



Nelson Tasman Climate Forum

Submission on Whakatū Nelson Climate Change Strategy and Action Plan

**Prepared by Nelson Tasman Climate Forum Submissions Group
17 April 2025**

Dear Colleagues in NCC,

Thank you for the invitation to comment on the draft Whakatū Nelson Climate Strategy and Action Plan. We are grateful for the Council's support as a Partner Organisation of the Nelson Tasman Climate Forum. We applaud the intention of the Plan to mainstream climate considerations across all Council activities, and its breadth of coverage. We appreciate the creativity and hard work you dedicate to this, particularly in the preparation of the draft Strategy and Action Plan. It is a pleasure to work alongside you.

This submission has been prepared by the Submissions Group of the Nelson Tasman Climate Forum, with input from many members both written and delivered in an online meeting for the purpose of gathering input. Substantial contributors are Joanna Santa Barbara, Fred Overmars, David Ayre, Jenny Easton, Chris Wheatley, Karen Driver, and Paul Martin.

Please note: whilst the Nelson City Council has signed the Nelson Tasman Climate Forum Charter, this submission has been prepared completely independently of the Council. This submission is in no way intended nor should be construed to represent the views of the Council in any way.



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1. Overview

1.1 Strengths of the Strategy and Plan

We see many strengths in the draft Strategy and Action Plan (the 'Plan').

- We are impressed by the breadth of the Plan -- covering most of the areas that need to be addressed, and by its depth – introducing important but often overlooked concepts.
- The Plan is conceived as one for both *Council, Iwi and Community*, emphasising the role of businesses, organisations and households in action on climate alongside the Council.
- It notes the importance of *social cohesion and equity* in dealing with the climate crisis.
- It includes *iwi efforts* towards protecting and regenerating the biosphere.
- It recognizes climate change as but one *symptom of our overshooting many planetary boundaries*, and the need to *reduce consumption* as essential to living within planetary boundaries.
- It proposes *targets* for emissions reduction that are based on the best consensus science available. To take on our *fair share* of the collective task of preserving a liveable world, we need some quantification of the size of our task. The magnitude is, in fact, daunting – a fact that has to be faced rather than effaced. Only *sufficient* change will avoid irreversible tipping points, and only *collective action* will suffice. Targets are essential.
- It emphasises *emissions reduction* rather than offsetting.
- It recognizes the potential of *participatory deliberative democracy* in helping to align people with the need for rapid transformative action.
- We salute the Council for its endorsement of the *Climate Change Learning Programme* for upper primary students through 2025. We strongly recommend continuation of this important curriculum for all year 7 and 8 students. This may require council advocacy to the Minister of Education.
- It endorses the concept of a *regenerative economy*, which goes beyond circular economy principles to include restoration of Nature and limiting energy and material throughput to what can be replenished. Decarbonising the economy is central. It includes closing inequity gaps, which we see as a necessary element in social cohesion under climate stress. The focus is on wellbeing rather than GDP. Training for transition and educating children for a climate-affected future is important.
- It recognises the likelihood of *climate refugees* as an element in future adaptation challenges.
- Zero Waste Society Pillar: We applaud this Pillar, and would encourage changes be made to the Draft Waste Management and Minimisation Plan for Nelson and Tasman to reflect it.
- NCC has substantially reduced its own emissions in recent years.

1.2 Ongoing review process for the Strategy and Plan

We **recommend** that the whole Strategy be reviewed by the Climate Change Team once a year with a report to Council *in public space* as part of the preparation of the Annual Plan. That will give the Climate Change Team a clear window to raise any changes needed as a result of new developments, and the time and budget to do the review and make any recommendations.

This review should be done with input from the community including iwi and well-informed local groups such as the Nelson Tasman Climate Forum and Mission Zero. We need a robust process for identifying innovative ideas and new actions and adding them into the Action Plan.

Both the Strategy and the Action Plan should be open to adaptive change as living documents in a rapidly changing setting.

The Strategy should have an outline plan to 2050, even if it will be a rough sketch. Having the targets options only running to 2035 leaves no sense of how much work remains to be done after 2035.

1.3 Citizen participation in decision-making processes

Enormous social changes over coming decades are needed to avert further risks of triggering tipping points which will irreversibly lead to a partially uninhabitable earth. It will be a huge challenge to bring people to understand the need for such changes and to participate actively in adapting to a changed way of life. This democratic challenge comes at a time when trust in institutions and in democratic process itself is in question.

We **recommend** that NCC appoints a working group to examine recent developments in democratic process and consider them for adoption, particularly *participatory deliberative processes, and digitally supported democratic processes*. The Climate Forum is happy to contribute to this exploration.

1.4 A Cooperative Global Effort

We **recommend** that Nelson City Council become even more explicitly part of the immense global effort to ensure a liveable future for the generations ahead by joining other cities who work and learn together in this arena. This could be through the C40 Cities Movement, and through linking with the focus on cities at COP30 in Brazil, November this year.

The Brazilian COP30 Presidency is promoting a global “mutirão” against climate change, a global effort of cooperation among peoples for the progress of humanity¹. It is also promoting a strong emphasis on subnational engagement (e.g. municipal scale, such as Nelson City).

