



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions

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From: [Whanganui District Council](#)
To: kellyrua@hotmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Wednesday, 9 December 2020 12:36:57 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	489121236205609
First name	Kelly
Last name	McLean
Email address	kellyrua@hotmail.com
Postal address	17 BRUNSWICK ROAD ARAMOHO WHANGANUI 4500
Daytime phone number	022 3647852
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	40 - 49 years
Ethnicity	Maori
Location	Aramoho (Lower Aramoho, Upper Aramoho)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Agree

Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	
Which initiatives do you believe are important and should be prioritised within this action area?	
Building energy and urban form – Te hiko / hanaga whare	
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	The water ways and how we get it under control
Why is this a concern for you?	I have children who will have to make these choice for climate change.
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change	

Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: imcgowan1945@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 13 December 2020 3:26:42 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	569121526204113
First name	Ian
Last name	McGowan
Email address	imcgowan1945@gmail.com
Postal address	11 Nathan St
Daytime phone number	+6463452385
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	Springvale (Springvale West, Springvale East, Mosston)
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	I believe climate change is one of the most important issues facing us and that the Council needs to show leadership in this area.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	it is inevitable that climate will affect the district and its people and we need to start taking this into account now.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Council is elected to provide collective leadership for the community
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	each individual can affect changes even in a small way
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etahi atu ki te whakaiti i te tapuwae waro o</i>	Strongly agree

<i>to tatau rohe</i>	
Please provide reasons for your response	We need collective action to have any meaningful affect.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	One area where immediate impact is possible Move vehicle fleet to electric or hybrid and encourage other to do so. Investigate methods to encourage use of and improvement of public transport even though population density is low.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encourage central city living through incentives to make use of existing building stock
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Council to be seen supporting climate change initiatives.
What is your biggest concern with climate change?	Lack of interagency approach to climate change
Why is this a concern for you?	I don't believe that climate change issues can be resolved without collaborative effort of both governmental and private sector cooperative approach.

Please include anything that you think should be included in the strategy?	Time line for development of specific action plans
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	I generally agree with the contents of the policy document and look for to Council developing it further into concrete actions.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: brianmilham@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Tuesday, 12 January 2021 11:38:03 AM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	169011138210212
First name	Brian
Last name	Milham
Email address	brianmilham@gmail.com
Postal address	2C Tiraumea St. Hokowhitu Palmerston North
Daytime phone number	0274 581483
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	
Ethnicity	NZ European
Location	Other
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	We need to act quickly on these matters , rather than put off making decisions until it is too late
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Totally agree . Council needs to set example. Otherwise public will be complacent as usual
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree

Please provide reasons for your response	Yes - and public must be kept up to date with what council is doing in conjunction with our Partners
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	More use of EV vehicles within Council Car Pool. Active promotion of alternative forms of transportation
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Promote more use of renewable energy in forms such as solar and wind . Promote and educate the public on alternative sustainable building designs which make for carbon -negative buildings
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encouragement of farmers to reduce their carbon emissions. More planting of trees, encourage wet land areas
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Leadership from both Council and Iwi. Promoting and developing sustainable e-waste reuse/recycle programmes Water conservation promotion to reduce the increasing pressure on our natural water resources. Encourage the setting up of more individual and community gardens -thus reducing the need to transport food over long distances / reduce plastic waste . significantly reducing the use of fossil fuels.

What is your biggest concern with climate change?	Rising Water levels and extreme weather events. Higher temperatures. Rising greenhouse emissions.
Why is this a concern for you?	Damage to our coastal areas and erosion concerns that will happen. Additional costs that will occur in providing flood protection.
Please include anything that you think should be included in the strategy?	A Council commitment to invest in increasing our network infrastructure capacity to cope with the more frequent and higher rain events that we are seeing
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: lyneke@orcon.net.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Wednesday, 13 January 2021 6:13:15 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	733011813211413
First name	Lyneke
Last name	Onderwater
Email address	lyneke@orcon.net.nz
Postal address	76F Virginia Road Whanganui 4500
Daytime phone number	021 268 2052
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	50 - 59 years
Ethnicity	NZ European,Other,Dutch
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	We needed to work on this decades ago, but better late than never
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Ideally yes, but in reality most (?) people will not do their part, because it they will not be willing to change enough until it hits them in their pockets or water no longer comes out of the tap and/or no electricity from the powerpoints. And then they will blame the council/govt, who are in a catch 22 situation
The council demonstrates leadership and works collaboratively with partners to reduce our district's	

carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>Encouraging active transport and make that safe and fast for everyone, from little kids to older people Encourage rail transport, which is more efficient than any other mode of transport. We have some infrastructure. Why not use it for public transportation and get some cars off the road? Discourage private car use by making parking expensive and giving active transport modes priority over motor vehicles.</p>
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>No building consents to be issues for any areas likely to be inundated at some point in, say, the next 200 years. A decision to be made on which properties/houses/buildings will be compensated should they flood and notify the owners who's properties may flood but won't be compensated. (eg council may compensate some Anzac Parade property owners, but where does it stop? When, by now, everyone is aware of the risks...) Rain tanks to be installed on all properties, esp. new ones. Charging for water per m3, or, a lower annual volume for a set rate than is currently the case. Houses to build up rather than out. We cover too much land in concrete, seal and</p>

	houses, so that there is little space for water to be absorbed into the soil, which leads to flooding. Build lots of small units rather than 3+ brm houses. Most Whanganui households consist of 1-2 people. I agree with planting trees. Also the removal of the enormous amount of climbing weeds which strangle and kill the city's trees (OMB, banana passionfruit, ivy, morning glory [a fairly recent problem], Japanese honeysuckle, etc etc) Develop properties above shops for housing. This improves security for the CBD.
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Make our city/region self-sufficient in food before looking at export markets, which are volatile. Make it compulsory to fence off and plant stream sides over a certain size to avoid run-off (or direct deposits) of poo, pee and fertiliser. In the short term that could be encouraged by providing a rates rebate.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Somehow convince people that they need to do their part and not expect miracles from technology
What is your biggest concern with climate change?	My personal opinion is that it is all too little too late and that not enough people are willing to change until it hits them in their pockets or water no longer comes out of the tap and/or no electricity from the powerpoints. Govt departments can't keep on paying for all the emergencies that are happening more and more frequently due to climate change.
Why is this a concern for you?	Convincing people that they need to change will be the hardest part and I'm not confident that that will be achieved. Not that it keeps me awake at night ;-)

Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	Happy to chat about it if any of my answers are unclear or bring up new questions. I've had ideas about this for many decades, but have always felt like a lone voice in the "wilderness"
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: melita.farley@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Thursday, 14 January 2021 10:39:46 AM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	714011039214514
First name	Melita
Last name	Farley
Email address	melita.farley@gmail.com
Postal address	1 GONVILLE AVENUE GONVILLE WHANGANUI 4501
Daytime phone number	02102510591
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	40 - 49 years
Ethnicity	Other,Pākēha
Location	Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	While I support the general direction of the Climate Change Strategy, I don't think it is ambitious enough. We need to (and I believe can with some effort) reduce our emissions faster than is laid out in the current strategy.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	The objective is an important one, but I'm concerned that the Strategy doesn't appear to clearly identify the need to ensure that all parts of the community need to be made 'resilient'. International and national evidence shows that resilience-related activities (whether infrastructure strengthening, managed retreat, altered water-use patterns or any other type of project) is often used to protect those who are already better off, while poorer parts of communities are left to suffer the effects of climate change. For the Strategy to help lead to 'quality of life' and 'connections to each other, our place and the world', there need to be specific goals or measures in place to ensure that resilience activities are protecting those who will need it most.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga</i>	Agree

<i>mahi tika ki te whakaiti i tona ake tapuwae waro</i>	
Please provide reasons for your response	This is important and I agree with this goal, but I would like to see Council take more of a lead by being more ambitious with the Strategy, especially timelines for action.
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	This is a fairly obvious statement, but would seem somewhat meaningless as a Goal because it is so vague (I remind Council that they also 'encourage' people not to smoke in parks or on Victoria Avenue too - encouragement without action of some kind only goes so far!). If Council actively works on Goals 2 and 4, is Goal 3 needed?
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	This is a really important goal, and it is good to see that it seems to be the focus. I do hope that Council plans to fund this work well and focus on facilitating, connecting up, and actually collaborating with the wider Community rather than simply with a very select group of partners.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree

Which initiatives do you believe are important and should be prioritised within this action area?	- Enable and encourage active transport (it is great to see and regularly use new cycle and pedestrian paths, but there is still quite a bit of work to do in this area) - Work with Horizons to improve public transport services (this is vital if everyone, not just those who are better-off, are able to play an active role in our resilient community) - Encourage an increase in rail transport (and I hope this includes advocating with central government for the re-introduction of passenger rail!) - Manage climate change risks to existing public transport infrastructure (Whanganui is a rural region and this will continue to be important)
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	- Energy efficiency (all of these points are important, but more important is finding ways to ensure that energy efficient homes are available to lower-income people in Whanganui) - Location and density of development (again, all important. As part of Council reviewing alternatives to grass, can it please consider how those alternatives might also apply to berms in suburbs - perhaps trial letting some residents plant berms with approved plants or similar?) - Waste (All important. Many people in Whanganui are already actively engaging in the circular economy - perhaps Council should also consider how it can support more businesses to open/develop here that actively do so - an economic as well as environmental benefit).
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	All are important.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are	

important and should be prioritised within this action area?	
What is your biggest concern with climate change?	My biggest concern is that the important work being done to mitigate Climate Change will, unless it is well considered, deepen inequality. Work MUST be done, but the best outcomes, and most resilient communities, will come when we create a great place for the poorest among us to live - this is the only way we will all benefit.
Why is this a concern for you?	Because we know that community inequality has a major impact on everyone's well-being. Mitigating climate change provides us with an opportunity to change the way we work together and for communities to become stronger, more connected, and be better places for us all to live - we just need to take up that opportunity!
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Michael & Marilyn Payne](#)
To: [!Policy Submissions](#)
Subject: Climate Change Strategy
Date: Monday, 18 January 2021 6:56:48 AM

Kia ora

We appreciate and support the general direction of the draft Climate Change Policy.
We would like to add one of our concerns.

FOOD WASTAGE

Food Wastage is one of the major issues in the World and there are good examples of policies and new directions being taken and developed.

Also in New Zealand there are some interesting initiatives being made.eg

<http://xtremezerowaste.org.nz/foodwaste-collection-service/>

We have some questions for you.

What is the Whanganui District Council doing to reduce Food Wastage and its effect on global warming ?

Do you know how much food is wasted and in what parts of the Food Chain and where ? (Supermarkets, Restaurants, Household rubbish etc)?

