

**Audit, Finance & Risk Committee**

5 October 2023

**Report for Agenda Item | Rīpoata moto e Rāraki take [4]**

**Department: Strategy & Policy**

**Title | Taitara: Climate and Biodiversity Plan Update**

**Purpose of the Report | Te Take mō te Pūroko**

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The purpose of this report is to provide a summary of priorities and progress of the Climate and Biodiversity Plan 2022-2025 (CBP).

**Recommendation | Kā Tūtohuka**

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That Audit, Finance & Risk Committee:

1. **Note** the contents of this report.

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20 September 2023

**Prepared by:**



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20 September 2023

Context | Horopaki

1. On 27 June 2019 Council declared a climate and ecological emergency as well as approving the release of the Council’s first [Climate Action Plan 2019-2022](#) for public feedback. This plan provided a foundation for QLDC’s response to the climate and ecological emergency by laying out a broad programme of actions that spanned across five outcome areas.
2. On 30 June 2022 the [Climate and Biodiversity Plan 2022-2025](#) was adopted by Council, along with an annual plan funding increase to support its year 1 delivery. This plan sets out how QLDC plans to respond to biodiversity loss and climate change in Queenstown Lakes District, with three goals and six outcomes (see Figure 1).

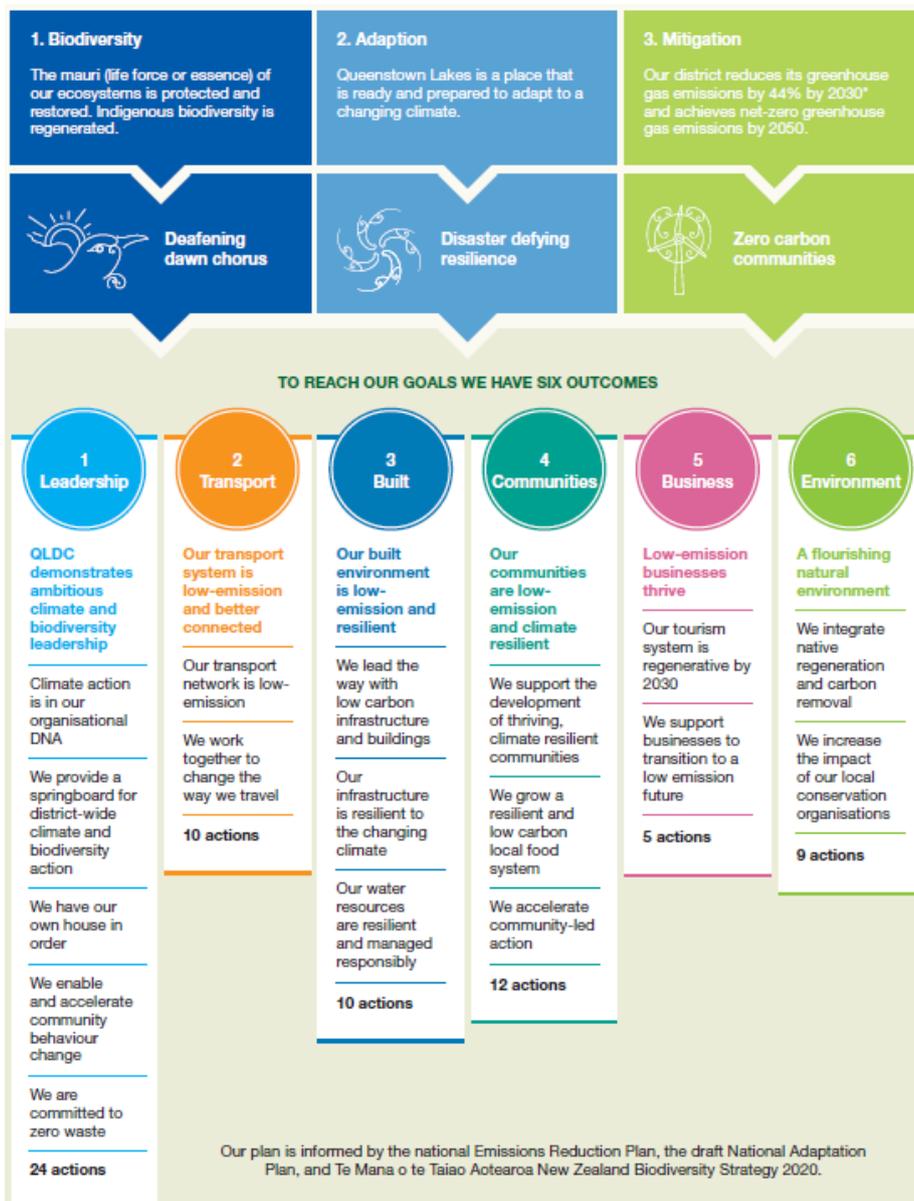


Figure 1: Climate & Biodiversity Plan Structure