¹ do Lago 2025. [First letter from the President of COP30, Ambassador André Corrêa do Lago.](#)

2. The Strategy

We recommend that the Strategy lays even greater emphasis on the need to change aspects of our way of life. We pick up prevalent views that we simply need to switch to more renewable energy to solve the problem, or that the ETS will take care of everything. An understanding of the magnitude of the problem reveals that we will need to change our homes, our diet, our clothing, how we move around, how we keep warm and cool, and to lower our consumption of materials and energy. It is a challenge to present the magnitude and urgency of this to people. This Plan has addressed this challenge but has not, in our opinion, gone far enough in the context of this being also a Community Plan.

2.1 Emissions Reductions Targets

The Climate Forum strongly advocates the Option B target.

There are several points to be made about this:

- This target was based on IPCC calculations and NZ data which are now several years old, years in which the rate of change of climate parameters has accelerated.
- The pathway of emissions reductions on which this target is based offered a 50-66% chance of remaining under 1.5 degrees temperature increase. This is an extraordinarily low probability to accept when the stakes are so extremely high. One would think that ordinary prudence would suggest that we would choose a 90%+ probability of avoiding a catastrophic outcome.
- Current data show that we are highly likely to break the 1.5 °C boundary soon.
- Even Option B, applying a pro rata approach to all people on the IPCC's 43% reduction in global emissions figure to keep global warming to 1.5°C, may not be a sufficiently fair approach. The Climate Change Commission cites two other burden sharing principles: responsibility (for historic emissions); and capability/need (a focuses on a country's level of economic development).² It concludes that 'applying equity approaches implies that Aotearoa should make significantly deeper reductions than the global average'.

All this suggests that the 8.3% + 1.5% per annum targets are likely to be superseded by more demanding ones (even if we continue to accept an extraordinarily low probability of success).

We think the Plan should point out that these targets will need recalculation annually, and that delay in action on them will only send them higher.

The targets are a vital element in the principle of *collective action* – that every individual, household, community, region and country must assume proportionate responsibility for action. The targets help us gain an understanding of the level of action required. Only collective effort has any possibility of changing our trajectory. (We hope to hear no more of the morally bankrupt argument that we might exit from collective action because we are 'too small to matter'. This is known as 'bludging', or free-riding.

² He Pou a Rangī Climate Change Commission 2021. [Ināia tonu nei: a low emissions future for Aotearoa](#).

Apart from a strong moral objection to this position, there is the fact that human individuals and groups constantly engage in social comparison. If one person or group engages in bludging, it becomes more likely that others will do so too. Conversely, if one person or group raises the standard of behaviour or performance, it increases the probability that others will too. Nelson's level of ambition matters not only in actual tonnes of carbon we cut from emissions, but also as a factor in inspiring others to match or exceed our level.

In summary, doing our *fair share or more*, is a very important principle in our eyes.

We note that our accounting of emissions is of production, not consumption emissions. There is much to be gained by accounting in consumption emissions, as it points to where we need to cut back on consumption. We understand that is more expensive to do so, and that the data are largely not available to us.

We also note that emissions for aviation and for maritime activities are not accounted for in our regional data. We think they should be.

We note that the target for reduction of methane emissions in the Targets proposed (1.5% per annum in Option B and 1.4% in Option A) is based on the government's target of reducing methane emissions by 10% between 2017 and 2030. This is a very low rate of change. The non-methane targets could be lowered if the methane targets were raised. We **suggest** the Plan make readers aware of that.

Net or gross calculations?

The Plan is to be commended for basing its targets on gross emissions. Calculations for fair share of regional emissions have been based on gross emissions as it shares the burden of emissions reduction more fairly across regions.

2.2 Economic Costs of Climate Inaction

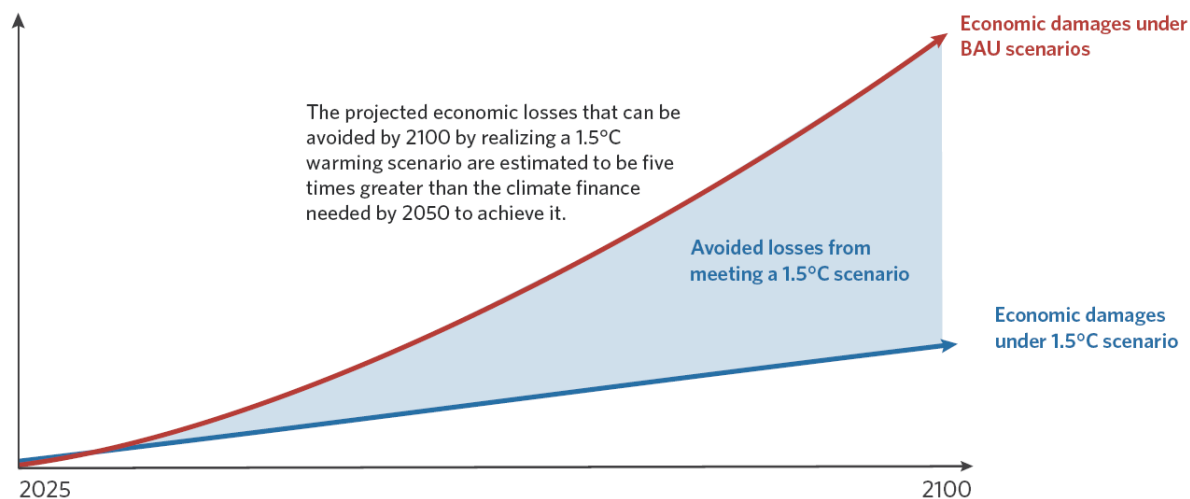
The Plan notes (p. 5) that the costs of business as usual will be significant and acknowledges there are costs of inaction. We **submit** that a fuller consideration around the costs of BAU (or **climate inaction**) could inform choices to be made in the Plan, and an explanation of the principles in the finalised plan would have high educational value.