How much Food Waste goes into our landfill adding to the problem of Global warming ?

What initiatives have or will you take to reduce this waste problem ?

Do you have a monitoring system to check how efficient different initiatives are?

We believe that this is an important issue for the Whanganui District Council Climate Change Policy and hope it will be high on the priority list in part because it is one of the factors in addressing inequality locally and globally.

We would like to be involved in your future consultation process and are happy for you to retain our details.

Our address is Quaker Settlement,

76 Virginia Rd tele 345 5738

Yours sincerely

Merilyn and Michael Payne

From: [Whanganui District Council](#)
To: saraanndickon@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Monday, 25 January 2021 4:39:34 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	646011639213325
First name	Sara
Last name	Dickon
Email address	saraanndickon@gmail.com
Postal address	
Daytime phone number	347 8533
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	I have been a member of Greenpeace since 1962 (atomic bombs and Harp seals), so have been informed of increasing dangers of Global Warming since 1970.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Give more information and encourage schools to teach climate change and adopt practices such as planting fruit trees and vegetable gardens - this is already being done!
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Just do it.
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	I have installed two solar panels on the last three houses that I have owned. This gave a reduction in power cost throughout the whole year.
The council demonstrates leadership and works collaboratively with	

partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	Just do it.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	I also have a mobility scooter now which I use locally, when possible. Action should be taken to provide electric transport wherever possible, for buses, trains and cars.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	All new houses should have a least two solar panels, and a tank for saving water off the roof.
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Silviculture - combining trees and pasture - has been shown to be the most efficient form of farming.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	All of them.
What is your biggest concern with climate change?	The main basic cause of climate change is, I believe, world over population. It is not usually discussed.
	The current estimated number of

Why is this a concern for you?	humans that would be sustainable on this planet is between two billion and four and a half billion, depending on the lifestyle that is planned. There are already nearly eight billion humans on this planet, so it is no wonder that there is so much poverty.
Please include anything that you think should be included in the strategy?	I do think that overpopulation should be recognized and discussed. Government and Council policy on the size of families should be agreed and promoted, with free availability of birth control, including sterilization.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	China did manage to slow the increase in their population. And when the limit to one child per family was ended, many Chinese carried on with this limit, since it was so much easier with finance, and for women who were able to work and take an active part in society which they enjoyed.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Dion Cowley](#)
To: [!Policy Submissions](#); [Charlotte Almond](#)
Cc: [Hannah Middleton](#)
Subject: Climate Change Strategy - Hiringa Submission
Date: Tuesday, 26 January 2021 2:50:27 PM
Attachments: [image001.png](#)
[Hiringa Energy Submission on Whanganui DC Climate Strategy 20210125.pdf](#)

Kia ora Charlotte and team,

Please find attached our brief submission. We'd like to reinforce that we would be more than happy to trot down the road and speak to our submission if helpful.

Cheers

Dion

Dion Cowley
Public Sector Advisor

HIRINGA ENERGY | The Energy to Change. Together.
M +64 27 489 6030 | E dcowley@hiringa.co.nz | W www.hiringa.co.nz | [View our LinkedIn Profile](#)



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25/01/2021

Whanganui District Council
101 Guyton Street
Whanganui 4500
Attention Charlotte Almond

Dear Charlotte,

Re: Climate Change Strategy – Hiringa Energy Submission

Congratulations to you and your team on releasing the Whanganui District Council Draft Climate Change Strategy. We applaud the Council for leading a meaningful conversation about climate change with your community and wish you luck with your public engagement.

It was great to meet with you and Whanganui & Partners in October and discuss the opportunities that green hydrogen provides for the Whanganui District. It sounded like there was good local appetite to decarbonise transportation and industry and a desire to innovate and lead. In summary, Hiringa and the Whanganui District Council can collaborate to:

- Decarbonise transport, working together initially on heavy fleet (trucks, buses etc).
- Support 100% renewable and affordable electricity with storage and agility.
- Produce, store and supply domestic zero carbon fuel.
- Enable the decarbonisation of hard-to-treat sectors and enhance the economics of biogas projects with green hydrogen.
- Decarbonise sectors that use hydrogen as a chemical feedstock such as ammonia and hydrogen peroxide production.
- Create a new energy export market and enhance existing export commodities through their decarbonisation.
- Create highly paid jobs and stimulate investment in regional clean-tech focused initiatives.

We note that under Transportation, “investigating alternative fuel options e.g. hydrogen” is mentioned. We would like to offer our support to enable such investigations to occur. We also see opportunities for improving the economics of renewable electricity projects through the generation of green hydrogen with excess electricity (via electrolysis). Green hydrogen can also serve to decarbonise assets currently consuming large volumes of natural gas such as aquatic centres, wastewater treatment plants and civic buildings or assets requiring power in remote locations.

Of relevance is Hiringa’s partnership with Ngā Wairiki/Ngāti Apa to investigate a wind to hydrogen project with an associated refuelling station. The availability of locally produced green hydrogen would open up multiple decarbonisation opportunities within the district.

We would be happy to meet or present in order to further our discussion about decarbonisation of the aforementioned hard-to-treat sectors.

Ngā mihi,

Hiringa Energy Limited

Andrew Clennett, CEO

Catherine Clennett, Chairperson

Dan Kahn, CTO

From: [Whanganui District Council](#)
To: clairedowsett@hotmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Tuesday, 26 January 2021 4:29:02 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	248011629210126
First name	Claire
Last name	Dowsett
Email address	clairedowsett@hotmail.com
Postal address	9 Selwyn Crescent College Estate
Daytime phone number	0225806384
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Female
Age group	30 - 39 years
Ethnicity	NZ European, Maori
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree

Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
<p>Transportation – Eke waka</p>	<p>Strongly disagree</p>
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>There is a clear lack of commitment to these actions. Words like promote, enable, encourage and consider suggest that the council might put an add in the newspaper and then pat themselves on the back for a job well done. An example of a clear commitment to action would be: Whanganui district council commit to the improvement of the pedestrian access to the CBD, all schools, community centre's and retirement facilities by: 1) improving footpaths to accommodate shared use, walk, scoot, cycle, wheelchair etc. 2) Controlled crossings and 3) Improved traffic and pedestrian visibility</p>
<p>Building energy and urban form – Te hiko / hanaga whare</p>	<p>Strongly disagree</p>
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>Similar to above, language chosen infers a lack of commitment. Two examples of a clear commitment to action would be: 1. Whanganui district council mandate all new builds to use: 1) Solar energy 2) LED lighting 3) Energy efficient heating, ventilation and insulation 4) Collection of rain water 5) Smart architectural design (eg north facing living) - or just outright commit to only allowing buildings that meet the Green Standard. 2. Whanganui district council commit to providing financial schemes to enable homeowners and business owners to improve energy efficiency</p>

Agriculture – Ahu whenua	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Agriculture is more difficult and this needs to be managed at the National or Regional level by the agricultural sector. Because of the effects on the Awa the district council should make a commitment to being apart of all agricultural mitigation strategies which impact on the health of the Awa.
Leadership and collaboration – Mahi tahi	Disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Council need something visible to the community to "lead" with. There is some talk of planting trees and carbon footprint offsetting but no commitment within the actions by council. Whanganui district council could provide council land for purposeful carbon footprint offsetting by rewilding in a central setting. This could then be enjoyed by the community and would showcase councils serious commitment to this climate change strategy by council, council business and council services, offsetting their own footprint.
What is your biggest concern with climate change?	That leaders lack the will to do what is necessary
Why is this a concern for you?	Because the majority of humanity rely on infrastructure and services provided by these leaders
Please include anything that you think should be included in the strategy?	A clear commitment to improvement
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my	

submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: gm.dryden@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Wednesday, 27 January 2021 12:15:05 AM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	918010015210427
First name	Gordon
Last name	Dryden
Email address	gm.dryden@gmail.com
Postal address	319 Somme Pde, Aramoho, Whanganui 4500
Daytime phone number	+61414294120
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	
Age group	
Ethnicity	
Location	Aramoho (Lower Aramoho, Upper Aramoho)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	I would strongly agree, because I think that climate change is a major threat to New Zealand's (and the world's) environment and economy. However, there is not much in the draft strategy document which indicates in concrete terms how the Council intends to meet the aims of the strategy.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	The economic, environmental and social consequences of climate change are being experienced already and will only get worse if we fail to control rising temperatures.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Climate change is insidious and not easily seen. Also, measures to mitigate it and its effects are difficult to implement. Council and government must provide essential models to educate and encourage the community to deal with this issue.
Everyone plays their part in addressing climate change	

<i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	It affects everyone, and many mitigation measures will have to be implemented by individuals and individual businesses.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	Basically, for the reasons given above.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encouraging and facilitating the uptake of electric vehicles, and reducing the use of petrol- and diesel-fuelled vehicles. The latter may involve upgrading public transport both within the city and throughout the Whanganui region.
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Building standards which improve insulation and electricity efficiency.
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Reducing enteric GHG emissions from hill country farming. This is both the main source of GHG emissions in the Region, and the most difficult to deal

	with.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	The WDC will have to take a leadership role because mitigation requires knowledge of, and ability to implement, some very new and possibly difficult measures.
What is your biggest concern with climate change?	Increasing global temperatures.
Why is this a concern for you?	Because increased temperatures change weather patterns, and cause droughts, excessive rain, storms, etc. These changes have two consequences: they disrupt agricultural production and damage infrastructure; and because these major changes in weather patterns are new, we have no experience in dealing with them.
Please include anything that you think should be included in the strategy?	Please see my attached response.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	Please see my attached response.
Supporting documents	GHG production by agriculture in the Whanganui Region A.docx - Received
I would like to speak in support of my submission	Yes
Submission method	Online

Response to the Whanganui District Council's Draft Climate Change Strategy

Gordon Dryden

17 January, 2021

gm.dryden@gmail.com

A. Executive summary: responses to the WDC document.

1. I agree with the thrust of these proposals.
2. I would like to see the Council provide:
 - A timeline which indicates how the strategy's aims will be achieved by 2030.
 - A draft budget which shows how the components of this strategy will be financed.
 - A description of how the Council will demonstrate compliance with the Government's legislative requirements.
3. Responses to the WDC's statements on the effects of climate change of weather, and ways of mitigating GHG emissions are suggested in the tables in the following sections.
4. I think that the program would benefit from description of some concrete mechanisms. I've outlined in this response some ideas about how the WDC could begin to reduce agricultural GHG emissions in the region. I've concentrated on the problem of agricultural CH₄ emissions because biogenic CH₄ and CO₂ from agriculture are the largest contributors of GHG in the Whanganui region, and because ruminant animal farming is the predominant form of animal production and consequently produces the most CH₄.
5. I suggest that the WDC establish an agency to connect farmers with research and extension organisations and to support and monitor farmers as they introduce GHG abatement measures.
6. The problem of reducing GHG emissions means tackling the problem of enteric emissions from animal production. While this is a challenge, it's also an opportunity. If the WDC can put into place management methods which help farmers reduce emissions, especially of CH₄, then we will:
 - Improve our reputation in the local and world-wide community, and
 - Develop a range of know-how and techniques which can be licensed to other communities/countries which are in our situation.