Analysis and Advice | Tatāritaka me kā Tohutohu

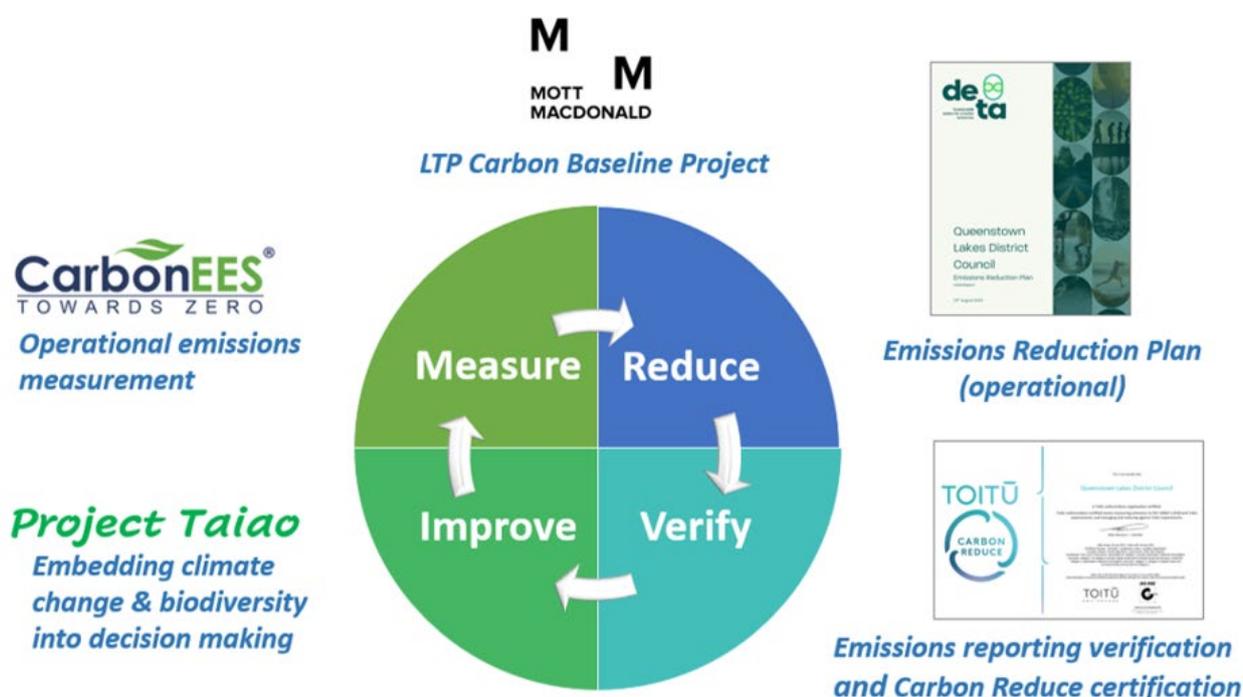
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**CLIMATE AND BIODIVERSITY PLAN 2022-2025: YEAR 1 OVERVIEW**

3. To reflect the urgency of the climate and ecological emergency, an ambitious schedule of **62 actions** were scheduled to commence in the first year (2022/23) of the Climate and Biodiversity Plan. Council's progress towards this target is as follows:
  - **56 actions** have been started and are in progress.
  - **7 actions** are complete:
    - 1.1b Council will join a certified carbon reduction programme which includes 2030 emissions reduction targets.
    - 1.5a Conduct a carbon baseline of the 2021-2031 Long Term Plan.
    - 1.10 Embed climate mitigation and adaptation, waste minimisation and indigenous biodiversity protection into the Planning and Development Policy Work Programme.
    - 1.14 Develop and Emissions Reduction Plan for QLDC operations. Establish the scope of the plan with the boundaries outlined in QLDC's 18/19 Carbon Footprint Report.
    - 2.1e Support local organisations to run public transport trials in the Upper Clutha
    - 4.7 Launch a Queenstown Lakes Food Network that brings together community stakeholders to develop a shared vision of a resilient, low carbon and regenerative local food system.
    - 5.1 Partner with the Regional Tourism Operators to create a Destination Management Plan.
4. The following sections provide updates on progress of key actions for each of the six outcome areas of the Climate and Biodiversity Plan.