The social and economic costs of climate inaction are now well understood to be greater than the costs of climate action. Estimates of economic impacts of climate mitigation should account for impacts from climate change itself, and associated economic benefits of avoided impacts e.g. economic losses through climate damages and risks, and social losses in human health and well-being, loss of biodiversity and nature, conflict and migration and global and local inequalities (noting some of these losses are difficult to quantify).³

³ Alberti, C. 2024. [The cost of inaction](#).

The projected global economic losses that can be avoided by 2100 by realizing a 1.5°C warming scenario are estimated to be five times greater than the climate finance needed by 2050 to achieve it (Figure 1.3).⁴

Figure 1.3: Meeting climate investment needs will avoid exponential future costs



Source: CPI analysis of NGFS. See CPI (2024a) for details

Another study⁵ identifies five barriers to economically rational climate action:

- the economic case is not widely or deeply understood by leaders (please, we're just the messenger!)
- the costs come before 2050, but the bulk of benefits occur later
- the transition threatens to create winners and losers within economies
- the costs and benefits are unevenly distributed among countries
- the economic damages are not fully explored by economists.

It proposes the barriers can be overcome with sustained effort from leaders in five areas:

- Reframing the debate on the costs of climate change
- Creating transparency on the net cost of inaction across all actors
- Strengthening national climate policies to accelerate mitigation and adaptation
- Reinvigorating international cooperation on climate change
- Advancing our understanding of the net cost of inaction.

⁴ Against a current policies (3 °C) baseline (Buchner, B. et al. 2023. [Global landscape of climate finance 2023: methodology](#)). Figure 1.3 from Buchner, B. et al. 2024. [Global landscape of climate finance 2024](#).

⁵ Benayad, A., et al. 2025. [Too hot to think straight, too cold to panic. landing the economic case for climate action with decision makers](#).

'Without insurance, which is already being pulled in some places, many other financial services become unviable, from mortgages to investments'.⁶ We note insurance availability will be addressed in the Parliamentary Select Committee's report on climate adaptation. Information on insurance retreat is currently available for Aotearoa's four major urban areas⁷ and we suggest Council could advocate for a similar study for Nelson and other smaller urban areas.

3. The Climate Action Plan

We applaud the many positive elements of the NCC Climate Action Plan. In this section we will comment on what we would further like to see in this Plan.

3.1 Learning and Knowledge Sharing

We see public education as an important arena of Council action. We are aware of common erroneous beliefs such as that climate change is not an urgent problem; the ETS will take care of it; the task will be complete when we reach net zero in 2050. Council should be pro-active in providing education about imminent threats to community wellbeing.

The series of lunch-time lectures in the public engagement process about the Plan in recent weeks was an excellent example of public education.

We need expert input on how best to convey the urgency and gravity of climate change to the Nelson public, and the great array of action options which will mitigate its impact.

There is much enthusiasm for the Climate Change Learning Programme, and desire to have it taught beyond 2025, together with advocacy that it be adopted into the permanent curriculum. This is not merely to benefit children's understanding of a matter that will dominate their future, but because we need an educated populace as we tackle this problem together.

3.2 Regenerative Economy

We are happy to see endorsement of the principles of a Regenerative Economy, and hope to see these elaborated on in future Council framing of our regional economy. We recommend an emphasis on reducing consumption generally. Using a planetary boundaries framework, it is important to reduce material and energy throughput in order to live within the limits.

We encourage a study of what a Regenerative Economy for Nelson Tasman would look like over the next 30 years and make a modest offer to contribute to this.

⁶ Carrington, D. 2025. [Climate crisis on track to destroy capitalism, warns top insurer.](#)

⁷ Storey, B. et al. 2024. [Insurance retreat in residential properties from future sea level rise in Aotearoa New Zealand.](#)

3.3 Low Emissions Transport System

3.3.1 Land Transport

We **recommend** that Council advocate to central government to reinstate several policies that promoted transport emissions reductions:

- Part-funding of cycling infrastructure
- Part-funding of Safe Streets for walking and cycling
- Clean Car scheme
- Lower speed limits.

We **request** further advocacy with central government on:

- A cut-off date for importing fossil-fuelled cars
- Tougher fuel efficiency standards.

We **request** the Council to consider:

- Congestion charges in the central business district
- How to solve the problem of finding places to install EV charging points
- Favoured lanes for buses and multiple-occupancy vehicles at suitable places
- Increasing the frequency of bus services.

