

I hereby give notice that an ordinary meeting of the Governing Body will be held on:

**Date:** Tuesday, 23 May 2023  
**Time:** 10.00am  
**Meeting Room:** Reception Lounge  
**Venue:** Auckland Town Hall  
301-305 Queen Street  
Auckland

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## Tira Hautū / Governing Body

### OPEN ADDENDUM AGENDA

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#### MEMBERSHIP

**Mayor**  
**Deputy Mayor**  
**Councillors**

Wayne Brown	
Cr Desley Simpson, JP	
Cr Andrew Baker	Cr Mike Lee
Cr Josephine Bartley	Cr Kerrin Leoni
Cr Angela Dalton	Cr Daniel Newman, JP
Cr Chris Darby	Cr Greg Sayers
Cr Julie Fairey	Cr Sharon Stewart, QSM
Cr Alf Filipaina, MNZM	Cr Ken Turner
Cr Christine Fletcher, QSO	Cr Wayne Walker
Cr Lotu Fuli	Cr John Watson
Cr Shane Henderson	Cr Maurice Williamson
Cr Richard Hills	

(Quorum 11 members)

**Sandra Gordon**  
**Kaitohutohu Mana Whakahaere Matua / Senior**  
**Governance Advisor**

**19 May 2023**

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ITEM	TABLE OF CONTENTS	PAGE
11	Making Space for Water	5



## Making Space for Water

File No.: CP2023/03049

### Te take mō te pūrongo Purpose of the report

1. To seek endorsement for the objectives and initiatives identified in the provisional 'Making Space for Water' programme, as part of Auckland Council's flood recovery programme, and to seek approval to develop a public consultation plan for the programme from July 2023.

### Whakarāpopototanga matua Executive summary

2. A 'Making Space for Water' programme is being developed as part of Auckland's recovery from the January Floods and Cyclone Gabrielle. The purpose of the programme is to establish a practical and achievable programme of operational flood management works for the next six years. The programme sits within the Tāmaki Makaurau recovery programme, under the natural and built environment pou / workstream.
3. 'Making Space for Water' proposes nine key operational initiatives, ranging from increased maintenance of council infrastructure to blue-green network projects in some flood-affected areas that are suitable for stream daylighting and rehabilitation. While further investigative and design work is needed before these locations can be confirmed, the programme will also include other projects to improve flood management across the region.
4. Developing this programme quickly will help to inform the decisions of central government's Cyclone Recovery Taskforce and ensure that the council has a well-defined approach to flood risk reduction.
5. The scale of new initiatives, significant impact on budgets, and elevated public interest in council's flood response triggers the need for regional public consultation on this programme and the associated costs. Consultation will seek feedback on Aucklanders' views on the overall programme and initiatives. Staff propose to align this consultation with the Local Board Plans and targeted engagement on sections of the Tāmaki Makaurau Recovery Plan.
6. Public consultation will take place in July 2023 to inform the finalised 'Making Space for Water' programme by September 2023. A detailed consultation plan will be presented to the Governing Body for approval in June 2023.
7. Costings of the proposed initiatives will be provided to the June 2023 Governing Body meeting, for inclusion in the July consultation. The June report will also consider the merits of different funding mechanisms.
8. Healthy Waters will continue to deliver stormwater recovery projects and develop the detailed methodology, area prioritisation, costings, and timelines for all work programmes alongside work agreed to by the Planning, Environment and Parks Committee (PEPCC/2023/24) and central government policy development supporting implementation of adaptive pathways.
9. The development of the programme and consultation work is funded through existing regional budgets via prioritisation and will not have a material impact on the delivery of agreed annual budget outcomes.

## Ngā tūtohunga Recommendations

That the Governing Body:

- a) ohia / endorse the objectives and initiatives identified in the provisional 'Making Space for Water' programme
- b) whakaae / approve development of a consultation plan for public consultation of the 'Making Space for Water' programme from July 2023
- c) tuku ki tangata kē / forward this report, attachment and resolutions to the local boards for their information
- d) tuhi ā-taipitopito / note that the initiatives for this programme are yet to be fully scoped or costed, and that any financial implications, including identification of funding sources, will need to be approved through the appropriate processes.