B. The probable effects of climate change on the weather experienced within the Whanganui region.

The WDC *Draft Climate Change Strategy* predictions, and my responses, are given in the following table.

Effects of climate change on weather, and the expected outcomes of these.

WDC points	Response
1. Wetter conditions with annual precipitation up 1%, and winter rainfall up 6% by 2031-2050 and up 11% by 2081-2100	A 1% increase in rainfall is not a major issue, but the expected increase in winter rain can lead to the consequences outlined in the WDC points 2, 3 and 4. These are potentially very urgent and very serious.
2. The frequency and magnitude of storm-related events will increase	<p>Events will include flash flooding (WDC point 4) with potential damage to structures and assets (e.g. <i>Waimarie</i> and <i>Wairua</i> at their moorings on Moutoa Quay, piers, boat slips, bridges, etc.) from floating debris, flood damage to houses (especially along the southern section of Anzac Pde and in Putiki), and increased and possibly severe, erosion (WDC point 3); heavy storms may lead to over-loading of storm water drains with localised flooding and damage to house footings and road pavements.</p> <p>Suggestions: re-assess the capacity of existing storm water drains, resilience of the port development, and possible effects on the function of the new sewage plant; assess the measures needed to protect infrastructure and assets (this will involve collaboration with Horizons Regional Council, Kiwi Rail, Waka Kotahi and local entities such as Whanganui rowing clubs, owners of the river boats, and others); plan and take precautionary action where necessary.</p>
3. Increased high country erosion	<p>This is a potentially very serious outcome, which will cause loss of fertile pasture land, damage roads, contribute to floating debris (see Point 2), and siltation of the River (WDC point 4). Effects on the River may bring into play provisions of the <i>Te Awa Tupua Settlement Act 2017</i>.</p> <p>Suggestions: have pro-active discussions with the River's guardians about the likely effects of climate change and ways that these can be reduced or protected against. Establish resources (technical, physical and financial) to promote the reforestation of susceptible riparian land along the River's length.</p>
4. Increased flooding risks and river sedimentation	These consequences have been discussed above.
5. More hot days >25°C, greatest warming in summer/autumn; earlier spring melt, fewer frost days	25°C is about the upper critical temperature for British and European breed cattle. Temperatures which exceed this cause the animal to eat less, expend time and energy in trying to reduce their heat load, possibly waste water (e.g. by cattle splashing drinking water), and importantly reduce their productivity and thus increase the CO ₂ e intensity of production. If hotter summers and springs are accompanied by reduced rainfall, as is implied in WDC point 1, this will

	<p>increase the need for water collection (e.g. dams) and reticulation (which is expensive), and reduce pasture growth (which will impair animal productivity through effects on pasture availability and quality). Any reduction in farm incomes will adversely affect Whanganui businesses.</p> <p>Suggestions: farmers need to understand how climate change will affect them and their financial situation, and be helped to prepare for this. WDC can address this by establishing an agency which will fill any existing gaps in farm extension services, but especially will support and mentor the region's farmers.</p>
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C. Actions which the WDC can take to mitigate GHG emissions from agriculture

1. Expected effects of climate change.

In addition to the effects on weather as described in the WDC *Draft Climate Change Strategy* document, the IPCC (2019) notes these effects of climate change:

A.2.3.

"Satellite observations have shown vegetation greening over the last three decades in parts of Asia, Europe, South America, central North America, and southeast Australia. Causes of greening include combinations of an extended growing season, nitrogen deposition, carbon dioxide (CO₂) fertilisation, and land management (*high confidence*). Vegetation browning has been observed in some regions including northern Eurasia, parts of North America, Central Asia and the Congo Basin, largely as a result of water stress (*medium confidence*). Globally, vegetation greening has occurred over a larger area than vegetation browning (*high confidence*).

A.2.8.

... yields of some crops (e.g., maize and wheat) in many lower-latitude regions have been affected negatively by observed climate changes, while in many higher-latitude regions, yields of some crops (e.g., maize, wheat, and sugar beets) have been affected positively over recent decades (*high confidence*)."

These observations illustrate the difficulty of predicting the effects of climate change on agriculture and thus in devising ways of making use of them, or of adapting to them, or of taking precautionary action.

However, we do know that higher temperatures will favour the growth of tropical (C4) grasses and reduce the competitive advantage of temperate (C3) grasses. Although C4 grasses are more productive than C3 ones, they are more fibrous, less digestible, and support higher levels of enteric CH₄ production.

IPCC (2019) *Summary for Policymakers*. In: *Climate Change and Land: an IPCC special report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems*. <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>

2. GHG emissions from agriculture in the Whanganui region.

According to the WDC *Draft Climate Change Strategy* document:

“Agricultural emissions are the largest contributor to Whanganui’s greenhouse gas emissions (57%), with 99% of agricultural emissions coming from livestock. Sheep are farmed in the largest numbers across the area, accounting for 86% of farmed livestock and 54% of agricultural emissions. Cattle make up 13% of farmed livestock and 44% of agricultural emissions. Enteric fermentation (animal’s digestive processes) from cattle and sheep produced 82% of Whanganui’s agricultural emissions and 47% of the district’s gross emissions.”

My own calculations of GHG production from animal production in the Whanganui region are given in the following table. In this calculation, animal numbers are for 2017 (Statistics New Zealand, 2020); CH₄ production from IPCC (2006); and total regional GHG emissions are from WDC (2020) *Draft Climate Change Strategy*.

Estimated methane and CO₂ production as CO₂ equivalent (CO₂e) from ruminant fermentation.^A

Type	Number	CH ₄ production ^B		CO ₂ production ^C		Total CO ₂ e (t/year)	Proportion ^D (%)
		Daily (g/hd)	Total (kg/year)	Daily (g/hd)	Total (kg/year)		
Dairy cattle	24,608	395	3547858	2238	20104531	119445	20.6
Beef cattle	58,455	290	6187462	1643	35062283	208311	35.9
Sheep	569,923	35	7280766	198	41257676	245119	42.3
Deer	5,182	110	208057	623	1178991	7005	1.2
Total			17224144		97603481	579880	100

^A The CH₄ estimates have a potential error of about ±25%; it’s assumed that H₂ and NO_x concentrations are negligible

^B 1 kg CH₄ = 28 kg CO₂e (IPCC 2006)

^C CO₂ concentration in rumen gases = 85% (this is an estimate, as data on the composition of rumen gases is scarce and variable)

^D Proportions of the CO₂e attributable to these different types of animal production.

The estimated total CO₂e emissions from animal farming suggested in the above table are 58% more than those in the WDC *Draft Climate Change Strategy* document (i.e. 47% of the total 779,736 tonnes/year) and there are small differences in the proportional contributions of different species to total CO₂e production. These discrepancies are due to:

- Differences in the estimated daily CH₄ production by ruminant animals; the values in the table are based on predictions of feed dry matter intake (DMI, kg/day) from live weight (W, kg) and milk yield (M kg/day), where DMI = 0.03 x W for grazing sheep (W = 50 kg), beef cattle (W = 450 kg) and deer (W = 100 kg), and DMI = 0.02 x W + 0.1 x M for dairy cattle (W = 650 kg and M = 25 kg/day). The non-dairy DMI are probably over-estimates, but this is to some extent counterbalanced because animal eating all-forage diets (e.g. grazing sheep and beef cattle) produce more CH₄ than those eating a mixture of forage and concentrate. The dairy DMI are likely to be under-estimates.
- Selection of different CH₄ prediction equations. The equation used in these calculations was Eq 10.21 in IPCC (2006). This gives results similar to those obtained from other equations published by European, American and Brazilian workers.

IPCC (2006). *2006 IPCC guidelines for national greenhouse gas inventories*. IGES, Kanagawa, Japan: Intergovernmental Panel on Climate Change.

Statistics New Zealand (2020). https://statisticsnz.shinyapps.io/livestock_numbers/

The WDC *Draft Climate Change Strategy* document notes that:

“While agriculture is the biggest emitting sector, the sector has significantly improved productivity over the past 30 years with reductions in numbers of sheep and beef cattle but increases in dairy cattle since 1990.”

“Improved productivity” implies that ruminant farming has become more efficient overall. This may have occurred, but what has also happened is that the region’s product mix has changed to one in which milk has become a larger component. Unfortunately, this change brings with it more CH₄ production, because dairy cattle are larger animals than beef cattle, sheep or deer, and they eat more feed. Feed intake is the most important driver of enteric CH₄ production.

However, NZ dairying has a relatively low overall GHG footprint – about 33% of the international average. As well, there is an important benefit which accompanies increased dairying – this is an intensive industry where we can more easily apply the techniques which are needed to reduce CH₄ production.

Although we can debate the actual amount of CO₂e emissions, one important point is that extensively grazed animals (essentially sheep and beef cattle) are responsible for over half of the CO₂e emissions from ruminant animals in the Whanganui region. This is unfortunate because extensive grazing is the most difficult system to manage to reduce emissions. This highlights the fact that it’s not likely that the Whanganui region’s enteric emissions can be reduced by more than, say, 10%, unless there is a substantial change in the management and use of hill country pastures.

3. The WDC agricultural GHG mitigation plan.

The WDC plans to reduce emissions of biogenic methane to 10% below 2017 levels by 2030, and to 24-47% below 2017 levels by 2050 (these are consistent with the national objectives under the *Climate Change Response (Zero Carbon) Amendment Act 2019*).

Methods aimed at achieving this are outlined in the following table, together with my comments.

Responses to the GHG mitigation measures suggested in the *Draft Climate Change Strategy*.

WDC plans	Responses
<i>Food production</i>	
1. Develop a sustainable district food plan (all stages of keeping people fed including growing, processing, transporting, distributing, consuming and disposing of food)	<p>(a) The GHG cost of growing food (the GHG emissions intensity) can be most easily reduced by increasing productivity and reducing wastage.</p> <p>(b) Processing should be done locally, to reduce “feed miles”, by facilitating the re-establishment of meat processing works and other food processors in the Whanganui region.</p> <p>(c) It’s difficult to optimise food consumption and disposal of wastes given that modern western economies waste 30 to 40% of food bought from retailers (Dept. Agriculture, Water and the Environment, undated); perhaps WDC could employ dietitians and/or chefs to advise on preparing home-cooked meals.</p>

continued ...