We **oppose** the Hope Bypass, as we believe that mode shift away from single-occupancy private vehicles is essential to meeting climate goals. This would reduce traffic congestion and obviate the need for a bypass.

3.3.2 Aviation Emissions

The strategic plan states that 8% of Nelson's carbon emissions are due to aviation (around 26 000 tCO₂e/year). Presumably this is from a production perspective. In contrast, on a consumption basis, and using the national per capita figure of 0.78 tonne CO₂e/year (2018, pre-Covid) for emissions due to flying, this totals 41 000 tCO₂e/year (based on Nelson's then population of 51000) or 90 000 tCO₂e/year when considering that Nelson airport's catchment population also includes the Tasman region (i.e. 115 000 people in total).

80% of these per capita carbon emissions from aviation are due to international travel, which are not - yet - included in New Zealand's carbon accounts.

Based on this data, reducing carbon emissions from flying takes a higher priority than it currently receives in the Strategy and Plan, where no actions to reduce these emissions are proposed.

The most effective and efficient mechanism to reduce emissions from aviation is to encourage Nelson and Tasman residents to Holiday Local, rather than flying overseas. The Nelson Regional Development Agency (NRDA) currently runs promotional campaigns over the spring and autumn shoulder seasons that encourage kiwis to holiday in Nelson/Tasman, but these campaigns are targeted at major urban centres outside the region (Auckland, Wellington etc,) and not in Nelson itself. If this campaign were expanded/reoriented to include Nelson as a target, it would benefit the local tourism industry sector, assist Nelsonians to experience and enjoy their own backyard (and save money compared to an overseas holiday), as well as reduce regional carbon emissions.

In addition, we make the following recommendations:

- Institute a levy for people flying from Nelson Airport. Use the revenue to support intensive action on the Climate Plan.
- Raise the matter of private aircraft at Nelson Airport. Private aviation is to be discouraged as harmful to the rest of the population through its high fossil fuel consumption and its display of inequity.

3.3.3 Marine and Port Emissions

Port Nelson's reliance on fossil fuels for processing, refrigeration, and vessel operations contributes to greenhouse gas emissions. Freezing and packaging consume ~25% of Nelson's industrial electricity. Most of that energy comes from NZ's national grid, but backup diesel generators are still used. Port Nelson is to be acknowledged for its 40% Scope 1 & 2 emissions reduction by 2035 [STBi programme](#), and replacing its diesel-powered cranes with electric models, cutting emissions by ~22% ([Port Nelson Ltd 2023](#)).

Fishing and cargo vessels docking at Port Nelson burn heavy fuel oil, releasing CO₂, NO_x, and particulate matter. A single small container ship docking at Port Nelson emits up to [300 tonnes of CO₂ per day](#).

The Council should work with the Port to develop renewable energy solutions to ensure diesel use is minimised. Options need to be explored for developing Onshore Power Supply to allow ships to plug into the grid instead of idling engines.

Shellfish shells and fish offal: if not repurposed (e.g. for fertiliser or aquaculture feed), this organic waste can contribute to landfill methane emissions. Council should continue to work with Port Nelson to ensure that organic and plastic packaging waste is reduced to a minimum.

3.3.4 Zero Waste Society

We applaud this Pillar. The Action Plan needs to reflect this strategy. We note that the targets here are for reducing waste to landfill, rather than the need to reduce the generation of waste at source. The new draft Waste Management and Minimisation Plan for Nelson and Tasman is similar, despite stated intentions to target the generation of waste by addressing solutions at the top of the waste hierarchy. The Zero Waste Society Parakore context in the Strategy section of the Plan is targeted at reduced generation of waste. The Action Plan should be consistent.

Regarding the last action under this heading 'Review the 2019 JWMMP', it has now been reviewed and a draft WMMP for Nelson and Tasman has been developed and consulted upon.

Some of the current actions do not have a budget, which may be why they are not as strong in delivery as they could be.

A key enabler of delivery is a well-resourced staff team. NCC needs to ensure that the current staff vacancy is filled as soon as possible with a candidate that has a proven background in developing, implementing and reviewing zero waste programmes.

Given that the Draft Waste Minimisation Plan that was recently consulted on is so weak, it is important that new actions with budget and staff resourcing are added to meet the Zero Waste Strategy as stated. This would involve reducing the generation of food waste, processing unavoidable waste to ensure it feeds local soils in a distributed manner throughout the region; building on existing community initiatives such as Community Compost to process food waste to compost and supporting community education in this area; investment into reuse systems by working at local and national levels.

We would like Council to have a strong policy of favouring low carbon products, processes and supply lines in its procurement of goods and services.

We note the existence of anaerobic digestion technology that can capture methane (and potentially displace fossil fuel use), and recycle nutrients, avoiding disposal of organic material in landfills.

3.3.5 Thriving Biodiversity and Nature

For a relatively small, largely urban district, bounded by both Tasman and Marlborough Districts, the strategy should pay more attention to coordinating actions across Council boundaries to ensure that gains in one district are not lost due to lack of similar actions by our neighbours, e.g. pest/predator control (ungulates, wilding pines etc). Landscape scale actions are important in this respect, so explicitly acknowledging the strategy of the Kotahitanga Mō Te Taiao alliance, of which Nelson City Council is a part, would be appropriate, especially as additional resources can be accessed through this alliance.

