Managing topsoil and spoil

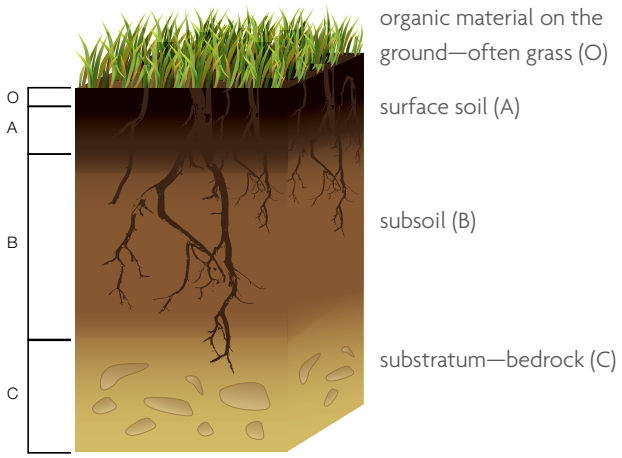
South East Queensland (SEQ) is one of the fastest growing regions in Australia with our population set to increase significantly in the next 25 years. A secure water supply is essential.

The Northern Pipeline Interconnector (NPI) – Stage 2 is a vital piece of infrastructure designed to help secure the water supply for the Sunshine Coast region.

It involves the construction of an underground, reverse-flow pipeline from the Noosa water treatment plant to NPI – Stage 1 at Eudlo.

The Northern Network Alliance (NNA) has been engaged to design and construct NPI – Stage 2. The NNA consists of LinkWater Projects, McConnell Dowell, Abigroup and KBR.

The effective management of topsoil and spoil is an important part of the construction and rehabilitation phase of NPI – Stage 2.



Topsoil

Topsoil is composed of two distinct soil layers: the layer of organic material on the ground and the layer of soil that sits directly below it (O and A in the diagram). Together these form the topsoil layer that sit over the subsoil layer (B). Topsoil has a higher organic matter content and is a darker colour than subsoil.

Due to a variety of geological and environmental factors, the depth of each of these layers can vary from property to property.

Managing topsoil

To prepare the pipeline corridor for construction, the topsoil and some subsoil are stripped back so a trench can be dug for the pipeline.

It is then stockpiled and kept on the landowner's property in the construction area, also known as the right of way. All effort is made to avoid mixing topsoil with subsoil and other foreign material.

In some instances where it presents a safety or environmental risk, it is moved off the right of way to another location in consultation with the landowner.

Once the pipeline is laid and the trench is backfilled, topsoil is returned as part of the reinstatement and revegetation process.

Backfill material

Subsoil (B) and bedrock (C) excavated when the trench is created is usually used as backfill material. This backfill helps to refill the trench once the pipe is laid.

Managing backfill material

Backfill material is stored separately from topsoil and is stockpiled on the construction area of each property. If this is not appropriate given the width of the construction area, type of terrain or safety issues, the backfill will be moved to another location.

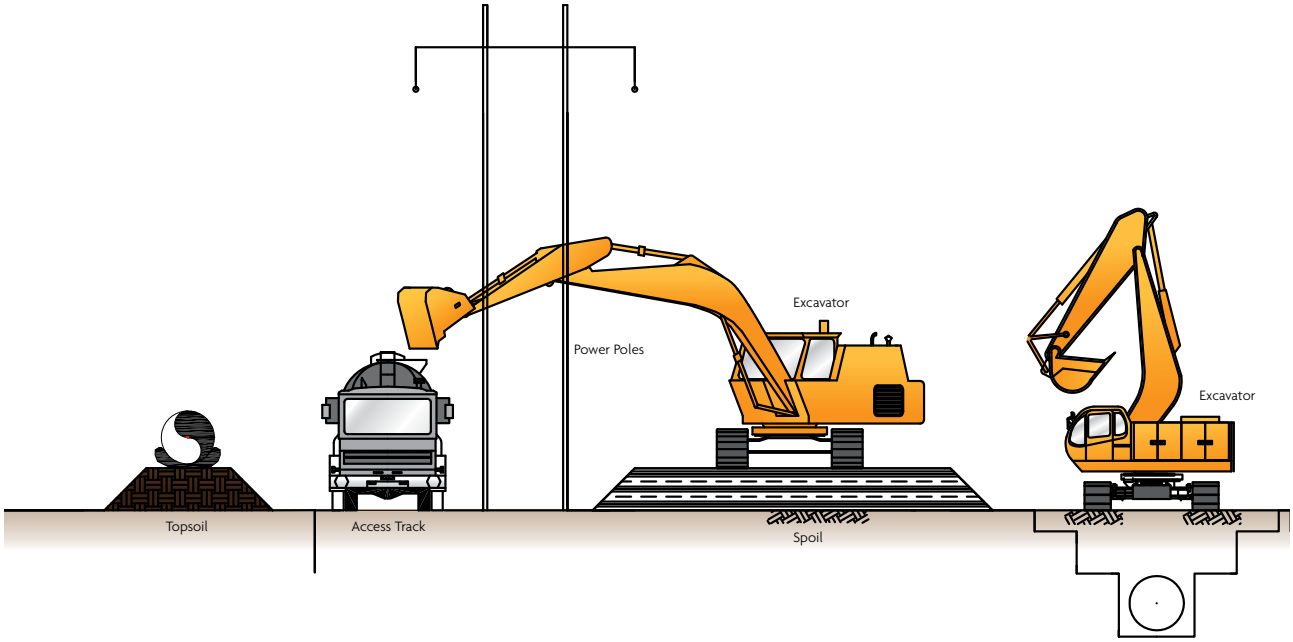
Spoil

Any material not used to help backfill the trench is a waste product known as spoil. As a waste product, spoil must be disposed of responsibly to meet environmental standards.

Managing spoil

Spoil is removed from the construction area and transported by truck to approved spoil disposal sites. All trucks must cover the spoil load and use designated haulage routes approved by the Department of Transport and Main Roads or local councils as required.

Pipeline corridor during construction



Retaining spoil on a property

If a landowner wishes to retain spoil on their property, they must do one of the following:

- provide proof of appropriate state government and council approvals
- provide written confirmation that no approvals are required.

In these circumstances, a team member from construction land liaison will meet with the landowner to discuss the possibility of developing a spoil agreement.

If the NNA enters into a spoil agreement, the landowner will be responsible for:

- spreading and compacting the spoil
- managing sediment and erosion control.