

3 June 2022

Via Email: adaptation@mfe.govt.nz

To whom it may concern

SUBMISSION TO THE MINISTRY OF ENVIRONMENT ON THE DRAFT NATIONAL ADAPTATION PLAN

Thank you for the opportunity to submit on the consultation for the draft National Adaptation Plan and Managed Retreat. The Queenstown Lakes District Council (QLDC) supports work by the Ministry of Environment on the draft National Adaptation Plan (the plan).

QLDC is extremely active in the climate change space. Part of our 2019 Climate Action Plan was the action to form an independent, multi-disciplinary Climate Reference Group. This submission has been endorsed by the Climate Reference Group, contributing significant knowledge and expertise on the strategic priorities for adaptation planning to this submission. Reference to 'Council' in this submission refers to both Council and the Climate Reference Group.

QLDC and the Climate Reference group have several points of emphasis and recommendations regarding the implications of the draft plan that are outlined in our submission. Key points include:

- It is our view that establishing a foundation to work with Māori on climate actions is critical, and Council consider that the Rauora approach should underpin the draft plan as a whole, rather than the draft plan merely drawing on certain key concepts of the Rauora framework¹.
- While an all-of-Government response to climate adaptation is critical, and an "adaptation lens" needs to be applied to all government work programmes, it is difficult to understand how the draft plan in its current form will provide a coherent management, reporting and governance framework across this wide range of government activity.
- Council is currently leading the Gorge Road natural hazards project, that addresses high levels of risk to life from debris flow and rockfall hazards to an already developed, mixed use, urban area of Queenstown. This is a situation where a significant event has not yet happened, and therefore provides a contrast to other examples of managed retreat in New Zealand that have been implemented after a natural hazard event has occurred. This context provides unique lessons that can help inform options for an effective legislative pathway for managed retreat.

Please note that this submission reflects the position of officers and has not been ratified by full Council.

Yours sincerely,



Jim Boulton
Mayor



Mike Theelen
Chief Executive

¹ <https://environment.govt.nz/assets/publications/Draft-national-adaptation-plan.pdf> at page 20.

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1.0 Context of the plan in relation to QLDC

- 1.1 Queenstown-Lakes District is a district with an average daily population of 50,550 (visitors and residents) and a peak daily population of 112,150².
- 1.2 Our residents are highly climate-conscious and passionate about the integrity of the environment. Most people move to the district because of a connection with the lakes and mountains; it's this connection that drives many to participate in climate action, sustainability, and conservation initiatives.
- 1.3 The district is also proud to have several highly active community groups that are focused on sustainability and environmental protection, which have contributed to the development of an engaged, informed, and diverse network of individuals across the district.
- 1.4 In June 2019, the Council declared a climate and ecological emergency and published its first three-year 2019-2022 Climate Action Plan. The plan focussed on greenhouse gas (GHG) emission mitigation through district and organisation reporting, a District Emissions Reduction Roadmap³ and Carbon Sequestration Study⁴ as well as climate change adaptation through climate impact studies, community resilience building and natural hazard risk reduction projects⁵.
- 1.5 A keystone action of this plan was to establish an independent, multi-disciplinary Climate Reference Group⁶ to help identify key challenges, evaluate best practices, identify funding and agree on recommended priority action areas.
- 1.6 This group has been instrumental in the development of the second three-year climate action plan for the district. The draft 2022-2025 Queenstown Lakes Climate and Biodiversity Plan⁷ has been the subject of public consultation and is in the final editing stages prior to its presentation to Council on 30 June for adoption. Through the guidance of the Climate Reference Group and advocacy of local environmental groups, this plan has matured to include an equal focus on the biodiversity crisis along with the climate change emergency.
- 1.7 The Climate Reference Group is a party to this submission, and has contributed its significant knowledge and expertise on the strategic priorities for adaptation planning to the Council feedback for this submission on the draft National Adaptation Plan (the draft plan).
- 1.8 QLDC recently entered into a formal partnership with government to develop a holistic Spatial Plan⁸ for the district. This has involved the development of a detailed plan to grow

² <https://www.qldc.govt.nz/community/population-and-demand>

³ Emissions Reduction Roadmap: Pathway to Science Based Targets – scenarios for Queenstown Lakes District, 2020

⁴ Carbon Sequestration Study, 2020

⁵ <https://www.qldc.govt.nz/your-council/our-vision-mission/climate-action-plan>

⁶ <https://www.qldc.govt.nz/20-08-24-queenstown-lakes-district-council-establishes-climate-reference-group>

⁷ <https://www.qldc.govt.nz/media/jw1ftwxc/qldc-draft-climate-and-biodiversity-plan-2022-2025.pdf>

⁸ <https://www.qldc.govt.nz/your-council/council-documents/queenstown-lakes-spatial-plan>

well (whaiora), identifying priority areas for growth, transport, community facilities, infrastructure, and economic development. Emissions reduction, sustainability, resilience, and community wellbeing underpin all aspects of the Spatial Plan, through to 2050. This is because the impact of the high rates of growth in the district mean that there is tension between this growth and developing climate change resilience.

- 1.9 The COP 26 pledge to a 1.5°C science-based target pathway and the reduction of methane by 30%, will need ambitious action from the Government and the agriculture industry in particular. QLDC recognises the significance of this national commitment and is committed to pledging its support at a district level in pursuit of these targets. Local Government has a critical role to play in the development and delivery of emissions reduction programmes, climate adaptation planning, community resilience building and biodiversity restoration. However, its response to these challenges is constrained by limited levels of rate-payer funding and staffing resources. It is hoped that the commitment that QLDC is making to support the national objectives, will be supported through reciprocal central government investment in the partnerships and funding that are required at a local government level to accelerate our response to the climate and ecological emergency.

2.0 Organisation of this submission

- 2.1 This submission is divided into feedback on the six outcome areas and objectives in the draft plan: system-wide actions, natural environment, home, buildings and places, infrastructure, communities and economy and financial system. For each, the urgent priority areas to enable our district to adapt, as well as any omissions, are outlined.