Dept. Agriculture, Water and the Environment (undated). *Tackling Australia’s Food Waste*.
<https://www.environment.gov.au/protection/waste/food-waste>

	(d) Dealing with food wastes is difficult because composting will increase microbial CH ₄ emissions. Burying waste food might be a better option.
2. Look for opportunities to expand food-growing markets to take advantage of climatic changes	We need to be careful about this. While the intention is good, implementation can be tricky – higher temperatures reduce the efficiency of pig and possibly dairy production, and while they might offer opportunities for exotic fruit production, this has to be weighed against the effects of greater seasonal variation in rainfall and temperatures, and risk of storms and high winds.
<i>Education, collaboration, research and planning</i>	
3. Work together to share knowledge and provide support for change	Yes, support will be essential. Climate change is insidious, can't be readily recognised, and will be difficult to adapt to because it requires a raft of non-traditional farming techniques.
4. Acknowledge the kaitiaki practices and matauranga Māori of Māori landowners for farm management	Yes, I fully agree. But climate change is a new phenomenon and dealing with it will require new concepts and methods. I suggest that we need to seek auahatanga (creativity), while avoiding any abuse of the environment. We have existing organisations which should be involved in building climate resilience, e.g. local iwi, the River guardians, and Te Wānanga o Aotearoa (the latter doesn't presently have an agriculture program but in my opinion it should).
5. Encourage farmers to understand their farm's carbon footprint and develop farm plans that consider mitigation, sequestration, adaptation and adverse events	All good ideas, but very few farmers know what to do, or how to do these things. Accurate and accessible technical advice and support are both essential. DairyNZ and Beef+Lamb NZ both have relevant programs.
6. Undertake research to identify sustainable water sources to support land-use change	Does this mean "find new bore sites and dam placements to provide water to non-urban farming areas"? If so, then I suggest that this is a good idea but may be difficult to achieve.
7. Develop plans to drive sustainable, productive and profitable farm outcomes	Please see Sections 4 and 5 below.
8. Recognise the efforts of the agriculture sector and educate the wider population	Actions of the sector which achieve improved outcomes should be recognised. Perhaps the WDC can use its community award system for this. Educate the wider population about what?

4. What farmers can do to reduce the GHG cost of animal products.

There are several different approaches which farmers can use. The choice depends on whether they are farming intensively (e.g. dairying) or extensively (e.g. hill country sheep/beef). These approaches are listed here in order of ease of application (from easiest to most difficult):

- Use forages which yield less CH₄ when fermented in the rumen. A practical method for extensive sheep and beef farmers is to include tannin-rich pasture plants in the diet. Tannins can improve protein use and control internal parasites, as well as reducing CH₄. Options include planting lotus, sanfoin and sulla in pasture mixes, feeding turnip, fodder beet and swede bulbs, and feeding grain legumes and tree (willow and poplar) leaves.

- Change, as far as is reasonable, from an all-forage (i.e. pasture) diet to one which has a proportion of concentrates (e.g. cereal grains, protein meals, etc.). Starch is fermented in the rumen by micro-organisms which use propionic acid as a way of dealing with excess H, rather than excreting it with consequent incorporation into CH₄.
- Increase the productivity of individual animals, by breeding for animals which are more productive, e.g. grow faster and use feed more efficiently. This allows the production of the same amount of product at a lower CO₂e cost per unit (improved CO₂e intensity), and thus a lower overall CO₂e production from ruminant industries.
- Use precision feeding to optimise nutrient use. With this technique the animal's nutrient requirements are closely monitored and matched by the nutritive value of its feed. Precision feeding is one of the components of the DairyNZ GHG abatement toolkit. This approach could involve local feed manufacturers and feed analysis labs to set in place a system similar to the way that dairy cattle nutrition is managed in The Netherlands.
- Breed animals which inherently produce less CH₄. This is a developing field and results are varied. However, Beef+Lamb NZ introduced a methane breeding value for sheep in 2019; the CH₄ emissions of rams are measured on-farm by using an AgResearch mobile respiration cage.
- Use CH₄ inhibitors in animals' diets; these can reduce the amount of CH₄ produced by 20 to 80%. Unsaturated fat can be included in animal feeds, although there are limits to the amount which can usefully be added in ruminant animals' diets. More recently, the *Asparagopsis* seaweed has been shown to very effectively reduce CH₄ production. Some ionophore antibiotics (e.g. monensin) will reduce CH₄ production by allowing those bacteria which produce propionic acid to proliferate; but sheep are susceptible to ionophore poisoning. Many of the methods in this category require that grazing animals are fed a supplement, which they must eat in controlled amounts.
- Vaccinate animals against rumen methanogens – this technique has not yet been developed for practical use.

These methods have been developed both in New Zealand and overseas. Organisations such as the Pastoral Greenhouse Gas Research Consortium, the New Zealand Agricultural Greenhouse Gas Research Centre, AgResearch, and the Fonterra Research and Development Centre can (and do) provide technical support.

5. Suggestions about how the Whanganui District Council can act to reduce regional enteric CO₂e emissions.

It seems that the problem has these features:

- It is difficult, especially where we want to reduce emissions from extensively managed animals.
- There is a cost associated with CH₄ control, which is probably not able to be recovered at point of sale. This is a case where the producer, rather than the consumer, bears the GHG cost. However, there may be an opportunity to create a trademark (similar to "Cervena" or "Zespri") and thus a niche market for Whanganui products which are produced under low-CH₄ conditions.
- A multi-pronged approach is needed, including stockfeed manufacturers, marketing experts, rural advisors, nutritionists, animal breeding experts, veterinarians and others.

- The techniques are new, and many involve procedures which traditional, especially hill country, farmers are unfamiliar with and will therefore be wary of. Many farmers do not know how to reduce emissions. The Biological Emissions Reference Group (2018) reported that “A survey found:
 - 64% believe New Zealand agriculture should reduce its greenhouse gas emissions to help combat global climate change;
 - 98% did not know the greenhouse gas emission rates from their farm;
 - 97% of farmers, when asked to estimate greenhouse gas emission rates from an average farm, underestimated the amount; and
 - 42% of farmers were not aware of mitigation strategies that could reduce greenhouse emissions from agriculture, other than planting trees.”

Farmers will need support to assess the values of the different abatement techniques and how they can be implemented. There are several agencies which have begun to provide techniques and support, and the WDC could connect with them. These include those mentioned above, and the Fonterra farm environmental plan program and their Sustainable Dairying Advisors, DairyNZ, and NZ Farm Assurance Incorporated (their Farm Assurance Plus Program includes a GHG budget and identifies methods of reducing these emissions). It’s possible that the Rural Support Trust network could be included.

To get a Whanganui-focussed development, I suggest that **WDC establishes an agency** which can integrate advice from research organisations, introduce farmers to new CH₄ mitigation methods, and support them as they change their farming practice. If we’re successful in developing processes to achieve CH₄ mitigation, it’s likely that this intellectual property can be licensed to other Councils and jurisdictions.

The nature, functions and outcomes of such an agency are described in the figure below.

D. Ways of demonstrating compliance with New Zealand legislation.

The *Climate Change Response (Zero Carbon) Amendment Act 2019* requires, in section 5ZW, that Councils provide to the Minister “(c) a description of the processes that the organisation uses to identify, assess, and manage the risks: (d) a description of the metrics and targets used to assess and manage the risks and opportunities, including, if relevant, time frames and progress.”.

To comply with these requirements in relation to agricultural enteric GHG emissions, we could base a response on how successfully the mitigation measures described in section 4 (above) have been adopted. To do this, we would have to be able to provide records similar to those required from organic farmers. These are described in the Organic Products bill currently before Parliament (NZ Parliament undated).

As well, there are other mechanisms which could be considered, to get a measure of a farm’s actual CH₄ production at different times. Paddock-scale micrometeorological methods (Laubach, et al 2008; Harvey, et al 2016) are among the most promising for both CH₄ and NO_x, although they need further development for hill country environments. It might be possible to develop the IPCC (2006) Tier 3 modelling approach by using faecal near-infrared spectroscopy (F.NIRS is described by Dryden 2003).

Biological Emissions Reference Group (2018). Report of the Biological Emissions Reference Group (BERG). www.mpi.govt.nz/dmsdocument/direct

Dryden (2003). Near Infrared Reflectance Spectroscopy: Applications in Deer Nutrition. RIRDC Publ W03/007.

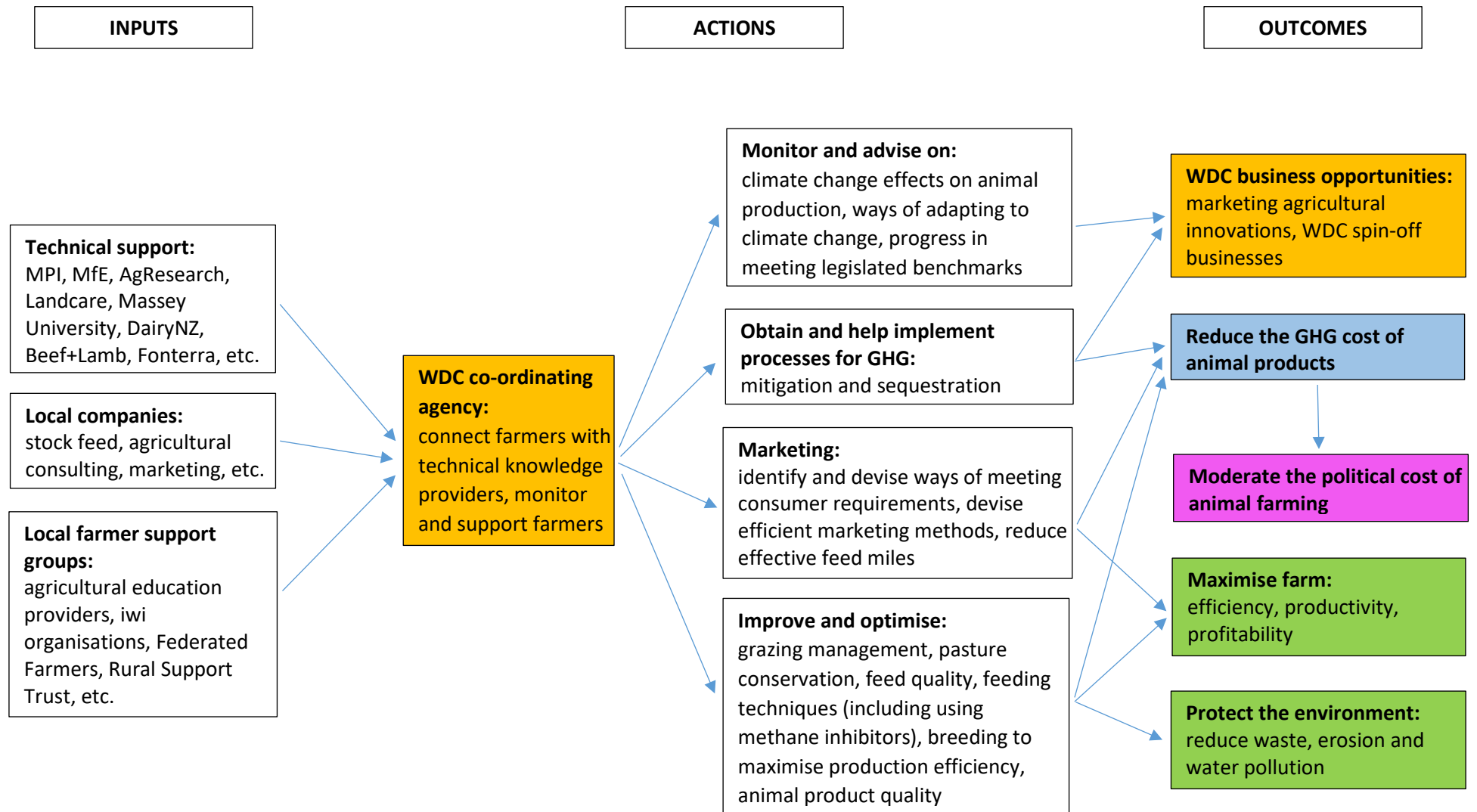
Harvey, et al. (2016). *Animal Production Science* 58(6) 998-1005. <https://doi.org/10.1071/AN15642>

