

Canterbury floods

FAQ – JULY 2021

How can I access the MPI Canterbury Flood Recovery Fund opening Friday 8 July?

Applications opened Friday 8 July for the \$4 million Canterbury Flood Recovery Fund. The fund from the Ministry of Primary Industries has been set up to help support the region's farmers and growers to recover from a one in 200-year rainfall event. The grant application form is now online, along with other useful documents at mpi.govt.nz/funding-rural-support/adverse-events/dealing-with-floods

- [Canterbury Flood Recovery Fund application form](#)
- [Canterbury Flood Recovery Fund checklist](#)
- [UPDATED Canterbury Flood Recovery Fund fact sheet](#)
- [Canterbury Flood Recovery Fund principles and criteria](#)
- [UPDATED Canterbury floods rural fact sheet](#)

Applications will be assessed by an independent panel, which sector groups have helped to select.

If any farmers or growers require assistance completing their application, they can call the Ministry for Primary Industries on 0800 00 83 33 or email funding@mpi.govt.nz

How significant was the recent regionwide flooding in Canterbury?

Canterbury recently experienced extreme flooding in some inland areas that NIWA states might only be expected to happen once in 200 years.

This was an unprecedented weather event with both long and intense periods of rainfall. In the Ashburton River/Hakaterere catchment area the weather event was of a magnitude greater than everywhere else in the region. We cannot stress enough that this was potentially the most significant rainfall and river flow event on record in Ashburton since we've been recording this data.

The Mount Somers rain gauge recorded the most intense rainfall, with 546 mm recorded for the 72-hour event. This is more than double the previously recorded maximum for 72 hours. Fifteen of our 84 water level recorder sites reported their largest flood on record.

What is Environment Canterbury's role in rivers?

Our current mandate from Council is to maintain flood protection assets for properties who form a rating district. This includes protection works such as stopbanks, drains, groynes, spurs and other infrastructure such as plantings associated with river erosion, drainage and flood protection, as well as ongoing maintenance.

We manage 59 river and drainage rating districts and in the 25 largest areas, we work with the community who voluntarily participate in river rating district liaison committees.

Committee members focus on whether their community has an adequate and appropriate level of safety, security and resilience from flooding and erosion, or an adequate and appropriately resourced drainage network.

Each rating district has agreed levels of service, which means that flood protection infrastructure is built and maintained to withstand a specific discharge of flood flow measured in cumecs (cubic metres of water per second) and/or they carry out a particular activity, e.g. planting or weed control. Flood protection schemes are designed as holistic systems that may have different levels of service throughout. For example, stopbanks in the upper Ashburton scheme are built to manage about a 1 in 50 year flood and stopbanks closer to the town have higher levels of protection to about a 1 in 200 year standard.

Committee members are advisory to Council who make final decisions. Members can influence the overall direction of flood and erosion protection and drainage works in their area as well as the targeted rates set for each river. The decision about what level of protection can be provided is balanced against a sustainable level of financial contribution from the community for the works required. Targeted rates are the amounts contributed to the total cost of works by the landowners who receive the direct benefit of flood protection infrastructure. They are based on the cost of works to provide the agreed level of service and calculated as a percentage of their property value.

If due to a significant weather event, flood flows exceeded the capacity that the infrastructure is designed for, out-of-river flows are expected. For the upper Ashburton River/Hakaterere the event was 'over design' meaning it was much larger than the flood protection infrastructure was designed to contain.

Removal of rocks/gravel from any property post flooding is currently not part of our mandate. From time-to-time Environment Canterbury staff might undertake work on private land where this assists in delivering the objectives of the rating district (e.g. where the removal of debris, trees, gravels, etc. forms part of work required to meet flood protection objectives within the rating district). However, this work is typically limited in scope.

If the Council wished to undertake or fund significant work outside the agreed work programme for a rating district – such as removal of gravel from a property following a flood, this would require a specific Council decision and appropriation.