**OUTCOME 1: QLDC DEMONSTRATES AMBITIOUS CLIMATE AND BIODIVERSITY LEADERSHIP**

- Outcome 1 involves the greatest number of actions (24) as well as the highest level of budgeted expenditure. This investment reflects the criticality of ensuring that QLDC has its house in order from an emissions management perspective and has successfully embedded climate action and biodiversity restoration into the culture and decision-making processes of the organisation.
- The execution of this organisational change programme is a complicated challenge, as it involves several intersecting projects that are being managed concurrently. The below diagram illustrates the key elements of this greenhouse gases (GHG) emissions management framework (Measure, Reduce, Verify, Improve) and the associated projects and contract partners who are leading the delivery.



**Figure 2: GHG Emissions Management Framework**

- The following sections provide a brief progress update on the above projects.

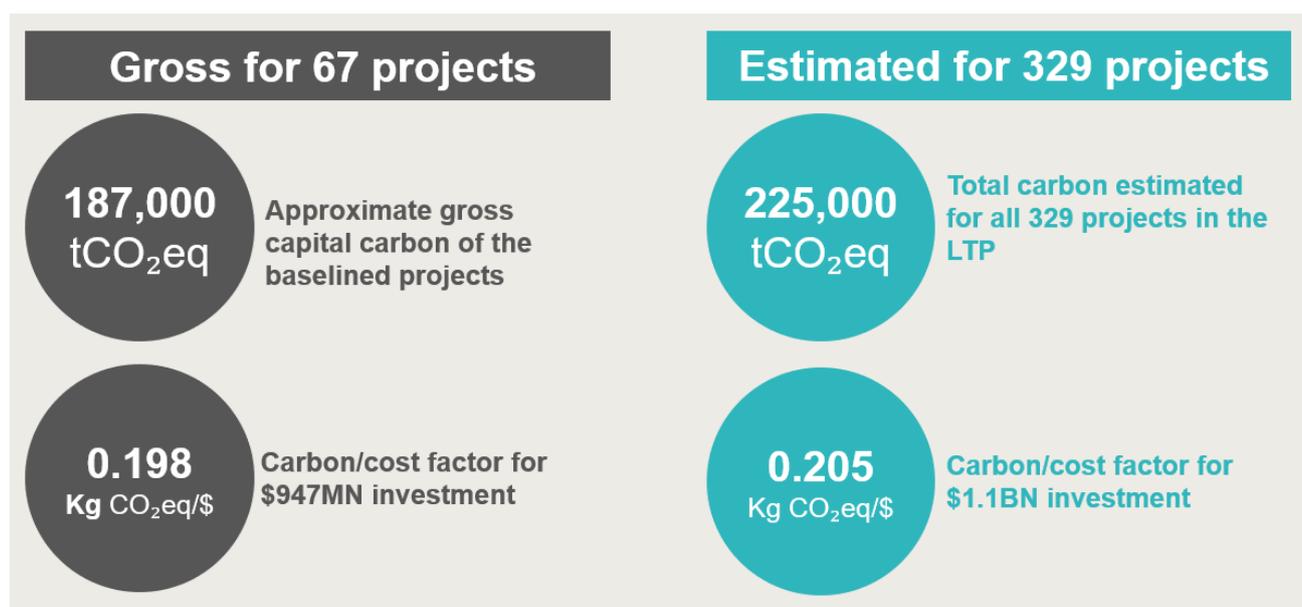
**Action 1.5a: Long-Term Plan Carbon Baseline Report**

- In 2022 Mott MacDonald and LGNZ Equip were engaged to undertake an assessment of the embodied carbon that was associated with the capital infrastructure programme within Council’s 2021-31 Long Term Plan (LTP). The purpose of this was to:

- Establish a baseline for projects to track against through design and construction, with a view to setting carbon reduction targets for designers and contractors.
- Provide decision-makers with an understanding of carbon hotspots, and the steps that will lead to reductions.
- Lift the organisational capability in embedded carbon accounting ahead of the 2024-34 Long Term Plan.

9. This project is now complete and a report has been developed and peer reviewed which documents the findings of the project along with learnings and recommendations. A copy of this report is provided in Attachment A.

