

Submission on the Draft Whakamahere Whakatū Nelson Plan from Zero Carbon Nelson Tasman

Part 2 SRMR

Climate Change and Hazards and Risks

We strongly support the council seeking community engagement on the Climate Change provisions in the Plan. We are in agreement with much in these Chapters, but we are also asking the Plan to go further and faster in response to the urgency of this topic. We support the aims of a risk based precautionary approach, adaptive planning with the community, education outreach and building resilience. Collaboration at all levels is key to meeting outcomes and there needs to be greater emphasis in this with the Tasman District Council, local agencies such as the Nelson Marlborough Health Board and community support.

There must be adequate sustained funding, staff and resources allocated internally within NCC to climate change. This includes education and information sharing internally with all staff and counselors and support to understand the complexities, challenges and opportunities in addressing climate change. Neither councils nor communities know how to engage in these difficult decisions but working collaboratively to ensure alignment will be essential to success.

Climate change is a threat to the health of our communities, particularly mental wellbeing, injury from events, heat stroke, summers too hot inside many schools and hospitals, unsafe and unhealthy work environments outside, fires, smoke and PM2.5 inhalation, disease from flood waters, sewage and debris, and lack of social cohesion. Knowledge of the issues is important for acceptance of changes needed and to preparedness of impacts.

It is unclear how the climate change chapter relates to the rest of the Plan, beyond the Hazards and Risks chapter. This chapter needs to be linked throughout all of the Plans chapters, as all aspects are impacted by climate change and all have a role in reducing emissions. Every chapter must detail how climate change will impact its issues. How will this impact mitigation, adaptation and resilience.

We are involved in the Nelson Tasman Climate Forum and support the partnership described in CC-M8 and HAZ -M20 as we can testify to the quality of the community involvement and enthusiasm. The Forum can assist in advocacy and community education.

Issue CC-1

5th para reorder the word “environment” and “community”ie
...to ensure resilience of the environment, communities and economy into the future.

Reason: The environment should have priority in the list wording because it has to be healthy and resilient for the communities and economy to function.

6th para “Achieving net carbon zero” needs to be qualified with a time, to give certainty in the objective section. Recommend including reference to the ZCA carbon budgets.

Objective CC-O1 replace the word “positively” with “proactively”.

Objective CC-O2 This objective needs to be rewritten to include all the implications of the ZCA 2019.

Council carbon reductions will be in line with the Climate Change (Zero Carbon Amendment) Act 2019. Ten percent reduction in biogenic methane from 2017 levels by 2030, and net carbon zero by 2050, with the exception of biogenic methane, for which there is a range of targets from 24 to 47% reduction. In addition the purpose of the Act is to limit global warming to 1.5 degrees which requires a 50% reduction in emissions by 2030, and there will be 5 yearly emission reduction targets. Council will need to review this objective and related policies as the carbon budgets are set and updated.

Reason: The Act requires active reductions in the next 10 years, as well as the 2050 goal, and this Nelson Plan needs a strategy to achieve this as we discuss in our introduction.

Policies

CC-P1

1. After associated risks add: including physical and mental health risks to Whakatu Nelson.
2. Sharing the research findings with the community add “ in a timely, transparent and open way”.

Reason: Council is currently not showing leadership in this area, the website is extremely difficult to navigate, and “ Our Nelson” seldom has anything about climate change in it, and there are no educational leaflets, repeated messages or displays. It is not going to be possible to get the public to undertake mitigation and adaptation measures unless they are kept well informed and engaged. The Coastal Hazard mapping will have raised the awareness of both mitigation and adaptation, and presents a good opportunity to expand on this. It is vital the council is a trusted source and shares what is known and just as importantly what is not known, for building and sustaining trust.

CC-P2 add the underlined words

3. Enabling the community and council as global citizens to take responsibility for rapidly reducing emissions through promotion and education.

Reason: There are some things that only a council has the authority to do, and without their visible leadership it is unrealistic to expect the public to undertake their personal responsibility to reduce emissions. “Rapidly” indicates the urgency of the situation. The Council’s funding for Nelson Tasman Climate Forum and Community Compost are great examples of this.

Explanation 3rd para last sentence

The implementation, review and amendment of this strategy will become an ongoing process. Add “ engaging with the community, staff and elected officials”.

Reason: The process will not be a success unless community engagement is ongoing.