3.0 Introductory remarks

- 3.1 The draft plan relies significantly on the broad schedule of reforms, work programmes and initiatives that are already in progress and being managed across ministerial portfolios e.g. RMA Reform (MfE), Emergency Management reform (NEMA), Three Waters reform (DIA) and health reform (MoH). While an all-of-Government response to climate adaptation is critical, and an “adaptation lens” needs to be applied to all government work programmes, it is difficult to understand how the draft plan will provide a coherent management, reporting and governance framework across this wide range of government activity.
- 3.2 In many cases the work programmes are driven by strategic objectives separate to climate adaptation. Specific climate adaptation benefits for these actions need to be identified. Once identified, they can be reviewed to ensure that they will in fact directly support the objectives of the draft plan, and if gaps are identified, new actions must be mandated and funded.
- 3.3 There are opportunities for recent information to be included in future version of the draft plan. Council and the Climate Reference Group recommend the following changes and additions to the reasons and priorities as to why adaptation to climate change is needed:
 - 3.3.1 page 8 - the draft plan states that sea-level rise is continuing at a rate of 2.4 millimetres year. This data should be updated in light of recent modifications published by Richard Levy and Tim Naish⁹

⁹ [Swifter rise in sea level predicted | Otago Daily Times Online News \(odt.co.nz\)](https://www.odt.co.nz/news/2022/05/02/swifter-rise-in-sea-level-predicted) (2 May 2022).

- 3.3.2 pages 8, 44 and 46 - extreme weather events should also include the effect of increased temperatures on marine life such as the 2022 heatwave that has impacted marine life in Fiordland
- 3.3.3 page 8 - with respect to drought, the draft plan should reflect the impacts of drought on Kāi Tahu values, future use and also on the irrigation expectations and future uses.
- 3.4 Whilst it is noted that changes in temperature and seasonality will have implications for agriculture and horticulture (see page 8), the draft plan as a whole is largely silent on how the risk to land-based primary sector productivity and output will be mitigated. In addition, there is little detail on adaptation to mitigate the effects of climate change on tourism, and the role of regenerative tourism. These are significant gaps that Council believe needs to be closed.
- 3.5 Council also notes the importance of co-governance to ensure that climate change adaptation responses are appropriate for Iwi and Māori.

Recommendations:

- R.1 – Ensure that the proposed actions will directly contribute to the objectives of the draft plan.
- R.2 – Update the sea-level rise projections with latest data. Include a reference to the effects of increased temperatures on marine life, with specific reference to recent events in Fiordland.
- R.3 – Review the lack of detail around adaptation planning for the horticulture and agriculture sector.

4.0 System wide actions

Focus area one: reform institutions to be fit for a changing climate

- 4.1 Council supports the draft plan’s statement that, “local government provides a critical link between climate change adaptation policy and communities.”¹⁰ Whilst local level behaviour will be important to contribute to mitigation initiatives and local adaptation plans, broader systems change will be far more complex and a partnership approach with central government will be essential.
- 4.2 Local government will experience a series of major reforms over the next three years that could significantly change the way that local authorities operate. Three Waters reform and review of the Resource Management Act will have major implications for urban growth, service delivery and planning. It will be essential that these reforms prioritise and enable adaptation and emissions reduction by local government. A significant amount of resource is being dedicated to preparing for these reforms however it is still unclear as to what changes local government must internally adopt to be “fit for a changing climate” . The draft plan does not provide direction for how local government can take this transformational action, in the midst of the challenges associated with the reform programme.
- 4.3 A programme of technical guidance development (e.g., Guidance for Dynamic Adaptive Pathways Planning) as well as Adaptation Professional Development has been scheduled in the draft plan. QLDC strongly supports these initiatives but highlights the criticality of delivering the Year 1-2 guidance programme on time as this guidance is required now to support projects that are in progress. Conversely the timeframe for the professional development programme (Year 4-5, 2025-27) is unsatisfactory and needs to be brought forward to assist practitioners who are currently managing complex adaptation challenges in the field. Without this technical development there is significant risk of sub-optimal

¹⁰ <https://environment.govt.nz/assets/publications/Draft-national-adaptation-plan.pdf> at page 27.

outcomes from adaptation work programmes over the next three years due to a lack of best practice skills and knowledge.

- 4.4 It is Council's view that establishing a foundation to work with Māori on climate actions is a critical, not a supporting action. For QLDC, this includes continuing to develop an authentic relationship with Iwi, hapu and Māori for climate change adaptation, that enables Māori to realise their aspirations. Council supports the principles for working in partnership and recognising the indigenous worldview in developing the draft National Adaptation Plan. However, Council considers that the Rauora approach should be more integrated as a foundation across the draft plan, rather than merely drawing on key concepts of the Rauora framework.¹¹
- 4.5 The context of the South Island is important and the complexities of the rūnaka are different from the North Island. Council encourages central government to partner with Kāi Tahu as our Iwi partner to determine what its priorities are for climate change adaptation and how the Iwi would like to work with each area.

Recommendations:

R.4 – Consider what support reform institutions such as councils would need in order to make any change ahead of broad central government reform programmes.

R.5 - Expedite the timing for the Adaptation Professional Development programme (led by MfE) to better equip practitioners with the skill and knowledge to manage adaptation workprogrammes.

R.6 – Make the supporting action “establishing a foundation to work with Māori on climate action” a critical action and include greater integration of the Rauora framework in the draft plan.

R.7 – Partner with Kāi Tahu to determine what its priorities are for climate change adaptation and how the Iwi would like to work with each area.