10. The project team focussed on the 67 highest value physical projects in the LTP and modelled these using the Moata Carbon Portal (MCP), which is a tool that is used to estimate the carbon emissions from infrastructure projects. Based on this assessment the project team then extrapolated the results across all 329 projects within the 2021-31 LTP to develop an estimate of 225,000 tCO<sub>2e</sub> for the carbon that would be embodied in full capital works programme.



*Figure 3: LTP Carbon Baseline results*

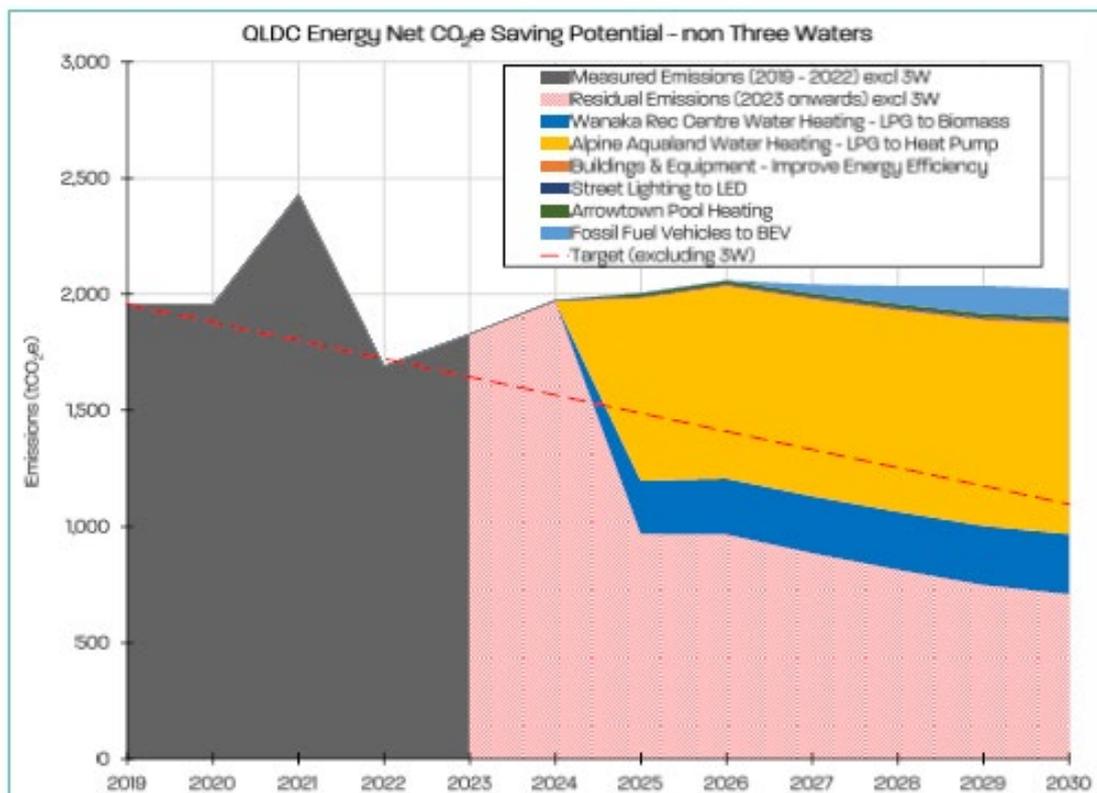
11. The learnings and internal capability development from this project will be carried into the planning for our next 2024-34 LTP as we all as into Project Taiao- which is focussed on embedding climate and biodiversity considerations into council decision, making and the investment lifecycle process.

**Action 1.14: Organisation Emissions Reduction Plan**

12. The final version of an Organisation Emissions Reduction Plan (ERP) for Councils operational carbon emission was signed off in September. This report evaluates the potential reduction

pathways for scope 1 and scope 2 emissions that would allow Council to achieve its target of a 44% reduction against our 2019 baseline.

13. The emission reduction opportunities that were modelled included: conversion of LPG heating at the swimming pools, conversion of the remaining fleet to battery electric vehicles (BEV), building energy efficiency improvements, street lighting conversions, solar system installations, waste water efficiency improvements, renewable energy certificates (RECs) and energy saving from improved water demand management.
14. The results of the modelling for scope 1 and scope 2 emissions (excluding wastewater) are shown in Figure 4. This demonstrates that there is significant potential to reduce emission from several key projects.



