AGENDA

1. Welcome and opening remarks
2. Housekeeping
3. Remarks by GGA
4. Presentation by ORC and QLDC
5. Q&A
6. Wrap up and close of formal session (end of livestream)
7. Refreshment break and informal & open chats

Draft Head of Lake Whakatipu Natural Hazards Adaptation Strategy

Community Presentation - 13 February 2025

Otago Regional Council

QUEENSTOWN LAKES DISTRICT COUNCIL

Emergency Management Otago
Te Rākau Whakamarumaru Ōtākou

BACKGROUND AND OVERVIEW OF THE ADAPTATION PROGRAMME

Why we need to adapt at Head of Lake Whakatipu?

The area faces complex multi-hazard challenges (e.g. flooding, liquefaction due to earthquake, debris flow, landslides and multi-hazard events)

The landscape and climate are also changing (e.g. rivers and sediment are moving and changing, flood frequency is projected to increase)

There are no simple solutions

- Together we need to manage hazard risks and adapt to changes, now and in the future

Hazardscape

Wide range of potential natural hazard impacts

High potential for cascading hazards scenarios

Dynamic/non-static hazardscape:

- Geomorphic changes
- Climate change

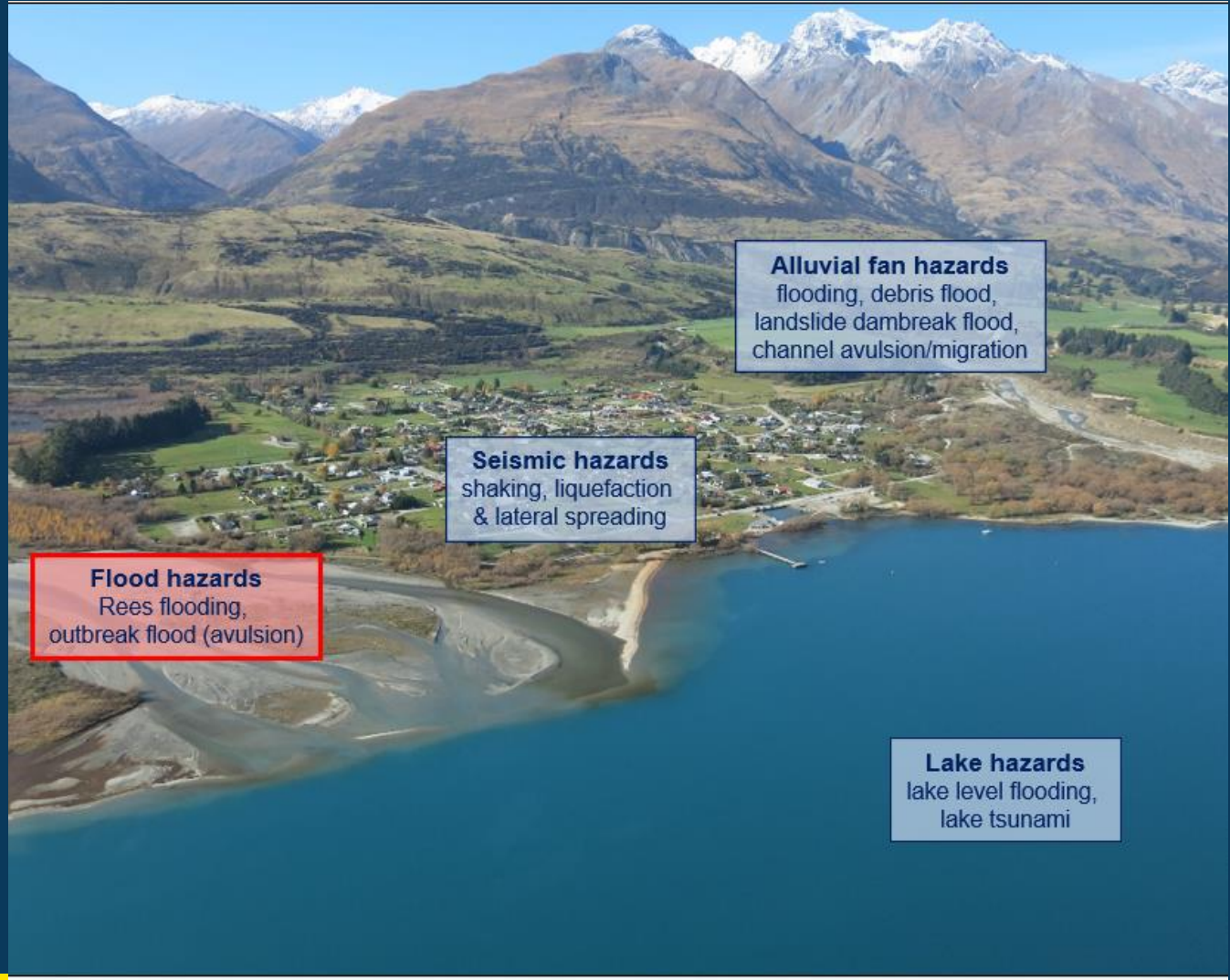
Hazardscape: Glenorchy

Wide range of potential natural hazard impacts

High potential for cascading hazards scenarios

Dynamic/ non-static hazardscape:

- Geomorphic changes
- Climate change



Head of Lake Whakatipu Natural Hazards Adaptation Programme

Programme Objective:

Develop a framework to actively manage risks associated with natural hazards for the resilience of the area located at the Head of Lake Whakatipu, including Glenorchy and Kinloch

- A holistic approach to manage complex natural hazard challenges and uncertainties
- Lots of building blocks to support decision-making – technical studies, community engagement, risk analysis, social impact assessment, options analysis and more…
- Framework is a 10-step decision cycle structured around five main questions (from Ministry for the Environment 'Guidance on coastal hazards and climate change')

➢ *Doing it in collaboration with QLDC, mana whenua and the community*

What is happening?
Study our changing weather and environment. Assess the hazards and risks facing the Head of Lake Whakatipu. Gain a shared understanding of the science and local knowledge.

What matters most?
Work with the community and mana whenua to understand what they value most about the Head of Lake Whakatipu area – including people, places and things.

What can we do?
Identify our possible responses for managing risk and adapting to change. Assess the pros and cons, then agree which responses best support collective goals.

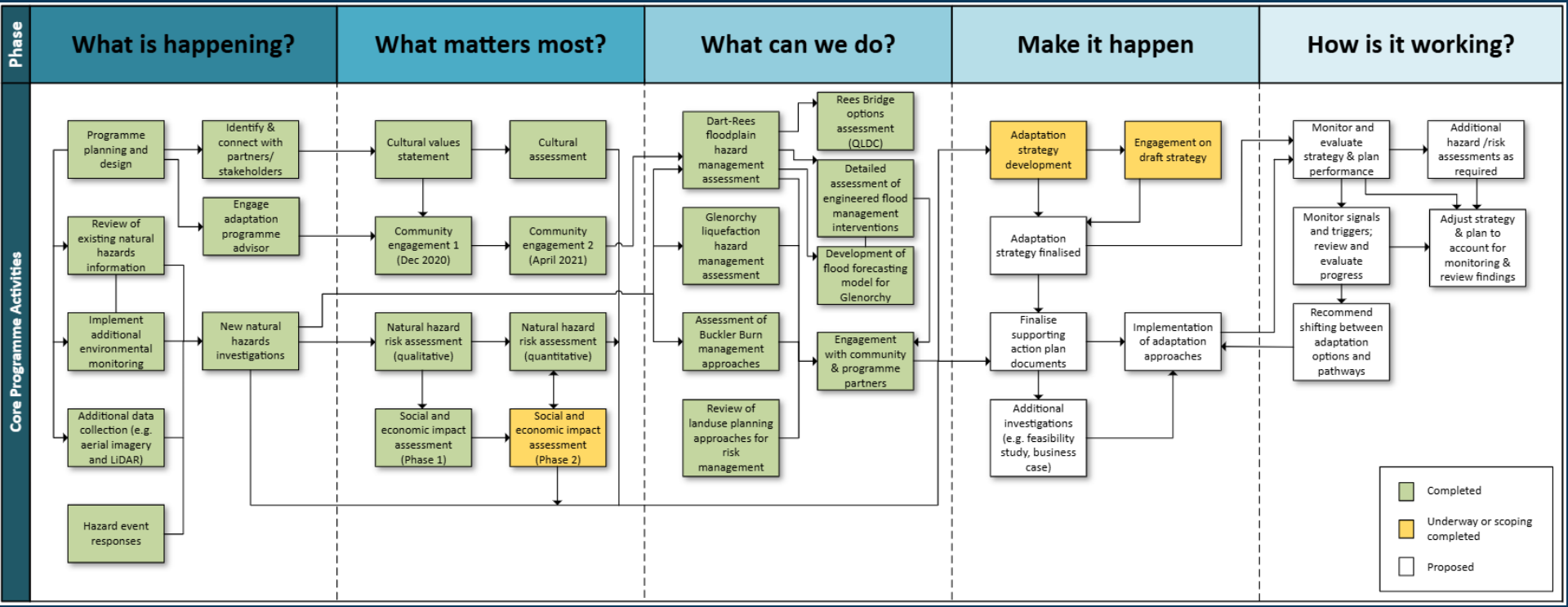
Make it happen
Combine the agreed responses into pathways (covering different areas and timeframes). Agree on signals and events that mean it's time to put different parts of the plan into action.

