NORTH EAST LINK PROJECT

Environment

EES study update | September 2018

EES STUDY AREAS INCLUDED IN THIS FACTSHEET:

Ecology (flora, fauna and aquatic); Groundwater; and Surface water

NORTH EAST LINK AUTHORITY

VICTORIA State Government

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne

Planning approvals for North East Link will be informed by an Environment Effects Statement (EES) – our state's most stringent and transparent impact assessment process.

A Public Environment Report (PER) will also be prepared to inform Australian Government approvals.

More than 5 km of North East Link will be built in tunnel to protect sensitive environmental areas including the Yarra River, Banyule Flats and Warringal Parklands.

The twin tunnels will be the longest road tunnels ever built in Victoria and about 40 metres underground at their deepest point.

With many tunnels operating all around the world we know they can be built and operated safely.

These include tunnels in Melbourne already built and operating under sensitive environmental areas such as EastLink (which travels under Mullum Mullum Creek) and CityLink (which passes under the Yarra River and Royal Botanic Gardens).

North East Link will use state-of-the-art tunnel boring machinery so that large-scale construction can happen underground with minimal disruption above.

Feedback from communities is helping to inform our studies for the EES, particularly to understand and consider key areas of community interest and concern.

Ways we're working to minimise impacts on the environment

More than 100 hectares of native vegetation surveyed and mapped to identify habitat for listed and threatened species.

More than 5 km of tunnel to protect the Yarra River, Banyule Flats and Warringal Parklands.

3 'no-go zones' for surface works to protect Bolin Bolin Billabong and ecologically sensitive areas along the Eastern Freeway and M80 Ring Road.

3D modelling of groundwater to help plan tunnel design.

Water sensitive urban design, plantings and wetlands to treat and manage run-off into creeks and waterways.

A team of specialists started work for the EES in March this year.

Our specialists are:

- Surveying existing conditions across 18 study areas
- Using modelling and other methods to assess potential effects on the environment
- Working closely with our project engineers to refine the design to improve outcomes
- Developing a set of environmental outcomes to be achieved for the design, construction and operation of North East Link. These are called Environmental Performance Requirements (EPRs) and address the environmental impacts assessed by the specialists.

We still have more work to do to finish our studies for the EES.

The reports, which will include detailed findings from all 18 technical studies and the draft environmental performance requirements the contractors must meet during design, construction and operation, will be on display for public comment early next year.

What we've heard so far

This fact sheet provides an update on work across areas communities have told us they are interested to know more about.

Feedback from communities about the environment so far includes:

- Preserve or improve the local environment
- Avoid or minimse impacts to groundwater levels and quality, particularly from tunnelling
- Consider the interaction between groundwater and surface systems
- Maintain existing creeks
- Carefully consider management of run-off into creeks and other waterways during construction and operation
- Preserve or improve habitat areas for native flora and fauna
- Carefully consider wildlife corridors

Tunnelling and groundwater

Specialists have completed extensive geotechnical studies at more than 100 sites along the proposed tunnel alignment for North East Link so far.

This is part of the largest geotechnical investigation ever completed during planning for a road project in Victoria.

We've also been testing the depth, flow and quality of groundwater and have developed a 3D model to inform the project design and planning studies.

We're investigating whether there would be any changes to groundwater levels and movement patterns. We are also looking at possible effects on groundwater quality, surface water and groundwater dependent ecosystems.

Our studies so far have found that impacts on groundwater levels and quality through Warringal Parklands and Banyule Flats are not likely because of the tunnel boring machine (TBM) method that would be used.

Similar studies for Simpson Barracks and Bolin Bolin Billabong are still underway.

The EES will detail draft environmental performance requirements which will be finalised once approved by the Minister for Planning. The contractors appointed to build North East Link must meet the EPRs to ensure safe and stable conditions during construction and operation of the tunnels.

Our studies so far have found that impacts on groundwater levels and quality through Warringal Parklands and Banyule Flats are not likely because of the tunnel boring machine method that would be used.

