

Ngongotahā Action Plan: A YEAR IN REVIEW



Jan - Dec 2019

Tēnā koutou

14 months ago, the independent review panel released its report in relation to the Ngongotahā Flood Event of 29 April 2018. It included 24 recommendations.

This report documents the work carried out in 2019 by the Bay of Plenty Regional Council (BOPRC) and Rotorua Lakes Council to progress those recommendations. This work is encapsulated within 19 actions in the Ngongotahā Flood Review Action Plan, which was released in July 2019¹.

Status of actions

In summary, 11 of the 19 actions have been achieved. Six of these completed actions are ongoing.

Five actions are in progress, although running behind schedule. These actions, discussed further overleaf, relate to:

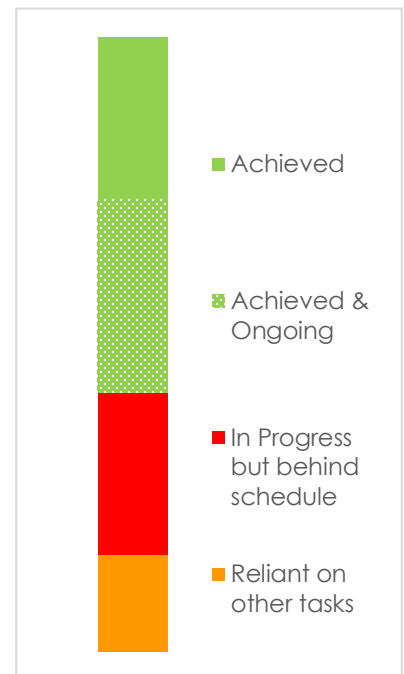
- analysis of flood mitigation options and associated engagement with the Ngongotahā Community.
- completion of the stream maintenance plan.
- establishment of the working group for the Ngongotahā Community Response Plan.
- review of the District Plan.
- construction of detainment bunds in the upper catchment.

Three actions are reliant on the completion of other actions.

Achievements for 2019

The achievements for the year include the:

- Completion of priority stream repairs from the April 2018 flood and removal of 30 large and at-risk trees from the upper catchment.
- Establishment of the Ngongotahā Community Reference Group (CRG) to guide the dual-Council project team, particularly in relation to potential flood mitigation options and community engagement.
- Successful operation of dual-Council teams, particularly in relation to RMA planning; engineering options as well as communication and engagement.
- Completion of a number of actions which have resulted in improved internal processes and working relationship between the two Councils.



Overall the project team has worked hard to complete, or at least progress the actions to address the matters within the independent review panel report.

¹ download from <http://www.rotorualakescouncil.nz/floodreview>

Challenges for 2019

The Action Plan included a number of ambitious timeframes, originally intended to ensure completion of most actions by the end of 2019. However, these timeframes did not factor in:

- The complexity of work, such as the modelling of flood mitigation options or the required risk assessments before the District Plan review can commence.
- The time needed to enable community-driven action, such as establishing a working group to develop the Ngongotahā community response plan.

In the case of the upper catchment bunds, both aspects apply. The process of identifying and prioritising suitable sites has taken time. Further time is needed to engage with landowners to enable the construction of the bunds on their respective properties for the benefit of the Ngongotahā community.

It was originally intended that project communication and engagement would improve the confidence of the Ngongotahā community in RLC and BOPRC in taking action to reduce the risk and impact of another April 2019 flood event on Ngongotahā residents. For a vast majority of the community, flood risk reduction and mitigation is encapsulated in the flood mitigation options from the independent report. Delays in the delivery of these options may be eroding community confidence.

The Ngongotahā CRG have been invaluable in guiding communication and engagement; shortlisting of flood mitigation options; and, providing advice about plan actions. However, due to delays in flood modelling, they have yet to fully achieve their intended purpose. This includes reviewing, testing and fine tuning the flood mitigation options; assisting with community engagement; and, presenting the preferred options to the two councils.