Focus area two: provide data, information and guidance to enable everyone to assess and reduce their own climate risks

- 4.6 Council supports the statement in the draft plan that, there is a need to act despite uncertainty and ambiguity in information.¹²
- 4.7 The key for our district, and local government as a whole, is having the resourcing to provide data, information, tools and guidance, to be able to manage climate risks now, before it is too late to act. The Future for Local Government review mentioned data and information technology systems that talk to each other across Local Government as an opportunity. Given the resourcing challenges of small and medium-sized councils, support to provide regions and districts with more mature insights into their data would make a significant impact.
- 4.8 Council submits that there is currently a lack of clarity on the Government's long-term strategy for adaptation, ongoing system reform, and roles and responsibilities across the system.
- 4.9 Further, it is submitted that a lot of the scientific data already exists. Precious time and significant resources may be used in order to coordinate all the disparate organisations and collate information and data, that may have minimal efficacy when it comes to actually managing and mitigating climate change. It is our understanding that Kai Tahu already has a comprehensive set of data for each of the 18 runaka and one overall set for the entire takiwā. These were commissioned from NIWA and were used to help

¹¹ Ibid at page 20.

¹² Ibid at page 31.

develop the Climate Change Strategy and inform each rūnaka for prioritising areas of concern.

- 4.10 In addition Council supports the collection and archiving of data that is consistent across all territorial local authorities.
- 4.11 In the future work programme list, the development of 3D coastal mapping is proposed. It is submitted that any mapping should also include as a matter of priority, the impacts on agriculture, horticulture and tourism, due to the importance of these sectors to the New Zealand economy. Also proposed are new tools and guidance specific to mātauranga Māori and mātauranga indicators.

Recommendations:

R.8 – Join up with the Future for Local Government review and ensure investment in support of consistent regional and district level data and insights.

R.9 – Clarify the long-term strategy for adaptation and in particular, the roles and responsibilities across the system.

R.10 – Ensure that future mapping includes impacts on agriculture, horticulture and tourism and seek clarification on the target groups of new tools and guidance specific to mātauranga Māori and mātauranga indicators.

Focus area three: embed climate resilience across government strategies and policies

- 4.12 Council supports that reflection of Te Tiriti principles in the outcomes and actions in this area is imperative.
- 4.13 This focus area contains a lack of detail as to how climate resilience will be embedded across government strategies and policies. The only two actions referenced relate to Climate Emergency Response Fund (CERF) funding and ongoing regulatory stewardship. The link between these actions and the embedding of climate resilience into all-of-Government strategies and policies, is tenuous at best. Further actions and work programmes need to be referenced or developed to fulfil the objectives of this focus area. In addition, it is not clear whether Iwi/ Māori can also access the funding for public investment in climate change initiatives.
- 4.14 An overview of how this focus area flows through to local government strategies and policies would also be beneficial, as the highest impact investment in adaptation occurs at a local and community level. Providing direction to local government that climate resilience needs to be embedded across local government legislation strategies and policies would be highly beneficial and would align with the objectives of the National Disaster Resilience Strategy.

Recommendations:

R.11 – Resolve the lack of detail for the action programme for focus area three.

R.12 – Include local government within the scope of “embedding climate resilience across strategies and policies”.

5.0 The natural environment

- 5.1 In implementing the Water Availability and Security programme, central government will need to work closely with local government to provide clear direction and avoid duplication of efforts. The water needs of the natural environment need to be given at least equal importance to the water needs of primary industries and rural communities, with specific reference to Te Mana o te Wai. Water quality, aquatic pest control and future issues relating to water supply due to climate change impacts are all key issues.

- 5.2 Objective NE1 discusses how healthy ecosystems will help the natural environment to best respond to climate impacts. QLDC supports with this statement, but note that resilience can only adequately deal with gradual change over longer time spans, as genetic selection eventually promotes the fittest individuals in a population. The likely speed with which current climatic change could occur may result in mass extinctions for some species.
- 5.3 Objective NE3 outlines the importance of restoring and protecting indigenous ecosystems, in order to support nature being able to build climate resilience. Council is concerned that there is not an appreciation of how vast the areas needing restoration and protection are. For this district, this includes vast areas of hill and high country that have been overrun by invasive species that are very difficult to eradicate. This includes hawkweed, brier rose, broom, gorse and wilding conifers. Wallabies, feral goats, pigs, deer, possums and rabbits are also problematic. The challenge of implementing landscape scale predator control needs to be carefully considered, particularly given the central government commitment to Predator Free 2050.
- 5.4 QLDC has partnered with a local community-led trust in an effort to address this challenge within the district. The Southern Lakes Sanctuary is a landscape scale conservation project that extends across the majority of the Queenstown Lakes District territorial area. This 660,000 hectare project area encompasses a range of habitats from high alpine to bush-clad valleys across a range of land-holdings including DOC conservation estate, farm stations, council managed reserves, QEII covenant lands and private properties. With support from Council, the Southern Lakes Sanctuary trust recently coordinated a 5 day Conservation Standards Workshop which brought together representatives from local conservation groups, community led predator trapping projects, reforestation trusts, farm stations, DOC, QEII Trust, regional council and the United States Embassy (who were a co-funding partner). The hui and training workshop was the first of its kind in New Zealand to bring together such a wide range of conservation and land holding partners with a shared vision and focus on landscape-scale biodiversity outcomes. QLDC strongly recommends that central government looks to support and leverage the learnings from these local-level initiatives to help accelerate progress towards the Predator 2050 vision and the natural environment adaptation challenges outlined in the National Climate Change Risk Assessment.
- 5.5 These landscape scale projects are also key to supporting the Department of Conservation Climate Change Adaptation Plan. This plan includes the possible adaptation action of translocating climate vulnerable species or pest control to improve the resilience of native ecosystems. Council is concerned that there are insufficient places for such translocation. As climate induced environmental alteration occurs, nationally there will be fewer and fewer options to relocate species. Restoration programs would need to deal with 100's of 1000's of km² of biodiverse indigenous forest, therefore planning at the landscape scale need to occur.
- 5.6 It is of concern that councils will be required to implement the proposed National Policy Statement on Indigenous Biodiversity (NPS-IB) given the uncertainty around when it is expected to be finalised¹³ and what it will include. The draft National Adaptation Plan indicates that councils "must consider creating ecological corridors in response to climate change", but the division of responsibilities (and funding of such) between central government and regional and territorial authorities is unclear.