*Figure 4: Emissions Reduction Plan- Emission reduction pathway to 2030*

15. The ERP is an important document to support Council’s application for Toitū Carbonreduce certification as well as any future application that Council may make for a Local Government Funding Agency (LGFA) [Climate Action Loans](#).
16. Information on emission reduction opportunities will be fed into the LTP process.

### **Action 1.1b: GHG emissions verification and carbon reduction certification**

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17. In May 2023 a team from Toitū Envirocare audited QLDC's organisational GHG emissions for FY2018-19 (baseline year) and FY2019-20 (year 2). The baseline year was selected as a comparison for future years, as it was prior to the disruption caused by the Covid-19 response. QLDC received Toitū [carbonreduce](#) certification in July 2023.
18. Verified emissions show a decrease in all Category 1 emission sources from the baseline year to year 2, with the exception of forestry activities. The harvesting of Coronet Forest commenced in January 2020 and was undertaken to reduce the seed source of wilding pines and allow the land to be replanted in indigenous vegetation. Replanting Coronet Forest with indigenous species (action 6.6a of the Climate and Biodiversity Plan) will remove the carbon emissions associated with harvesting over time, and create a permanent ecological reserve that supports the restoration of the district's biodiversity
19. A second Toitū audit was completed in September 2023 for the years FY2020-21 and FY2021-22 and verification of these years is expected to be completed in December 2023.
20. To maintain carbonreduce certification QLDC will be audited on an annual basis, with progress tracked towards achieving the targets outlined in the organisational ERP (action 1.14).

### **Project Taiao: Embedding climate action and biodiversity into Council decision making**

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21. An internal organisation change project, called **Project Taiao** has been launched which will address a number of actions under outcome 1 of the Climate & Biodiversity Plan. This project involves a number of workstreams that are aimed at embedding climate action and biodiversity considerations into Council decision making.
22. The project has completed a review of how QLDC currently includes climate change and biodiversity considerations in decision making, as well as undertaking a review of the leading governmental practices at both an international and national level.
23. From this assessment of current and best practice a series of interventions have been identified that Council will be progressing as an internal Organisation Development project. These interventions include the following
  - 1.1 Develop roles and responsibilities for climate and biodiversity considerations
  - 2.1 Develop early stage qualitative climate and biodiversity project assessment
  - 2.2 Implement a project manager carbon assessment process
  - 3.1 Develop biodiversity assessment framework
  - 3.2 Develop biodiversity remediation programme
  - 4.1 Develop aggregation framework for climate and biodiversity mitigation alongside financial data
  - 5.1 Update policy and report templates to consistently integrate climate

24. A work programme to deliver these interventions is currently under development and progress updates will be provided in future reports.

#### **Action 1.22- Develop new Climate and Biodiversity Plan website**

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25. The development of a new website to communicate the progress of the Climate and Biodiversity Plan is a key project that has had to be placed on hold due to resourcing constraints.

26. A reset of the project plan to launch this site has now been completed and work is underway to try and launch this by October 18.

27. The website will allow Council to communicate and promote its Climate Action and Biodiversity progress in a far more effective manner. The new website will allow regular progress updates on all CBP actions to be posted, stories of climate and biodiversity success from across the district to be shared, latest news and research on climate and biodiversity to be collated, navigation to partner organisation websites and information to be provided on what individual, business and schools can do to support the achievement of the district's climate and biodiversity goals.

## **OUTCOME 2: OUR TRANSPORT SYSTEM IS LOW-EMISSION AND BETTER CONNECTED**

### **Action 2.1e- Upper Clutha Community Shuttle Trial**

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28. Following a successful Community Shuttle Trial by Community Networks/LINK Upper Clutha in 2022, QLDC in conjunction with Lake Wānaka Tourism (LWT), funded a second trial that ran between 29 May and 18 August 2023.

29. The trial was supported by a project team with representatives from QLDC, LWT, Yello, Community Networks/LINK and Otago Regional Council.

30. The aim of this second trial was to test the design options for a potential public transport service in the Upper Clutha and collect further patronage data and feedback to inform long-term public transport planning.

31. Interest in the project has been high across Otago as it delivers upon a key commitment in the [Regional Public Transport Plan](#) (5.3.2) to trial new services models to improve community access to the public transport network.