## Horopaki Context

### Council has a role in managing flood risk

10. Managing flood risk is a key responsibility of council's Healthy Waters department, with priority on reducing risks to people's lives and ensuring safety. Flood risk is factored into all aspects of operations, and is a key consideration when areas are developed, or infrastructure is renewed.
11. The flood events of January and February 2023 conformed with Healthy Waters' known flood modelling. Although the floods' volume and velocity were higher than previous events, areas that flooded were mainly in known flood plains, flood-prone areas, or overland flow paths. These areas are expected to flood in heavy rain events when the piped stormwater system's capacity is exceeded. It is not feasible to design a piped system that could accommodate the large volumes of water that were received in January and February 2023 over such a short period of time. Instead, floodwaters move through a secondary system of overland flow paths and detention areas such as parks and ponds and eventually drain away.
12. With some notable exceptions, most flood damage occurred in older parts of the city that were built before current stormwater design standards were put in place. This indicates that the bulk of the programme will need to focus on the retrofit of solutions into existing communities.
13. There are several challenges for managing flood risks in Tāmaki Makaurau, including:
  - large areas of flood-prone land are already built on, and do not meet current stormwater design standards (for example 55,000 homes in flood plains are at risk of habitable floor flooding)
  - short, steep catchments increase the risk of flash flooding, especially around streams
  - climate change brings more frequent and severe storms, beyond the parameters of current stormwater standards.

### There is a need for a Flood Recovery Programme

14. With thousands of properties directly affected by the January and February 2023 flooding, there is an expectation that the council will prioritise measures to manage future flood risks.
15. Development of a Flood Recovery Programme for Three Waters Operations was approved by the Transport and Infrastructure Committee at its 16 March 2023 meeting ([TICCC/2023/34](#)). The Transport and Infrastructure Committee noted that the proposed programme will require additional funding, and that this funding will need to be considered by the Governing Body as part of the recovery discussions.

16. As work to develop the programme has progressed, it has become apparent that the drinking water and wastewater aspects of recovery can be handled within Watercare as part of their business-as-usual work programme. By contrast, the stormwater aspects of flood recovery will require a reprioritisation of Healthy Waters' work programmes and budgets, requiring the development of a specific recovery programme for flood management.
17. The programme has been provisionally titled 'Making Space for Water'. Its purpose is to ensure that flood readiness is prioritised in daily stormwater operations, and that communities, households and businesses are supported to build their resilience to storms too.
18. The programme will be a core part of the wider Tāmaki Makaurau Recovery Plan.

## Tātaritanga me ngā tohutohu Analysis and advice

### The approach of *Making Space for Water*

19. The 'Making Space for Water' programme is being developed by Healthy Waters, as part of the Recovery Office, to establish a practical and achievable programme of flood management works for the next six years.
20. Based on observed and expected future events, the programme:
  - identifies that we need to make space for water to move safely through the region without causing unacceptable risks to people, property, infrastructure, and the environment
  - proposes a mixture of natural and engineered, council- and community-led solutions, with preference for the most effective, lowest-cost, and least-disruptive solutions where possible
  - draws on robust data of flood risks, in-house expertise, and experience in similar project types
  - accelerates planned efforts, to deliver in six years what would normally take 30 years to achieve
  - requires partnership with key stakeholders, particularly central government where co-funding may be required.
21. Delivery of this programme will establish a well-defined approach to flood risk reduction in Auckland, ranging from simple flood-management tools to more significant engineering works where appropriate to achieve the aims of the programme. Detail of the Making Space for Water Toolkit is included in Attachment A.
22. The programme will generate a significant improvement in stormwater and flood risk management for the Auckland region. It will also provide other benefits for public amenity, recreation, and climate change adaptation. When we make space for water, we also make space for people and nature, with walking tracks, cycleways, trees, and wildlife. Depending on the scale and topography of each site, there may also be opportunities for urban redevelopment, creating opportunities for more resilient and storm-ready communities.

### Four objectives for flood risk management

23. To manage the risks of flooding impacting on people's lives and safety, property and infrastructure, and the natural environment, 'Making Space for Water' proposes four objectives:
  - reduce existing flood risks
  - avoid creating new flood risks
  - raise people's awareness of flood risks
  - be prepared for flood events.

