

# TREC Pānui

## East Coast recovery mahi



“Ehara taku toa i te toa takitahi, engari he toa takitini”  
Success is not the work of an individual, but the work of many

TREC Pānui is a monthly newsletter from the [Transport Rebuild East Coast \(TREC\) Alliance](#) updating communities across Te Tairāwhiti (Gisborne) and Te Matau a Māui (Hawke's Bay) about the recovery work on state highways and rail networks impacted by Cyclone Gabrielle.

## Kia ora koutou

Welcome to our latest edition of the TREC Pānui. In this issue we cover off recovery work progress, a focus on local contractor Kuru, insights from bridge guru Rhonda Hill, and an eely good story.

You can also get quick fortnightly insights into current and upcoming work in Hawke's Bay and Tairāwhiti so you know what's going on and to help you plan your travel in the area. Subscribe [here](#) for the Hawke's Bay update and [here](#) for the Tairāwhiti update.



Ground anchoring to repair an underslip at White Pine Bush (SH2, Hawke's Bay)

Transport Rebuild East Coast





## Some of the work underway



Thank you for your patience and for helping to keep our people and other road users safe while this essential work is done.

### Community clean up event to close a stretch of SH2

2

SH2 will be closing for a few hours on Sunday 22 September for a Central Hawke's Bay District Council-led community clean up.

The event, which is part of Keep New Zealand Beautiful week, was run in 2022 on the same stretch of road. The clean up session will see volunteers planting new plants alongside the road, and clearing weeds in the area.

This year, the road will close for 4 hours from 9am til 1pm. A signposted detour will be in place.

- Northbound road users will be detoured onto Lindsay Road, just north of Waipukurau and onto Ongaonga Road just south of Waipawa, before rejoining SH2.
- The detour will be in reverse for southbound road users.

The detour will add up to 20 minutes to the journey from Waipawa to Waipukurau. The detour route is suitable for all vehicles, including high productivity motor vehicles (HPMV) and 50MAX.

TREC contractors will also be using this closure for other planned work, including wire rope repairs, weeding and road sweeping.

Please plan ahead, allow additional time and take extra care on the detour route.

### TREC recovery project updates

TREC's focus since it came into effect a year ago, has been to restore access to cyclone-damaged state highways throughout both regions - keeping communities connected and freight moving.

Recovery work on Hawke's Bay and Tairāwhiti state highways is progressing well. Minor resilience improvements have been made by bringing sites up to modern standards.

The number of sites we have going into construction constantly changes as we complete jobs, start new ones, and if there are any delays (such as from weather events).

Over the warmer months construction work ramps up. Starting in September and going through to Autumn 2025 you will see an increase in projects across the Hawke's Bay and Tairāwhiti regions as well as annual maintenance renewals projects getting underway. We'll update you on projects as the season draws closer.

### Tairāwhiti Gisborne

#### Hikuwai Bridge update

35

The State Highway 35 (SH35) Hikuwai Bridges Replacement Project has been in a reset period since April 2024 with a focus on optimising design to ensure the best outcome for SH35 communities.

The reset period and Government's recent Budget 2024 announcement has provided an opportunity to rescope how the design and construction fits within the regional recovery as a whole.

Alternative design options have been explored such as using different foundations, single bridge options and confirming the suitability of the current by-pass route.

Following this process, the design team is currently progressing investigations and furthering design for a single, two-lane bridge to replace Hikuwai Bridge No.1, in line with the recovery scope.

In partnership with iwi, TREC remains committed to providing a long-term and resilient solution and will share more detailed information as the design is progressed.

## Mangahauini Slip

35

We have heard from local communities they would like to know what is happening with the Mangahauini Slip and the stability of it. Our geotechnical engineers are confident that the large slip below SH35 has now stabilised.

A similar but much larger underslip occurred in Mangahauini Gorge in the early 1940s right next to this one. That slip stabilised and is now covered in vegetation, and we expect the slip produced by Cyclone Gabrielle to do the same. While the river will naturally erode the toe of the slip and re-widen the channel, this erosion is expected to be gradual over time. However, we continue to monitor the slip site regularly to assess its risk to the highway.

In addition to our regular visual monitoring of slip sites in the gorge, we have installed specialised geotechnical monitoring equipment, called tiltmeters, in several key locations. These sensitive instruments measure the angle of a slope and inform us of any movement in slip material below road level.

We also regularly inspect the slopes above the highway as part of our ongoing maintenance work and clear out any slip debris that threatens to block drains or parts of the road.

## Mangakuri Stream Bridge

35

Repair work has started at Mangakuri Stream Bridge just north of Whangara.

Rock work to strengthen and protect a heavily scoured base beneath the bridge as well as recontouring the southern bridge approach will be underway for the next couple of months.

