



**27 April
2023**



Community Newsletter

Muriwai Beach cyclone recovery

Geotechnical update from Ross Roberts, Head of Engineering Resilience, Auckland Council

Introduction

Landslides associated with Cyclone Gabrielle have shown that some homes in Muriwai are exposed to an unacceptably high landslide risk.

To inform the decisions about the future of these homes we need very robust information so decisions of local and central government are evidence based and consistent.

Auckland Council has been working with our geotechnical supplier, GHD, to collect this information and to understand the risk to life from large-scale slope instability in Muriwai (as well as Piha and Karekare). The results of this work will be used to inform land use planning and the revision of Rapid Building Assessment building placards.

The area being studied in Muriwai is shown in the graphic right, with the focus being on red and yellow placarded houses within the marked zone (right).



Fig 1: Overview of study area

We've brought together a team of experienced and highly qualified experts to ensure the work is done efficiently and well. The team from GHD have significant experience, including:

- The Port Hills rockfall risk assessments through the recovery phase following the Christchurch earthquakes.
- The risk assessment for Fox Glacier access road and Department of Conservation access tracks in Westland Tai Poutini National Park.
- The geotechnical site investigations and geological assessments for the Penlink Project and the West-Auckland 2023 post-Cyclone Roding Network landslide damage geotechnical Investigations and assessments.

Timeline

In March we gave a rough indication that investigations would be likely to take three to six months. We are currently on track to complete the geotechnical risk assessment work in this timeframe, with the final report expected by late August. Further details are given in the timeline below.

These are estimates and will evolve as we collect more data and find out more about the complexity of the site. We will keep you informed of the results and any changes to the programme through this newsletter.

Muriwai Geotech programme timeline

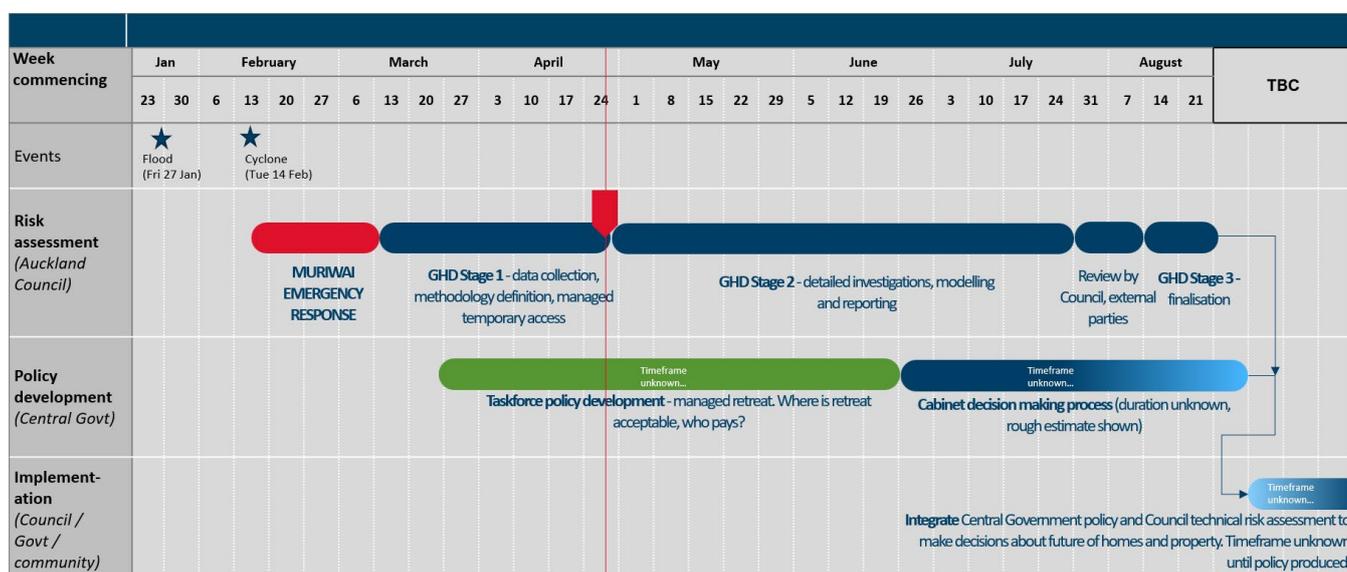


Fig 2: Outline timeline

The simplified timeline above shows how the project phases fit together, although there will be some overlap between the phases. It also shows a broad outline of the policy work happening in parallel in central government. This policy work (guided by the Recovery Taskforce, more information available on their [6 April 2023 newsletter](#)) is needed to allow us to take the findings of the work by GHD and implement it.