24. These objectives are consistent with policies in the Auckland Unitary Plan, the original Network Discharge Consent, Te Tāruke-ā-Tāwhiri: Auckland’s Climate Plan, Auckland’s Water Strategy, the Stormwater Bylaw, and best practice international flood management guidance.

**Focused projects to achieve rapid results**

25. ‘Making Space for Water’ proposes nine initiatives to better manage flood risks in Tāmaki Makaurau. Together, the initiatives are designed to address all flood-affected areas within the scope of the programme, with a cascade of interventions from education and advice through to engineering solutions and, in limited situations (as an option of last resort and subject to central government decisions), property acquisition.
26. Delivery will prioritise areas of known critical flood risk, responding to the current public readiness for action. By building resilience in our stormwater network, the programme will help to reduce the ad-hoc workload that occurs after significant weather events.
27. Table 1 briefly describes the nature of the nine initiatives.

**Table 1. Making Space for Water provisional programme overview**

Initiatives	Overview
<b>Operations and Maintenance</b>	
<b>Increased maintenance</b>	Maximising stormwater networks’ operational efficiency in lower-level flooding events. Includes: increased street sweeping, catchpit cleaning, weed clearance from streams.
<b>Flood intelligence</b>	Investing in planning and modelling tools to enhance council decision making. Includes: rain radar, modelling tools, plan change input, design standards, and the collection of post event impact information (e.g., <a href="http://www.flooded.co.nz">www.flooded.co.nz</a> )
<b>Neighbourhood solutions</b>	
<b>Community-led flood resilience</b>	Support for communities to act to reduce their own flood risks. Includes: direct advice for property-owners in high-risk areas, industry-specific advice (e.g., for builders and landscapers), and regional public events and awareness campaigns.
<b>Stream rehabilitation</b>	Rehabilitating critical high-risk streams. Includes: vegetation management, slope stabilisation, advice to property owners, bank battering and stream channel modification to improve flow dynamics and reduce erosion.
<b>Rural settlements</b>	Responding to specific stormwater needs in storm-affected communities, including marae and papakāinga. Includes: targeted engagement, supporting community resilience planning, improving existing stormwater infrastructure.
<b>Culvert and bridge upgrades</b>	Improving capacity of critical culverts and bridges. Includes: assessment, replacement, and upgrade of vulnerable assets.



Initiatives	Overview
<b>Blue-green network projects</b>	<p>Creating new blue-green networks in areas identified as having (i) critical flood risks, (ii) feasible stormwater solutions and (iii) wider community benefits. Property acquisition and removal of some of the houses in these areas is a part of this programme, subject to central government decisions.</p> <p>Includes: stream daylighting, widening and realignment, and enhancing surrounding parkland or open space. May also include site amalgamation and urban redevelopment where feasible.</p>
<b>Site-specific solutions</b>	
<b>Overland flow path management</b>	<p>Region-wide work to repair, protect, maintain, monitor, and enhance the performance of overland flow paths.</p> <p>Includes: educating property owners on their responsibilities for private overland flow path maintenance.</p>
<b>High-risk properties</b>	<p>Working with property owners to develop solutions for properties with significant health and safety risks.</p> <p>May include engineering solutions and potential property acquisition where support from Central Government can be secured.</p>

28. These projects will be fully scoped before the final 'Making Space for Water' programme is presented to the Governing Body for approval in June 2023 prior to consultation. Further work will need to continue beyond this six-year programme to address other, lower-risk, flood areas over time.

### There is a need to hear from our communities

29. The scale of new initiatives, significant impact on budgets, and elevated public interest in council's flood response will trigger the need for regional public consultation on the Making Space for Water programme and the associated costs.
30. It is proposed to align this consultation with the already-scheduled consultations on Local Board Plans and targeted engagement on sections of the Tāmaki Makaurau Recovery Plan, from 14 July to 14 August 2023.
31. The consultation will seek Aucklanders' views on the proposed objectives and initiatives at a programme level. A detailed consultation plan will be presented to the Governing Body for approval in June 2023.

### Integration with central government recovery activities

32. Central government's Cyclone Recovery Taskforce is leading a process with involvement from insurance companies and Auckland Council, and a commitment to engage with affected communities and individuals in developing tailored solutions for each place.
33. Developing the 'Making Space for Water' programme quickly will help to inform the national Cyclone Taskforce's decisions and support the engagement with impacted communities and individuals.