Methods

CC-M1 (Note M1 links to Policy 1 and 2)

Introduce a new Method 1. Ensure that activities result in the lowering emissions 8% per annum per year, and every year until 2050.

Reason: This level of reduction gives a steady decline to net zero by 2050, and also achieves 50 % reduction by 2030. The benefit of a steady decline is that it is easier to plan for, and become used to the concept rather than having to undertake extreme reductions closer to 2050. We accept this has political costs and hope the council is bold and courageous enough to do what is right for future generations, actually has co benefits and well beings.

The other Methods remain and become 2. and 3.

CC-M2

Develop a strategic framework with a time horizon of 100 years with Whakatu Nelson tangata whenua and the community, in partnership with Tasman District Council, to adapt and increase resilience to the effects of climate change, including physical and mental health issues.

Reason: The strategic framework needs a long time horizon to be beneficial to future generations and residents, and TDC needs to be involved as a cross boundary issue. Health problems will increase with heat, fires, floods and lack of social cohesion.

CC- M3

Reword this : Council decision making will rigorously apply the annual emissions reductions requirements, and give priority in producing emissions to those activities with greatest public benefit, including long term resilience.

Reason: it is hard to take account of climate change in every decision, and this prioritising may make it easier.

CC- M4

After natural and physical resources add: including physical and mental health.

Reason: The 2020 National Climate Change Risk Assessment for NZ describes the expected physical and mental health issues that climate change is going to bring, and these need to be researched and be part of advocacy and education.

CC-M5 Add underlined words (also the link to policy is P1 and P2)

Provide education on how to plan for adaptation and avoid or minimise emissions.

Reason: Adaptation will require advocacy and education because the majority of the public is still not aware of the sea level rise projectory, how declining carbon budget and net energy availability will impact our adaptation strategies. Avoiding and reducing carbon (and methane) emissions is what is required.

CC-M6

...initiatives like a permanent climate fund and acknowledgements and rewards.

Reason: The climate fund will be needed to provide ongoing support to initiatives.

Principal Reasons

We recommend the additional reference to the ZCA Risk Assessment and Plan and also note that this Plan needs to be adaptive in itself as there is likely to be new legislation of a Managed Retreat and Adaptation Act.

Anticipated environmental results

CC-P2

Add a 4th . Protect and restoration of natural ecosystems, particularly coastal margins.

Reason: This will improve and enable the resilience of the region to the effects of climate change and associated risks and support blue carbon sequestration. CC- AER2

Hazards and Risks chapter of the Nelson Plan

This chapter covers the multitude of natural hazards, and acknowledges that in the medium to long term, climate change is likely to result in more frequent and stronger climate-related disasters in Whākatu Nelson. A major problem is sea level rise, for which a precautionary approach and proactive adaptation will be needed. The DAPP process is advocated by council with first identifying areas at risk from natural hazards, considering the potential effects of climate change over at least 100 years and a return period appropriate to the hazard. This approach reflects the time frame in the NZ Coastal Policy Statement.

The Plan advocates avoiding development in areas at high risk from natural hazards unless significant infrastructure (e.g. ports) need to remain in such areas, and the adverse effects can

be mitigated. Unfortunately, population growth is increasing the pressure to develop and intensify areas already subject to natural hazards, including contaminated land. Cultural heritage and regionally significant infrastructure are vulnerable to the effects of climate change as well.

The main problem with this Chapter is the lack of long term planning. The ZCA requires us to be carbon neutral by 2050, and to be operating under shrinking 5 yearly carbon budgets during the next 10-15 years this RPS will be operational. With 30cm of sea level “baked in” for the next 40 years the council needs to start the long term planning for managed retreat while the construction of new infrastructure is possible. We are pleased that the council has provided the coastal hazard flood maps and sent a LIM to the residents in inundation zones, but more information needs to be provided to increase the awareness of the issue. For example, 10 cm increase in sea level (likely to occur between 2034 and 2037) will make the current one in 100 year flooding event to occur once every 33 years. With 20 cm of sea level rise (likely to occur 2045 -2046), this will become the one in 11 year event. It is highly likely that, by then, insurance will be withdrawn from these high risk zones, meaning homeowners and business owners will not be able to get a mortgage, and the buildings when damaged won't be properly repaired .

Issues

HAZ-Issue-1

3rd para. Sea level rise has been omitted from the list of hazards

HAZ-Issue -2

Last para

You need to put a time period for the management of these risks. 100 years? Or does it vary with the cost and carbon content?