Focus for 2020




The focus for 2020 is the completion of the 'in progress' actions, in particular, the analysis of, and engagement on, the flood mitigation options for Ngongotahā. Showing 'real' progress in terms of flood mitigation for the affected residents will be crucial this year.


*Elva Conroy
Ngongotaha Flood Review Project Co-ordinator
February 2020*

ROLES AND RESPONSIBILITIES

These actions are intended to clarify roles and responsibilities and improve inter-Council and public relationships, communication channels and trust.

All four actions were achieved in 2019. Actions 2-4 are ongoing, as is the implementation of the signed MOU (action 1).

Action	Status	Work completed	Focus for 2020
1. Prepare and sign a formal and binding Memorandum of Understanding. (R4-6)	 Achieved	MOU signed between the two Councils in July 2019. Operational policies in place: <ul style="list-style-type: none"> Joint Council consent referrals protocol (Action 14) Stream maintenance operational policy 	Communication of roles and responsibilities to the public. Regular audit of frontline staff.
2. Improve inter-Council relationships and communication channels. (R3)	 Achieved (and ongoing)	Inter-Council relationships and communication channels improved through the establishment of a dual-Council project steering group (PSG); project team and associated workstreams.	Continued operation of PSG; project team and associated workstreams
3. Improve public relationships and communication channels. (R3)	 Achieved (and ongoing)	Public relationships and communication channel improved through: <ul style="list-style-type: none"> Establishment of the Ngongotahā Community Reference Group (CRG). Regular dissemination of information, guided by the CRG, about the project. Methods included project webpage, Ngongotahā news, Tatau Tatau magazine and leaflet drops. Significant effort put into updates at local community group meetings. Community engagement evening held with flood affected residents in August. 	Continued: <ul style="list-style-type: none"> operation of the CRG to guide community engagement about the flood mitigation options (1st quarter of 2020) dissemination of project information to the Ngongotahā community Timely completion of actions

Action	Status	Work completed	Focus for 2020
4. Provide and plan for good quality local flood control and stormwater infrastructure in the Ngongotahā Catchment. (R2)	 Achieved (and ongoing)	Completion of priority: <ul style="list-style-type: none"> • repairs to the banks Ngongotaha Stream. • repairs and enhancements to existing flood control assets (e.g. stopbanks). • improvements to stormwater infrastructure (e.g. flap gates). Funding secured through the annual plan process of both Councils.	<ul style="list-style-type: none"> • RLC to review its 30-year Infrastructure Strategy. • Both Councils to review and update their respective Asset Management Plans. • Long Term Plan funding secured for flood mitigation options.

Community resilience

UPDATE ON POST-FLOOD ACTION PLAN FOR NGONGOTAHĀ

Families are back home and future mitigation plans are being developed just over a year on from the severe weather event which caused flooding and damage across the Rotorua district.

Project Timeline

- December 2018:** Release of flood review report
- February/March 2019:** Community reference group established to work through recommendations together with the technical teams
- May/June 2019:** Results from catchment modelling, risk flow and preliminary works options developed
- June/July:** Community engagement and dialogue on draft suite of options
- July/August:** Finalise options

Remedial works completed by the two councils to date:

- Of 128 sites in the Ngongotahā SPCA area needing repairs, 95 of the highest risk sites have been repaired.
- 4800 tonnes of rock has been used to rock armoring of erosion damage sites in Ngongotahā Stream.
- Rotorua has appointed a permanent position to run ongoing maintenance across Rotorua's river and flood protection schemes and oversee flood damage repair works.
- 1200m of stopbanks have been rebuilt and additional vegetation and event management works completed.
- 2000 native plants used as far to stabilise planting, with a further 2000 plants on order for winter planting.
- 100 tonnes of rock armouring on flood damaged sites in the Ngongotahā Stream.
- 1000m of rock underpinning damage repairs completed.
- Predator-free flood warning testing completed.
- Rotorua's Bridge Upgrade and Operational project completed.
- Much on-site of Ngongotahā drainage network completed for this year to start on the end of next spring.
- Work on other sites with minor damage (Bakurua Road, Ngongotaha Road, Rotorua Road, Whakapara Road) to be completed by the end of June.
- RLC staff working with Waiatapu Regional Council on Whakapara Stream improvements.
- Enabled Whakapara Councils and other contribution for a planning solution with some modelling assessment and a more detailed report to be prepared.