## Tauākī whakaaweawe āhuarangi

### Climate impact statement

34. Both the Auckland Plan 2050 and Te Tāruke-ā-Tāwhiri: Auckland's Climate Plan advocate for greater resilience to severe storms and flood events. The initiatives proposed in 'Making Space for Water' will have a beneficial impact on Auckland's climate adaptation.
35. The blue-green network and stream rehabilitation projects proposed will include measures such as restoring wetlands, developing water detention areas, clearing overland flow paths,

and naturalising channels. These nature-based solutions will generally have a lower carbon impact than the more carbon-intensive grey infrastructure. Some will also be able to sequester carbon.

36. 'Making Space for Water' will also promote the use of low carbon technologies and methodologies in the design, construction, and renewal of the piped network in line with the targets set by Te-Tāruke-ā-Tāwhiri.
37. The social outcomes associated with the impacts of climate change on the community, cultural and natural ecosystems will be considered in the programme.
38. Development of the programme itself will have no impact on emissions.

### **Ngā whakaaweawe me ngā tirohanga a te rōpū Kaunihera Council group impacts and views**

39. All programmes delivered through this recovery will require collaboration across the council group, as well as with external partners such as Kāinga Ora. This collaboration is enabled by the Recovery Coordination Office.
40. Healthy Waters will work particularly closely with Watercare Services Ltd, Auckland Transport, Auckland Emergency Management, Parks and Community Facilities, Resilient Lands and Coasts, the Chief Planning Office, and Licensing and Regulatory Compliance.

### **Ngā whakaaweawe ā-rohe me ngā tirohanga a te poari ā-rohe Local impacts and local board views**

41. Local boards will be included as relevant to initiatives and issues in their area. The programme will support elected members to understand the work being undertaken to respond to these events. This report will be forwarded to all local boards after it is considered by the Governing Body. Local board feedback on this programme will be sought via business meetings in the coming months.
42. Communities will be consulted as part of the already established July consultation process for Local Board Plans. Details will be provided in the consultation plan in June 2023.

### **Tauākī whakaaweawe Māori Māori impact statement**

43. 'Making Space for Water' is specifically considering how the council family can work with and support both mana whenua and mataawaka to prepare for future flood events.
44. An update on the Making Space for Water programme was presented to the Infrastructure and Environmental Services operational mana whenua kaitiaki forum in May 2023. Iwi representatives requested the opportunity to work together with staff on the further development of the programme. Further details on the programme initiatives will be presented to the forum early in their development, and Healthy Waters will contact each individual iwi to identify their interest in exploring iwi-led and other initiatives for the programme.
45. The programme will recognise the role of Tāmaki Makaurau iwi as kaitiakitanga of the streams and waterways within their rohe, and their holistic, ki uta ki tai knowledge in improving outcomes for these streams and waterways, including flood risk mitigation.
46. Healthy Waters expects to include mātauranga Māori in design processes and build on previous partnerships in the design and delivery of projects. For example, mana whenua were key partners in the daylighting of Te Auaunga Awa / Oakley Creek. Further information will be provided as the programme is developed. Some programmes will have direct benefits to Māori, such as the Rural Settlements workstream which will look at flood preparedness of rural marae.
47. Mana whenua, mataawaka and Māori organisations will be consulted with as part of the July 2023 consultation process.

## Ngā ritenga ā-pūtea Financial implications

48. This proposal represents a substantial but achievable acceleration of work delivering what would normally take at least 30 years. For example, Healthy Waters has typically delivered a new blue-green network project every two years. 'Making Space for Water' proposes to deliver up to 15 such projects in six years.
49. An additional \$20 million has been included in the proposed Annual Budget 2023/2024 to increase our operating budgets for proactive and reactive storm response, however the budget required for future works and increased resilience is beyond the scope of this allocation.
50. Some elements of the proposed programme will include property acquisition, subject to Central Government decisions. Funding this type of activity will require a collaborative approach with central government, as their response to flood-affected areas progresses. The development of the programme does not however bind council to acquisition of any properties nor funding such activity.
51. The development of central government policy implementing adaptive pathways is noted in this report. Reporting to the Extreme Weather Recovery Committee, this work is anticipated to inform central government's financial contribution and recovery packages.
52. Costings of the proposed initiatives will be provided to the June 2023 Governing Body meeting, for inclusion in the July consultations. The June report will also consider the merits of different funding mechanisms.