¹³ <https://environment.govt.nz/acts-and-regulations/national-policy-statements/proposed-nps-indigenous-biodiversity/>

- 5.7 Also in relation to the NPS-IB, the careful allocation of resources to ensure that funding is spent carrying out the implementation 'on the ground' initiatives, not merely the introduction of new policies is encouraged.
- 5.8 QLDC supports the implementation of the Water Availability and Security programme, but urges more clarity around the roles, to avoid duplicity of actions between Ministry of Primary Industries and regional councils.
- 5.9 Regarding the collection of actions run by Biosecurity New Zealand, Council has the following feedback:
- 5.9.1 control measures for existing pest species already within New Zealand also need to be targeted, in addition to new risks. This is something recently highlighted by the damage on titi chicks a single ferret caused overnight in the Catlins, and by the rapid spread (in part human induced) of wallabies from South Canterbury into Otago.
 - 5.9.2 the biosecurity action relating to preventing the spread of wilding conifers makes no reference to land stability as a result of extreme rainfall events. Whilst Council supports this action in principle, site specific risks such as slope stability following removal of wilding conifers, not just the risk of wildfire, need to be considered. The allowance of overseas investment in questionable carbon sequestration programs using un-managed, short-lived, softwood conifers on good, productive agricultural land is also concerning
 - 5.9.3 the National Interest Pest Responses (NIPR) programme should be expanded beyond the nine species currently included, with priority given to those likely to spread as a result of changing climatic conditions. For example, wilding conifers are not included, nor is *Lagarosiphon* or a number of other pest/algae species causing significant damage in our district (didymo, lindavia).
- 5.10 In reference to the supporting actions listed in the draft plan for the natural environment, Council makes the following comments:
- 5.10.1 the National Policy Statement on Freshwater Management 2020, adaptation action for freshwater bodies will require the collaborative efforts of catchment groups, iwi, conservation groups and the wider community, not just the efforts of local government
 - 5.10.2 reform of the Environmental Reporting and Monitoring System to allow better measurement of environmental change should be undertaken in close consultation with local government to ensure a consistent, effective, collaborative effort nation-wide, with significant funding from central government to support territorial and regional councils in delivering this action
 - 5.10.3 Council supports and commends the Jobs for Nature Programme, but considers that funding should be targeted to local conservation efforts on the ground within each district, to address issues most at risk of significant climate change impacts in the near future
 - 5.10.4 whilst Council supports the implementation of the National Policy Statement on Freshwater Management 2020, it recommends that the role of iwi and community groups needs more recognition
 - 5.10.5 in implementing the Sustainable Land Management Hill Country Erosion Programme, priority should be given to projects which enhance indigenous

biodiversity, soil integrity and climate resilience. The National Policy Statement on Productive Soils is also relevant here, which calls for the conservation of highly productive soils by regulating and controlling urban spread

- 5.10.6 the aim of the proposed forestry planning and advisory service is to provide data informed advice and planning tools. This is supported, but it is recommended that many commercial forestry entities have significant knowledge in this area that should be gathered and feed into this action.
- 5.11 Council is of the view that implementation of an integrated work programme to deliver climate, biodiversity and wider environmental outcomes is fundamental to the success of the critical actions and supporting actions. It therefore should be prioritised as a critical action rather than a future work Programme proposal in the draft plan.
- 5.12 Further detail is required regarding the future work programme proposal of developing mātauranga Māori indicators of climate impacts on the natural environment, as to how this will be actioned within local government strategies, long term plans and district plans.
- 5.13 It is noted that, while reference is occasionally made to “landowners”, there is little specific reference to agriculture, horticulture or tourism and its role in ameliorating climate change throughout this section.

Recommendations:

- R.13 – Ensure appropriate understanding of the quantity of land requiring restoration and protection.
- R.14 – Confirm timelines for the NPS- IB and requirements for councils.
- R.15 – Recommend allocation of funding towards implementation ‘on the ground’ initiatives in the NZP-IB.
- R.16 – Work with Local Government on the Water Security and Availability Programme.
- R.17 – Include reference to site specific risks such as slope stability following removal of wilding conifers, not just the risk of wildfire.
- R.18 – Expand the NIPR programme beyond the nine species currently proposed, to include wilding conifers, *Lagarosiphon* and pest/algae species causing significant damage in our district (didymo, lindavia).
- R.19 – Reform the Environmental and Monitoring System to be more effective and useful for Local Government.
- R.20— Give priority to projects that enhance indigenous biodiversity, soil integrity and climate resilience when implementing the Sustainable Land Management Hill Country Erosion Programme.
- R.21—Target local conservation efforts through the Jobs for Nature Programme within each district.
- R.22—Make the Future Work Programme proposal a critical action.
- R.23 - Further detail regarding how mātauranga Māori indicators of climate impacts on the natural environment would be implemented.

6.0 Homes, buildings and places

- 6.1 At a high level, Council supports the objectives in the draft plan for homes, buildings and places. Currently, cost is a major barrier to the district becoming more resilient. Funding climate change adaptation measures is a significant investment that is not feasible for most councils on the scale that is needed.

- 6.2 In the draft plan, ‘places’ are referred to as urban or rural areas.¹⁴ QLDC considers that these areas should be treated separately. They have very different needs and levels of vulnerability that should be taken into account in the draft plan.
- 6.3 Council submits that the critical action to support kaitiaki communities to adapt and conserve taonga/cultural assets is not sufficiently holistic. This action needs to also include mental health and wellbeing, physical health, economic opportunities, infrastructure and education from the perspective of a regenerative approach. Failure to consider the whole picture will create new issues such as a lack of public transport infrastructure, lack of education facilities and reliance on fossil fuel for transport to access employment, education and services.
- 6.4 Council supports updates to the Building Code to respond to forward-looking climate hazards, identify and add hazards not currently in the Building Code, and produce guidance and tools to help people meet new performance requirements. This should be identified as a critical or supporting action, rather than a future work programme proposal. A significant barrier to increasing resilience is that the building code adopts a minimum compliance approach which does not enable Council to impose higher standards. Changes to the Building Code need to either provide greater flexibility or significantly improve standards to meet climate change outcomes. It should also embed mātauranga Māori and Matauranga-a-Iwi in these changes to ensure the partnership, participation and protection for future generations and adaptation can occur.
- 6.5 Council also supports a design methodology for the risk assessment of public buildings, as well as working with housing providers to enable climate change hazard responses.
- 6.6 There are a range of actions that Council submits should be included with respect to homes, building and places that include:
- 6.6.1 streamlining decision-making processes that are based on holistic community desired outcomes
 - 6.6.2 proactive strategic urban development that empowers territorial authorities to enable land use decisions that provide for higher density urban environments
 - 6.6.3 empowering territorial authorities to take ‘avoidance’ approaches to land use decision making where evidence suggests that climate change effects can not be mitigated or adapted to. This is key where very difficult decisions need to be made that could face years of challenge
 - 6.6.4 using natural systems to protect against natural hazards and reducing reliance on engineering solutions.