The Ngongotahā Community Reference Group has been created to help develop an Action Plan to reduce the risk of and impact of future storm events in Ngongotahā.

Here is a brief introduction to the reference group members:

- Guy Ngata:** Local business, property consultant and environmental advocate for principle of sustainability. My motivation is to assist in assessing and implementing actions which will prevent or minimise the risk and effects of future flood events.
- Silvina Short:** An association with the Ngongotahā Stream started when, let us agree 20 years ago that we have been more actively involved. The weather patterns are changing so we need to be fully aware that the water rises again in the future and the only aim is to do everything in our power to mitigate the damage.
- Melody Trempor:** I am the chair of the Flood Community Board. I want to show a positive level of engagement from the community, to make sure everyone has an opportunity to provide feedback and also use our best about the progress.
- Sarah Thomson:** I am involved in Ngongotahā Valley and am currently the chair of the Rotorua Valley Catchment Group. It is a part of the position is a problem larger than our local council can manage so it is important to help. The actions to be taken will also provide the best of the catchment for the lower down the catchment.
- Joe Edwards:** I am the chair of Rotorua Council. I want to help everyone in Ngongotahā to be safe and secure at all times.
- Liz Thurston:** I am a Board Member Regional Council based in Rotorua. I have lived in Rotorua most of my life. Rotorua residents throughout the district who experienced the impact of the weather may flood can take assurance and comfort that all parties are working collaboratively with agency and commitment to ensure every possible improvement has been made to minimise future flood risk.
- Kath Gerrard:** My management was as a supervisor and officer, but I spent the last 15 years of my career as an operational environmental management consultant. As someone who witnessed the flooding firsthand, but never in person. I feel an in a good position to contribute to the group. I want to ensure that appropriate actions and policies are in place to reduce the chances of a repeat event.
- Ellis Pollard:** I owned and operated a nursery store for 40 years in Rotorua. We were directly affected by the flood on all aspects of it on the day, and we were involved in the reference group. I want to ensure that the actions taken are effective and resilient in the upper catchments to ensure the event happens again and a one-off deficit plan for the Ngongotahā area.
- Rebecca Brake:** I have lived in Ngongotahā for more than 17 years and have served in Ngongotahā City Council for the past 10 years. I am an elected member of the council and I support our local businesses and the community.

Councils confront flooding issue as remedial work continues

Ngongotahā flood community group named

Ngongotahā community reference group has been established.

Project Timeline

- December 2018:** Release of flood review report
- February 2019:** Community reference group established to work through recommendations together with the technical teams
- April/May 2019:** Results from catchment modelling work done and preliminary works options developed
- April/May 2019:** Community engagement and dialogue on draft suite of options
- July 2019:** Finalise options report and highlight delivery timeframes (short/medium/long term including funding scenarios)
- Later 2019 onwards:** Presentation of final recommendations to both Councils and progressive implementation of agreed actions once adopted by Councils.


What do you think?
Just one week with floodwaters in the area and you can see the impact of flooding. It cannot be overstated that flooding will not be reduced through stream maintenance, engineering works and land development planning is to reduce the risk and impact of flooding."



we are keen to see both councils working together to achieve a safe and resilient Ngongotahā community."

STREAM REPAIRS AND MAINTENANCE

These actions relate to the repair and long term maintenance of the Ngongotahā

Stream and associated flood and erosion control structures. A large amount of physical works (actions 5 and 6) have been carried out over the last year. The stream maintenance plan (action 7) is still in progress.

