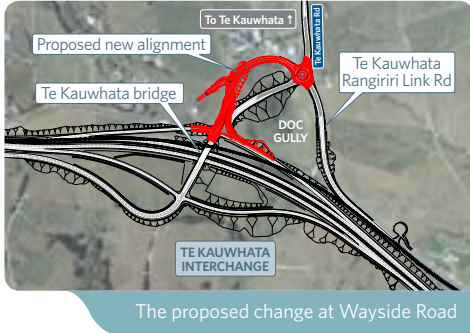


**1 Waikato Expressway**

**Rangiriri section**

Information sheet March 2014



**Big dig over summer**

It's been a great summer for construction and the team working on the Rangiriri section of the Waikato Expressway has been making the most of it.

But it's not all about moving huge amounts of earth and driving bridge piles. The project team has been looking at a change within the designation at the southern end of Wayside Road which will lead to a better outcome for road users.

The change was highlighted at the combined Rangiriri and Longswamp sections information day held in late January.

The change involves traffic using the existing southern part of Wayside Road instead of a new road being built over the gully.

The team has been consulting with affected parties, developing a safe design and working through the process with Waikato District Council to gain the required approval.

The site is changing all the time as works

progress. This sometimes means we introduce new changes to road layouts and temporary traffic management to ensure safe passage for our road users.

Traffic is flowing well through the site, but motorists are advised that care is always needed with the changed speed environment and varying road conditions.

**Eye in the sky**

You will have probably noticed by now that a lot of soil has to be moved on the Rangiriri site.

An aerial drone and around a dozen special survey markers like this one (pictured) across the site help monitor the amount of soil moved each month - and it's up around 75,000 cubic metres a month.



Contractor Fletcher Construction has taken this technology from the quarrying sector and finds it an efficient and cost-effective way to measure works progress.

**Striking the black stuff**

Some old and well-buried peat was uncovered during excavations at the Te Kauwhata interchange bridge piling works. The black area in the adjacent photo shows this shallow layer of peat.

Geotechnical investigations earlier identified this layer and it was taken into account by the designers. The layer had to be removed from underneath the mechanically stabilised earth (MSE) wall as this layer would compress and settle over time if it remained.





## Watch for April road changes

Construction of the northern interchange will see State Highway 1 traffic switch to a temporary road between Plantation Road and Te Kauwhata intersection in April.

Integrating the new layout is planned as night works to minimise disruptions to road users. Temporary closures and detours will be in place to allow this switch to go ahead.

Temporary barriers will be installed along the shoulder on SH1, south-bound between Rangiriri and the Te Onetea Stream.

Temporary closures will continue on the local roads and the State Highway.

Glen Murray Road continues to have construction traffic crossing so please drive with caution through this area.

## Drainage works

Minor drainage works continue across the site this month.

The culvert work at the outlet of Te Onetea Stream will be done in March. The culvert is being sealed and strengthened from the inside to accommodate the future Expressway loadings.

## What's coming up

There's plenty happening on the site over the next three months:

- Earthworks: 75,000 cubic metres of material is being moved each month within the site
- Start on building the stabilised earth retaining walls at the new Te Kauwhata interchange bridge
- Start on creating wetlands at both ends of the section
- Piling at Rangiriri bridge should be complete by mid-March
- Stone column work continues at Rangiriri interchange and should be complete by end of March
- Te Kauwhata bridge structure crews on site and getting work under way
- SH1 traffic will be switching to a temporary road in April, between Plantation Road and Te Kauwhata intersection

## Dealing with dust

It's been a dry warm summer, which is great for building highways but it does present issues around dust generation.

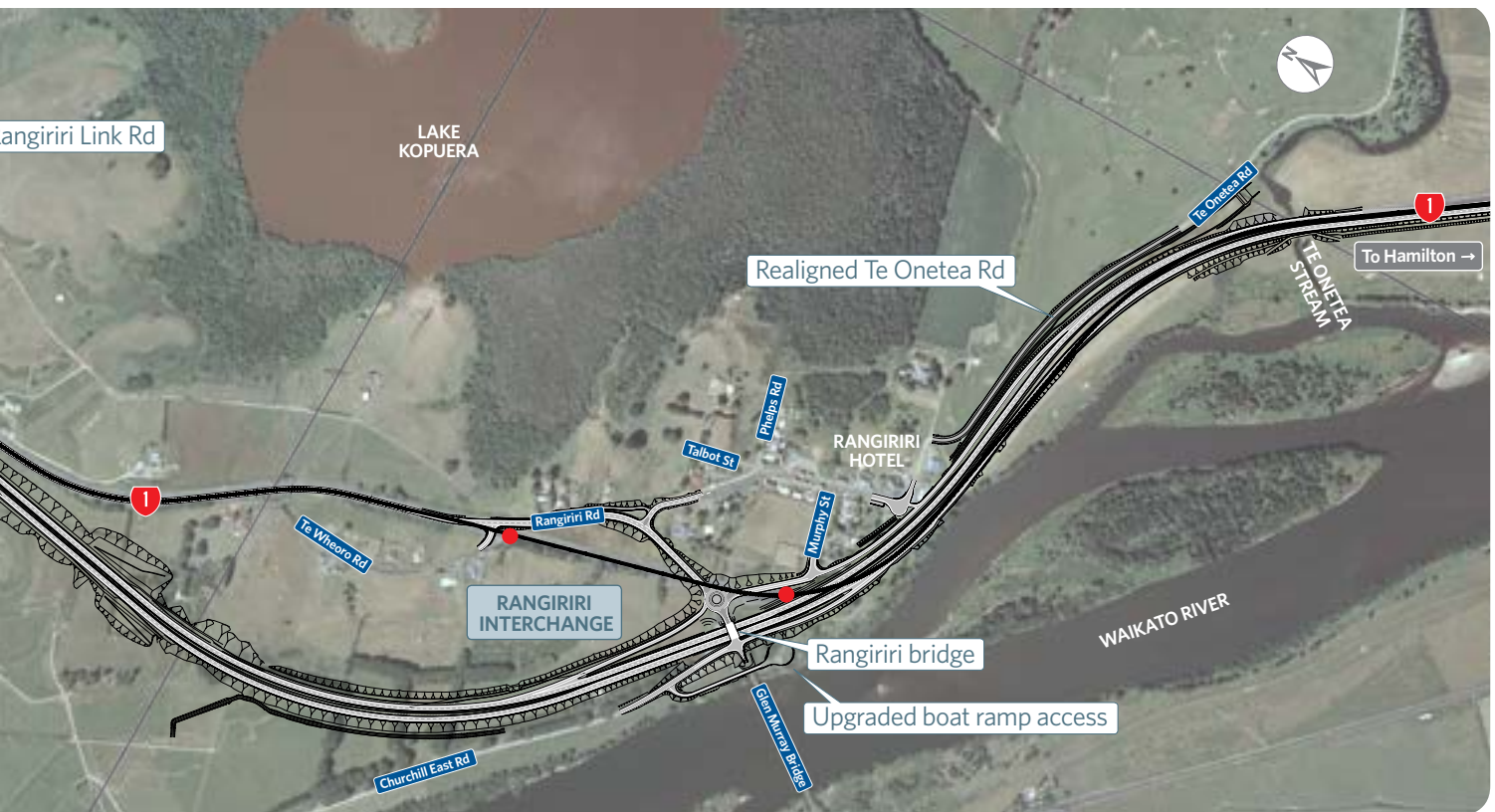
We have five water carts driving over the site to minimise any dust nuisance.