Laubach, et al (2008). *Australian Journal of Experimental Agriculture* 48(2). DOI: 10.1071/EA07256

NZ Parliament (undated). *Organic Products Bill*.

https://www.parliament.nz/en/pb/bills-and-laws/bills-proposed-laws/document/BILL_94967/organic-products-bill

Flowchart of suggested WDC methane mitigation procedures



From: [Whanganui District Council](#)
To: buttars@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Monday, 1 February 2021 6:18:38 PM



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	935021818213701
First name	Gregory
Last name	Buttars
Email address	buttars@xtra.co.nz
Postal address	1 SHEFFIELD PLACE SPRINGVALE WHANGANUI 4501
Daytime phone number	o6 3447315
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	Springvale (Springvale West, Springvale East, Mosston)
Would you be interested in being involved in further consultation opportunities with Council?	No

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly disagree
Please provide reasons for your response	What a load of rubbish, this is being led by our Labour Party Mayor trying to score points with the Labour Government who in turn are trying to impress, among others the U.N. We could well do with another 5 degrees rise in temp and save having to go to Queensland in the winter.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly disagree
Please provide reasons for your response	Rubbish
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Disagree
Please provide reasons for your response	Yeah right
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly disagree
Please provide reasons for your response	Try getting the rest of the world to fall into line first.
The council demonstrates leadership and works collaboratively with	

<p>partners to reduce our district's carbon footprint</p> <p><i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	
Please provide reasons for your response	What carbon footprint?
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS</p> <p>Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Disagree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>Get rid of the [REDACTED] streets with more traffic lights, lanes that end up facing on coming traffic at intersections, cycle lanes that are hardly used, any idiot can see that roundabouts are far more functional.</p>
Building energy and urban form – Te hiko / hanaga whare	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Sick of answering these inane questions that make the council feel important.
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	no concern

Why is this a concern for you?	
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: knewton@doc.govt.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Wednesday, 3 February 2021 4:02:20 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	266021602211803
First name	Katy
Last name	Newton
Email address	knewton@doc.govt.nz
Postal address	
Daytime phone number	
Organisation name	Department of Conservation
Your role	Community Team
Have you submitted to the Whanganui District Council before?	
Gender	
Age group	
Ethnicity	
Location	
Would you be interested in being involved in further consultation opportunities with Council?	No
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

ACTION AREAS

Please indicate your level of agreement with the following action areas

Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Enable and encourage active transport Encourage an increase in rail transport
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Enable CBD living Encourage circular economies – production, use, re-use and recycling Plant more trees – develop green corridors / network – ensure the right tree is planted, in the right place, for the right purpose Encourage uptake of solar energy Promote energy efficiency and low carbon energy options for homes and other buildings
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Work together to share knowledge and provide support for change Develop plans to drive sustainable, productive and profitable farm outcomes
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Promote warm, dry homes – Home Energy Save programmes, Warmer Kiwi Homes Scheme Provide information and educational resources to grow community knowledge and collective action Establish a community climate change forum to drive and co-ordinate action
What is your biggest concern with	New Zealand's biodiversity and natural landscapes are being affected by climate change. These changes are

climate change?	resulting in extreme weather, rising sea levels, and rising temperatures. This is putting pressure on our wildlife and wild places.
Why is this a concern for you?	Adapting to climate change and reducing our national greenhouse gas emissions will increase the natural environment's resilience to these impacts. So DOC is working to help our nature thrive.
Please include anything that you think should be included in the strategy?	The Department encourages WDC to visit https://www.doc.govt.nz/our-work/climate-change-and-conservation/ to consider the research and educational material the Department has undertaken and/or compiled in the climate change space.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: strattonfamily@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Thursday, 4 February 2021 2:08:08 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	074021408210704
First name	Angela
Last name	Stratton
Email address	strattonfamily@xtra.co.nz
Postal address	134 HARRISON STREET WHANGANUI 4500
Daytime phone number	063453717
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	60 years or over
Ethnicity	NZ European
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	it reiterates general strategies for "greener" living. The challenge is to bring those plans into everyday life here in Wanganui.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	NZ is cut off from the rest of the world, which can be a good thing, but we need to be self sufficient where possible and ready to respond to natural disasters such as floods.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly disagree
Please provide reasons for your response	What?! I see the council as big wasters of public money and time. Wanganui is a small town yet we have a town clerk on over \$100,000. Get real!
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Disagree
	Some of us create bad things, eg cattle farmers, the tannery, shops that import plastic garbage, shops that wrap with plastic garbage, big buses when

Please provide reasons for your response	smaller ones would do the job, allowing school children to drive instead of cycling or walking or catching a bus. And those are small examples. A better one is the council's approval of building one storey houses on good land, miles away from shops, schools and services. Why??
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Agree
Please provide reasons for your response	The document has some lovely pictures and words.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Make it difficult for vehicles to drive in town: disabled drivers excepted, we need most people to walk, cycle, or share transport, for our own health too. Electric cars are not the answer, they still need steel to build and lithium battery production is evil.
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Can we burn our rubbish instead of burying it, to create power? Promote inner city living. Buy empty houses , compulsorily, to renovate or use the sites. There are 2 empty houses in my block of 8.
Agriculture – Ahu whenua	Neither agree nor disagree
	Grow plants, not animals. Grow for

Which initiatives do you believe are important and should be prioritised within this action area?	ourselves instead of importing from other districts, to avoid transport costs and fuel use.
Leadership and collaboration – Mahi tahi	Disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Use the strengths of experts such as the Quakers. There's no need to do more studies when all this has been done before.
What is your biggest concern with climate change?	I don't fear it. Climates change in cycles anyway.
Why is this a concern for you?	
Please include anything that you think should be included in the strategy?	Transport is my main concern, because we are so car-focused.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	Housing needs revamping. We need community housing for people who don't want 3 bathrooms and a lawn to mow. We need three storey housing to maximise site use and promote health.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: d764776@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Thursday, 4 February 2021 7:30:05 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	753021930210404
First name	Grant
Last name	Hird
Email address	d764776@gmail.com
Postal address	9 Gilligan Close
Daytime phone number	02102556916
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	50 - 59 years
Ethnicity	NZ European
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	No

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree

Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	Warming, season changes dry / wet too much of either.
Why is this a concern for you?	Drought , floods and changes in pests , crops
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change	

Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: trevorstrattonsketch@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Thursday, 4 February 2021 8:24:28 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	201022024212704
First name	Trevor
Last name	Stratton
Email address	trevorstrattonsketch@gmail.com
Postal address	134 Harrison Street WHANGANUI 4500
Daytime phone number	+64223099440
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Neither agree nor disagree
Please provide reasons for your response	Whilst i accept the general direction of the Strategy, it is just that a general direction - mildly aspirational and rather shallow.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Neither agree nor disagree
Please provide reasons for your response	Resilient? Unclear as to what this means - it is an often used somewhat 'fluffy' word.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Neither agree nor disagree
Please provide reasons for your response	Who measures and how?
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Without individual actions it will be impossible to change the status quo.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint	Neither agree nor disagree

<i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	
Please provide reasons for your response	More wordy fluff.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Massive reduction in vehicle use either internal combustion powered, electric or hybrid. Joe Public needs education / incentives (?) to change the bizarre habit of frequent often unnecessary travel. Provision of walkways and cycleways must be given priority. Reduce urban speed limit to 30 kph were legislation allows and return the streets and streetscape to the people.
Building energy and urban form – Te hiko / hanaga whare	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Medium density housing with state of the art energy performance (low demand), incorporate green areas, trees for bird life, connecting tree 'corridors'. Whanganui needs paradigm shift in urban planning initiatives - we do not need more Springvale type development on the fringes.
Agriculture – Ahu whenua	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Not my field.
Leadership and collaboration – Mahi tahi	Agree
Which initiatives do you believe are	Leadership that shows daring, not just

important and should be prioritised within this action area?	follow the leader type action. Encourage collaboration by education and listening „„„„„„ to the people.
What is your biggest concern with climate change?	The fallacy that is being promoted that EVs and renewable energies will just about solve everything.
Why is this a concern for you?	The mining activity to extract lithium and other rare metals is environmentally a nightmare. Reliance on renewable energy has the potential to leave a nation (the people) very vulnerable.
Please include anything that you think should be included in the strategy?	Strength of commitment. An indication that Whanganui can do things differently than the rest of NZ and in doing so strengthen community. In doing so be an example of what can be done.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: sigummer@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Friday, 5 February 2021 10:13:29 am



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	064021013212805
First name	Simon
Last name	Gummer
Email address	sigummer@gmail.com
Postal address	155c Okoia Rd
Daytime phone number	0273175158
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	
Age group	
Ethnicity	
Location	Other
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	Having a land centric approach works but way more focus on forcing farmers to comply is needed
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Everyone includes farming and this may need enforcing
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	

response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Electric car charging - working with car dealers to import cheaper second hand electric cars - keeping 4wd's off beaches etc
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Make use of tidal power at the river mouth?
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Reduce cattle - find ways to bring back more sheep farming and increase wool price Fence off all rivers etc from animals Farmers to use as little chemicals in their soil etc as possible as this just runs off and ends up in the river and then the sea Slurry from cattle needs to be treated somehow, at the moment it just goes into drainage ditches, then creeks, then the river
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	Locally it is agriculture
Why is this a concern for you?	Living in rural area I can see first hand how much farms pollute and then profit off this pollution!

Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: policysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy

Whanganui District Council
101 Guyton Street
Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: Mark Brimblecombe

E-mail: mark.brimblecombe@gmail.com

Postal Address: 11 St. Leonard Street,

St. John's Hill, Whanganui Post code 4501

Best daytime contact number: 021 545 184

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☒ Yes I would like to speak in support of my submission (please ensure you have completed the details above, including contact **phone number**)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.

- ☐ Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy		✓		✓	
Please provide reasons for your response?	See attached				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	See attached				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>			✓		
Please provide reasons for your response?	See attached				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>		✓			
Please provide reasons for your response?	See attached				

Thank you for your submission

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint</p> <p><i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i></p>			✓		
Please provide reasons for your response?	See attached				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Transportation – Eke waka			✓		
Which initiatives do you believe are important and should be prioritised within this action area?	<div></div> <div></div> <div></div> <div></div>				
Building energy and urban form – Te hiko / hanaga whare			✓		
Which initiatives do you believe are important and should be prioritised within this action area?	<div></div> <div></div> <div></div> <div></div>				
Agriculture – Ahu whenua		✓			
Which initiatives do you believe are important and should be prioritised within this action area?	<div></div> <div></div> <div></div> <div></div>				
Leadership and collaboration – Mahi tahi		✓			
Which initiatives do you believe are important and should be prioritised within this action area?	<div></div> <div></div> <div></div> <div></div>				

Thank you for your submission

What is your biggest concern with climate change?

See attached

Why is this a concern for you?

See attached

Have we missed anything that you think should be included in the strategy?

Yes ... see attached

Please use this space to provide further comments regarding the draft Climate Change Strategy.

See attached

Thank you for your submission

OPTIONAL:

Have you submitted to Council before?

Yes ☐

No ☒

Gender:

Female ☒

Male ☐

Gender Diverse ☐

Age:

Under 18 Years ☐

18 – 29 years ☐

30 – 39 years ☐

40 – 49 years ☐

50 – 59 years ☐

60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper Aramoho) ☐

Bastia Hill / Durie Hill ☐

Blueskin- Maxwell ☐

Castlecliff (Castlecliff North,

Castlecliff South, Mosston) ☐

Fordell-Kakatahi ☐

Gonville (Balgownie, Tawhero,

Gonville South, Gonville East, Gonville West) ☐

Marybank-Gordon Park ☐

Putiki ☐

St Johns Hill / Otamatea ☒

Springvale (Springvale West,

Springvale East, Mosston) ☐

Whanganui Central (Laird Park,

Whanganui Central, Whanganui

Collegiate) ☐

Whanganui East (Williams Domain,

Wembley Park, Kowhai Park) ☐

Other ☐

.....

Ethnicity:

NZ European ☒

Maori ☐

Asian ☐

Pacific Peoples ☐

Middle Eastern/Latin American/African ☐

Other ☐

Thank you for your submission

11 St. Leonard Street
St. John's Hill
Whanganui 4501

5 February 2021

Climate Change Strategy
Whanganui District Council
101 Guyton Street
Whanganui 4500

Submission on Draft Climate Change Strategy

Thank you for the opportunity to make a submission. I attach my 'written' submission.

I would like to speak to the Council in support of my submission. I would be grateful to have 10-15 minutes to do so, and to do so with a PowerPoint presentation.

If you would like more copies of the attached document, in colour, please advise the quantity required. It would be good if all the Council members had a copy. I am including two copies of my submission for now.

A PDF version of this document is also available.

Yours sincerely,



Dr. Mark Brimblecombe
Phone: 021 545 184
Email: mark.brimblecombe@gmail.com

Response to the Whanganui District Council's *Draft Climate Change Strategy*

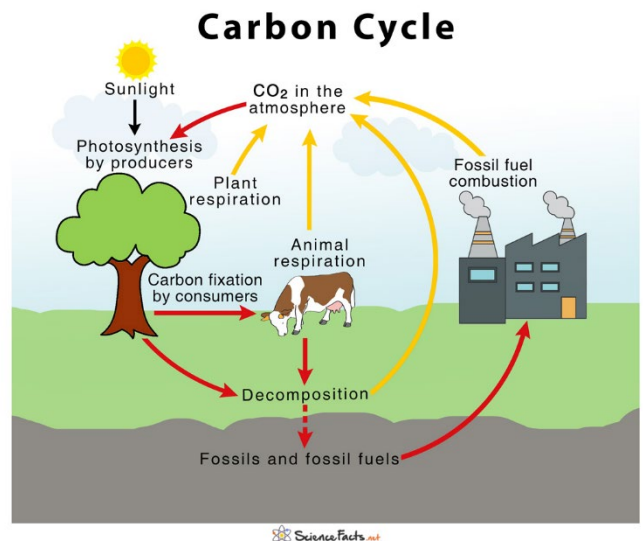
by Mark Brimblecombe, Ph.D. | February 2021

The *Draft Climate Change Strategy*¹ does a good job at exploring adaptation strategies for building resilience to worsening climate conditions.² But I am critical of its assessment of the problem and its virtue-signaling mitigation proposals. My response is in three sections:

1. Anthropogenic (human-induced) warming from greenhouse gas (GHG) emissions must be understood in **the context of the natural carbon cycle**, which until about 150 years ago was in equilibrium.
2. The *Draft Climate Change Strategy* follows **the mitigation myth**, that we can reduce the effects of worsening climate change by reducing anthropogenic greenhouse gas (GHG) emissions e.g., net-zero by 2050, or earlier. I am not against mitigation measures *per se* (e.g., carbon emission reductions). But the notion that they now have any effect on mitigating climate change is simply ludicrous.
3. The big problem is not climate change. It is **global ecological overshoot**: when our ecological footprint exceeds biocapacity or sustainability. Global warming is a result. Overshoot leads to collapse and eventual extinction. The planet is now in irreversible collapse.

1. The Carbon Cycle is out of Equilibrium

Greenhouse gases (GHG) are necessary in the atmosphere to keep the planet warm at an average of 15°C surface temperature.³ The level of **natural GHGs** in the atmosphere has been in equilibrium for millennia because the earth has both emitted and absorbed natural GHGs in mostly equal measure (the natural carbon cycle). This all changed with the industrial revolution, about 1750. Since then, **anthropogenic or human-caused greenhouse gases** have almost doubled the atmospheric carbon dioxide concentration, and this has been the main driver of global warming. The problem has been compounded by the destruction of carbon absorbing plants and forests.

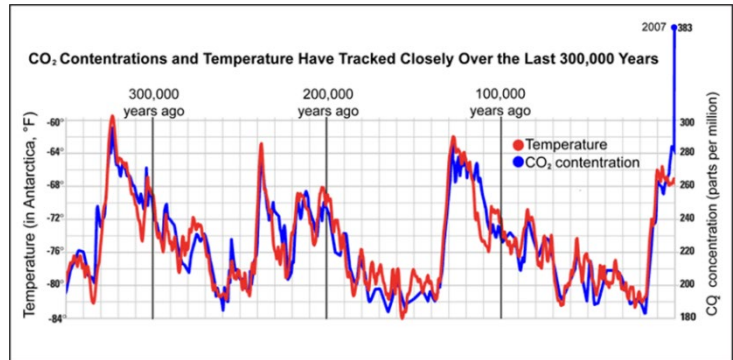


¹ <https://www.whanganui.govt.nz/files/assets/public/consultations/climate-change-strategy/climate-change-strategy-low-res.pdf>

² More consideration needs to be given to making Whanganui resilient through a degree of autonomy during times when climate change isolates us from the rest of the country/world because of damage to the supply network.

³ The main greenhouse gases in Earth's atmosphere are water vapor (H₂O), carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and ozone (O₃).

There is a direct correlation between CO₂ concentration and global average temperature over the last 300,000 years. During that time, and until recently, CO₂ concentrations have not exceeded 300 parts per million. The level is now 414 ppm and rising.



The total Global Greenhouse Gas emissions, as described above, comprise:

1. Natural systems, including forest fires and decomposition, oceans, wetlands, etc.
2. Anthropogenic (human caused) greenhouse gas emissions, largely from burning fossil fuels and agriculture.

A scientific paper from 2018 indicated that the global annual GHG emissions were approximately 54 – 75 Gt CO₂-eq.⁴ Of this, natural emissions accounted for 18.13 – 39.30 Gt CO₂-eq, and anthropogenic emissions accounted for approximately 55.46% of the total global GHGs emissions (2016 value).⁵ The anthropogenic (human-caused) emissions have now escalated beyond the capacity of natural systems to capture carbon and keep the ecosystem in equilibrium, resulting in global warming. This warming has in turn amplified GHG emissions from natural systems. So, natural GHG emissions are now rising at such a rate that **reducing (or mitigating) anthropogenic emissions to reduce global surface temperature (or slow the increase of temperature) is a lost cause.**

The oceans are both a carbon sink and a carbon source. Cold oceans are a carbon sink, and warm oceans become a carbon source. This will be amplified during the next El Niño. Wetlands are a major source of natural CH₄ emissions, and more so as temperatures rise. Perhaps the most dramatic change in the last few years has been the massive and ever-increasing GHG emissions from the warming arctic... thawing permafrost, burning forests, etc. Of particular concern is the melting of permafrost in the shallow waters off the East Siberian Sea, and the probability of a 50 gigaton burst of methane.⁶ That is almost as much as the current total GHG annual emissions! But even if we ignore this (as does the IPCC), the increase of methane from thawing permafrost on land in the arctic is accelerating at an alarming rate.

One indication that natural GHG emissions have exceeded human GHG emissions is that during the last year of COVID-19 lockdowns and industrial slowdowns human GHG emissions dropped by as much as 25% and the total atmospheric CO₂ levels continued to increase.

2. It is too late to Mitigate to make a difference

So, let us get real about mitigation...

1. The **inertia of the climate system and global warming** delays the emergence of any discernible response even to strong sustained mitigation. Even net-zero emissions by 2050, if

⁴ Xi-Liu Yue and Qing-Xian Gao 'Contributions of natural systems and human activity to greenhouse gas emissions' *Advances in Climate Change Research*, Volume 9, Issue 4 (December 2018), pages 243-252. <https://doi.org/10.1016/j.accre.2018.12.003>

⁵ New Zealand contributes 0.17% of global emissions.