Until the policy is delivered we won't have clear guidance on what level of risk is acceptable for rebuilding, how any managed retreat might work, and what other options are available.

Learn more about the [scope of the Recovery Taskforce](#).

Stage 1 of our programme is complete, and Stage 2 is underway. The work being undertaken by GHD in Stage 2 includes these main elements:

Desktop interpretation of the data collected throughout Stage 1 and into Stage 2. This will incorporate information from property files, geomorphology and the LiDAR data which give the background information needed for the risk assessment.

Field mapping to provide detailed information about each of the landslides and assess topographic features that will change the risk for properties.

Subsurface ground investigations and monitoring to provide detailed information on the locations of geological boundaries that affect slope stability.

Three-dimensional debris flow modelling for typical scenarios to inform the risk modelling and assist with risk communication.

Risk assessment following the procedures outlined in the AGS 2007 guidelines, which represent internationally accepted best practice. More information on these procedures is available on the [Landslide Risk Management website](#).

Results

The work will assess the homes in Muriwai against two critical levels of risk defined by the Annual Individual of Fatality Risk (AIFR), which is the risk each person is exposed to from landslides every year by being in the home:

1. 1 fatality in 10,000 years. This is commonly taken as the risk level that people are exposed to in everyday life for risks like driving and heart disease.
2. 1 fatality in 1,000,000 years. This is a commonly accepted level of risk accepted for new buildings.

We've chosen these risk levels because they're commonly accepted trigger levels both nationally and internationally, and so are likely to align with future policy settings from central government. For more information about levels of risk, see the [Muriwai newsletter dated 8 March 2023](#).

The results will be presented in several ways, including maps, cross sections showing two-dimensional slope stability, and three-dimensional debris flow modelling. This three-dimensional modelling will give good evidence about how the debris flows are likely to travel in the Muriwai setting, allowing us to identify which homes are protected by the local topography so we can demonstrate that the risk is acceptable for them.

An **example** of the output of the 3D debris flow modelling is shown below:

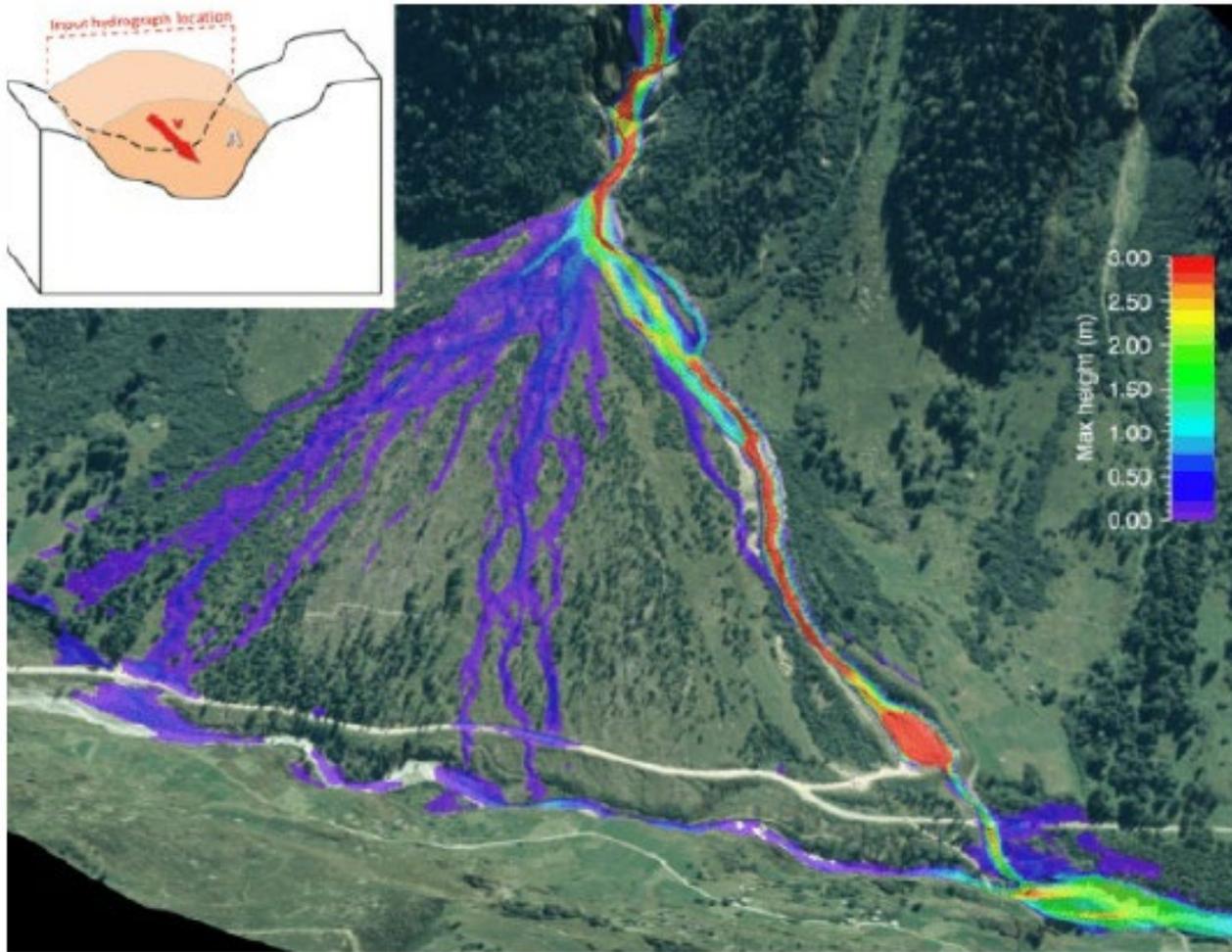


Fig 3: Example 3D debris flow modelling outputs (**not from Muriwai**)

Frequently asked questions

Who can I talk to for more information?

Every placarded property has been assigned a case manager to give you property-specific information, or you can contact Scott De Silva for general information about the project. Although the team from GHD will be on site for some time, they won't have the breadth of information that is available to Scott and the case managers, so we encourage you to direct your questions to our council team members.

How often will I get an update on progress?

We expect to provide updates every few weeks, with six in total between now and August, with the potential for more if there are any significant updates.

What should I expect to see from the field mapping?

GHD will be sending a small team of experts to undertake the mapping. Where it is safe, they'll be physically walking over the landslides in small teams (likely two people) and recording the features they identify on tablet computers. The mapping will be looking at land only, and no access will be needed inside homes. The team members will be clearly identifiable.

If you object to this mapping occurring on your land, please send an email to your case manager and copy in RBAComms@aucklandcouncil.govt.nz.

What should I expect to see from the intrusive ground investigations?

A drill rig the size of small truck will be used to drill the boreholes. They create a hole about 100mm in diameter using low-impact drilling techniques to minimise disturbance to the ground. This will be operated by two drillers and supervised by an engineering geologist who will log the core. An example of the type of equipment we expect to use is shown below:



Fig 3: Typical drilling rig

It will take about a week to drill the hole at each site, install a sensor and then backfill the hole. A steel tube will remain in the hole to allow access to the sensor and data.

We intend to undertake this work on public land and will not do any drilling on private land without gaining permission from the landowner first.

Do I have to wait until August to get the results for my home?

It depends on the location relative to the higher risk slopes. During the work, evidence may become available that suggests that a placard should be changed. Within the group of houses given red or yellow placards, there will be some that are clearly very high risk, some that are clearly lower risk, and some in the middle.

A more rapid re-evaluation is more likely for the lower risk yellow (and in some cases red) placarded homes where there's a realistic chance of a downgrade to white. Examples where this may occur include:

- We identify new information as part of our study that means re-evaluation of a dwelling placard can be brought forward.
- The homeowner or their insurer provides new information (e.g. a report or assessment by a geotechnical professional).

A reassessment of a placard will be done at the earliest reasonable opportunity for each home. Where it is identified that the placard status could be changed, GHD will prepare a short report and placard change recommendation, on behalf of the property owner, for the consideration of Auckland Council. This is in lieu of the normal process (see next question for details).

The houses that have experienced significant landslide damage have been demonstrated to be in a higher risk area. However, guidance for future actions for homeowners in these areas will require completion of central government policy and so it appears likely that decisions about these can't be brought forward.

Should I get my own geotechnical advice?

It depends on whether you're inside the exclusion zone. The normal process where a house has been given a red or yellow placard is for the owner (or their insurer) to engage the right engineering professionals to advise what steps are needed to remove a placard. If you're **outside the exclusion zone**, this is the correct approach.

However, for those properties inside the exclusion zone Auckland Council is paying for a detailed area-wide assessment of the risk. We're doing this because the risk covers a wide area, so a big-picture approach is the only rational way to fully assess the risk.