32. The feedback from commuters of the service has been positive. Patronage numbers for the early morning and evening "express service" between Hāwea township and Wānaka were also positive. The middle of the day return trip to Hāwea and the intra-city loops around the Wānaka townships were less utilised, which indicates that the strongest demand is for inter-township commuting service. The cost and friendliness of the service were also commented on and the most common suggestion for improvement was to extend the period of the service and increase the frequency.

33. The results of the project will be shared with both the Otago Regional Council and the Grow Well Whaiora partnership.

### **OUTCOME 3: OUR BUILT ENVIRONMENT IS LOW EMISSION AND RESILIENT**

#### **Action 3.3- Support energy demand management technologies, tools and behaviour change to decrease energy usage at peak times**

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34. As reported previously strong progress has been made by QLDC with regards to advocating for improved energy resilience within the district. [Recent announcements](#) from Transpower, Aurora and Powernet for a partnership investment to improve the capacity of power supply into the Whakatipu basin are a highly important step towards securing the future electricity supply.
35. Council completed a submission in August on [Strengthening the Resilience of New Zealand's Critical Infrastructure](#). This consultation was ran by the Department of Prime Minister due to the fact that it spanned across multiple Ministries and has been framed as a national security risk. Key points within the submission included:
- a systems approach for infrastructure resilience is needed, including integrated planning that emphasises and aligns with spatial planning and destination management principles and work programmes
  - consideration of the implications of visitor populations on the resiliency demands of critical infrastructure should be included
  - the development of a national definition of resilience is supported
  - increased information and data sharing is a key enabler of improved resiliency outcomes.
36. Progress is also being made with regards to investigating new technology, tools and information datasets to help decrease energy demand at peak times. A partnership with Rewiring Aotearoa to help catalyse a shift to greater energy efficiency within the community and local industry has been initiated. This partnership will allow QLDC to explore innovative efforts to promote electrification and distributed energy solutions within the district.

### **OUTCOME 4: OUR COMMUNITIES ARE LOW-EMISSIONS AND RESILIENT**

#### **Action 4.6a- Community Climate Adaptation Projects- Wildfire risk**

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37. The risk of wildfire has been highlighted through recent tragic outbreaks in Hawaii, Canada and Greece. The frequency and scale of these events is increasing with climate warming and careful

planning is required to ensure that the communities in our district who are exposed to local wildfire risks are ready and prepared.

38. A Wildfire Working Group has been established to support the mitigation planning for wildfire risk across Council reserves. There are several workstreams that are being coordinated to support a holistic approach to wildfire risk reduction. These include workstreams on public education and risk communication, business cases for vegetation management and investment in environmental monitoring and early warning detection systems.
39. The project to install Environmental Monitoring systems around both Ben Lomond reserve and the newly acquired Mount Iron Reserve is progressing well. Five sensors will be installed in late October/early November around these sites in a project between Spark Innovation Team and [Attentis Environmental Sensors](#).
40. A [media release](#), [webpage](#) and a series of drop-in sessions have been conducted to share information about the capabilities of the new sensor network.

#### **Action 4.6a- Community Climate Adaptation Projects - Glenorchy Head of the Lake Hazards programme**

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41. Otago Regional Council (ORC) is coordinating the Glenorchy Head of the Lake Hazards Programme, working with QLDC and the local community to discuss the natural hazards issues, and possible future options for the area.
42. ORC and consultants presented the findings of their work on flooding and liquefaction hazards in the Glenorchy Township to an online meeting on 2 June 2022, and answered questions from the public.
43. Two community workshops were held on 31 August with support from QLDC to build guiding principles, values and objectives for responding to natural hazards and discuss possible management and adaptation responses.
44. Options for coordinated project management and a governance structure between ORC and QLDC are currently being investigated, to support with the planning, funding and governance reporting for the various workstreams within the programmes.

#### **Action 4.7- Queenstown Lakes Food Network**

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45. QLDC is working in partnership with WAO Wānaka on a [Food Resilience program](#) that has investigated the vulnerabilities of the local food system and what the opportunities are to improve its resilience to the threat of disruptive shocks and sustained stresses.
46. The project has involved several workstreams including:

- Development of a food system stakeholder register
- In depth interviews with individuals and business representatives across the local food system
- Research into the historical food production and processing capacity of the district
- Coordination of a Food Resilience community survey which collected over 750 responses
- Development of a GIS mapping tool that integrates data on climate, soil type, zoning and foraging locations
- Research into global and national food network models that have successfully improved the resilience of local food systems
- Coordination of a Food Resilience hui in May that brought together key stakeholders to discuss the challenges and vulnerabilities of our food system and evaluate the best options for launching a network/advocacy group model.