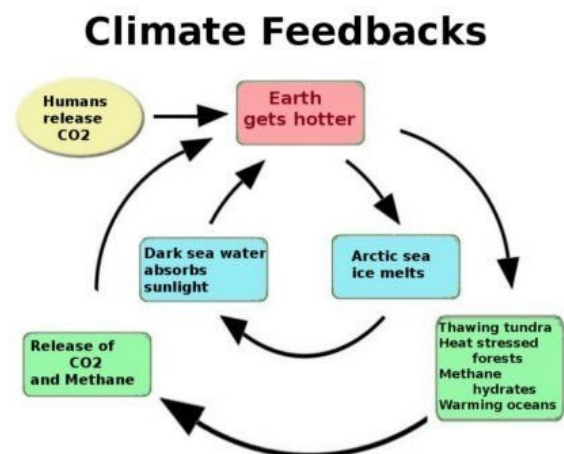
⁶ Dr. Peter Wadham, Professor Emeritus University of Cambridge. See Robert Hunziker 'Menacing Methane – An Analysis' *Counterpunch* (15 December 2020).

that were possible, would not see measurable effects for at least a decade or two later.⁷ In the meantime, the planet continues to warm from emissions during the last 20 to 40 years, plus the emissions in the present.

2. The **GHS emissions from nature itself continue to increase**, as I have already mentioned, thus more than offsetting any human mitigation. We have left mitigation way too late. Effective mitigation needed to start last century, and before anthropogenic GHG emissions and consequential global warming triggered increased natural GHG emissions.
3. Multiple **self-amplifying climate feedback loops**.⁸ These include the following⁹:
 - Permafrost melting, and release of GHGs.¹⁰
 - Forests – deforestation, fires, etc.¹¹
 - Loss of ice and the albedo effect.¹²
 - Atmosphere, water vapour, polar vortex, etc.¹³

These feedback loops have been triggered by our carbon emissions. But they are not a part of the feedback loops. It is therefore fallacious and misleading to suggest that by reducing or eliminating human GHG emissions that the accelerating feedback loops could be slowed down or even reversed!

The rate of change in these feedback loops begin slowly then accelerate exponentially and not in a linear fashion.¹⁴ That is the very nature of a feedback loop.



⁷ Samset, B.H., Fuglestad, J.S. & Lund, M.T. 'Delayed emergence of a global temperature response after emission mitigation', *Nature Communications Journal* 11, 3261 (2020). <https://doi.org/10.1038/s41467-020-17001-1>

⁸ A self-reinforcing feedback is an accelerating process that occurs in a feedback loop which exacerbates the effects of a small disturbance. That is, **A produces more of B which in turn produces more of A**. (Wikipedia).

⁹ See the recent short documentary series at <https://feedbackloopsclimate.com> This is an excellent series of short documentaries. But they each end with the ludicrous suggestion that it is possible to reverse these feedback loops. As I explain shortly, that is impossible.

¹⁰ 'Permafrost – Climate Emergency: Feedback Loops'. <https://youtu.be/e44IYZ-gQnE>.

¹¹ 'Forests – Feedback Loops: Climate Change'. <https://youtu.be/lxh5JMmbuLw>

¹² 'Albedo – Climate Emergency: Feedback Loops' <https://youtu.be/HNqTxBHgCOY>

¹³ 'Atmosphere – Climate Emergency: Feedback Loops' <https://youtu.be/mmHIAzZ7qKw> Warming causes more moisture in the atmosphere (a GHG), disruption of the Jetstream, and warmer oceans.... another feedback-loop.

¹⁴ "The greatest shortcoming of the human race is our inability to understand the exponential function" Albert A. Bartlett, professor of physics at the University of Colorado. He said "sustainable growth" is an oxymoron.

4. The **oceans are warming** (as reported by the IPCC), causing atmospheric warming and 'irreversible' climate change.¹⁵ It is just not possible to mitigate this.
5. The **aerosol masking effect**.¹⁶ The pollution particles in the atmosphere shield the planet from the sun. When those particles are removed or pollution emissions are reduced, the earth warms up. This means that reducing anthropogenic GHGs also often means a reduction in aerosol particles, and the latter has a warming effect almost immediately. This, along with the rise in natural GHG emissions, is one explanation for why the planet has continued to warm during the COVID lockdowns and industrial slowdowns in 2020. There has been reduced aerosol particle pollution (shielding from the sun), thus warming the planet.¹⁷

The planet is warming. This warming is accelerating. It is irreversible. It is nothing short of cognitive dissonance (when you know these facts) to believe that reductions in human generated GHGs can mitigate this. Climate change is driving climate change to an extent greater than human generated GHGs. It is too late to mitigate to make a difference. It is not 'politically correct' to draw attention to this fact.

Following other Failures

There are three main international policies that guide the Whanganui District Council's climate change adaption and mitigation work.¹⁸ These are listed as:

1. The United Nations Framework Convention and Climate Change (UNFCCC)
2. The Kyoto Protocol (1997)
3. The Paris Agreement (2015)¹⁹

However, these agreements have been ineffective in reducing carbon emissions.²⁰ That is because (1) "Global problems require global solutions" (António Guterres, UN Secretary General), and countries have been unable to agree on common solutions, thus allowing different mitigation goals for different countries, and even some countries withdrawing from agreements e.g. the USA.²¹ (2) There is a disconnect between what governments pledge in terms of reductions in carbon emissions and their plans to increase fossil fuel production 50% by 2030.²² Between 2020 and 2024, the oil and gas industry plans to spend US\$1.4 trillion on new extraction projects.²³ (3) UN Climate Change

¹⁵ The word 'irreversible' is used many times in the IPCC report, 2019: *IPCC Special Report on the Ocean and Cryosphere in a Changing Climate*. <https://www.ipcc.ch/srocc/>

¹⁶ The BBC Documentary on Global Dimming (2007) is still one of the best explanations for this. <https://youtu.be/oPj6K9TR1Tk>

¹⁷ James Hansen and Makiko Sato 'Global Warming Acceleration' (14 December 2020).

¹⁸ page 11. Reference is also made to the New Zealand 'The Climate Change Response (Zero Carbon) Amendment Act 2019'... "reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050." Page 12.

¹⁹ Among the serious flaws in this agreement there no mention of the US military, the single largest user of petroleum in the world, and producer of about 1.2 billion metric tons of GHGs annually!

²⁰ Hayley Stevenson, 'Reforming global climate governance in an age of bullshit' *Globalizations*, 18:1, 2020. <https://doi.org/10.1080/14747731.2020.1774315>

²¹ "The ecologically necessary is politically infeasible, but the politically feasible is ecologically irrelevant" – Professor Emeritus William Rees, University of British Columbia, originator of the ecological footprint concept.

²² *The Production Gap Report 2019*, <http://productiongap.org/2019report/>

²³ *Oil, Gas and The Climate: An Analysis of Oil and Gas Industry Plans for Expansion and Compatibility with Global Emission Limits* (Global Gas and Oil Network, December 2019) <http://ggon.org/oilgasclimate2019/>

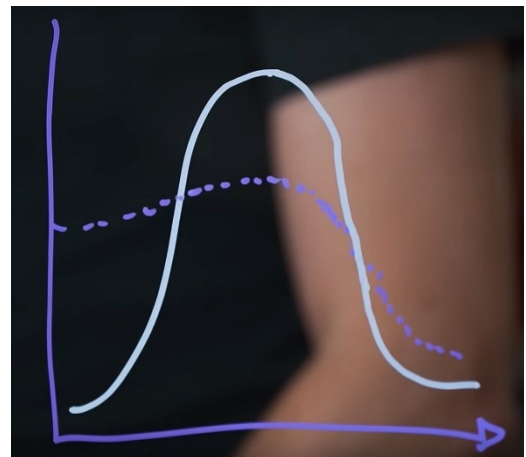
Conferences, like COP25 (2019), now block the science, including reports from the IPCC.²⁴ (4) The failure to understand the main point of this paper... that it is too late to mitigate!

The facts about climate change are too inconvenient for maintaining economic growth and the ongoing exploitation of finite resources. "Anyone who thinks that you can have infinite growth in a finite environment is either a madman or an economist" (Sir David Attenborough). Also, carbon emissions must be understood in terms of biocapacity and ecological footprint (see following section), and not in isolation from that. Also, "climate change that takes place due to increases in carbon dioxide concentration is largely irreversible for 1,000 years after emissions stop."²⁵ [see also page 21 of this paper]

3. Collapse & Adaptation / Resilience

Climate change must be understood as resulting from overshoot, and in the context of the broader collapse of the biosphere. This poses an existential threat to all life on the planet. A consideration of this is a major omission of the *Draft Climate Change Strategy*.

We cannot talk about a climate crisis without talking about an environmental crisis. And we cannot talk about a climate crisis for Whanganui (or New Zealand) without talking about the global environmental and climate crises. It is then better to consider our ecological footprint rather than just a carbon footprint (which does not consider biocapacity).²⁶ An ecological deficit occurs when the 'ecological footprint' of a population exceeds the biocapacity of the area available to that population.²⁷ A national ecological deficit (overshoot) means that a nation is importing biocapacity through trade, liquidating national ecological assets or emitting carbon dioxide waste into the atmosphere. An ecological reserve exists when the biocapacity of a region exceeds its population's ecological footprint. In New Zealand our biocapacity exceeds our ecological footprint by 112%. In China the ecological footprint exceeds biocapacity (i.e. overshoot) by 302%, and in the USA by 133%. Globally we are in overshoot by about 60%, needing 1.6 earths to sustain current global population and consumption levels. The climate crisis is a consequence of this overshoot.²⁸



We must also add to this the ongoing destruction, degradation, and polluting of habitat for animal and plant life. The planet is broken, and the natural world, including its climate, is collapsing.²⁹

²⁴ Dr Peter Carter (IPCC reviewer)... <https://youtu.be/oa13KrOvE2s> Economic growth is an imperative.

²⁵ Susan Solomon, Gian-Kasper Plattner, Reto Knutti, and Pierre Friedlingstein, 'Irreversible climate change due to carbon dioxide emissions' *PNAS*, February 10, 2009 106 (6) 1704-1709.

²⁶ <https://data.footprintnetwork.org> So, the DCCS is misleading in just talking about our carbon footprint.

²⁷ **This crisis can be expressed as the direct result of over-population + over-consumption.**

²⁸ Other 'effects' include crop failures and food shortages, civil unrest and political instability, migration, etc. Many recent reports from multiple sources predict this e.g., from Central Banks, Insurance companies, etc.

²⁹ The 'State of the Planet' address by António Guterres, UN Secretary General, on 2 December 2020. See also the 2020 *UN Global Biodiversity Outlook 5* report, and the dismal failure to halt biosphere collapse. Setting new goals for the next five years to halt biodiversity collapse are ridiculous and not achievable given the almost total failure to meet the goals from the last five years.