It is more efficient for Auckland Council to engage this work rather than have every homeowner pay separately. All results will be shared with you (and through you with your insurers). You are still welcome to get your own advice, but it is unlikely to add much value in addition to the work that Auckland Council will undertake on your behalf.

I'm in the exclusion zone but my placard doesn't seem to match the F-angle lines, is it correct?

The maps presented in the [24 March 2023 Muriwai newsletter](#) were based on a desktop slope stability assessment of the cliffs behind the property. This was then improved by undertaking an on-site assessment of every property in the exclusion zone to make the assessment more accurate. This allowed us to re-evaluate all the placards and reconfirm them. The placards given are based on the on-site assessment and supersede the information given in the F-angle line maps. Where an existing placard was re-confirmed as correct using this method, we did not replace the placard, so the reason written on the placard might not reflect this update.

Can the F-angle lines be refined further to allow access to more properties?

The F-angle approach only works well when it is based on a large dataset. The smaller the area covered by the assessment, the lower the validity of the results because there are fewer landslides to use in the model. The F-angle approach was useful as a first pass attempt and allowed us to change more than 90 homes from red to white, but we've pushed the technique as far as is possible – now we need to move to more advanced options. That's why we have engaged GHD to work on more detailed geotechnical modelling that will provide greater confidence.

How do we know the results will be reliable?

Because it's so important that we get this right, we have three levels of checking built into our work:

- GHD have robust internal review processes using experienced staff who worked on similar problems in the Christchurch Port Hills
- Auckland Council has an internal peer-reviewer who is reviewing the project as it progresses.
- We have engaged a separate external Geotechnical Advisory Panel comprising five of the most well-respected specialists in the country to review the methodology and end results.

Clearing of Motutara Road continuing

Works are progressing well to make Motutara Road safe for the community and public use.

The works aim to be completed by mid-to-late May. As previously communicated, work has started with the removal of slip material on Motutara Road (pictured right).



Rates relief for uninhabitable homes

Last week we contacted placarded property owners with information about rates relief for ratepayers with uninhabitable homes that need help to pay their rates. Placarded customers were contacted via email (or via text where we don't hold an email address) so if you have not heard from our grants team, we may not have contact details for you. You can email the grants team (erfgiants@aucklandcouncil.govt.nz) for application details. **Applications close on Friday 5 May 2023** (please note this date has been extended).

Support for residential home insurance claims

If you'd like support and advice on your residential home insurance claim, the New Zealand Claims Resolutions Service (NZCRS) will be at the **Piha Library tomorrow, Friday 28 April (8.30am-11am)**.

The NZCRS is a free service that provides residential homeowners with advice, case management support where appropriate and access to legal, technical and wellbeing services to help them achieve timely, fair and enduring resolution of their residential insurance claims resulting from natural disasters.

They are there to help whether you are just confused by what your insurer is telling you or you have specific questions about either your insurance policy or the process that will be followed to settle your claim.

NZCRS has supported homeowners across New Zealand through a number of events including flooding in Nelson, Westport and Edgecumbe, along with earthquake responses in Christchurch and Kaikoura.

Everyone is welcome to visit them tomorrow, otherwise you can contact NZCRS on 0508 624 327, email contact@nzcrs.govt.nz or visit nzcrs.govt.nz.

Needing temporary accommodation?

Residents who have been displaced due to the recent flooding and cyclone events can still register for the [Temporary Accommodation Service \(TAS\)](#). TAS can help you find suitable temporary accommodation while your home is repaired or rebuilt.

TAS temporary accommodation is subsidised by the Government, but you also may be eligible for further financial assistance through the MSD, if you are uninsured or your insurance policy does not cover temporary accommodation.

Due to limited housing supply, TAS has been unable to place households wanting to stay in Muriwai outside of the Muriwai Beach Campground. The team are continuing to work through suitable supply options, including motorhomes and will deliver updates to registered households once confirmed. More housing options are available in West Auckland and other parts of Auckland for those able to live outside of Muriwai.

Even if you are currently staying with friends or whānau, you can register for temporary accommodation. This allows TAS to plan for long term solutions that could be more suitable to your needs. Register online at www.tas.mbie.govt.nz or phone 0508 754 163. TAS local liaisons will be available to help with registrations in the community on **Tuesday 2 May 10am-5pm at the Muriwai Beach Campground**.

Once you've registered, a TAS Matching and Placement Coordinator will contact you to get a better understanding of your needs. When they have available temporary accommodation appropriate for you, they'll present you with possible options.