Work is taking place Mon to Fri from 6am – 6pm with temporary speed restrictions in place.



Temporary stream diversion at Mangakuri Stream Bridge on SH35

## Update on potential rebuild work

TREC has investigated potential rebuild projects in locations where state highways are most vulnerable during weather events.

In March and April 2024, we held 11 community events across Hawke's Bay, Wairoa and Tairāwhiti to discuss potential rebuild projects on SH2 and SH5 in Eskdale, SH2 around Devil's Elbow and on SH35 through the Mangahauini Gorge.

We also gathered feedback online, via a 0800 number, email, and a paper feedback form and met with Treaty partners, local councils, and other key stakeholders.

All the feedback and insight we received from our community events and other engagements have been considered during our technical investigations and concept design development and have helped shape our recommendations.

Summaries of the feedback along with recommended options can be read [here](#).

Due to the constrained fiscal environment these potential rebuild projects were not funded through the Government's Budget 2024. Potential rebuild projects could seek funding approval through the National Land Transport Fund (NLTF), however this will need to be carefully considered against existing commitments and priority areas.

Your feedback and our investigations have given us a clearer understanding of the issues and high-risk sites, which will help shape our recovery work.

We are planning further recovery works to restore and help protect the highway through Mangahauini Gorge. We will work closely with iwi/hapū, council, local contractors, and other stakeholders on the scoping of these works.

Thank you for your important insights and the time taken to engage with us.



## Onwards and upwards at Otoko Hill

2

Despite winter weather challenges the team is ploughing ahead with nine projects on Otoko Hill on SH2 in Tairāwhiti.

Three of them have now been completed.

Pictured above is an underslip that has been treated with engineered fill (material) which has then been compacted to strengthen this area against future weather.

Recovery work at Otoko Hill is largely focused on repairing underslips and installing extensive drainage to remove excess water in the surrounding hills.



## Down by the Waikohu River

2

Eight weeks of 'rock revetment' work is complete at SH2 Waikohu Bridge. Approximately 1,100 tonne of 'riprap' was used for this job completed by local contractors Jesse James.

The rocks had been put in place just prior to the late June storm and worked perfectly to protect the riverbank, preventing erosion from the Waikohu River.

### What is 'rock revetment'?

Rock revetment is a rock barrier built up to help protect against erosion.

Black woven geogrid is laid down before the riprap (rocks) is placed over the top using a digger bucket. The geogrid helps to grip the rocks and hold them in place.



Rock revetment being done at the Waikohu Bridge on SH2



# Rock bags at State Highway 35 (SH35) Turitaka Hill erosion site

35

Along SH35, north of Gisborne at Turitaka Hill, work to protect the road from the adjacent Waiapu River running onto it during severe storms has finished ahead of schedule with locals Troy Wheeler Contracting on the job.

This involved strengthening the 'toe' of the riprap revetment (rock wall) to hold the riverbank wall together to prevent further erosion.

### Innovative and fish-friendly

Innovative flexible mesh nets filled with rock or 'riprap' (called rock bags) were used to strengthen the toe. They don't need foundations installed or for the riverbed to be prepared, so are an excellent solution for uneven or sloping surfaces like this site.

Each rock bag spreads to a diameter of roughly two metres and settle into their own seating on the Waiapu riverbed for excellent coverage. The honeycomb layout and being stacked on each other in a staggered pattern also provides stability against the river flow.

The rock bags also offer a sustainable environmental advantage as the spaces between the rocks provide a habitat for plant life and become an adopted home for fish and other aquatic life. They also support natural vegetation and encourage the development of local flora.



Rock bags at Turitaka Hill



Rock bags along the Waiapu River next to SH35



## Captain's Culvert update 5

Work at Captain's Culvert, on SH5 between Taupō and Hawke's Bay, is nearing completion. The culvert was significantly clogged with debris and silt following Cyclone Gabrielle. A clogged culvert can push water onto the road potentially damaging it leading to a closure.

To slow and direct water through the culvert the team working on site cleared the culvert and installed large rocks (riprap) and gabion baskets (baskets filled with rocks) to protect the culvert and the sides of the river from damage during heavy water flow.

For the work to be done, the crew also diverted the stream to protect marine life. The stream has been reinstated to its natural route.



Work underway at Captain's Culvert (SH5) in July





## Views from above




Devil's Elbow suffered massive damage and much of this section of road is still down to one lane, causing ongoing disruptions.

Our focus has been on repairing the road and building in some added resilience. Work on multiple sites has involved debris removal, stabilisation, rock scaling, stormwater upgrades and road repairs. The team also regularly monitor the highway and carry out maintenance to keep this route open.