Create a plan
Capture everything in an Adaptation Strategy. Action what we can within current constraints. Keep the plan moving forward.

Is it working?
Our environment and climate keeps changing and we do too. Keep monitoring for success and for signals that it's time to shift pathways.

Improve things bit by bit
Check in with the community, review and update the strategy regularly. Take advantage of new opportunities.

Programme Activities to develop the Draft Strategy



What is the Draft Natural Hazards Adaptation Strategy?

The Strategy is a reference document to support the community, mana whenua, ORC and other agencies preparing for and responding to natural hazards now and in the future

- Support for communities and agencies addressing natural hazards challenges
- A non-statutory plan, it does not have any decision-making power
- Provides a common foundation and direction to guide adaptation decision making
- Takes a long-term view, encompasses all types of natural hazards, but focuses on adapting to natural hazards only

Examples of key aspects shared by the community

Values:

safety, self-reliance, fostering economic resilience, preserving the natural environment and protecting essential infrastructure, respecting unique rural atmosphere and the area's history….

Resilience:

active local groups, and a strong sense of support and cooperation among community members….

Vulnerability:

small population, limited healthcare services and emergency personnel, seasonal jobs, large numbers of tourists, reliance on Glenorchy-Queenstown Road….

Concerns:

impacts of the adaptation programme, media attention, insurance costs and availability, potential damage to brand…

Community ideas and insights have shaped programme activities and the Draft Strategy

Examples of feasible ideas included in the draft strategy:

"Boat access to Glenorchy and Kinloch"

"Extract gravel from the Rees River under the Rees Bridge"

An idea that is not feasible for flood flows : "Gravel extraction in Dart-Rees Delta to re-direct Rees flows through the split or create a secondary channel for high flows"

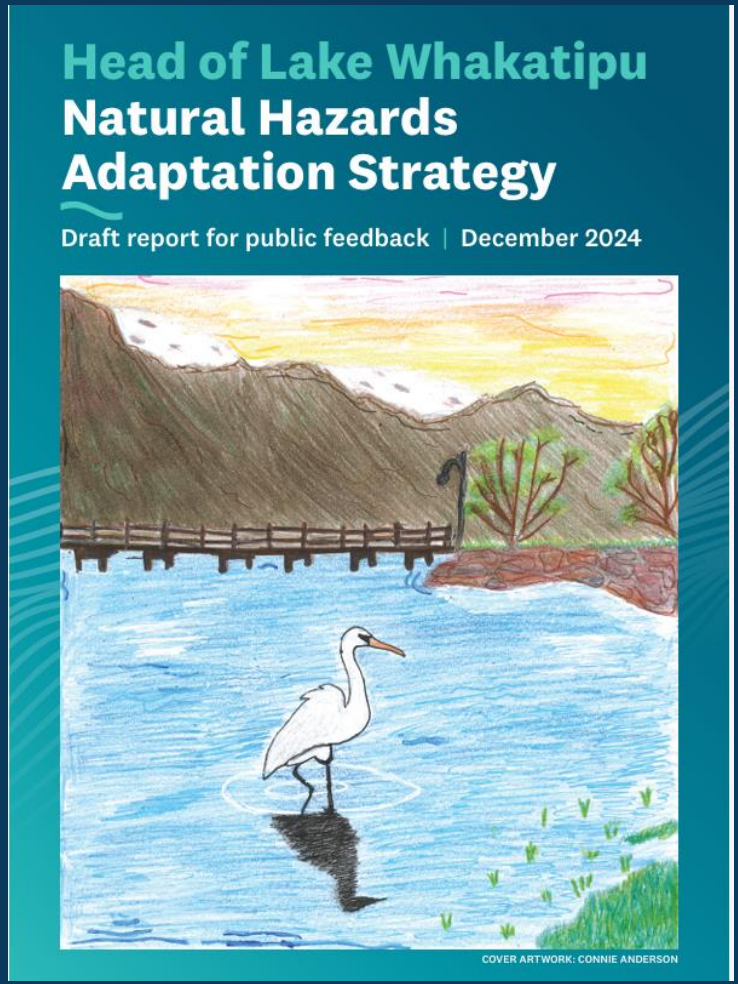
INSIGHTS :