Given the recent flood event and the expectation of more frequent and higher intensity floods due to climate change, landowners in some areas without any flood protection may now want to talk to us about the options for future flood mitigation.

How much had the gravel built up in the riverbed and how did this affect the flooding?

Due to its geomorphology with a steep grade terminating on a flat plain, the North Branch of the Ashburton River/Hakaterere has a very high sediment deposition rate compared to other rivers in the region. Specifically, there is a 14km 'aggradation zone' known as Blands Reach, between Flemings Rd and Mt Harding Creek.

Between 1997 and 2008, over 1 million cubic metres of gravel was extracted. Ongoing extraction of around 60,000 cubic metres of gravel per year is required to maintain the flood capacity in the aggradation zone.

Gravel extraction averaging 38,000m³/yr in the 2009-2018 period did not keep up with the estimated natural supply rate of 60,000m³/yr.

In July 2019, the Ashburton River/Hakaterere liaison committee resolved to put \$100,000 per year towards enabling 100,000m³/yr of gravel to be removed from aggrading areas, concentrating initially around Shearers Crossing. This was reinforced in the 2020 meeting. 74,000 m³ was extracted in 2020, the only full year since the target was introduced.

It has been very challenging to generate sufficient commercial gravel extraction through Blands Reach to keep up with the aggradation. Additional measures have been put in place to encourage gravel take in the North Branch including waiving the gravel extraction fee. It should be noted however that the primary cost of gravel is for haulage and so other closer sources were often prioritised by contractors.

The cost of simply removing and stockpiling this volume of gravel from the river would be significant – in the order of \$300,000 per year plus land costs, or half the budget of the entire Ashburton River/Hakaterere rating district.

We are in the process of identifying a suitable location to deposit proactively excavated gravel once it has been taken out of the river.

Prior to the flood (and still current) a total of 102,500 m³ of gravel had been allocated to contractors for take around Shearer's Crossing (free of charge).

61,000 m³ is allocated for take from Thompsons Track towards downstream to Shearer's. Further applications are in process but are on hold, awaiting repair works.

What is likely to happen in the next big rain event?

We understand that this will be a stressful time heading into winter with the expectation of increased rain and snowfall. In the first instance, keep an eye on the MetService severe weather outlook.

As always, our flood controllers are on duty 24/7 and remain in close contact with MetService. Our infrastructure is more vulnerable in certain places now, so we've lowered the trigger level at which alerts are issued on those more vulnerable schemes.

If MetService alert us to the possibility of out-of-river flows, we'll post information on our flood warnings page and use our social media channels and the text alert system to let you know. You can continue to monitor river flow data and rainfall data on our website.

Are all the stopbanks fixed now?

Temporary fixes to flood infrastructure have been made where possible to reduce the risk of reoccurrence until permanent repairs are possible. Our priority has been to repair existing flood protection infrastructure starting with stopbanks and followed by damage to river berms and vegetation loss. Initial response works are starting to slow down now and we're beginning to consider the longer-term strategic needs of the schemes.

Some repairs can't be done until the ground dries out, this might be closer to summer. In Ashburton in particular, it will take many months, possibly years to complete all the repairs needed.

What is the timeline for repairs?

We are responsible for more than 2,000 km of rivers (including 1,601 km of managed river berm and 647 km of stopbanks) and 671 km of drains within flooding and erosion control and land drainage scheme areas, so following a major regionwide flood event like this it's a big job.

We have mapped the majority of the known damage and continue to prioritise our work where it's most needed. To undertake a full programme of recovery works we'll need to adjust pre-flood work schedules and budgets. Additional resources will be needed to restore critical infrastructure as well as deliver previously agreed work programmes.

We are also taking the time to consider climate change and consider modifying recovery works to ensure we're building the most effective infrastructure for the future. In the Orari floods of 2017, rather than simply reinstate a stopbank we built a new part of a stopbank further back from the river. During the recent flood event the modified design helped prevent breakouts that would otherwise have affected large parts of the community. Because we need to analyse the full extent of the damage and develop an effective work plan we can't quantify a timeline or repair costs just yet. We're working on the next steps and will keep you updated.