Recommendations:

R.24 — Treat urban and rural areas separately.

R.25 – A more holistic approach to supporting kaitiaki communities to adapt and conserve taonga/cultural assets.

R. 26 — Make the updating the building code action a critical or supporting action rather than a future work programme, and embed mātauranga Māori and Matauranga-a-Iwi in these changes.

R. 27 – Include additional actions outlined in paragraph 6.6 above.

¹⁴ <https://environment.govt.nz/assets/publications/Draft-national-adaptation-plan.pdf> at page 53.

7.0 Infrastructure

- 7.1 Council strongly supports the introduction of a resilience standard or code for infrastructure as a critical action. Currently there is no shared understanding across sectors and services of what resilience means. This is a major barrier to increasing infrastructure resilience. It is important that any proposed resilience code or standard is clear how it interfaces with existing infrastructure specifications and standards such as NZS4404.
- 7.2 Council strongly supports the action to integrate resilience planning into the asset-management cycle. Asset management provides a clear and existing framework to integrate multi-criteria assessment into decision-making; resilience and adaptation are just part of the complex ecosystem that local government must operate in. Having a clear and recognised decision-making framework for asset management would provide a much needed structure.
- 7.3 The need to develop and implement a Waka Kotahi Climate Change Adaptation Action Plan is strongly supported, but Council notes:
 - 7.3.1 it would like the government to ensure that there is strong integration and alignment in the State Highway and the Local Road Network approach
 - 7.3.2 there must be provision in the National Land Transport Programme to enable Waka Kotahi to allocate and prioritise improvement funding for adaptation and resilience, alongside renewal investment. Currently renewal funding can only replace like for like infrastructure.
- 7.4 Another main barrier for local government to increasing infrastructure resilience is the ability and willingness of ratepayers to pay. Affordability for our communities is a key constraint in being able to deliver on these objectives. The ongoing impact of COVID-19 and the increasing cost of living continues to put pressure on our community. This is also linked to the homes, buildings and places section above, as well as managed retreat, discussed below.
- 7.5 Council asks that changes are made to the Government Policy Statement for Transport to give clear direction and ensure that the National Land Transport Programme (NLTP) can give effect to the following objectives:
 - 7.5.1 in the 2021-24 National Land Transport Programme, investment in resilience or adaptation was not able to be prioritised due to the GPS for Transport priorities and the Waka Kotahi investment prioritisation tool
 - 7.5.2 the available funds in the 2021-24 National Land Transport Programme was severely constrained, this also resulted in a lack of investment in active transport. Council asks that there is an increased investment in the NLTP to give effect to the aspirations of the GPS for Transport.
- 7.6 Council and the Climate Reference Group strongly support the need to invest in public transport and active transport. These are fundamental tools to address emissions, congestion and accessibility.
- 7.7 Electricity supply for the Queenstown Lakes District is a major issue. The current network in the district lacks resilience, with one spur line providing power through the Kawarau Gorge to Queenstown (Transpower) and two single lines from Cromwell to Wānaka (Aurora). Reliance on single-line supply for Queenstown results in a low level of resilience for the district. It is likely that Queenstown is one of the largest (if not the largest) population and economic centre in New Zealand served by a single spur line.

The chances of a total loss of power, for an extended period of time are high, whether due to a weather-related or seismic event.

- 7.8 Residents are familiar with mid-winter power outages, and understand the value of heating fuels which are not reliant on electricity. For the climate conscious, moving away from gas reduces the resilience of the district's energy supply even further, by increasing its reliance on electricity. This is complicated by the fact that any increase in the use of wood fires to complement electricity is limited by air quality constraints in some areas.
- 7.9 Residents of the Queenstown Lakes District have a high appetite for the implementation of Distributed Energy Resources and localised renewable solutions. Opportunities to facilitate and deliver these solutions would be welcome. This would require a range of interventions and governmental support across the energy sector, including subsidies, regulatory change, community collaboration, detailed monitoring and technological solutions. QLDC would be keen to explore opportunities to support pilot schemes that reduce load on the existing network.

Recommendations:

- R.28 — Ensure alignment across central government reform projects with urgency.
- R.29 — Introduce a resilience standard or code as a critical action.
- R.30 — Integrate resilience planning into asset-management cycles.
- R.31 — Ensure that there is strong integration and alignment in the State Highway and the Local Road Network approach.
- R.32 — Provision in the National Land Transport Programme to enable Waka Kotahi to allocate and prioritise improvement funding for adaption and resilience, alongside renewal investment.
- R.33 — Consider energy resilience when implementing actions that reduce reliance on gas and wood burners.
- R.34 — Work with QLDC to explore localised renewable energy solutions.