47. A report on phase one of this Food Resilience project can be [found here](#). Phase two will launch in early FY2023/2024.

## **OUTCOME 5: LOW-EMISSION BUSINESSES THRIVE**

### **Action 5.2- Implement the actions outlined in the Destination Management Plan:**

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48. The Climate Action team provided funding and resourcing support for the [Queenstown Lakes Carbon Zero Discussion Paper](#) which was released publicly in May. The paper explores the challenge of establishing an estimate of the GHG emissions for the visitor economy as well as pathway options for the emissions reduction investments that will be required to reach the goal of carbon zero by 2030. Feedback on the paper is invited to help identify decarbonisation initiatives, explore measurement methodology options, and partner investment in new innovative solutions.

### **Action 5.5-Sustainable Event Guide**

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49. A waste and emission reduction guide for event managers is under development which will bring together best practice guidance from the sector. Industry feedback on the new toolkit will be coordinated and key partner organisations such as Sustainable Queenstown will be involved in its promotion.

## **OUTCOME 6: A FLOURISHING NATURAL ENVIRONMENT**

### **Action 6.1 Undertake a review of the impact of climate change on indigenous ecosystems in the district**

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50. QLDC is supporting work to investigate the impacts of climate change on local indigenous ecosystems through an optimal biodiversity mapping project. The research is being led by Wildlands Consultants and project managed by Southern Lakes Sanctuary.
51. The aim of the project is to produce an open source resource that can be used to guide biodiversity planning for the district.
52. The project which is nearing completion, is an important foundation piece for a larger programme of activity that relates to the restoration of indigenous ecosystems across the district.

### **Action 6.2 Integrated Biodiversity Work Programme**

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53. A review of QLDC's biodiversity commitments in reserve management plans, policies and work programmes is complete. Engagement with community groups, ORC and other conservation organisations is continuing.
54. As part of achieving action 6.2, QLDC has supported several ecological restoration projects with local partner organisations. The following organisations received funding at the end of FY2022-2023.
  - Mana Tāhuna Charitable Trust - catchment restoration for Te Wai Whakaata Lake Hayes.
  - Upper Clutha Wilding Tree Group - wilding-tree control on the Mount Iron Reserve to allow for natural revegetation and re-planting
  - WAI Wānaka - Urban Catchment Group are planning, facilitating and preparing sites for maintenance, and conducting water quality monitoring on QLDC managed reserves as agreed with the Council's Parks & Reserves Team.
  - Whakatipu Reforestation Trust - indigenous revegetation projects on QLDC managed reserves within the Whakatipu Basin.
  - Te Kākano Aotearoa Trust - indigenous revegetation projects on QLDC reserves in the Upper Clutha Basin.

### **Action 6.5 Blue-Green Network**

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55. Boffa Miskell has been engaged to develop the Blue-Green Network, which is a key initiative within both the Spatial plan and Climate and Biodiversity Plan. The Blue-Green Network Plan will comprise of a number of Community Open Space Network Plans for each settlement and Priority Development Areas. It will inform the planning for the future open space provision, biodiversity corridors and recreation and ecological connections for communities across the district, focusing on the Priority Development Areas.
56. Wānanga with representatives of mana whenua, and workshops with key stakeholders were held in August to explore issues and aspirations for the Blue-Green Network, test existing gap analysis of the network, explore solutions to address gaps, and identify opportunities for enhanced

ecological and recreational connectivity through priority areas and settlements. This is accompanied by online engagement with key stakeholders who were unable to attend the workshops.

57. Wider community engagement for the Blue-Green network will be undertaken late 2023/early 2023. It is intended that the Blue-Green Network Plans will be an important future mechanism that QLDC will use to determine and prioritise spending on parks, open space, and social infrastructure for the community.

### **CLIMATE REFERENCE GROUP**

58. Following an independent appointment process led by the Governance subcommittee, Dr Leslie Van Gelder was confirmed as the new chairperson for the Climate Reference Group to replace the former chair Bridget Legnavsky.
59. A [media release](#) to recognise this important milestone has been released and the first “reset” meeting of the group was conducted on 19 September.