The actions are welcome, but vague – lacking mention of specific targets, baseline information, timeframes and outcome monitoring. This makes it difficult to quantify any biodiversity improvements that will result from the proposed actions, and whether they are significant in scale. Some actions (Waimea Inlet risk assessment, Integrated Catchments Programme) even have no allocated budget.

Apart from the forestry (right tree, right place programme) the actions appear to be a continuation of existing activities. It is not clear that they will lead to significant changes.

Some of the actions are reliant on other organisations for their implementation e.g. Catchment Communities. It is not clear how much influence NCC can have in this space (especially as no budget is allocated).

Comments on Strategic Areas and Specific Actions

- Climate change impact on Nature: there is no mention of the recent comprehensive [DOC report](#) on climate change vulnerability of terrestrial species, and how the threat assessments detailed in this landmark study will be used to refine priorities of both species and habitats across the different actions proposed in this plan.

- The actions for coastal wetlands seem to be limited to the development of plans - there is no discussion on how sedimentation, nutrient runoff and plastic pollution, which can originate outside coastal wetlands (and the Nelson District), can be mitigated.
- The actions for invasive species seem to focus solely on biosecurity risks, and do not deal with the issue comprehensively.
- We welcome the funding to develop a pest/predator free halo around the Brook Waimārama sanctuary, involving the local community, covering both the forest environs and the Brook suburb.
- Fostering bird and biodiversity corridors from hills to sea; councils are at the right level of decision-making for a long-term project of this nature. It is crucial to the survival of some species.
- Afforestation (right tree, right place): for biodiversity and climate change reasons, this programme should focus solely on native tree species. Although this will result in lower initial financial returns, this will be recompensed over time. Additionally, as biodiversity credit schemes become established soon, planting exotic species now locks the land into a biodiversity impoverished habitat, with lower financial returns, for decades into the future.
- Parks and reserves: areas that are currently mowed but are not used for sport or other activities, could be planted to native species, enhancing biodiversity and reducing the cost to ratepayers of regular grass mowing.
- Nelson's responsibility for ecosystem health extends to part of Tasman Bay, the whole of which suffers impacts from climate change. Increasing water temperature leads to lower levels of oxygen, toxic algae and other pathogens, loss of seagrass meadows and kelp forests, degrading the environment for many marine species. This entails lower catch levels to preserve a breeding population. Council should lobby central government strongly for more effective and responsive adaptive fisheries management to ensure species are not wiped out by over-fishing. Dynamic catch limits for climate-affected species are essential.
- With sea level rise, intertidal zones will move progressively inland. Replanting of these zones with indigenous salt resistant trees, shrubs, mosses and lichens is a priority to reduce sediment runoff. Replanting sea grass is important for carbon sequestration and for fish nurseries.
- Marine Protected Areas (MPAs) near Nelson are limited, leaving ecosystems, particularly those where fish spawn, vulnerable. The Council should explore with the government the need for more and larger MPAs in Tasman Bay. The explosion of 'recreational' fishing in the Bay from rapidly increased resident human populations and tourists does not appear to be accounted for - particularly their impact on vulnerable coastal fisheries.
- The predicted more intense rainfall will increase sediment plumes, smothering sea-floor life and reducing light availability. Together with increased nutrient loads from land-based sources and increased acidification of ocean waters, this degrades the environment for development of juvenile snapper. The Council should resource increased monitoring and actions for mitigating sediment runoff from land, including extensive riparian plantings to water level and reducing riparian flow, through structural river management.

3.3.6 Sustainable and Resilient food System

It is well-recognised that a shift to a more plant-based diet, with less meat and dairy consumption, if done collectively, is a powerful emissions-reducing measure. Many Nelsonians have embarked on this action. We **request** that the Plan at least mentions this action, even if there is no action plan to implement it.

This is an action area that may fall more comfortably in the arena of community action; it would be helpful to have Council leadership in acknowledging its importance.

Food security: We have a serious problem with the lack of resilience in food supply long term, because the two main supermarkets do not have a warehouse in this region but get their supplies Just in Time from Christchurch. This won't work in a climate disaster, or Alpine Fault 8 which will cut off the roads south to Christchurch. Council and Emergency Management need to ensure a supply depot in this region - not only food, but cleaning products and other essentials.

3.3.7 Resilient Built Environment

- Council can do much more in this arena by working on positive change in buildings (e.g. incentives for solar during design and build), positive change on our streets (e.g. rows of trees for shade in summer), and providing much more emphasis on simple and direct public education.
- We would like to see mention of the importance to emissions reduction of intensification of urban areas, with minimisation of suburban sprawl, and of the desirability of planning for 'twenty minute cities' in which amenities are a short walk, cycle or bus ride from residences.⁸
- We also recommend that the Council encourage planners to consider the solar orientation of new or renovated housing, in order to maximise solar gain, and minimise energy use for heating and cooling.
- We would like to see mention of planning for 'planned relocation' of buildings.
- Also missing here is the importance of repurposing existing buildings to minimize highly carbon intensive new construction.