8.0 Communities

- 8.1 Council is already highly active with our community in the resilience space. The COVID-19 welfare response experience where QLDC supported the community directly with welfare support, involved the forging of new relationships, partnerships and networks across agencies, local social service providers and community led organisations. These relationships have continued to be cultivated and developed and new interagency networks have been formed around food security, mental health and community wellbeing. These networks are invaluable to supporting the resilience of communities, however their formation, coordination, promotion and reporting is often based on voluntary efforts that are vulnerable to turnover.
- 8.2 Council have attempted to provide tangible support through grants, resourcing, promotion, governance training and strategic recognition of the vital role these networks serve in underpinning community resilience. QLDC's Climate and Biodiversity Plan, Community Partnerships Plan, Spatial Plan and Economic Diversification Strategy work are all examples of Council work programmes that place a strong focus on capacity building across communities and interagency networks.
- 8.3 Direct support is also being provided to help build capability and capacity in communities to assist with a coordinated emergency management response. Voluntary community response groups have been established across the district, and protocols, guides,

equipment and training are being deployed. These efforts are also an important enabler of community resilience.

- 8.4 In addition to these broad, district-wide work programmes, several location specific natural hazard risk reduction projects are underway within the district. QLDC appreciates that two of these, the Glenorchy Head of the Lake project and Mt Iron Wildfire Risk Reduction project, have been referenced as case studies within the draft plan (pages 76 and 81). Both of these projects have a strong climate adaptation/natural hazard management focus and involve multiple stakeholder interests, including a highly engaged community. While the referencing of these projects is accepted as a positive show of support from MfE, there is a significant level of information missing from the Mt Iron wildfire case study. Although the case study for the Head of Lake case study provides a comprehensive overview of both the hazard risk and the adaptation planning project that has been launched to support the community, the Mt Iron case study only describes the hazard risk and the community concerns around vegetation consenting restrictions. It makes no mention of the multi-agency (QLDC, Fire and Emergency NZ, Emergency Management Otago, Department of Conservation and Mt Iron community) risk reduction project that has been in progress for the last two years, nor does it provide a reference credit to the comprehensive research investigation that the SCION Rural Fire Research team have completed with the community. These omissions need to be addressed if the case study is to be used in the final plan. QLDC will be happy to supply information to improve the scope and accuracy of this important case study, which Council believes has high relevancy to the communities section of the draft plan.
- 8.5 All of QLDC's efforts around community climate change adaptation have confirmed that the current legislative environment provides insufficient guidance on how councils should be working with communities to build resilience and address climate change adaptation. Council supports the list of desired achievements in this section of the draft plan, however, detail needs to be provided as to both the importance of local government's role in these desired achievements, as well as what local government's role needs to be.
- 8.6 One of the key shifts in the Future for Local Government review is a stronger focus by councils on community wellbeing. Given this, there is a dearth of information in the draft plan as to what the expectations on local government are in implementing the actions outlined, and how it will be resourced. Council therefore recommends appropriately accounting for the key role of local government in this section of the draft plan.
- 8.7 With respect to the individual actions, Council would expect there to be more detail and clarity around the kind of investment required, in relation to the draft plan. For example, with the 'Continue with the reform of the health and disability system' action point, it considers that there should be more detail around how actions in this reform relate to a National Adaptation Plan for climate change.

Recommendations:

R.35— Update the "Case Study: Wildfire preparedness at Mount Iron, Wānaka" to include information on the multi-agency risk reduction project that has been progressing for the past two years. QLDC is happy to provide information to improve the scope and accuracy of this important case study.

R.36— Provide more information as to the expectations of local government are in implementing the actions, and how this will be resourced.

9.0 Economy and financial system

- 9.1 Council supports the position in the draft plan that Māori knowledge of sustainable practices and holistic economic models offer unique ways to adapt, and that Māori are in a position to take a leadership role. This is because Māori businesses are not just the individual/s, but encompass the whole community in some form or another. Research shows that the Māori economy is diverse and takes social and economic, environmental, and cultural factors into account¹⁵.
- 9.2 For QLDC, tourism and agriculture/viticulture are the largest industries that depend on climate sensitive natural resources. Rising temperatures and reduced snow fall are key risks to the regional economy due to the corresponding loss of tourism revenue from the winter ski season. Sudden adverse weather events at any time of year also pose a risk to visitor activity, as these frequently revolve around the natural environment.
- 9.3 COVID-19 has highlighted how vulnerable our economy is to shocks. Diversification of the economy will help provide stability for tourism and opportunities for our communities. It is a key goal for our Economic Development Unit. The work that is underway provides a platform to develop our district's resilience to sudden events, as well as the more gradual effects of climate change, in order to reduce these impacts over time.
- 9.4 QLDC is in the process of finalising a Destination Management Plan (DMP) in partnership with the Regional Tourism Organisations (Destination Queenstown and Lake Wanaka Tourism). The DMP will be focussed upon the achievement of regenerative tourism by 2030, reorientating the whole tourism system toward tourism that benefits our communities, our businesses, our iwi and Māori partners and our environment.
- 9.5 There are currently few recognised regenerative tourism destinations currently, but the DMP will seek to attract values-driven visitors, for whom regenerative travel is important. Levers to effect change are limited at a local level, but a movement toward regenerative travel is already underway, with good examples of visitor behaviours and business initiatives showcasing the potential for change.
- 9.6 Council therefore supports the work on the Tourism Industry Transformation Plan identified in the draft plan as a priority for our district. QLDC would welcome the opportunity to participate in the development of the Plan and explore ways to develop delivery of the Destination Management Plan in tandem.
- 9.7 Another supporting action in the draft plan that is a priority for our district is the MBIE work on meeting the costs of a climate-resilient tourism sector. As identified in the draft plan, currently visitors do not directly pay for many products and services they use, where these are funded by local communities. QLDC has been advocating for a tool to address this, through the concept of a visitor levy, for four years. This is a viable funding stream that could help to facilitate the shift required to regenerative tourism and climate change adaptation. Council considers that the relationship with central government in this regard has been productive and valuable. However, it demonstrates the time and resource it takes to achieve system change in some areas.
- 9.8 Council supports continuing the delivery of the Sustainable Food and Fibre Futures Fund, and recommend that additional measures based on Nature-based Solutions (NbS) be considered as part of this, such as:

¹⁵ [Projects | Ngā Pae o te Māramatanga \(maramatanga.co.nz\)](https://www.maramatanga.co.nz/projects) (date accessed: 26 May 2022)