Action	Status	Work completed	Focus for 2020
5. Continue stream repairs and maintenance for the Upper Kaituna Scheme - up to SH 5. (R1, R12)	 Achieved (and ongoing)	<p>Over the 18 months since the April 2018 flood, 75 of the highest risk/priority sites were repaired.</p> <p>This included:</p> <ul style="list-style-type: none"> • Erosion repairs carried out behind Parawai Marae • At the Ngongotahā Stream mouth: 150m of stopbank rebuilt (left and right banks) and rock armouring of the left bank. • Where needed: <ul style="list-style-type: none"> – banks battered back and stabilised with rock and/or native grasses. – selective vegetation management (including bamboo) using tree shear and grab. – removal of large at-risk vegetation. – repairs to undercut banks e.g. Taiui street. – re-establishment (or establishment) of access for ongoing maintenance works. • 6,000 plants planted to stabilise erosion repair sites within Ngongotahā • 4,800 tonne of graded rock spawls utilised for rock armouring purposes. <p>BOPRC also appointed a permanent position to oversee stream repairs and ongoing maintenance.</p>	Continued stream repairs and maintenance, in line with the stream maintenance plan and annual work programme.



Action	Status	Work completed	Focus for 2020
6. Tree and channel clearance upstream of State Highway 5. (R1, R12)	 Achieved (and ongoing)	<p>In October, 30 large high-priority trees were removed from the banks of the Taurangamiromiro Stream. This was followed by a community planting day.</p> <p>Drone survey completed for part of the upper catchment (Taurangamiromiro Stream, from Relph Road to the Lion Park).</p>	<p>Updated stream survey to confirm number and priority of trees for removal.</p> <p>Continued removal of high priority trees.</p>
7. Develop Stream Maintenance Plan. (R9, R14-16)	 In Progress, behind schedule	<p>Draft plan was due December 2019. This action commenced late due to the need to prioritise physical works. Stream maintenance plan scoped in October 2019. Plan drafting commenced in December 2019 and is almost complete.</p>	<p>Completion and implementation of Stream Maintenance Plan.</p>



Elliot Park




ENGINEERING, MODELLING AND OPTIONS

These actions relate to the technical assessment to guide and support the selection of flood mitigation options for the Ngongotahā catchment. The process of shortlisting and analysing the flood mitigation options has taken longer than expected, however this highlights the complexity of the work.

Action	Status	Work completed	Focus for 2020
<p>8. Identify and assess potential flood mitigation options. This includes:</p> <ul style="list-style-type: none"> – Improvements to existing structures. – Identification of new / additional structures. <p>(R1, R17, R18)</p>	 <p>In Progress, behind schedule</p>	<p>Potential flood mitigation options have been identified and confirmed with the Ngongotahā Community Reference Group. The shortlisted options were included in communication material in August and December 2019.</p> <p>The flood model has been calibrated, mirroring the breakout points for the April 2018 event.</p> <p>The analysis of flood mitigation options (individual and combined) is underway. It is a slow and complex process. For this reason, engagement with the Ngongotahā community could not occur before December 2019.</p>	<p>Completed modelling of flood mitigation options.</p> <p>Public consultation, guided by the Community Reference Group, on the flood mitigation options.</p>
<p>9. Develop, action and monitor a comprehensive flood risk management plan for the Ngongotahā Catchment.</p> <p>(R1, R7, R9-R13)</p>	 <p>In Progress, reliant on completion of other actions</p>	<p>This plan comprises the outputs of multiple workstreams. Other than the emergency management plan, each of these outputs (e.g. stream maintenance plan, flood mitigation options, district plan review) are in progress.</p>	<p>Development of a draft flood risk management plan, once workstream outputs are complete.</p>