3.4 Adaptation

3.4.1 Framework

We need to have a shared understanding of our single best estimate of what we think is going to happen (e.g. temperature increase of 1.5°C, 2°C, 3.5°C++, plus rates of rainfall, sea level rise and vertical land movement) and then decide how we are going to prepare for that visualised future. It hardly makes sense to take local actions that will lead to 3.5°C if repeated globally, and then plan to adapt to 1.5°C.

⁸ See Neubauer, T. 2024. [Don't sweat the small stuff when it comes to emissions savings.](#)

3.4.2 Insurance

- We recommend that Council moves rapidly to consider changes in insurability of Nelson houses and what this implies for funding adaptation. This could rapidly become a serious problem and should be attended to now.
- Council should advocate for an insurance retreat study for Nelson Tasman.

3.4.3 Social cohesion

Adaptation success will depend strongly on the degree of social cohesion in our region. This in turn is related to degree of social equity. Actions now to increase social equity and to foster citizen participation and interaction are important. When stresses arrive in the form of climate disasters, we will draw on this social capital.

3.4.4 Stop allowing housing in areas at high climate risk

It is unwise and unfair on the inhabitants to continue to allow so much housing in the Maitai delta. By rezoning areas of the Maitai flood plain from residential to open space, it can be slowly replaced with wetlands, flax, rushes and be part of the sponge that holds flood water and purifies runoff. Monaco peninsula and low-lying areas in Tahunanui are other areas to stop building more houses, as these commit the ratepayers to supporting continuing Levels of Service and creates the impression that Council believes these areas are safe for at least 50 years.

3.4.5 Flap gate on Saltwater Creek

Council knows the extensive areas flooded at high tide when the old flap gate on Saltwater Creek wasn't working, and we should expect the new one to fail occasionally. To prepare for this emergency any development in these areas should factor in this likelihood and not have vulnerable or valuable equipment or residential occupancy on the ground floor.

3.4.6 Water supply

Water security (for adaptation) and stormwater control (for reducing the effect from storms) could be improved if the rules about roof water tanks were simplified and expensive filters and UV treatment not required in low-risk situations.

3.4.7 Pumps for stormwater and sewage control

These pumps rely on electricity or diesel back up. If there are alternatives, we should not leave this problem for future generations but should design systems for the long term that can work with a range of energy sources.

3.4.8 Develop schools as emergency bases for resilience.

About 40 years ago the Civil Defence system was based on CD hubs at schools. Most people could walk to their nearest school and the call was 'When you have made sure your family and neighbours are safe, please come to your local school and offer to help'.

It would be a sensible move to bring back this system starting with the schools that will be dry, and not far from the predicted flood zones. We should be also preparing for the disruption caused by the Alpine Fault. Having more local CD bases will enable a better response than waiting for a centralised one and not having communities already used to working together.

The process of establishing these bases will raise awareness to parents and students, increase social cohesion and provide a pathway or agency in these communities. Schools have assembly halls and other spaces for temporary shelter. They could also have solar panels and battery storage for some electricity. There will be a cost in providing communication equipment and a Shipping container of basic equipment as the West Coast has done in preparation for the AF8.

3.4.9 CBD Community hub

The new library & civic house complex must be located somewhere high and dry, utilising an existing building (to reduce waste and building cost) and function as a community hub.

3.4.10 Considering the Alpine fault M8

The Alpine Fault rupture is expected to result with M7 in Nelson, and we can assume that liquefaction will disrupt the airport for many months. SH6 will also be cut off in both directions. We need to consider this situation at the same time as the climate emergencies because many adaptive actions apply to both. We need to ensure that we have other ways of accessing people, produce and equipment from outside our region. Coastal shipping is one route. For transport by road we need an emergency road from Nelson to the Rai valley. Geologists would advise which route is most likely not to be salvageable and this should be identified and the ownership or zoning of the route secured.

3.4.11 Boulder Bank

Climate change, particularly sea-level rise (SLR) and increased storm intensity, poses significant threats to this landform, with cascading effects on coastal ecosystems, infrastructure, and the regional economy. A 2020 University of Canterbury study found that sections of the bank are receding at ~0.5 m/year. There is thus a high likelihood that the Boulder Bank will be breached within this century. If this happens Port Nelson and Tahunanui would be flooded and the shipping lane into the port compromised (requiring extensive continuous dredging), along with a change in tidal flows (damaging marine habitats particularly in the Waimea Inlet).

The Council should actively work with Port Nelson to implement strategies to mitigate this significant risk to the city, its economy and its environment. Options to explore include:

Rock Armouring: Reinforcing vulnerable sections with boulders (used in parts already).

Artificial Reefs: To dissipate wave energy (pilot project proposed for 2025).

Partial relocation of port and some city infrastructure may be necessary long-term (NZ Coastal Policy Statement, 2020)

4. Monitoring, Reporting and Funding

We recommend that a high priority be attached to developing a 'dashboard' based on regional fossil fuel imports, and that Council work with community organisations and media on how this might feature as a well-known public datum by which we can all monitor progress.