When will Environment Canterbury start enforcing LWRP rules around fencing of waterways?

There are a number of farms that have suffered damage to farm infrastructure, preventing them from achieving their normal levels of compliance. This includes damage to effluent ponds and loss of fencing along waterways. We understand that it may take some time for farmers to reinstate this infrastructure, and that this will vary on a case-by-case basis.

Our expectation is that farmers will develop a plan to restore the functionality of damaged infrastructure when practical to do so and that efforts are made to minimise any environmental damage in the interim. For example, this may involve the use of temporary fencing as an interim measure before permanent fences can be installed. What is considered practical and appropriate mitigation will vary from farm to farm.

With regards to environmental compliance, we always consider these questions on a case-by-case basis.

So, while we don't offer blanket extensions or exemptions – we would recommend that any farmers struggling to meet compliance requirements due to damaged infrastructure contact our Zone teams. Staff will confirm agreements made around timeframes for compliance. This will provide some surety to the landowner, and also allows Environment Canterbury to address any questions which might be raised by the public. Your local contacts are:

- **Chris Eccleston** (Southern Zone Manager) 027 562 2492
- **Janine Holland** (Zone Delivery Lead) 027 205 7128

Who will pay for removing shingle, silt and floodwaters from my paddock?

Currently Environment Canterbury has a mandate from Council to maintain flood protection assets for properties who form a rating district and does not have the mandate to remove rocks/gravel from any property post flooding.

From time-to-time Environment Canterbury staff might undertake work on private land where this assists in delivering the objectives of the rating district (e.g. where the removal of debris, trees, gravels, etc. forms part of work required to meet flood protection objectives within the rating district). However, this work is typically limited in scope.

If the Council wished to undertake or fund significant work outside the agreed work programme for a rating district – such as removal of gravel from a property following a flood, this would require a specific Council decision and appropriation.

If a landowner is not in a designated scheme area our engineers can assist with advice.

If requested by the community, we can also discuss the options for more comprehensive flood mitigation options.

We are pleased to see that the Ministry for Primary Industries has implemented the Canterbury Flood Recovery Fund as a contribution towards urgent and immediate recovery work that could help to remediate shingle deposited on farms.

How can Environment Canterbury help landowners/farmers?

We are very mindful of the pressure some in our community are under, and we are keeping in close contact with all agencies involved in the recovery. The Rural Support Trust is the lead agency supporting households under pressure, and we will continue to work closely with them.

When we are aware that a household is affected by pressures such as flooding, health or mental wellbeing, we have a range of options to alter our regulatory approach. You can find out more about what support is available for farmers to help respond to the region's flood at ecan.govt.nz/your-region/farmers-hub/rural-community-update-flooding

What is happening with the Ashburton consent review process for those affected by flooding?

We know that some flood-affected consent holders still have consent reviews in process, and that this understandably is not a top priority right now.

We've offered a three-month extension to consent holders affected by the floods whose reviews are still in process. We also understand that some consent holders will require extensions beyond the 30 November 2021 cut-off date.

We can only offer extensions to those who have requested it. If you would like an initial 3-month extension of your consent review, please contact consentsreviews@ecan.govt.nz

If I am not a member of a river rating scheme, how can I be part of any meetings about flood protection in my area?

We are prioritising meetings with current River Rating District Liaison Committees first. Wider public meetings can be considered in time if needed. As staff are responding to priority issues on the ground, we can't give a timeframe for any meetings at this stage. If you aren't in a designated scheme area our engineers can assist with advice. There is currently a high demand for advice from our river engineers, so visits are being prioritised with a focus on restoring the functionality of schemes that provide protection to multiple properties. A number of these visits have already taken place.