## **Consultation Process | Hātepe Matapaki**

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### **Significance and Engagement | Te Whakamahi I kā Whakaaro Hiraka**

60. This matter is of low significance, as determined by reference to the [Council’s Significance and Engagement Policy](#) because it is consistent with existing strategy, and does not impact on the objectives set out in the Financial Strategy, Long Term Plan or Annual Plan. Although the Climate and Biodiversity plan is of high importance to the district and community, the matter is of low significance due to the fact that current progress is aligned with the goals and outcomes of the plan.

### **Māori Consultation | Iwi Rūnaka**

61. The Council has partnered with rūnaka representatives in the development of the Climate and Biodiversity Plan 2022-25 and undertakes regular engagement on its progress through the Climate Reference Group.
62. Opportunities for alignment and integration with Kāi Tahu’s Climate Change Strategy Te tāhū o te whāriki are regularly being discussed and explored.

## **Risk and Mitigations | Kā Raru Tūpono me kā Whakamaurutaka**

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63. This matter relates to the Environmental risk category. It is associated with RISK10012 Ineffective mitigation response to the declared climate and ecological emergency and RISK10059 Ineffective

planning and action to support climate change adaption within the [QLDC Risk Register](#). This risk has been assessed as having a high residual risk rating.

64. The approval of the recommended option will support the Council by allowing us to implement additional controls for this risk. This shall be achieved through the implementation of the 70 actions with the Climate and Biodiversity Plan. These actions represent a broad risk control response to the challenges associated with emissions reduction, climate change adaptation and biodiversity restoration.
65. The effectiveness of the implementation of these risk controls is supported through the advisory oversight of the Climate Reference Group and the governance of the Audit, Finance and Risk Committee.

#### Financial Implications | Kā Riteka ā-Pūtea

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66. There are no variances to operational budgets or resource implications to consider at this time.

#### Council Effects and Views | Kā Whakaaweawe me kā Tirohaka a te Kaunihera

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67. The following Council policies, strategies and bylaws were considered:
- The Climate and Biodiversity Plan is aligned to the principles of the Vision Beyond 2050, particularly Zero Carbon Communities, Disaster-Defying Resilience and Deafening Dawn Chorus <https://www.qldc.govt.nz/vision-beyond-2050/>
  - Related policies, strategies and bylaws (including Management plans) include:
    - 2018-48 Infrastructure Strategy
    - 2018 Three Waters Asset Management Plan
    - 2018 Transportation Activity Management Plan
    - 2018 Waste Minimisation and Management Plan
  - The QLDC Disability Policy was considered in the development of the Climate and Biodiversity Plan.  
<https://www.qldc.govt.nz/assets/Uploads/FINAL-Disability-Policy-May-2018.pdf>
  - Further reference to Council policies can be found here: <http://www.qldc.govt.nz/policies>
68. The recommended option is consistent with the principles set out in the above named.
69. This matter is included in the [Long Term Plan](#)
- Message from the Mayor and Chief Executive - pg 5
  - What's Changed?- pg 19
  - Taking Climate Action pg 45

- Disaster Defying Resilience pg 54
- Climate Action – pg166
- Risk, Resilience and Climate Action- pg 167

70. This matter is also included in the [Annual Plan](#)

- Message from the Mayor and Chief Executive- pg 4

#### Legal Considerations and Statutory Responsibilities | Ka Ture Whaiwhakaaro me kā Takohaka Waeture

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71. There are no legal considerations to take into account at this time.

72. The Council has statutory responsibilities under the [Climate Change Response \(Zero Carbon\) Amendment Act 2019](#) as a reporting organisation.

#### Local Government Act 2002 Purpose Provisions | Te Whakatureture 2002 o te Kāwanataka ā-Kiaka

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73. The recommended option:

- Section 10 of the Local Government Act 2002 states the purpose of local government is (a) to enable democratic local decision-making and action by, and on behalf of, communities; and (b) to promote the social, economic, environmental, and cultural well-being of communities in the present and for the future. The Climate and Biodiversity Plan plays a central role in delivering upon this purpose through its focus on environmental stewardship, community resilience and intergenerational equity;
- Can be implemented through current funding under the Long Term Plan and Annual Plan;
- Is consistent with the Council's plans and policies; and
- Would not significantly alter the intended level of service provision for any significant activity undertaken by or on behalf of the Council or transfer the ownership or control of a strategic asset to or from the Council.

#### Attachments | Kā Tāpirihaka

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A	Queenstown Lakes District Council Carbon Baseline Report Rev B - FINAL
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