We are conscious of funding constraints on the Council. Many of the changes we advocate cost very little or save households money e.g. mobility mode shift, dietary shift. Some cost money now, and save in the long run e.g. EV, rooftop solar, heat pump. In some cases a relatively low funding input from Council, amplified through community action, will have a significant impact on emissions reductions. We hope the below-mentioned transport projects will exemplify this.

We think the principle of 'polluter pays' should apply to funding Council for the costs of climate action.

We suggest a modest levy at Nelson airport for all departing passengers. A \$10 levy on each of the 450,000 departing passengers each year would yield \$4,500,000 for climate action.

5. Nelson Tasman Climate Forum Community Projects

5.1 What we are already committed to doing to reduce emissions and cope with climate disruption

Earthminds. (This is not a Forum project but is a notable community project we wanted to be sure gets into your record of community climate action work) This is a programme training 20-30 high school students in team problem solving, tackling real life problems of climate and Nature. The project lead is Sam Ng.

Urban gardening to increase household resilience in situations of threat to food supply lines. Project lead, John-Paul Pochin.

Drop One (temporary name) is a project aiming to have drivers of single occupancy vehicles swap one of their five weekly commuting journeys, and substitute active, public or shared transport. Project lead, Jim Sinner, partnered with Mission Zero.

Healthy School Travel. This project aims to inspire students to use public and active transport to get to and from school, rather than be driven or drive. Project lead, Joanna Santa Barbara, partnered with Enviroschools and Public Health.

Take the Jump. This campaign aims to cut consumption of car use and aviation, meat and dairy, clothing, appliances, to plant trees and act to change systems which adversely affect the biosphere. Lead person is Chris Wheatley. (See below for an elaboration of the potential for NCC's engagement with Take the Jump.)

Repair Cafes in Nelson, Motueka and Mohua, another being planned in Wakefield. This project encourages a culture of repair, cutting material and energy consumption and reducing waste. It also supports the learning of new skills, passed from repairer to customer. There are lead people in each separate cafe.

Encouraging the Prime Minister and Minister of Climate Change to play a more active and visible role in climate action and policy. This highlights our view that leadership is a very important element in the social transformation before us. Lead person, Lindsay Wood.

Continual learning and knowledge sharing through the Climate Action Festival, Climate Forum newsletter, the monthly webinars or public talks and the Fresh FM radio shows, EcoPostcards and Climate Matters.

Advocacy to local and central government on measures to enhance opportunities for emissions reduction and adaptation.

Entertainment events designed to increase people's awareness of Nature-connection.

Restoration of Snowdon's Bush.

Membership and participation in Tax Justice Aotearoa as a route to strengthen equity and community cohesion.

Membership of Te Tau Ihu Community Development, expressing a partnership with community organisations pursuing social justice. This will become particularly important when the need for 'just transition' becomes more apparent.

Businesses for Climate Action (Mission Zero) works with businesses in Nelson to help them take responsibility for reducing their greenhouse gas emissions. It assists them in measuring emissions, assessing their climate risk, setting reduction targets and developing a transition plan. They are currently a partner in the Forum's Drop One campaign to lower transport emissions. Their mode of operation is explained in more detail in a document available on request.

5.2 Take the Jump

TTJ Shift	NCC internal: role model	NCC external: supporting community action
Travel Fresh	<ul style="list-style-type: none"> • NCC support for staff purchase of bikes and ebikes, especially using local manufacturers • Council provision of bikes/ebikes for staff transport to meetings within the urban area 	<ul style="list-style-type: none"> • Cycleway investments enhanced • Signage to promote active/public transport, e.g. billboards comparing travel times by car, bus and bike on congested Richmond-Nelson commute routes • Bike Hub support • Subsidised eBus fares targeted at youth and disadvantaged groups where possible (especially as central government subsidies are being reduced)

		<ul style="list-style-type: none"> • Support for local bus and bike related campaigns • Continued regular biking events (breakfasts etc) • Secure bike lock-up facilities at Atawhai and Richmond, for commuters into Nelson, to facilitate combined car, e-bus and bike commutes (reducing congestion) • Encouraging or ensuring cycle parking facilities are placed in highly accessible places at Council buildings and publicly used sites
Eat Green	<ul style="list-style-type: none"> • NCC event (and external NCC funded events) policy of vegetarian (+ wild game meat only) catering, following EAT-Lancet dietary guidelines (for health + environment). • 	<ul style="list-style-type: none"> • Support for community composting, food waste collection, gardening etc. (with reducing emissions at landfill as an objective) • Promotion of the EAT-Lancet diet (with Public Health) including at schools • Effective food waste policy for food carts etc, at NCC events.
End Clutter	<ul style="list-style-type: none"> • Policy on expected replacement periods for NCC electronic equipment/devices (7 years) • Policy on refurbishments, upgrades where feasible • Policy on recycling/upcycling of used equipment/devices 	<ul style="list-style-type: none"> • Enhance support for e-waste recycling and produce refurbishment, and reducing costs for the public.
Dress Retro	<ul style="list-style-type: none"> • Staff clothes swap events 	<ul style="list-style-type: none"> • Support for events (Dress Retro fashion etc) • Support for community clothes repair/upcycling initiatives • Encouragement of sustainable business models for local clothes designers/makers (subscription/hire services, not purchase)
Holiday Local	<ul style="list-style-type: none"> • Staff incentives if not flying for holidays • Sinking lid on work related plane travel budgets 	<ul style="list-style-type: none"> • Holiday Local campaign support (NRDA etc)
Get Planting	<ul style="list-style-type: none"> • Policy on planting (and plant care) days - staff time allocations, to 	<ul style="list-style-type: none"> • Expansion of the Adopt a Spot programme to more areas of Nelson (potential to link