- 9.8.1 grazing optimisation that exploits the inherent capacity of grasses (and legumes) to recover following defoliation
 - 9.8.2 crop nutrient management that involves the proper rate of application, applying the proper type of nutrients appropriately and at the correct time
 - 9.8.3 biochar, a charcoal-like substance that is made by burning organic material from agricultural waste by pyrolysis
 - 9.8.4 conservation agriculture as a sustainable farming method that is based on crop diversification, minimal soil movement and permanent soil cover
 - 9.8.5 trees in croplands, with a focus on native hardwoods, as trees store vast amounts of carbon, and provide shelter, prevent erosion, diversify production and maintain moisture levels
 - 9.8.6 restoration of wetland and peat wetland. Peat wetlands in particular are super carbon sinks. They hold twice as much carbon as all of the world's forests combined, and cover about 3% of earth's land surface
 - 9.8.7 fire risk management. Regional wildfire management planning needs to be improved to identify the risk mitigation measures that will be implemented to reduce the risk of wildfire to agriculture. The Climate Reference Group has prepared expert advice on what plant species have low flammability, and so should be considered for plantings over high flammability species, that includes most conifers, eucalypt species and gorse.
- 9.9 The critical matter of insurance is mentioned within the draft plan but further information is required to explain the complexity of the challenges that the sector faces and the range of measures, reforms and work programmes that will be delivered to help provide stability and certainty, and protect communities from adverse outcomes. Given the significant range of natural hazards within the district, Council is concerned over how both insurance premiums and property pricing mechanisms will respond to the growing evidence base of natural hazard research and climate change risk assessments. Careful consideration needs to be applied to how equity of access to affordable insurance will be maintained for residential owners who find their property being subject to a new risk profile.
- 9.10 It is noted that no mention of the Natural Hazards Insurance Bill is provided within the draft plan. This Bill replaces the Earthquake Commission Act 1993 and changes the name of the Earthquake Commission to Toka Tū Ake – Natural Hazards Commission. These changes will help enable better community recovery from natural hazards, clarify the role of the Commission and insurance cover provided, and enhance the durability and flexibility of the legislation. Given that flooding is one of the primary hazards that the legislation and Commission supports, this omission is an oversight which should be resolved. Toka Tū Ake will play a key role in both guaranteeing insurance cover for residential home owners for a range of climate induced events as well as stabilising the New Zealand private insurance market through what is likely to be a period of volatility and disruption in the international insurance sector.

Recommendations:

R.37—Encourage further collaboration with MBIE on the Tourism Industry Transformation Plan.

R.38—Prioritise work on meeting the costs of a climate-resilient tourism sector.

R.39— Utilise the Destination Management Plans that all RTOs have been required to prepare, to encourage better climate mitigation and adaptation behaviours.

R.40 – Include additional actions outlined in paragraph 9.7 above.

R.41 – Include reference to the Natural Hazards Insurance Bill and the formation of the Toka Tū Ake – Natural Hazards Commission within the critical actions section.

10.0 Managed retreat

- 10.1 Council is currently involved in two major natural hazard risk management projects where relocation or managed retreat is an option is being considered with the community. One project is being led by Otago Regional Council (Glenorchy Head of the Lake) and the other is led by QLDC (Gorge Road Natural Hazards).
- 10.2 The Gorge Road project addresses high levels of risk to life from debris flow and rockfall hazards to an already developed, mixed use, urban area of Queenstown. This is a situation where a significant event has not yet happened, and therefore provides a contrast to other examples of where managed retreat might be necessary managed in New Zealand that have been implemented after a natural hazard event has occurred. This context provides unique lessons that can help inform options for an effective legislative pathway for managed retreat.
- 10.3 Council agrees with the problem definition and the justification for legislation on managed retreat. Clear roles and responsibilities between central and local government, and individuals, are essential to ensuring a system that works efficiently and effectively. Legislation is an appropriate tool to accomplish this.
- 10.4 As mentioned in the consultation document, it is important that managed retreat from high risk natural hazards (e.g., alluvial fans), are given equal consideration to gradual onset effects of climate change (e.g., sea-level rise), in the development of new legislation. It is essential that the legislation is set up to deal with both situations, which have quite different circumstances associated with them. In the case of natural hazard events, managed retreat in advance of an event occurring has not yet occurred in New Zealand. The legislation, and/or the National Planning Framework, could help with this by providing guidance on levels of risk that should trigger consideration of managed retreat, even when there has been no event.
- 10.5 Any managed retreat statute should be scaleable, so that it can deal with local situations that might only affect a small area (i.e., ten properties) as well as large situations where whole suburbs might be affected.
- 10.6 When risk levels from a natural hazard are high, if managed retreat is the preferred option, it needs to occur more quickly than in a slower-onset climate change situations. New legislation to manage natural hazards through managed retreat needs to account for situations where acting quickly is critical.

Objectives and principles

- 10.7 Council considers that the objectives and principles of the legislation are generally appropriate. The assessment of actions should balance broad community wellbeing outcomes so that actions to address managed retreat do not disproportionately impact the social, cultural and economic wellbeing of the community.
- 10.8 In regard to the objectives and principles of funding responsibilities, it is noted that the objectives are currently focused on climate change. Reducing risk from natural hazards should also be clearly referenced in the objectives.
- 10.9 Council would like to see reference to reducing liabilities to the Crown in the objectives, and limiting the Crown's fiscal exposure in the principles, to be broadened to include local government.