If you have any questions, please get in touch with your TAS Coordinator, or email aucklandfloodtempaccomm@mbie.govt.nz or call 0508 754 163.

Wellbeing support for business owners

The Government has reinstated its one-on-one wellbeing support for businesses impacted by recent weather events. Ongoing uncertainty has placed significant levels of pressure and stress on business owners and managers, leaving many overwhelmed by the challenges they face before they can resume normal business operations.

To address this, business owners and managers can apply for confidential one-on-one professional mental health support by visiting [Firststeps.nz](https://www.firststeps.nz) and filling out a simple application. This will give them free access to support from qualified health and wellbeing providers. First Steps has a list of preferred providers and have partnered with [Clearhead](#), who have over 500 mental health professionals across New Zealand here to support those in need.

The timely support of qualified health and wellbeing providers is essential for addressing the mental health and wellbeing issues businesses may be facing. This support can improve relationships at work, home, and in the community, and enable people to approach their return to work with the right support and the best attitude. By prioritising their wellbeing, businesses can navigate the challenges of life more effectively and unlock their full potential.

High-level plan (roadmap) for properties in the current exclusion zone

- Apply initial F-angle analysis of slip hazard to properties in the exclusion zone
Status: *complete*
- Perform geo-technical review of each property in the exclusion zones and identify any other risk factors
Status: *complete*
- Reassess placard status based on analysis of slip hazard and site observation
Status: *complete*
- Determine if the site is still considered dangerous
Status: *complete*
- Contact property owners (in the exclusion zone only) on updated placard status
Status: *complete*
- Apply updated placard status to building and update council records
Status: *complete*
- Communicate managed temporary access to affected property owners
Status: *complete*

- Communicate with individuals about their property placard status and assign a case manager to each property
Status: *in progress / ongoing*
- Review closure of Muriwai Regional Park and Muriwai cordons
Status: *review is underway and conditional on a security plan for red and yellow stickered properties, and ensuring a reliable water source for residents and the park.*
- Additional geotechnical investigation, analysis and modelling of the slopes at Muriwai
Status: *Please refer to Ross's update above.*
- Review status of remaining red-placarded homes
Status: *once additional geotechnical work to assess risk has been completed, unless new geotechnical information becomes available in the meantime. Please refer to Ross's update above.*

Building assessments update

Updated placard status numbers in Muriwai as of Wednesday 26 April:

- Red 1 – 100
- Red 2 – 5
- Yellow 1 – 22
- Yellow 2 – 30
- White – 303

There are different reasons why these numbers may differ each week, including:

- If remedial action has been confirmed and approved by the council's compliance team, then the placard can be noted as closed and removed off the list.
- It is identified as a duplicate and removed.
- If was confirmed as one placard for a building with multiple postal addresses, but sits in our system as one legal property.

Visit the [Auckland Council website](#) to learn more about what the placard colours mean.

Reporting new land movement or landslides

If you see **new** land movement, please visit the [Auckland Council website for next steps](#).

Portaloos to be removed

Portaloos in the southern car park will be removed next week, as the toilet block is open and the contract cleaning schedule has resumed.

Central Government's weekly cyclone updates

Central Government's Cyclone Recovery Unit continues to work closely with regions worst affected by the North Island floods and Cyclone Gabrielle.

You may wish to read the Cyclone Recovery Unit's latest weekly update on the [National Emergency Management Agency \(NEMA\) website](#). It covers the range of social support still available, support available to businesses and the agriculture sector, progress being made on the transport network and how the Government's Cyclone Recovery Unit is working with the Cyclone Recovery Taskforce to support recovery efforts.

Past editions are also available to view on the [NEMA website](#).

Have we got your details?

If you've received this newsletter via email, then we're all good – we have your correct contact details.

If it has been passed on to you by someone else or you're reading it via a website or social media channel, we'd like you to share your contact details with us. Please email us at muriwai@aucklandcouncil.govt.nz.

There are lots of reasons we might not have your details – you might be a tenant (and we've been dealing directly with the property owner); you might not have provided an email address (just a phone number) to our inspections team; or sometimes, despite our best efforts, handwritten forms lead to mistakes.



Need help?



Visit: aucklandemergencymanagement.org.nz/flood-event-2023/piha-community-information
Enquire: muriwai@aucklandcouncil.govt.nz or rbacomms@aucklandcouncil.govt.nz



Write: Auckland Council, Private Bag 92300
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