## Ngā raru tūpono me ngā whakamaurutanga Risks and mitigations

53. There are several moving parts that need to be aligned to maximise the reach of the 'Making Space for Water' programme:
  - central government commitment to co-fund the proposed programme and clarity on the mechanisms for delivery
  - adequate funding of region-wide activities to respond to the new flood risk profile
  - transfer of a coherent and sufficiently resourced programme to the new three waters 'Entity A' in July 2024 as required by the Department of Internal Affairs.

54. Risks and mitigations associated with the proposed ‘Making Space for Water’ programme are discussed in Table 2.

**Table 2. Risks and Mitigations**

Risk	Mitigation
<b>Continuation of status quo: known flooding areas will continue to flood in heavy rainfall events, with accompanying risks to people, property, and infrastructure.</b>	Continue to factor flood risk management into new developments and asset renewals as they occur; respond reactively to flooded areas after weather events. Increase communications with communities around flood risk to build awareness.
<b>Uncertainty in weather predictions: inability to accurately predict where storms will land, or how frequent or severe they might be. At the same time, we cannot make every part of the region ‘flood proof.’</b>	Prioritise areas of known critical flood risk, relying on flood modelling and information from recent flood events. Accept that flood risk cannot be eliminated completely and work to build resilience.
<b>Funding: sufficient funding cannot be secured.</b>	The timeframe for flood response programme would work within available budgets. This is likely to shift delivery from six years up to 30-plus years and reduce the potential benefits of proposed initiatives.
<b>Delivery: a substantial programme of work requires skilled contractors. Availability is constrained.</b>	To be addressed through detailed design and staging of the programme.
<b>Flood risk reduction operations continue while council policy is under review: if approved as proposed, the ‘Making Space for Water’ operational initiatives will commence before the policy review and recommendations are completed in June 2024.</b>	Ensure close communication between the operational programme and the policy review so that insights are transmitted between programmes as they develop.

## Ngā koringa ā-muri Next steps

55. Given the urgency of flood recovery, Healthy Waters is continuing to undertake recovery projects across the region, managed within the emergency provisions in the Local Government Act 2002 and the Civil Defense Emergency Management Act 2002.
56. Consultation content must be approved in June 2023, in preparation for the July consultation period. Feedback will be reported in August, with the final work programme presented in September 2023, as per the image below.



57. Staff will continue to develop the detailed methodology, area prioritisation, costings, and timelines for all work programmes alongside work agreed to by the Planning, Environment and Parks Committee (PEPCC/2023/24) and central government policy development supporting implementation of adaptive pathways. 'Making Space for Water' is expected to be finalised by September 2023.

## Ngā tāpirihanga Attachments

No.	Title	Page
A 	Making Space for Water Toolkit	15

## Ngā kaihaina Signatories

Authors	Nicholas Vigar - Head of Planning, Healthy Waters Mace Ward – Deputy Group Recovery Manager
Authorisers	Barry Potter - Director Infrastructure and Environmental Services Mat Tucker - Group Recovery Manager Jim Stabback - Tumu Whakarae / Chief Executive



## Attachment A: Making Space for Water Toolkit

The following interventions are examples of how flood risk has been managed around the world. They form a toolkit of options for consideration in the 'Making Space for Water' programme.

<b>Community led flood resilience and education programmes</b>
Advice for property-owners in high-risk areas Industry-specific advice on reducing flood risks Regional public awareness events and campaigns Location-specific community risk reduction projects Community-led stream restorations
<b>Increased operational maintenance</b>
Road sweeping Catchpit cleaning Stream maintenance (including for newly developed blue green network parks) Overland flowpath management Increased compliance
<b>Soft infrastructure solutions</b>
Extending blue green networks along flow / floodpaths and daylighting Detention ponds / wetlands Bank stabilisation and stream rehabilitation Land contouring to create safer overland flow paths
<b>Hard infrastructure solutions</b>
Culvert and bridge upgrades Construction of floodwalls Earthworks (site recontouring to establish building platforms and protect floodplains) Raising building floor level or relocate house on section
<b>Adaptation</b>
Land swap of public land outside of the floodplain Purchase and removal of individual properties that meet criteria for being high risk