On the map above, we're currently working at Projects D, K, F and G. These include a large amount of ground anchoring to help secure the hillside. We're nearing completion at Project F, the large culvert and embankment in the hairpin section of the road. We will start Projects O and P next.

The Devil's Elbow recovery work is expected to be ongoing through to next year, with most of the work finished by autumn.


 Check out the July progress on Devil's update flyover video [bit.ly/3Mg6HeP](https://bit.ly/3Mg6HeP)



## In the safety of the night

2

In mid July we closed State Highway 2 between Pan Pac, Whirinaki (north of Napier) and Tūtira for three nights, so crews could work safely and make great progress on several sites at once.

With no traffic on the highway, the closures enabled the crews to:

- Blast several large rocks to remove them from the slope at Waikoau Hill.
- Complete most asphaltting for the new road surface (rain hampered the final section, which was completed later that week under stop/go).
- Install two of four stormwater catchments at Tangoio Falls.

Rain on the third night delayed some work, which was completed during the day the same week.

We're planning to return to Waikoau Hill in October when the weather is better to carry out more rock blasting. These rocks have all been assessed by the geotechs. The improved weather will be safer and more productive for the crew.



Night works at Devil's Elbow in July



Asphaltting being done at Devil's Elbow

Thanks for your patience and support so we could get more of this essential recovery work completed as quickly as possible.

## Fast work at King's Creek Crib Wall

2

On State Highway 2 in Hawke's Bay a TREC team managed to repair the washed-out crib wall structure in speedy time to prevent a potential dropout.

Amrit Singh, William Marsdan, Thomas Tuhaka and Josh Bisley (from left to right) are part of the crew who worked consistently and efficiently to repair the King's Creek Crib Wall in just four days.



The crew at the King's Creek Crib Wall

The team were proud of their work and the unique experience of working on a crib wall.

"We are all locals who proudly call Hawke's Bay and the East Coast home," says Josh.

"When it comes to roading it's our bread and butter. But there's nothing the guys and I love more than the quirky alternative work that flexes our minds and really gets us thinking outside the box."

The crib wall was a career first for Josh, and he says it definitely qualified as 'quirky'.

Crib walls are used to stabilise hillsides and prevent the road from dropping away. To learn more about the job and crib walls as an engineering structure watch this video: [bit.ly/4fY2NFc](https://bit.ly/4fY2NFc).

Nice mahi team!



## Local contractor: Kuru Contracting

When Cyclone Gabrielle hit the region, local company Kuru Contracting put in a huge effort to help their community recover and reconnect.

Using their equipment and know-how to reconnect the community as fast as possible after the disaster was of utmost importance to the company.

What began as a father-son start up in 1997 has grown to employ more than 135 people in forestry, road marking, civil and haulage.

Kuru is a multi-faceted company based out of Tolaga Bay and Napier. They provide logistics, quarrying, traffic management, engineering, and mechanics, as well as managing a busy petrol station and local café.

The post-cyclone work across the region has meant a lot of major construction projects for the team. This technical complex work is also upskilling the local workforce with work completed at pace.

Kuru Civil Operations Manager James Kaiwai says ensuring progression for their younger staff has been one of the silver linings of this work.

"We as a company have an opportunity to upskill our local people in major construction projects that they would otherwise not be exposed to. We try to move staff around so they will have a good variety of work under their belts which better sets them up with a solid range of skills and industry experience."

One main driver behind their team values at Kuru is ensuring the local community is thriving, and for this reason, the team prides itself on positive contributions (often pro bono) to the community. It is common to see Kuru Director Ricky Kuru himself operating a machine on any given weekend, either on a community project or simply helping one of his many friends in the community.

Kuru Contracting is working on a number of projects along State Highway 35.



Some of the Kuru Contracting team



Abby Macredie at work, handling a fish trap at the Te Ngarue Stream near Tangoio

## Not your average catch

With any TREC project, our environment teams are critical to keeping native species safe throughout construction.

These efforts reaped rewards when environmental advisor Melissa Tran-Trung and ecologist Abby Macredie safely relocated a large haul of 18 tūna (longfin eels - *Anguilla dieffenbachii*) north of Napier.

Their job was to clear out a culvert channelling water into Te Ngarue Stream, on State Highway 2 near Tangoio.

### It looked "eely"

But it looked "eely," prompting an eel hunt! After setting up a fish exclusion fence to stop other freshwater fauna entering the area, traps were carefully placed in the worksite. Cat food was used to lure in the eels, and any caught were carefully released downstream into Te Ngarue Stream.

### An incredible journey

This important work was done when tūna were in their migration period, travelling from Aotearoa's waterways through the Pacific Ocean close to Tonga to spawn (lay and fertilise eggs).

The eggs hatch into tiny babies called *Leptocephalis* and drift all the way back to Aotearoa in currents on their own. By the time they arrive they look like mini eels but are see-through.