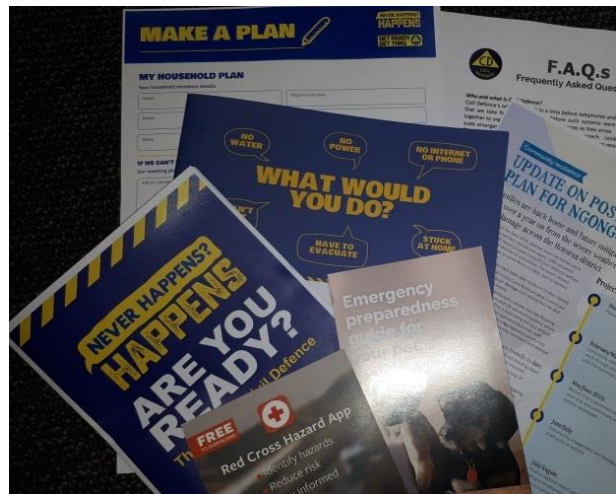
CIVIL DEFENCE AND READINESS

These actions are intended to ensure that the Ngongotahā and Paradise Valley communities are prepared, and agencies are well-coordinated, should there be another extreme weather event. Two of the actions have been achieved. The community response plans are still pending and rely heavily on the availability of local community members to lead the plan development process.

Action	Status	Work completed	Focus for 2020
10. Coordinate Community Response Plans for the Ngongotahā Township and Paradise Valley Community. (R23)	 In Progress, behind schedule	Working group established for Paradise Valley Community Response Plan. This action is categorised as 'behind schedule' as the working groups were not established by December 2019. There is interest in a Ngongotahā Community Response Plan but, despite efforts from staff, a working group has yet to be established. In this case, the successful implementation of Action 10 is reliant on community-led action, supported by Councils.	Continued efforts to identify local champions to form a working group for the Ngongotahā Community Response Plan. Completion of the Community Response Plans for Ngongotahā and Paradise Valley.
11. Develop an Emergency Management Plan. (R22)	 Achieved	The inter-agency evacuation plan has been completed.	Communication of information to the Ngongotahā community (linkage with Action 12).
12. Communicate civil defence information regularly to the Ngongotahā community. (R23)	 Achieved (and ongoing)	Red Cross/RLC/Civil Defence event (Community Outreach Activation) held on 16 June. 272 homes visited, with civil defence information left with residents or in letterboxes. 137 residents answered Civil Defence questions about emergency preparedness.	Continued communication of civil defence information to the Ngongotahā community.

Action	Status	Work completed	Focus for 2020
		Civil Defence staff had a stand at the community engagement evening with flood affected residents in August. Also refer communication methods in Action 3.	

**Ngongotaha Welfare Outreach Activation,
16 June 2019**









Do you have a family emergency plan?
54% replied No
Do you have a 'grab bag'?
52% replied no

RMA PLANNING AND CONSENTS

These actions are intended to ensure that robust planning and land use controls are in place to manage land use and development in areas at risk of flooding.



There have been improvements to internal and inter-Council processes through formalised agreements. The District Plan review is still in progress.


Action	Status	Work completed	Focus for 2020
13. Formalise an agreed internal RLC process for land development proposals within the Ngongotahā catchment. (R8)	 Achieved	Internal RLC process has been formalised. All subdivision and land development proposals within the Ngongotahā Catchment are assessed by way of a risk matrix. Flood risk assessment requirements are outlined early in the development process.	Continued implementation of internal RLC process.
14. Formalise an agreed process for Regional Council review of District Council subdivision and consent applications. (R1)	 Achieved	Referrals protocol in place for BOPRC to assess all RLC subdivision and resource consent applications within the Ngongotahā Catchment.	Continued implementation of referrals protocol.
15. Review Council's Engineering Code of Practice. (R21)	 Achieved	Review completed. RLC is adopting the Waikato Regional Infrastructure Technical Specification (RITS) identified as most appropriate approach(subject to amendments). Engagement with consultant community about a modified RITS was positive. RITS already in use for longer term contracts.	Amendment of RITS (particularly earthworks and geotechnical section) to reflect Rotorua context, RLC standards and best practice. On completion, Council to formally adopt RITS.