HAZ Issue 4

Last para

Infrastructure that is coastal needs to have the NZCPS time frame of 100 years.

Objectives

HAZ Objective 1

Is this where the planning and consideration of managed retreat should go, or does it need a separate objective?

Policies

HAZ Policy-2

4.managing the effects of climate change that also considers the limitations of the ZCA and reducing carbon budgets and reduced net energy availability.

Reason: The 5 yearly reducing carbon budgets, and 2030 targets in the ZCA are going to limit what temporary measures can be undertaken.

5.preserves the choice for the foreseeable future in response to those risks.

Reason: The time frame for this risk based management approach needs to be clarified.

HAZ P-3 Explanation

last para: The regionally significant infrastructure should also be considered for relocation. The Infrastructure 30 year strategy is not long enough for assets that last much longer than that. A 100 year overarching Spatial Plan is needed.

HAZ P-4 Explanation

1. Buildings that require raised floor levels should also be relocatable.

Reason:It is a waste of resources and energy to build in the inundation zone, and as long as that is permitted the buildings should be relocatable.

HAZ P-5

Add the sequestration of carbon in soil and sediments ("Blue carbon")

HAZ P-7

Add a 3rd point. Consider and plan for managed retreat.

HAZ P-8

Add that NCC has a leadership role to play,as well as providing information.....

HAZ P-9

Manage land use by actively seeking HAIL sites, and the use of potentially contaminated sites.....

Reason: Just recording historic " desk top study" sites is not thorough enough.

Methods

HAZ- M3

The development of minimum floor levels is a very short term way of solving a long term issue. All the existing buildings and infrastructure will remain around the raised new builds and this is not conducive to public health, care of vulnerable people or level of service council will need to provide, and increases the probability of ratepayers to having to bail out uninsured and/or flooded homes. This needs a serious rethink, and some assistance from the Central government as it is a nationwide issue.

HAZ M-7

It would be good if you can use the building consent process to encourage, persuade or reward buildings that are built to last far longer than 50 years, and make wood a priority over concrete and steel.

HAZ M-8

The civil defence and emergency management plans should contain information on how to prevent and prepare for climate change and this should be implemented by staff.

HAZ M-20 we support the Climate Forum continuing to be funded as the involvement within the communities is very valuable. It is providing a key climate education opportunity and resource for this region and, hence, increasing community resilience.

Principal reasons

HAZ-PR1

second to last para; Include the likelihood of tropical cyclones hitting the area during the King Tides in summer.

Also don't install USTs in liquefaction zones as they rise, break the pipes and discharge contaminants during liquefaction events as per Christchurch earthquake.

HAZ-AER4

Infrastructure is located, upgraded or relocated to provide enhanced....

Reason: Infrastructure is probably the first thing that should be relocated, and this option should be listed. ALL buildings, infrastructure (above and below ground) and roads need to be relocated to higher ground before the sea claims them. If we fail to do so, they will end up as rubbish in the marine environment. Of those materials rescued, whatever can be reused should be reused, and whatever can be recycled should be recycled to minimise waste.

HAZ -P7 and HAZ-AER 1

Managed retreat and relocation should be included in these sections.

HAZ P10 and HAZ AER7

Replace AER7 with

Land use activities with the potential to contaminate soil are located on industrially zoned land and managed to prevent or minimise soil contamination.

Reason: It is not wise to allow soil to become contaminated even on industrial zoned land because of synergistic chemical reactions and mobilisation by water or oil into the environment. It is difficult to prove legally that the polluter is different from the landowner, so historic spills become the landowners responsibility.

Coastal Environment

We support the existing purpose, objective, policies etc of this section and particularly the adoption of an integrated management approach. However, while climate change impacts and adaptation are included, they are not mentioned until well into the chapter (first mentioned p4 and combined with hazards). Where it is included it is often bundled with ecosystems and processes and generally not given the profile needed, given the massive change climate change will have along our coastlines. We note adaptation is only mentioned once, which we assume is an oversight? The chapter reads like the climate change component has not been updated since the previous plan (and it is not mentioned in the relevant Key Information Sheet section on what has changed from the last Plan). We have the following suggestions for including in this chapter:

1. Adaptation and climate change needs to be stated as a key issue and explain how it impacts on all the existing coastal issues. Some examples of this:
 - a. At the start, include a 5th point: “our ability and options to plan and adapt to climate change”, under the heading “Inappropriate subdivision, use and development can adversely affect”.
 - b. The inclusion of the Zero Carbon Act Risk Assessment and (coming) Adaptation Plan, with a brief discussion on the Risk Assessment and how the council will likely need to take the assessment and plan into consideration with its coastal management.
2. Include separate objectives, policies, methods. monitoring and results on coastal adaptation and risks to climate change.
 - a. Specifically the addition of an adaptation method under *Advocacy and education*, which will provide information and examples to consent applicants on the short and long-term issues, threats and options in adaptation along the coast.
Reason: Without this information for applicants both time and money will be wasted.
3. We support the inclusion of the Coastal Hazards mapping in future drafts. However the FAQ for 1% AEP is very misleading and needs to be changed to ensure the public (and council) understands the **frequency** of these extreme events is going to increase with sea level rise and when the sea has risen 50cm these extreme events will occur twice a year.
4. Clear policies, outcomes and methods will be needed to guide how the public with the council will approach this from implementation of the Plan.
 - a. We suggest specifically mentioning how the council will approach planning with the community, such as using DAPP and how this process may affect outcomes and what courses of action will be taken. This includes:
 - i. Managed retreat and how that affects the short and longer term development, access, ecosystem, natural and modified features of the coast.
 - ii. Use of Biodiversity buffers etc (an experimental planting trial should be carried out using a range of plants that can slow the rate of coastal

damage (including bamboos, mangroves and rushes)). Ideally, suitable plants should be planted following the removal of buildings and infrastructure to a higher ground is completed.

- iii. How the council might approach seawalls and other engineered protection. Seawalls are typically made of rocks or concrete so their construction increases emissions, therefore accelerate global warming and the rate of sea level rise. So they are contraindicated, create a false sense of security, create end-effect erosion and should not be used. Additionally, because of reduced carbon budget, in 50 years time when they need to be replaced, that may not be possible. This information needs to be communicated to the public. How are the values and objectives of the Coastal Environment chapter going to be addressed, especially for council funded schemes?
- iv. We recommend the council be upfront about the uncertainties and the change we face, some of which will happen during the span of this Nelson Plan.

Reasons: Community engagement is essential for protection of the coastal environment.

- 5. Ask for more weighting given to the NZCPS and explicitly what would need a resource consent and how they are assessed?

We would like NCC to adopt the same approach as the Western Bay of Plenty District Council in terms of restricting materials and the type of buildings they could use in development of inundation zones. WBPDC says “If your property is identified in the District Plan maps as a coastal erosion area, you will need resource consent. If you are constructing a habitable building, it must be relocatable e.g. on timber piles or on relocatable concrete foundations like RibRaft. You will also need a statement from someone like a relocatable housing company to show how it can be dismantled and shifted off-site. If you are building a shed or garage, you can build on standard concrete foundations. You will also need to ensure that in all cases new buildings are not going to block or be blocked by other buildings. This is because everything needs clear access to be shifted off-site if erosion occurs.” See:

<https://www.westernbay.govt.nz/property-rates-and-building/natural-hazards/coastal-erosion>

Energy, Infrastructure and Transport

We support the recognition and importance of renewable energy, the “*greater emphasis on robust infrastructure that will meet the impacts of climate change, particularly where infrastructure is located within areas of natural hazards (Key info Sheet)*”, resilience and relationship between land use planning. We strongly support the advocacy, funding and partnership sections, particularly the potential incentives for small or community-scale renewable generation.

We recommend that the following are included:

1. Reducing emissions must be a key outcome, particularly for all transport planning and decision making, as it is a significant portion of our regions emissions. The emissions during construction and energy used must also be considered in the cost benefit analysis.
2. Enhancing energy security for the region. Our power supply from the south is vulnerable to earthquakes, as well as other natural and environmental hazards. Community scale renewable energy operations could provide secure, low emissions, inexpensive power, with many co-benefits such as job creation, and could be facilitated by NCC.
3. As part of the planning for a secure energy system for NCC we recommend that consultants be engaged to determine the optimal mix of renewable energy sources, and that they consider net energy analysis for all alternatives considered. With a move away from fossil fuels (which have a high net energy surplus), careful net energy analysis (NEA) is essential in choosing an energy system because of the lower net energy surplus available from all renewable energy sources. Renewable options discussed in the Renewable Energy Assessment for the City of Nelson (2013) should be updated and reconsidered¹. A NEA could be included into SRMR-EIT-M1 [RPS].
4. We support the inclusion of energy conservation, but this should be a much higher priority, with a focus on how we can meet wellbeing and economic needs with less energy. A move away from fossil fuels will invariably mean less energy will be available in the future; hence, energy conservation will play an increasingly important role in community wellbeing.
5. Given the challenges we face with energy supply, resilience and demand, we suggest citizen engagement (for example Participatory Budgeting) to determine how energy supply should be prioritized to meet wellbeing needs.
6. We support the inclusion of long term strategies for planning and management of significant infrastructure such as the port, airport and wastewater in response to climate change adaptation. However there is no mention of the time horizon of these strategies. We recommend that an outlook of 100 years is needed for adaptation planning, which is required in the National Coastal Policy Statement. This strategic planning and management also should include all infrastructure and transport, regardless of size, as poor decisions now are likely to make adaptation harder in the future.
7. Wastewater treatment is one of the most vulnerable infrastructure to sea level rise in Nelson. It is vital that during the lifespan of this Plan, there is a plan developed to relocate. We recommend this is specifically detailed within this chapter as it has far reaching consequences for all existing and new development and large resources.

¹ This report showed a potential reduction of 28% in GHG emissions by 2030 with adoption of a renewable energy initiative.

Urban Form and development

We appreciate that the council is constrained by the NPSUD requirements, and we support issue 4 which is getting the location and timing of development right. This involves transport networks, densification, infrastructure, protection of productive land and collaborating with TDC. Objective 4 and 5 and methods 9 & 10 further provide for these ideas.

What seems to be missing is a realisation that much of the infrastructure is currently unable to cope with more housing, and that the Zero Carbon Act 2019 is going to apply shrinking carbon budgets, and sea level rise and storm events are accelerating. The council should actively start searching for suitable areas where 4,500 residents (currently living in the high risk properties) could move to. The site selection must consider seismic and other risks, and be far enough above sea level to avoid continuous moving to a higher ground. The suitable land might be in Tasman District Area and therefore, these conversations need to happen with TDC as well.

This gap in the reality check for the next 10-15 years of this RPS is seen in Issue 1 and 3, Objective 7, Policies 3 and 4, and Methods 1 and 2.

UFD issue 1 A prosperous and flexible economy

A prosperous economy that is able to survive within a changing climate and respond to changing local and global market conditions....

Reason: Climate change is going to affect the economy with droughts, storms, fires and floods and this needs to be considered before the market economy.

UFD issue 3 Supply of urban residential land

This issue considers zoning, and the NPSUD requires it to be serviced by councils infrastructure.

The discussion does not include that there are serious problems when climate change, reducing carbon budgets, sea level rise and vulnerability of gravity piped sewage treatment systems is factored in. More housing will only mean more strain on an already over loaded and fragile infrastructure.

Objectives

UFD-07 Resilience to future change

Add "The ZCA will impose a shrinking carbon budget, and council should start to plan for managed retreat.

Reason: There will be less available energy and funding to respond to future climate shocks, and we should not be undertaking short term temporary measures.

Policies

UFD-P3 and P4. Planning and coordinating infrastructure services and transport, and ensuring sufficient capacity...

The explanation does not include the problem that sea level rise will have on the port, airport, roads, sewage treatment and residential areas required to retreat over the lifetime of the infrastructure. This will have to be done under reducing carbon budgets so serious long term planning in conjunction with Tasman District Council is required. Additional population will require more drinking water supplied, sewage treatment, schools, hospital beds, roading, electricity etc.

Methods

UFD-M1

8. Manage environmental effects to provide for long term adaptation to climate change.

Reason: This time frame is the most efficient way to manage the environmental effects.

UFD-M2

The “structure plan” should be a 100 year strategic structural plan.

Reason: With reducing carbon budgets, declining net energy availability, rising sea levels and increased frequency of severe weather events, we need a 100 year strategic spatial plan to ensure that changes are made to ensure that the region remains resilient and suitable for habitation.

We acknowledge the extensive challenges the council and community faces in tackling the climate crisis. These challenges are best faced together, collaboratively and as open and honestly as possible. We will continue to support and collaborate with this work as much as we are able to, working with our councils and communities.

Ngā mihi,
The Zero Carbon Nelson Tasman team.

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