Once they reach the shores of New Zealand, they begin to darken, and the elvers (juvenile eels) begin their migration upstream into our freshwater environments.

We're hopeful the 18 tūna safely made their way to the sun-soaked seas of Tonga.





# Structurally sound

TREC's interim structural lead, Rhonda Hill, is a guru in her field with extensive knowledge of Tairāwhiti and Hawke's Bay state highway structures.

Born and bred in Napier, Rhonda started her career as a structural engineer in 1981 having completed four years at university and was one of two women from her class who graduated.

## 40 plus years with a passion for bridges

For the past 43 years she's been refining her knowledge working for WSP (and its predecessors) and as structures management consultant to NZTA in Tairāwhiti and Hawke's Bay.

She works on a variety of structures, but bridges are her passion.

"I like the problem-solving aspect of it, each site has its own specific requirements and challenges," says Rhonda.

## Problem-solving Bailey bridges

After Cyclone Gabrielle she provided inputs on the temporary Bailey bridges designed, built, and put in at Hikuwai and in Waikare Gorge.

"Developed in World War II Bailey bridges have shown their resilience as a good temporary option," Rhonda says.

"For Waikare Gorge we had to consider the tortuous alignment for constructing it and for long trucks negotiating the curves. We ended up with what might be the longest span ever done for a Bailey bridge in New Zealand.

This kept the piers out of the water, which we needed to do to avoid it being washed away by any further debris."

## Long-term solutions

Now as part of the TREC team Rhonda is contributing to long term solutions. "I work on large culverts, such as the one at Devil's Elbow, retaining walls, slope protection structures, and am providing inputs to the team investigating permanent solutions for Waikare Gorge and Hikuwai."

A myriad of factors must be considered when it comes to permanent bridges. "As climate changes, water flow goes up, flood loads will increase and become more frequent."

"We look at everything from the volume and weight of traffic to river conditions that will affect configuration along with the alignment, landscape, safety for road users, what materials can be used and be constructed fairly quickly."

## Local knowledge is key

Rhonda credits working regionally for giving her a broad skill set and understanding of everything structural engineering.

"You get exposed to a variety of tasks rather than just focusing on one speciality. You do planning, feasibility, investigation, site surveillance, and asset management with inspections and identifying faults which can develop. By being exposed to all the stages of a project you become a better engineer as you understand how each aspect works together and is related."

Four decades after starting her career Rhonda says it is positive the sector has become more diverse. "Times have changed and it's good to see a lot more women get into engineering. It's such a wide field you can pick something that suits your skills and your passion," she says.



The Waikare Bailey bridge





## A road trip for a brighter future

*Tony King (far left) talking about the shotcrete method to reinforce the side of the elbow*

Students from Tūtira School took a road trip last week onto TREC’s Devil’s Elbow site north of Napier on SH2 for a practical learning experience.

After careful planning between the TREC engagement team and Tūtira School Principal Lynne Horrobin, 12 senior students welcomed TREC team members to their school. They enjoyed hands-on learning about pH scale testing of water from the Devil’s Elbow site, a practical outdoor exercise with traffic cones, props and signs, and how to do a slick mana wave!

It was a BBQ lunch before the students donned their PPE gear, taking in a safety briefing by the Devil’s Elbow Senior Project Manager Tony King for the upcoming on-site visit.

Students were able to walk along the road getting commentary on the techniques used to repair and strengthen Devil’s Elbow. It was an opportunity to showcase engineering, construction, science, and traffic management in action.

The mana wave was put into practice for passing vehicles with drivers hooting in delight.

The students were beaming and offered up “best day ever” comments as they boarded the bus back to school.

“I am so grateful to TREC for this experience, the kids are so lucky to have had this opportunity and we can’t thank you enough,” says Principal Lynne.

TREC loved hosting, and hopefully inspiring the next generation of construction professionals.



*Tony King explaining how soil nails are used to reinforce that side of the elbow*

## Whakapā mai • Get in touch



Visit our website  
[nzta.govt.nz/trec](https://nzta.govt.nz/trec)

Email us  
[info@trec.nz](mailto:info@trec.nz)

Call us  
0800 80 TREC (0800 80 8732)

Stay up to date  
Scan the QR code

Work with us!  
[jobs@trec.nz](mailto:jobs@trec.nz)

Connect with us on LinkedIn  
[linkedin.com/company/east-coast-trec](https://linkedin.com/company/east-coast-trec)

- We value your feedback.
- Please get in touch if you have any questions or thoughts for the team.

This newsletter provides the latest information about the recovery work on state highways and rail networks damaged by Cyclone Gabrielle in 2023. TREC Pānui is produced by the Transport Rebuild East Coast (TREC) Alliance.