

ENVIRONMENT EFFECTS STATEMENT



Groundwater quality

A key aim of the Environment Effects Statement (EES) was to ensure we fully understand and manage potential impacts the Edithvale and Bonbeach level crossing removal projects may have on groundwater quality.

What is groundwater?

Water that occurs underground is called groundwater. Groundwater occurs in most places when water from rain, rivers and other sources seeps into soil or rock, a little like how a sponge holds water.

Groundwater is accessed for irrigation of parks and gardens. It is also essential for many ecosystems

at Edithvale and Bonbeach, such as wetlands and coastal dunes. In these ecosystems, groundwater supports plants, insects, fish, birds and animals.

The water supply to the Edithvale and Bonbeach communities is provided by Melbourne's drinking water network, which does not use groundwater.



How could groundwater quality be affected?

If groundwater levels reduce, groundwater quality can be affected. Groundwater is naturally deeper at Bonbeach than at Edithvale, which means that the rail trench will have less impact on groundwater levels at Bonbeach.

In Edithvale, where the groundwater is shallower, we are using a design and construction technique that allows for groundwater to pass through and around the trench, so current groundwater levels and quality will not be impacted.

At Bonbeach, possible changes to groundwater levels could expose some existing underground coastal acid sulfate soils to air.

These soils occur naturally underground. They are quite common along parts of Australia's coastline. If these soils

are exposed to air they can affect groundwater quality.

The EES found that the risk of impacts to groundwater quality was negligible or extremely low.

We will also monitor groundwater conditions during the project and for several years after construction has finished to confirm that no impacts arise.

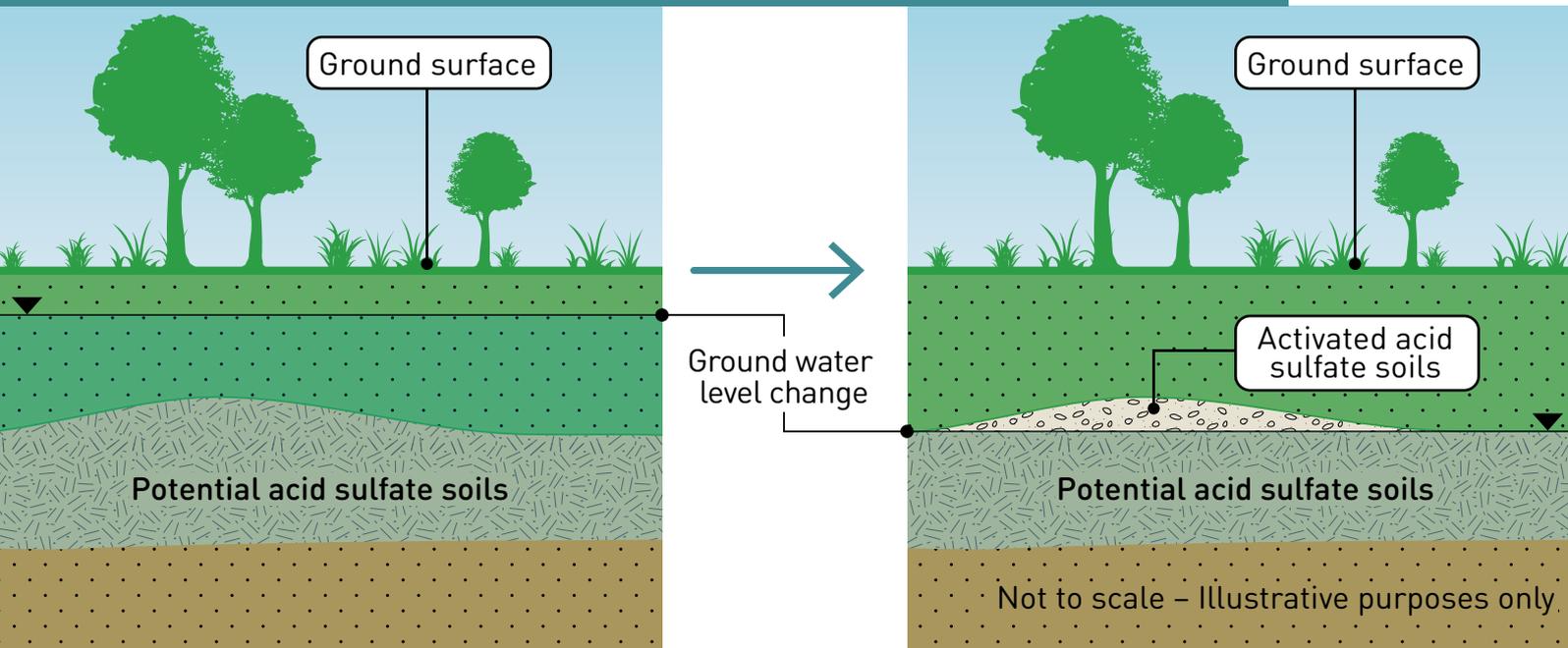
The projects will be undertaken in accordance with a robust Environmental Performance Framework which is included in the EES.

The Framework includes Environmental Performance Requirements to mitigate environmental risks, including any potential groundwater impacts.



For more information head to www.levelcrossings.vic.gov.au/EES or call us on 1800 105 105.

Conceptual illustration of acid sulfate soil activation through lowering of groundwater



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