"We want to understand our risk in comparison to others" – shaped the risk assessment

"We want the social and economic worth of our community to be considered in decision-making " – shaped the socio-economic impact assessment

KEY PARTS OF THE DRAFT STRATEGY

1. Vision
2. Goals and Objectives
3. Action Plan – Existing and Planned Responses
4. Future Toolbox of Possible Responses
5. Implementation



VISION

‘Our vision is a resilient and sustainable Head of Lake Whakatipu, where proactive natural hazard and climate adaptation enhance community wellbeing and safety, and contribute to a flourishing environment.’

Goal 1: Adaptation is woven into our everyday work

- Make plans and recommendations that align with council strategies, policies, and processes, and integrate with business-as-usual workstreams.
- Work in partnership with mana whenua, and coordinate and collaborate with other agencies and communities with a common purpose to incorporate adaptation into what we do.
- Build connections across and between agencies and work together effectively across work programmes.
- Encourage and amplify existing good practice and initiatives

Goal 2: Lay a robust foundation for decision-making

- Point us in the same direction with a common understanding of the physical environment to build from.
- Continue to build understanding of natural hazard risks, uncertainties and opportunities now and in the future that come with natural hazards and climate change.
- Increase awareness around current and future natural hazards risks and impacts of climate change, as well as effective adaptation responses.
- Build capacity around adaptation and support communities and decision makers to take advantage of opportunities.
- Consider ways to incorporate mātauraka Kāi Tahu into the decision-making frameworks.
- Share new information as it becomes available.

Goal 3: Healthy and resilient communities

- Lead and support others to actively manage and reduce risk to natural hazard and impacts of climate change.
- Support and enable community-led action and behavioural change.
- Promote community safety by managing and reducing risk from natural hazards and impacts of climate change.
- Strengthen communities, businesses, and organisations so that they are well-prepared for natural hazard events and are better able to cope and recover.

Goal 4: Resilient built places, infrastructure, and systems

- Lead the way and support others to increase the resilience of infrastructure, resources, and systems.
- Encourage responsible management of resources and infrastructure that prioritises resilience, sustainability, and avoids maladaptation, such as unintentional negative outcomes.
- Provide information for individuals, businesses, and agencies to consider natural hazard risks and the impacts of climate change as part of planning and development processes.
- Support integration of traditional and modern local knowledge into planning and development of local infrastructure.

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- Support integration of traditional and modern local knowledge into planning and development of local infrastructure.

Goal 5: A flourishing environment

- Support and enable nature-based solutions and principles to adapt to natural hazard risks and climate change and deliver other socio-economic and environmental benefits.
- Integrate adaptation across Councils' work programmes to deliver natural hazards, biodiversity, and wider environmental outcomes.

ACTION PLAN - EXISTING AND PLANNED RESPONSES

Governance and collaboration (4 Actions)

- ❑ Improve the ways we work together with partners, community and mana whenua on implementation of the strategy so that approaches are aligned and it is more integrated and effective

Information gathering and monitoring (5 Actions)

- ❑ Investigate hazards and risks; collect data to document major hazard events
- ❑ Monitor geomorphic change; and signals / triggers / thresholds
- ❑ Communicate and report back to partners and community

ACTION PLAN - EXISTING AND PLANNED RESPONSES

Emergency Management (9 Actions)

- ❑ Improve the 4 Rs (reduce, readiness, response and recovery), including flood monitoring, forecasting and warnings; emergency guides, equipment, training and exercises;
- ❑ Community Response Group and Emergency Hub

Advice, information and education (6 Actions)

- ➢ Provide the community with up to date natural hazard info
- ➢ Maintain a variety of communication channels (website /newsletter / email) to share updates
- ➢ Provide progress updates, include in-person updates

ACTION PLAN - EXISTING AND PLANNED RESPONSES

Policy and planning processes (4 Actions)

- ❑ Consider natural hazard property information for resource and building consents
- ❑ Collaborate to ensure this strategy informs and inputs into the next ORC and QLDC long-term plans, Spatial Plan, District Plan and other relevant policies and plans
- ❑ Include natural hazard information on LIM reports
- ❑ Collaborate on path forward for assessing risk tolerance with the community

ACTION PLAN - EXISTING AND PLANNED RESPONSES

Addressing impacts of natural hazards and climate change (11 Actions)