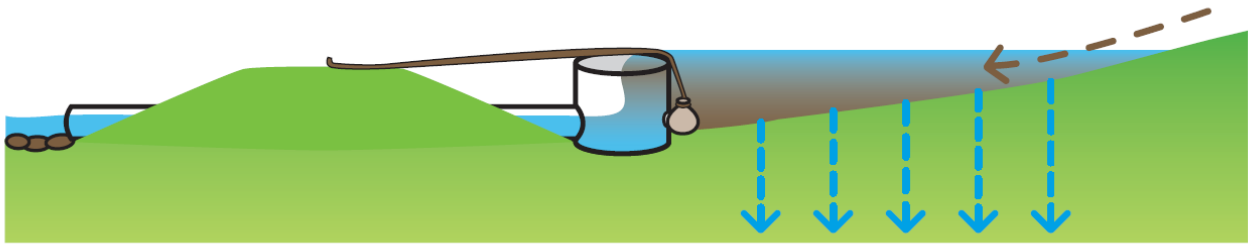
Action	Status	Work completed	Focus for 2020
16. Review the District Plan. (R1, R19, R20)	 In Progress, behind schedule	<p>Geographic scope of plan review confirmed: district-wide, not just focused on the Ngongotahā catchment.</p> <p>This action is behind schedule due to the need for additional risk assessments to satisfy Regional Policy Statement requirements relating to Natural Hazards (Plan Change 2).</p> <p>A dual-Council group has been established to ensure that the plan review process is robust. This includes developing and reviewing current urban flood hazard catchment models for the flood risk assessments to, in turn, inform the plan review.</p>	<p>Completed risk assessments for key urban catchments within the Rotorua District.</p> <p>Completion of a District Plan efficiency and effectiveness report.</p> <p>Confirmation of scope of Plan change.</p>
17. Prepare and notify a Plan Change. (R19, R20)	 Pending, reliant on completion of other actions	<p>This action is pending the completion of Action 16.</p>	<p>This action is pending the completion of Action 16.</p>
18. Assist with scoping resource consent requirements for physical works.	 Pending, reliant on completion of other actions	<p>This action was not applicable for 2019.</p>	<p>Scoping to occur with the analysis of flood mitigation options.</p>

UPPER CATCHMENT CONSIDERATIONS

These actions relate to the area upstream of State Highway 5. The removal of 30 large and at-risk trees was a significant achievement for the upper catchment. A lot of work has been happening with the Paradise Valley Catchment Group and Umurua Catchment landowners, such as water quality monitoring and scoping initiatives for improved land use and/or retention of stormwater and nutrients. This includes investigating the use of detainment bunds and land use change.

Action	Status	Work completed	Focus for 2020
19. Progress detainment bund project (R1, R12)	 In Progress, behind schedule	<p>Detainment bunds are a shortlisted flood mitigation option. 135 potential sites identified for Umurua Catchment.</p> <p>Prioritisation exercise for the Umurua Catchment completed. 19 sites identified as most effective for stormwater attenuation and water quality benefits.</p> <p>This action is categorised as 'behind schedule' as the detainment bunds were not established by December 2019. However, it is important to note that the completion of this action relies on willing landowners.</p>	Work with the five Umurua landowners to secure buy-in for the construction of detainment bunds on their properties.
Relevant actions from other workstreams:			
6. Tree and channel clearance upstream of State Highway 5. (R1, R12)	 Achieved (and ongoing)	<p>In October, 30 large high-priority trees were removed from the banks of the Taurangamiromiro Stream. This was followed by a community planting day.</p> <p>Drone survey completed for part of the upper catchment (Taurangamiromiro Stream, from Relph Road to the Lion Park).</p>	<p>Updated stream survey to confirm number and priority of trees for removal.</p> <p>Continued removal of high priority trees.</p>

Action	Status	Work completed	Focus for 2020
10. Coordinate Community Response Plans for the Ngongotahā Township and Paradise Valley Community. (R23)	 In Progress, behind schedule	Working group established for Paradise Valley Community Response Plan. A lot of interest for a Ngongotahā Community Response Plan but a working group has yet to be established. For this reason, this action is categorised as 'behind schedule' as the working groups were not established by December 2019.	Establishment of working group for the Ngongotahā Community Response Plan. Completion of the Community Response Plans for Ngongotahā and Paradise Valley.



Example of a detention bund