Environment Canterbury can offer flood protection advice to landowners outside of rating districts where we have staff capacity. Landowners should contact our customer services team in the first instance on 0800 324 636 to lodge their requests for visits. We will keep in touch with you as to when we can arrange a visit.

If requested by the community, we can also discuss the options for more comprehensive flood mitigation options going forward.

A number of private wells are recording high E-coli levels – is testing available?

Testing is the responsibility of private well owners.

Additional information can be found on our website ecan.govt.nz/drinkingwater

In 2019 we wrote to Ashburton District residents who rely on private wells for drinking water (outside of district council water schemes) about the need to test their wells/maintain their wellheads. You can find the letter on our website under the heading *Protecting your private drinking water source*.

Does Environment Canterbury accept any responsibility for the north branch of the Ashburton River/Hakaterere breaking out onto farmers land?

We are confident that our flood protection infrastructure did its job based on the agreed levels of service for the scheme and cannot accept allegations of mismanagement or any responsibility for river breakouts.

This was an unprecedented weather event with both long and intense periods of rainfall. In the Ashburton River/Hakaterere catchment area the weather event was of a magnitude greater than everywhere else in the region. We cannot stress enough that this was potentially the most significant rainfall and river flow event on record in Canterbury since we've been recording this data. For the upper Ashburton River/Hakaterere the event was 'over design' meaning it was much larger than the flood protection infrastructure was designed to contain. In this catchment out-of-river flows would have occurred irrespective of issues such as gravel aggradation.

The stopbanks on either side of the Ashburton River/Hakaterere built a decade ago at a cost of a couple of million dollars proved their worth, protecting assets worth hundreds of millions of dollars and prevented many homes from flooding.

Did the river breaking out in the north branch save the Ashburton township?

The flood protection scheme is designed as a holistic system with different levels of service at different points. For example, stopbanks in the upper scheme are to a 1 in 50 year standard and those closer to the town are to a 1 in 200 year standard.

In the upper Ashburton River/Hakaterere the event was 'overdesign' and so out-of-river flows occurred – and because braided rivers are dynamic in nature where water breaks out is not always predictable.

In contrast, although flood flows were close to the capacity of the scheme near Ashburton township, the stopbanks held as designed. It is likely that water spilling out in the upper reaches took some pressure off in the lower reaches, but we have not fully analysed all data available yet to quantify that.

How does the text alert system work during a flood?

Flood response text alerts indicating likelihood of out-of-river flows:

The free subscription-based text alerts are activated during an emergency flood response. You can sign up to receive alerts for specific rivers by texting a keyword (we use river names) to 3730. We publish a list of the keywords on our website in the lead-up to a flood event. By signing up to this service your number is added to a database that our flood control team will use to send messages to you about river conditions in current and future flood events.

Texts are sent on an as-needed basis. The alerts let you know that river flows on a specific river are approaching levels that could cause out of river flooding so that you can take informed action.

Note that **we do not send evacuation notices through this service**, as this is a function managed by Civil Defence Emergency Management.

During the recent flood event, text alerts were sent to the Selwyn, Ashburton, Hinds and Waimakariri subscriber lists in response to rising flows on those rivers.

If no alerts are sent to a list that you have signed up to, this means that the river flow information we have does not indicate out-of-river flooding is likely.

When you initially text the keyword (e.g. ASHBURTON) to 3730 you'll receive this note:

- Thanks for subscribing to ECan's Ashburton River flow alert service.

Note that any responses sent to this system are not monitored and you will not receive a reply – they are only for one-way communication. This means that if you return a message to the above text (or send any message that does not correspond exactly to the keyword to 3730) you will receive this message:

- [NO REPLY] This service is used for outward communication only.

This reply may also have been sent if the system malfunctioned. If you are concerned that the system did not function as designed, please assist us by sending customer services a screenshot of the text that you sent and the text that you received. There is no indication that the system malfunctioned during the recent weather event.

Riverflow text information:

Text alerts per the river flow pages send a one-time text with the latest flow data available for that river to your phone.