Establishing a process for managed retreat

- 10.10 It is of note that managed retreat is likely to be considered as part of a wider natural hazards or climate change management project, and that it could be considered in a planning, infrastructure, or risk management setting. New managed retreat legislation needs to keep this in mind so that it can be implemented by a variety of Council functions, and not be limited to resource management planning. There is a need for the legislation to encompass the managed retreat process with other risk management, emergency management, infrastructure management or land use planning processes, not in isolation from them. Managed retreat is an integrated process, and there needs to be careful consideration that there are no unintended consequences of the legislation. It is also important that the role of adaptation is not underestimated, or ruled out, in the development of managed retreat processes.
- 10.11 Council supports triggers for the managed retreat process set out in Figure 2 under 'initiation'. There is one additional trigger to consider, which is initiation of a managed retreat process as a result of new information. Under the current system, regional councils investigate natural hazards and climate change impacts, and may undertake a new assessment that shows high levels of natural hazard risk in a particular location. If it is an urban location, it is likely that a district council will respond to that information. How this relationship between the source of information and who acts on it will work under the new system, should be considered in the development of managed retreat legislation.
- 10.12 The other stages of the managed retreat process set out in Figure 2 are logical. However, Council recommends that an indication of the time taken at each stage be included. There is an assumption that a high level of detail, and robust assessments, are needed to progress risk management responses that have a potentially significant impact on the community, even in situations of high risk. Quality, robust information takes time to produce. Consideration could be given to the ways in which the managed retreat legislation can ensure communities get certainty without undue delay in managed retreat decisions, and that momentum to move from one stage to the next is maintained.
- 10.13 One suggestion to reduce the time taken to arrive at a managed retreat decision is to set a level of risk, or a risk range, at which risk should be reduced and managed retreat should either be implemented or given serious consideration. Currently, significant time and resources are required to determine if managed retreat is necessary and justified. A decision on managed retreat will always be complex, but taking away the need to debate what level of risk is too high, and what the spatial extent is for a particular managed retreat, relative to changing risk levels across an area is appropriate, and would provide certainty to communities sooner than under the current regulatory framework.
- 10.14 An additional factor not reflected in Figure 2 is that there may be a number of decisions made on the way to reaching a final decision to implement a managed retreat, that are all within the planning and preparing stage. The level of information at each stage gets more detailed as the process unfolds. It is not possible to answer all questions at the beginning of the process, and the ability to progress and provide more detail on the way is important.
- 10.15 Another point from the Gorge Road natural hazards project is that public consultation and engagement with Iwi should not be seen as slowing down the managed retreat process. These activities are critical to a successful managed retreat process. It is important that the legislation provides for engagement with communities and Iwi with the provision of appropriate processes and timeframes to enable appropriate support to be offered..

Roles and responsibilities

- 10.16 Council submits that local government should be the decision maker as to whether to proceed with a particular managed retreat response, as well as what that response might look like. The level of government closest to the community affected is best placed for making these decisions.
- 10.17 With respect to risk from natural hazards, Council is of the view that the Crown should determine the threshold for the level of risk that is too high for communities to live with and that this would need to be defined within a framework that takes into account cultural values, different topographies, lifestyles, economies and levels of resilience. This will ensure that an equitable and consistent approach is applied across Aotearoa. Risk above a certain level would need to be reduced, and risk reduction measure such as managed retreat would need to be considered.
- 10.18 Defining the level of intolerable risk will give more clarity to the risk reduction outcome in the Exposure Draft of the Natural and Built Environment Act. This will also provide certainty for communities and local government on the situations where managed retreat needs to be considered. Local government will then be able to focus on how managed retreat is achieved in the manner that best suits their community.
- 10.19 How the costs of managed retreat are to be shared requires detailed consideration. It is not tenable to hold one person or entity responsible for funding managed retreat from high natural hazard risk, or from the slow-onset effects of climate change.
- 10.20 Central government involvement in managed retreat should focus on avoiding impacts, rather than remediation after an event. Investing in avoiding impacts from hazards is a better use of resources than repairing and rebuilding. Council recognises that it is more difficult to get buy-in from communities to fund preparation for an event that has not yet happened. Accordingly, a central government focus on this will help to overcome a significant hurdle to investing in resilience and avoiding impacts.
- 10.21 Council submits that a different process for residential and commercial uses would not be a helpful or productive framework. In the Gorge Road natural hazard example, the high risk area is occupied by a mix of residential and commercial uses. Any process that separated these land uses would result in a disjointed and siloed approach to managed retreat. Different land uses need to be accommodated within the same process.
- 10.22 What gets compensated as an outcome of a managed retreat situation, as well as who pays, requires considerable attention. Whether market value is the benchmark for residential properties and how it is determined needs to be carefully considered, particularly in high growth areas such as Queenstown Lakes. Compensation in a commercial situation also needs to be defined. These are live issues for the Gorge Road natural hazards project where there is a mix of residential and commercial uses in the high risk area.

Property transfer

- 10.23 All members of the community should have the opportunity to participate in managed retreat processes. Risk from natural hazards affects people's lives, regardless of whether they are home owners, renters, or working in an area.
- 10.24 Council submits that it would be problematic to take a different approach for those who purchased properties before risk was identified, from those who bought properties after a risk was identified. Doing this would require a bright line of when risk was known and when it was not, and this delineation does not exist in reality.

Recommendations:

R.42 - Confirm that managed retreat from high risk natural hazards, is given equal consideration to gradual onset effects of climate change, in the development of new legislation.

R.43 - Clearly reference reducing risk from natural hazards, as well as climate change, in the objectives.

R.44 - Recommend that reference to reducing liabilities to the Crown in the objectives, and limiting the Crown's fiscal exposure in the principles, to be broadened to include local government.

R.45— Ensure that any new legislation relating to managed retreat is not limited to resource management planning, and can be implemented by a variety of Council functions.

R.46 – Ensure that any new legislation encompasses the managed retreat process with other risk management, emergency management, infrastructure management or land use planning processes.

R.47 - Add recommendations to Figure 2, referred to in 10.11, 10.12 and 10.14.

R.48 - Recommend that local government be the decision maker on whether to proceed with a particular managed retreat response, as well as what that response might look like.

R.50 - Detailed consideration is required as to how the costs of managed retreat are to be shared

R.51 - Central government involvement in managed retreat should focus on avoiding impacts, rather than remediation after an event.

R.52 - Careful attention is required as to the operational aspects of compensation, as an outcome of a managed retreat process.

R.53 - Recommend that all members of the community have the opportunity to participate in managed retreat processes.