estimated construction duration*.

Predicted construction methodology for management of Acid Sulfate Soils within the Waterways Wetlands

1. Potential Acid Sulfate Soils (PASS) have been identified to occur south of Parkway. The PASS identified is naturally occurring.
2. Intrusive samples were taken in the central and southern portion of the project area to further investigate the presence of PASS. A total of 252 samples from 43 soil bores were taken for field pH measurements. Sampling density was higher in the areas identified as higher risk through the desktop assessment. Based on the field screening results, 55 samples were submitted for detailed laboratory analysis. The laboratory results showed PASS is present at depths between 0.5m and 20m.
3. Prior to the commencement of construction, a Construction Environmental Management Plan (**CEMP**) will be prepared in accordance with EPR EM2 and an Acid Sulfate Soil Management Plan (**ASSMP**) will be prepared in accordance with EPR CL2.
4. The ASSMP will be developed in consultation with the EPA Victoria in accordance with the *Industrial Waste Management Policy (Waste Acid Sulfate Soils) 1999*, EPA Publication 655.1 Acid Sulfate Soil and Rock, and relevant EPA regulations, standards and best practice guidance. The balance of this Technical Note sets out a predicted methodology for the management of PASS and Acid Sulfate Soil (**ASS**) during construction in the Waterways Wetlands, but the final methodology adopted for project construction will be subject to the terms of the CEMP and ASSMP.

5. Construction within the Waterways Wetlands is estimated to take up to 24 months. Waterways bridge piling is expected to take approximately 95 days (periodic, non-continuous).
6. The piling activities are expected to be undertaken from the working platform as described in Technical Note Number 01.
7. The driven steel tube piles are likely to be driven through the working platform. In addition to the floating berms, sediment curtains and sediment fences, these steel piling tubes will prevent and limit the interaction of any spoil with the Waterway Wetlands.
8. Subject to detailed design, a short section of reinforced concrete is likely to be required to be formed within the top segment of the driven steel tube which may require minor excavation of some material from inside the top section of the driven steel tube. If excavation is required, it is likely that this would be done with an auger on the inside of the tube and any material removed would be loaded directly onto a truck on the working platform to facilitate prompt removal of the spoil from the Waterways Wetlands area.
9. Once loaded onto a truck, the spoil would be transferred to a pre-determined contained stockpile with environmental fencing controls elsewhere in the project area. Any PASS and ASS will be stockpiled for disposal or treated to neutralise the potential impacts and further tested to determine suitability for potential re-use in accordance with the Soil Management Plan required by EPR CL1.
10. This diagram is a schematic only and is not to scale.

Description of works	Plan view	Cross section view
<p>1. Piling works</p> <ul style="list-style-type: none"> • Steel piles would be driven at each pier location within the Waterways Wetlands. 		
<p>2. Piling works</p> <ul style="list-style-type: none"> • Removal of excavated spoil whilst piling. • Spoil material to be stockpiled, and contained elsewhere within the alignment. • Any stockpiled Acid Sulfate Soils will be disposed offsite or treated, tested and reused appropriately. 	