The Wave
Stages 1 and 2 (Rail)

Acid sulfate soils

November 2026

Acid sulfate soils occur naturally and contain iron sulfides. They generally present little risk while waterlogged and undisturbed but can produce acid when exposed to air.

Construction activities such as excavation, piling, tunnelling, drainage and pumping groundwater from work areas can disturb these soils.

What did the Draft Public Environment Report (PER) find?

The Draft Public Environment Report (PER) investigated soil and groundwater conditions and mapped acid sulfate soils across The Wave – Stages 1 and 2 (Rail) project area.

These soils mainly occur in coastal lowlands near Pelican Waters, Currimundi and Birtinya, and in parts of Little Mountain and Aroona. The assessment considered how construction could disturb them and the measures needed to manage potential impacts.

How impacts will be managed

Measures to reduce disturbance and manage affected soil and water include:

- avoiding or minimising disturbance to acid sulfate soils, including excavation
- limiting the lowering of groundwater levels
- keeping acid sulfate soils separate from clean material
- testing soil and treating it with approved materials to neutralise acidity, while avoiding excessive treatment that could affect acid frog habitat
- containing and treating acidic runoff or leachate
- checking that treated soil meets requirements before reuse or disposal
- stabilising and rehabilitating disturbed areas.

What happens next

Further investigations during detailed design and construction planning will confirm conditions and treatment needs at individual locations.

An Acid Sulfate Soil Management Plan will be finalised before relevant works begin, along with monitoring and reporting requirements.

Find out more

Read The Wave – Stages 1 and 2 (Rail) Draft PER for the detailed findings and proposed environmental management measures.