Image: Geotechnical testing is building our knowledge of conditions underground across the project area

Surface water

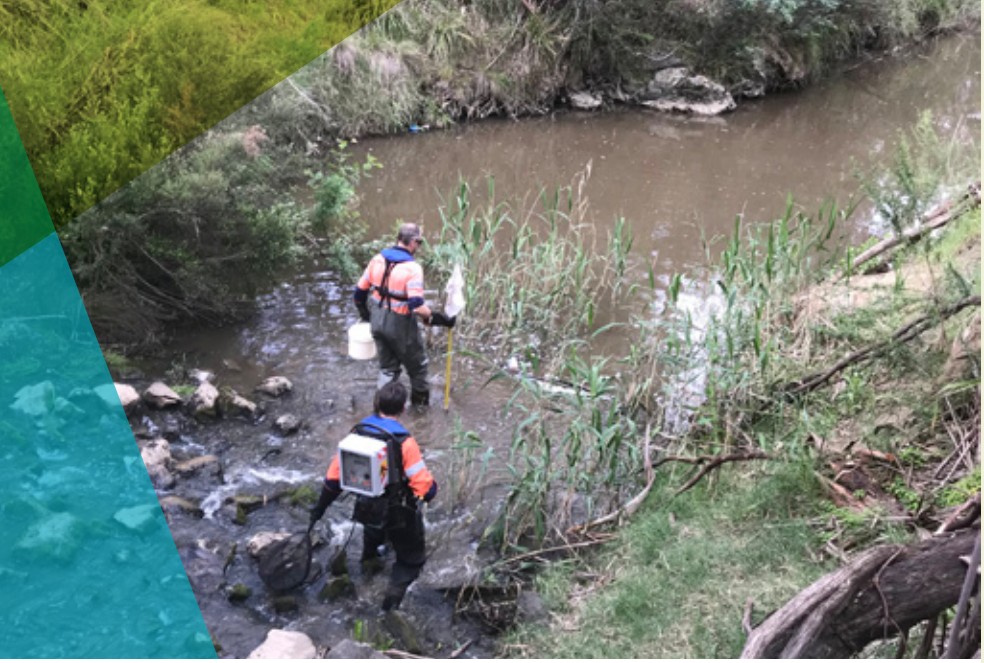
From speaking with communities we know that managing flood, storm and other water run-off during construction and operation across the entire project area is a priority.

Avoiding or minimising adverse effects on surface water and floodplain environments is a key design objective for North East Link.

Technical specialists are working on surface water investigations and modelling to build our understanding of water movements and flooding across the project area, including stormwater run-off.

Our surface water studies for the EES are still underway and are helping to inform ongoing design development. This includes investigating where Banyule Creek (north of Lower Plenty Road) and sections of Koonung Creek may need to be realigned to maintain water flow.

We're also looking at ways planting and new wetlands and ponds could be used across the project area to better manage water run-off and the health of waterways.



Specialists have completed field studies on land and in waterways to look for threatened and listed species.

Ecology

Qualified ecologists have surveyed and mapped over 100 hectares of native vegetation and provided advice on significant flora and fauna that could be affected by North East Link.

This has included field studies to look for threatened and listed species on land and in waterways.

The largest and most sensitive areas of habitat for native flora and fauna will be protected by tunnelling under the Yarra River, Warringal Parklands and Banyule Flats.

We've also established three environmentally sensitive 'no-go zones' where construction will not be permitted including:

- Bolin Bolin Billabong at Bulleen
- 26 hectares of Yarra Bend Park south of the Eastern Freeway that supports a breeding colony of Grey-headed Flying-fox
- An area of land near the intersection of the M80 Ring Road and Plenty Road that contains a community of Grassy Eucalypt Woodland of the Victorian Volcanic Plain.

Threatened or listed species including Matted Flax-lily, Arching Flax-lily and Studley Park Gum, have been found within the area studied. These will be managed under strict federal and state government guidelines and in consultation with government agencies.

Potential impacts on other areas will be managed through environmental performance requirements. These will include requirements to maximise retention of trees and native vegetation and standards to manage fauna. Where removing native vegetation is unavoidable, this will be offset by protecting and enhancing other areas.

A full list of environmental legislation and guidelines as well as environmental performance requirements will be detailed in the EES.

An essential part of our planning work for North East Link is ensuring we meet Australian and Victorian government statutory requirements related to the environment.

Some of these include:

- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)
- Environment Effects Act 1978
- Flora and Fauna Guarantee Act 1988 (FFG Act)
- Environment Protection Act 1970
- Planning and Environment Act 1987
- Water Act 1989
- Wildlife Act 1975
- Fisheries Act 1995

Matted Flax-lily (Russell Best at natureshare.org.au)

Our planning work includes developing a translocation plan for Matted Flax-lilies found at Simpson Barracks and near the Hurstbridge rail line.

Previous translocation programs for Matted Flax-lily in the area have been highly successful. Populations have successfully been translocated during the current Mernda Rail extension project and as part of the South Morang rail extension project in 2012.

Contact us

1800 105 105

community@northeastlink.vic.gov.au

North East Link Authority
GPO Box 4509, Melbourne VIC 3001

Translation service

for languages other than English, please call 9679 9896.

Please contact us if you would like this information in an accessible format.

VICTORIA'S BIG BUILD

VICTORIA State Government

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne