

# Bridge removal fact sheet

March 2023



The Nelligen Bridge Replacement project requires the removal of the existing bridge after the new bridge opens to traffic.



# 5,200

tonnes of reinforced concrete will be removed and recycled



Historic records suggest the existing piles are up to

# 26

metres long

## Why is the existing bridge being removed?

The existing Nelligen Bridge was built in 1964. After routine maintenance inspections it was found that the bridge structure is deteriorating below the water level. The inspections showed that piles on the eastern side of the bridge have extensive damage to the steel reinforcement and concrete covers. Although safe for traffic, the bridge would need to be repaired or replaced within the next 10 years.

## When will bridge removal start?

The bridge removal work will start in the coming weeks now traffic has been moved onto the new bridge.

Bridge removal will start in  
early March 2023, weather permitting.

Preparation for removal of the bridge started in late 2022 with contamination investigations to assess for issues such as lead paint and asbestos, in addition to fauna habitat surveys.

Consultation with key stakeholders, including Marine Parks and other environmental authorities, has also taken place.

## How long will it take?

The removal of the bridge will take about six months to complete, weather permitting. This includes site establishment, bridge removal and decommissioning.

## **Key features of the existing bridge**

The old Nelligen Bridge has seven spans, six piers, 114 piles, and two abutments. Almost all of these elements will be removed as part of the project. Utility services originally attached to the existing bridge have been removed and relocated to underwater crossings in preparation for bridge demolition

You can watch the demolition from the western foreshore or the shared path on the new bridge.



## **How much of the bridge will be removed?**

Almost all of the bridge will be removed including most of the underwater piles. Some piles will be cut at riverbed level. The bridge abutment on the eastern side near Thule Road will be removed and the abutment on the western side near Nelligen village will remain.

## **Temporary waste processing area**

A temporary processing area will be located on the eastern side of the Clyde River near the project site office. All removed materials from the existing bridge will be transported to this area where concrete sections will be crushed into smaller pieces and transported away from site for recycling.

## **Under bridge scaffolding**

Scaffolding will be installed underneath the bridge to allow safe access during the cutting of the bridge elements. Environmental controls will also be installed using the scaffolding to capture any loose material during the demolition work.

## **How will the bridge be removed?**

The bridge will be deconstructed span by span starting from the western end of the bridge near the Nelligen township and finishing on the eastern side near Thule Road. A range of measures will be in place to ensure the safety of workers and the community. The first stage of the process will be removing the walkway and road surface on the bridge deck. This will be followed by the removal of the concrete bridge deck and concrete girders. After all girders have been removed from the span, work will continue to remove the piers and piles.



Scaffolding will be installed under the bridge.



Example of how the piles will be cut prior to being removed from the existing bridge.

## Removing the bridge road surface

All bridge materials will be lifted by crane onto barges or trucks and will be transported to the temporary waste processing area. This includes the existing road surface, cut sections of the concrete bridge deck and concrete girders. Each concrete girder will be cut into multiple large pieces for transportation and then crushed into smaller pieces at the processing area.

## Pier and pile removal underwater

Piers and piles will be cut into sections for removal. For some of the piers, specialised equipment will be used to cut the piers below the water surface. These will be lifted out by crane and placed on a barge. Other piles will be clamped and vibrated to the surface using a special crane attachment.

Environmental controls such as mobile spill bunds, guttering systems, industrial wet vacuums, floating sediment curtains and hydrocarbon absorbent booms will be in place during all work in the river.

## Working hours

We are committed to minimising disruptions during our work activities and have planned this demolition work within our standard work hours of Monday to Friday between 7am and 6pm, and Saturdays between 8am and 1pm.

Some work may be required outside these hours with some bridge removal activities carried out between 5am and 10pm from Monday to Friday and 7am to 6pm on Saturdays. We will notify the community in advance if this is required.



Example of girder being removed.

## Environmental considerations

The chosen method will minimise the overall risk of impacts and ensure we are protecting the Clyde River and surrounding environment as much as possible. A number of controls will be in place to capture materials during the demolition work so they don't enter the river. Mobile spill bunds, guttering systems, industrial wet vacuums and geofabric lining of the scaffold deck will all be in place. The method chosen for the removal of bridge piles avoids the need to dredge the riverbed. Other controls to protect the river include perimeter bunding to manage slurry runoff, floating sediment curtains and hydrocarbon absorbent booms around works in the river.

Environmental considerations	Controls
Water quality	Water quality in the river will be managed using controls including silt curtains and containment booms. These will be placed in locations relevant to the stage and location of the work. These controls will not be required for all stages of the work and may be taken out of the water at times to ensure safety for our workers and waterway users. Water quality monitoring will be done throughout the work in accordance with the approved procedures.
Noise	There will be some noise generated from the bridge removal work including saw cutting and concrete processing. Noise levels will be minimised with noise mats and we will use a pulveriser attachment on the excavator instead of a hammer attachment whenever possible. Noise monitoring will be regularly carried out.
Dust	Dust suppression measures will be used where required. These measures include moving concrete sections to land for breaking down and spraying the processing area with water.
Fauna management	An ecologist has completed a pre-demolition survey for microbats and birds. An ecologist or fauna handler will be available during the bridge removal program to relocate fauna if required. Marine mammal impacts (e.g., seals) from vibration intensive works such as pile removal will be managed by stopping works where a mammal is observed in close proximity to the works and monitored closely.

## Access

Vehicle, pedestrian and cyclist access on the new bridge will not be impacted during this work. Temporary traffic changes may be in place on the Kings Highway and the community will be notified of these changes in advance.

Marine exclusion zones will continue to be in place for the safety of workers and river users. These exclusion zones will be marked by safety buoys and signage. Access along the Clyde River will be maintained with at least one navigation span open during the demolition work. This channel may change as work progresses across the river.

## How to find out more

The project will keep the community informed about the demolition through notification letters, emails to registered stakeholders and one-on-one contact. If you would like to find out more, please contact the team.

### Contact us:

If you would like more information on the Nelligen Bridge Replacement project please contact our project team:

-  1800 334 541 (toll free)
-  [nelligenbridge@seymourwhyte.com.au](mailto:nelligenbridge@seymourwhyte.com.au)
-  [nswroads.work/NelligenBridge](http://nswroads.work/NelligenBridge)
-  Nelligen Bridge Project Manager  
PO Box 477  
Wollongong NSW 2500

### Community engagement:

During construction we will keep you informed. If you would like to receive regular updates please subscribe to our mailing list via the project webpage, use the QR code, or get in touch with us.