Staff are constantly monitoring dust and addressing any issues as they arise. Please contact Fletcher Construction if you encounter a problem - see contact details on back page.



Earthworks: About 75,000 cubic metres of earth is being moved a month





The temporary road at Rangiriri servicing the Glen Murray bridge

## Wetlands part of the project

Work will be starting in the next three months on creating wetlands at the Te Kauwhata and Rangiriri ends of the Expressway section.

The wetlands will complement the finished project and filter roadside run-off as well as provide an enhanced ecological habitat for waterfowl and other wildlife, and the relocated mudfish.

All going well the mudfish could be

returned to their improved environment later this year.

To get the wetland work under way environmental controls need to be installed first and these will be used in the permanent design.

The Rangiriri wetland is designed to blend into the natural environment, and will be extensively planted.

## Expressway overview

This project is part of the larger Waikato Expressway programme of work. The Waikato Expressway is one of seven roads of national significance for New Zealand.

Sections update:

- Longswamp - Secondary investigation, target opening 2018
- Rangiriri - Under construction, opens late 2016
- Huntly - Investigation and preliminary design, target opening 2019
- Ngaruawahia - Opened December 2013
- Te Rapa - Opened December 2012
- Hamilton - Investigation and preliminary design, target opening 2019
- Cambridge - Under construction, opens late 2016

## Project chiefs thrive on challenges at Rangiriri

It's a team effort at the Rangiriri section with Peter Murphy the project manager for the NZ Transport Agency and Charles Stokes heading up contractor Fletcher Construction's team on site.

Both men are experienced engineers and enjoying the challenges such a big project brings.



Charles Stokes

**Charles Stokes** has experience in both construction and design of big civil infrastructure projects.

He developed a strong commercial grounding through his role as bid manager with Fletcher Construction. He has worked on a variety of projects ranging from the Wiri prison to water infrastructure and new motorways including both built up, heavily trafficked urban areas and greenfield rural environments.

He has been with Fletcher Construction since 2004 having worked on Central

Motorway Junction Stage 2, Avalon Drive in Hamilton and the New Business tender team prior to this project.



Peter Murphy

The role of the NZ Transport Agency's **Peter Murphy** is to oversee all aspects of the project to ensure a safe, well-designed highway is delivered to all road users.

Peter has been at the Transport Agency for more than five years, and while Rangiriri is obviously a big part of his working time he also manages smaller projects, such as a new roundabout at Waitomo. Prior to Rangiriri, Peter was fully involved with the Te Rapa section of the Waikato Expressway which opened in late 2012.

Peter says the Rangiriri project provides plenty of challenges. "We are constructing a new Expressway through an area of national historic and cultural significance. Working with a good team and taking the time to thoroughly engage with all our stakeholders will reward us with a project we can all be proud of."

Both Peter and Charles are always willing to engage with and help anyone who has a concern or wishes to know more about the project.

## Joint information day proves popular at Te Kauwhata



Information days have been a regular feature of the Waikato Expressway project and about 150 people attended a combined Longswamp/Rangiriri information day on January 29 at the Te Kauwhata Rugby Club.

Staff involved with both adjoining Expressway sections were on hand to answer questions and keep communities connected with the works.

The afternoon drew people interested in both sections.

Rangiriri is now under construction while Longswamp is due to start in 2016.

Progress on the Rangiriri section was explained in detail by Transport Agency staff and by contractors and consultants' representatives. Feedback forms were completed on the day or taken away to be posted back.

## Our contact details



For further information online visit:  
[www.nzta.govt.nz/rons](http://www.nzta.govt.nz/rons)  
[www.nzta.govt.nz/waikatoexpressway](http://www.nzta.govt.nz/waikatoexpressway)  
[www.nzta.govt.nz/rangiriri](http://www.nzta.govt.nz/rangiriri)

For enquiries or information regarding the Rangiriri section of the Waikato Expressway.

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