- ❑ QLDC routine maintenance of transport network (roading assets, Glenorchy jetty, marina); Glenorchy Area Bridge Resilience and Raising Kinloch Road with extracted gravel (2024-34 LTP activities); Glenorchy Adaptation Pathways (30-yr Infrastructure strategy)
- ❑ ORC to develop Operational River Management Plans (Dart/Rees) and gravel management plan for Buckler Burn; maintenance of existing Rees River floodbanks (not renew or increase); trial NBS groynes; ongoing river management; annual vegetation management, rock armouring and gravel management
- ❑ Provide information and support property owners to undertake property-level interventions to improve their resilience to natural hazards risks.
- ❑ Identify responses and provide scoped and costed solution for input into next LTP (2027-37)

FUTURE TOOLBOX OF OTHER POSSIBLE RESPONSES

- ‘Business Cases’ (costs / benefits / risks) would be required before any future decisions are made

Category	Future possible adaptation responses
Hazard awareness and mitigation	Review and accept residual risk for existing development
Road access	Small scale improvement to existing Kinloch and Glenorchy-Paradise local road system road (as well as maintenance and reactive repair)
	Reduced level of service of existing Kinloch and Glenorchy-Paradise local road system (e.g. some parts 4WD only)
	Major works to increase resilience of Kinloch and Glenorchy-Paradise local road system (e.g. protect, raise, realign)
	Reactive re-design Kinloch and Glenorchy-Paradise local road system for changed conditions (e.g. post event)
Boat access	Short-term improvements to existing boat access (e.g dredging)
	Upgrade boat access with resilient solution (e.g. relocatable wharfs)
	Relocate wharfs periodically to maintain future access

FUTURE TOOLBOX OF OTHER POSSIBLE RESPONSES

- ‘Business Cases’ (costs / benefits / risks) would be required before any future decisions are made

Category	Future adaptation options
Flood mitigation and protection	Small scale improvements to Glenorchy floodbank to maintain/reduce flood risk
	Major works to increase level of service of Glenorchy floodbank
	Redesign Rees flood protection for changed conditions (e.g. post event)
	River management and nature-based interventions (e.g. targeted planting)
	Redesign nature-based interventions for changed conditions
	Small scale works to reduce Buckler Burn erosion and/or flood risk
Public asset resilience	Improve resilience of critical assets in higher hazard areas (such as floodproofing, floor raising, ground or structure strengthening, retrofit, move elsewhere)

FUTURE TOOLBOX OF OTHER POSSIBLE RESPONSES

- ‘Business Cases’ (costs / benefits / risks) would be required before any future decisions are made

Category	Future adaptation options
Community-wide resilience (public and private)	Community-wide improvement works for liquefaction hazard (such as ground improvement and strengthening existing buildings).
Private property resilience	Improve property and land resilience (such as floodproofing, floor raising, ground or structure strengthening)
Policy	Policy – Review hazard and risk information and set appropriate requirements for new development
	Policy - Strengthen land use controls in higher hazard areas to avoid additional exposure
	Policy and services – identify and make available lower hazard land for new building and/or relocation
	Recovery plan improvement
	Proactive relocation plan
	Voluntary proactive relocation from higher hazard areas
	Voluntary reactive post event retreat from higher hazard areas

IMPLEMENTATION

- The current responses are implemented through well-established planning processes, such as Regional Policy Statement, Long Term Plans, QLDC Spatial and District Plan, and Otago CDEM Group Plan.
- The plans have a regular update cycles. This is when decisions on continuing and future investment are made by the agencies, and public consultation occurs.
- Many of the possible future responses are also standard ways of managing natural hazards.

- Some possible future responses are out-of-the-ordinary. Implementation of uncommon responses would require one-off, specialised planning, funding and governance arrangements.
- If there is severe damage as a result of a natural hazard event, then it is likely that a tailored recovery plan would be put in place.

QUESTIONS ?

HAVE FURTHER QUESTIONS OR WANT MORE INFORMATION?

Come along to the drop-in session tomorrow:

2 to 7pm, Friday 14 February at Glenorchy Hall

- Come along anytime that works for you
- Have a chat with ORC, QLDC and CDEM staff (one-on-one or in groups)
- Give us further feedback on Draft Strategy

Reach out anytime – headofthelake@orc.govt.nz

Online feedback on the Draft Strategy closes 23 February:

https://www.orc.govt.nz/get-involved/projects-in-your-area/head-of-lake-whakatipu/draft-natural-hazards-adaptation-strategy-for-head-of-lake-whakatipu/

Otago Regional Council

Close and wrap up of formal session (ending online)

In-person refreshments and informal chat