	encourage staff to engage in their local areas (Adopt a Spot etc) not just on organised staff planting days	with community resilience/adaptation groups at local level) <ul style="list-style-type: none"> Coordinated programme for local businesses to support environmental projects through staff time for planting, trapping etc. Special effort around halo area of Brook Waimārama sanctuary
System Change	<ul style="list-style-type: none"> Staff to support TTJ uptake in other councils through horizontal networking 	<ul style="list-style-type: none"> Promote awareness of relevant consultations on NCC policies and plans Facilitate and support a deliberative citizen's assembly to aid development (and legitimise) future iterations of climate change related plans and policies.
TTJ-wide	<ul style="list-style-type: none"> Staff awareness of TTJ – internal campaign via Green Group etc. 	<ul style="list-style-type: none"> Support in practical and financial ways for growing awareness of TTJ at community level, so facilitating community action to mitigate climate change at arm's length from Council.

5.3 What further actions would we like to take?

- We are eager to initiate a project called Holiday Local which encourages people to take their holidays in our region rather than take a carbon-intensive overseas trip.
- We would like to work with restaurants to encourage them to emphasise vegetarian and vegan food – to develop more options and to place them at the top of their menus, rather than at the bottom.
- We would like to develop a map of walking and cycling routes in our region.
- There is much to be done to reduce the generation of organic waste, and process any unavoidable waste in a manner that recovers the goodness for building back our soils.
- We would like to support a regionwide move towards zero waste by working together as one community and reducing the generation of all waste. We need to move away from seeing recycling as the solution. It isn't, and we need to understand that as a community.
- We would like to contribute to the evolution of new forms of democracy in Nelson, particularly Citizens' Assembly and digitally supported deliberative processes. These processes seem well-suited for citizens' decisions about some of the transformative actions we need to take, for example in the transport arena.

- We would like to do more in the area of shaping resilient communities – resilience in the sense of being able to bounce back from fast-hitting emergencies, and also adapting to slow-moving adverse changes in weather, rainfall, crop yield, soil quality, global financial functioning, supply lines of imports and arrival of climate refugees.
- We would like to do more in the arena of agricultural emissions.

5.4 What Council could do to facilitate community action

We have dealt with this under the headings of the eight pillars. The list below gathers the recommendations that facilitate community action together.

- Revise the Future Development Strategy to support greater intensification of urban aggregations and to protect greenfield land.
- Apply a carbon-intensity criterion to events awarded NCC support. Don't support highly carbon-intensive events, e.g. ones requiring helicopter transport.
- Develop a public education campaign to improve people's knowledge of climate change and its impacts. Consider how best to deliver this, possibly through community hubs/marae/churches so that we grow and support local communities to deliver the messages, rather than the voice coming directly from Council.
- Encourage community leaders, especially the Mayor, to speak frequently of climate change, as it affects many areas of council functioning.
- Increase uptake of 'Warmer, Healthier Homes' grants.
- Require new or renovated buildings to be built to enable passive solar gain whenever possible. Require developers to orient building sites to maximise this.
- Incentivise building with low carbon materials, high insulation, passive solar arrangements, and low construction waste.
- Institute congestion charges for Nelson CBD. Use revenue to increase tree canopy cover in Nelson, and to improve walking and cycling infrastructure.
- Institute a levy for people flying from Nelson Airport. Use revenue to support intensive action on the Climate Plan.
- Raise the matter of private aircraft and Nelson Airport. Private aviation is to be discouraged as harmful to the rest of the population through its high fossil fuel consumption and its display of inequity.
- Complete the development of a dashboard showing emissions from fossil fuel imported into the region. Consult on ways to make this dashboard highly visible to the public.

- Introduce more e-buses. The Motueka route needs to be more frequent. Students complain that their buses are over-crowded.
- Promote adoption of LED lighting, heat pumps for space heating, and solar panels on domestic, commercial and industrial buildings.
- Advocate strongly to central government to restore funding to support cycleways and safe streets for people, and to lower speed limits to make walking and cycling safer.
- Advocate to central government to restore the Clean Cars plan to foster transition from fossil-fuelled cars to EVs.
- Advocate for an insurance retreat study for Nelson.
- Advocate to central government to restore support for transition of Nelson industries from fossil fuels to electrification.
- Advocate to central government to take aviation and marine emissions into account.

5.5 Businesses for Climate Action / Mission Zero Submission

The Businesses for Climate Action submission points to the major role of businesses in Nelson's emissions. The Nelson Tasman Climate Forum endorses their submission.