Where is the sense of urgency? There is no reference in the *Draft Climate Change Strategy* to the Whanganui District Council's declaration of a climate emergency (11 February 2020).³⁰ This is disappointing given the evidence that the situation is now much worse. The year 2020 has been a year of weather and climate breaking records:

- The hottest year on record for Europe and the Arctic. New records include 38°C in the Arctic, 54.4°C in Death Valley in the Mojave Desert, California. All this during a La Niña and solar minimum. It will get a lot warmer during the next El Niño, especially in the Pacific Ocean region!
- "New Zealand recorded its seventh-hottest year on record in 2020, and marked nearly four years since it experienced a month with below-average temperatures."³¹
- Thirty major Atlantic storms. Typhoon Goni in the Philippines, with winds up to 313 kmph.
- Record atmospheric carbon dioxide levels (414 ppm) despite record 'human' carbon emission reduction from COVID-19 lockdowns.³²
- Net greenhouse gas emissions from nature itself (CO₂, methane, and nitrous oxide) further surpassing direct human related emissions (e.g. from industry, agriculture, etc.).
- Polar ice melting. Arctic sea ice extent the second lowest on record. The current trend of ice loss leads to an ice-free arctic in 2025 – 2030. As the President of Finland, Sauli Niinistö, said in 2017, "If we lose the Arctic, we lose the whole world."
- Ocean warming. Warming oceans evaporate more water, and a warming atmosphere holds about 7 percent more moisture per 1°C of warming. This fact has serious implications for New Zealand, where the oceans around us are warming (see data from NIWA).³³ Upper ocean temperatures hit a record high in 2020.³⁴
- Magnified disruption of the polar jet-streams, dragging warm air into polar regions, and cold air into outside-polar regions, causing extreme and out-of-season weather events..
- Record bush and forest fires around the globe, including the arctic. Destruction of forests and increased desertification. The Amazon rainforest has reached the tipping-point towards irreversible destruction.

The biosphere is collapsing,³⁵ and "no species persists long without habitat, not even the clever ones" (Guy McPherson).³⁶ Extinction is inevitable.³⁷

³⁰ To date, 1,859 jurisdictions in 33 countries have issued climate emergency declarations covering more than 820 million people.

³¹ 'New Zealand records seventh-hottest year, with extreme weather more likely' by Eleanor de Jong, *The Guardian*, 12 January 2021. 88% of the year with above-average temperatures. NIWA predicting potentially "significant rain events," and droughts.

³² The reduction is about 25%. See the *UN Emissions Gap Report 2020* (December 2020).

³³ <https://niwa.co.nz/news/our-changing-oceans>

³⁴ Cheng, L., Abraham, J., Trenberth, K.E. *et al.* 'Upper Ocean Temperatures Hit Record High in 2020', *Advances in Atmospheric Sciences* (12 January 2021). <https://doi.org/10.1007/s00376-021-0447-x>

³⁵ Pablo Servigne and Raphaël Stevens *How Everything Can Collapse: A Manual for Our Times* (2015, English Translation 2020).

³⁶ Guy R. McPherson, *Only Love Remains: Dancing at the Edge of Extinction* (2019).

³⁷ Planetary warming of 4°C will result in mass extinction for almost all species (including humans). See Giovanni Strona and Cory Bradshaw, 'Co-extinctions annihilate planetary life during extreme environmental change. *Scientific Reports*, 8, 16724 (2018). <https://doi.org/10.1038/s41598-018-35068-1>

The Predicament

Problems may be solved. Predicaments usually cannot. Back in 2009, Richard Lazarus described this as a “super wicked problem.”³⁸ Because...

1. Time is running out.
2. There is no central authority.
3. Those seeking to solve the problem are also causing it.
4. Policies discount the future irrationally.

Now in 2021 it is evident that...

1. Time has already run out to solve this problem and avert collapse.³⁹ Hence the predicament.
2. There is no central authority (even the United Nations) that has the power to address this problem.⁴⁰
3. We are the problem.⁴¹
4. It is irrational not to recognize that we are now on an irreversible path of biosphere collapse, which involves escalating climate catastrophes, and eventual extinction.

The WDC’s *Draft Climate Change Strategy* addresses some of the measures that can be taken to adapt to a worsening climate. But as already mentioned, the problem is much bigger than the climate, and it is global. In this regard, the *Draft Climate Change Strategy* is myopic and fails to see the bigger picture.

Greta Thurnberg said “the house is on fire,” and Sir David Attenborough recently asked her “are you an optimist or a pessimist?” She answered, “neither, I’m a realist.” There is no place here for hopium, nor the popular ‘Bob the Builder’ dictum, “Can we fix it? Yes we can!”

Summary of ‘Failure’ Points re the *Draft Climate Change Strategy*

The Whanganui District Council’s *Draft Climate Change Strategy* document fails to...

1. Relate human Greenhouse gases emissions to the natural carbon cycle, and in that context.
2. Recognize that natural GHG emissions have risen (and are rising) due to temperature rise, and that this more than offsets any mitigation efforts to reduce anthropogenic GHG emissions.
3. Recognize the failure of international agreements to decrease anthropogenic GHG emissions.
4. Recognize that carbon emissions must be understood in terms of ecological footprint and biocapacity. That any quest for sustainability on the planet has long been lost.
5. Recognize that this discussion cannot be reduced to a local or even national issue. It is a global issue.
6. Regard this as a matter of urgency, in line with the Council’s own declaration of a climate emergency.

³⁸ Richard Lazarus, ‘Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future’ *Cornell Law Review*. 94 (5, 2009): 1153–1233.

³⁹ See the following ‘Reading List’ on collapse. To use an analogy, the planet is in hospice.

⁴⁰ Besides, politics at a national level (if not all levels) seems to be more about popularity than policy.

⁴¹ We are *Homo Narcissus*. “Around two thirds of global emissions are linked to private household activities according to consumption-based accounting.” *UN Emissions Gap Report 2020* (December 2020), page xxiv, and chapter 6. Add to this the observation that “the emissions of the richest 1 per cent of the global population account for more than twice the combined share of the poorest 50 per cent.”

7. Recognize that climate change is now rapid and irreversible.
8. Recognize that climate change is integrally linked to biosphere collapse and biodiversity collapse.
9. Recognize that the collapse of the biosphere (many aspects of which are climate related) is in process, with dire consequences for all species of life that depend on it for habitat.

To finish on a more positive note...

We are fortunate in New Zealand when it comes to climate change, because of our southern latitude, the small size of our islands surrounded by ocean, and with our small population which is currently consuming less than the carrying capacity of the local ecosystem. The impact of global climate change is taking longer to impact here than in many countries in the world. But in time the dire consequences will certainly catch up with us. We are also fortunate to generate about 90% of our electricity from 'renewable' sources (hydro and geothermal) rather than fossil fuels.

I agree with the need to develop strategies for building resilience and adapting to the changes which the Council's 'climate emergency' has announced. I am also willing to assist in any way I can with formulating these strategies, and as a matter of urgency.

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Short Reading List

Andrew Glikson	<i>The Event Horizon: Homo Prometheus and the Climate Catastrophe</i> (Springer Nature, 2020)
William R. Catton	<i>Overshoot: The Ecological Basis of Revolutionary Change</i> (University of Illinois Press, 1982)
Pablo Servigne & Raphaël Stevens	<i>How Everything Can Collapse: A Manual for Our Times</i> (2015) [English translation 2020, Polity Press]
Peter Wadhams	<i>A Farewell to Ice: A Report from the Arctic</i> (Penguin Press, 2017)
David Wallace-Wells	<i>The Uninhabitable Earth: Life After Warming</i> (Tim Duggan Books, 2019).
Dahr Jamail	<i>The End of Ice: Bearing Witness and Finding Meaning in the Path of Climate Destruction</i> (The New Press, New York, 2019)
Guy R. McPherson	<i>Only Love Remains: Dancing at the Edge of Extinction</i> (Woodthrush Publications, 2019).

'The Myth of Sustainability' *Earth & Environmental Science Research & Reviews*, Volume 3, Issue 3, 8 July 2020. <https://opastonline.com/wp-content/uploads/2020/07/the-myth-of-sustainability-eesrr-20.pdf>

'Earth is in the Midst of Abrupt, Irreversible Climate Change' *Journal of Earth and Environmental Sciences Research*, Volume 2 (2), 25 May 2020. <https://www.onlinescientificresearch.com/articles/earth-is-in-the-midst-of-abrupt-irreversible-climate-change.pdf>

Julian Cribb *Surviving the 21st Century: Humanity's Ten Great Challenges and How We Can Overcome Them* (Springer Nature, 2016)

George Tsakraklides *The Age of Separateness and the climate change within* (2019)

Disposable Earth: How and why we gave our planet an expiration date (2020)

William Ophuls *Apologies to the Grandchildren: Reflections on Our Ecological Predicament, Its Deeper Causes, and Its Political Consequences* (2018)

William Ophuls *Immoderate Greatness: Why Civilizations Fail* (2012)

Roy Scranton *Learning to Die in the Anthropocene: Reflections on the End of Civilization* (2015)

Roy Scranton *We're Doomed. Now What?: Essays on War and Climate Change* (2018)

Michael Huesemann *Techno-Fix: Why Technology Won't Save Us or the Environment* (New Society Publishers, 2011)

Joseph A. Tainter *The Collapse of Complex Societies* (1990)

Urgo Bardi *The Seneca Effect: Why Growth is Slow but Collapse is Rapid* (2017).

Nafeez Ahmed *Failing States, Collapsing Systems: BioPhysical Triggers of Political Violence* (Springer Books, 2017). "Earth System Disruption (ESD) is driving Human System Destabilization (HSD). Preoccupied with the resulting political chaos, the Human System becomes even more vulnerable and incapable of ameliorating ESD. As ESD thus accelerates, it generates more HSD. The self-reinforcing cycle continues, and we find ourselves in an amplifying feedback loop of disruption and destabilization."

Videos / Websites

Arthur Keller 'Collapse: The Only Realistic Scenario' **This, in my opinion, is the best explanation of what happens when the ecological footprint exceeds biocapacity. It also covers the 'mitigation myth' model, the vision of the future adopted by the WDC Draft Climate Change Strategy.** https://youtu.be/qPb_OJZ6-Rc

Michael Dowd 'Irreversible Collapse: Accepting Reality, Avoiding Evil' (29th December 2020) <https://youtu.be/iQeK04WOGaA> See also the many resources at <http://postdoom.com/resources/>

Kevin Hester	https://kevinhester.live/ Kevin Hester lives on Rakino Island in the Hauraki Gulf, New Zealand.
Guy McPherson	<i>Nature Bats Last</i> https://guymcpherson.com/
Paul Beckwith	See Paul's YouTube Channel - https://www.youtube.com/user/PaulHBeckwith
Jim Massa	Gases, Temperature, Ice – Review, Analysis and Discussion of 2020 Data (21 January 2021). https://youtu.be/rDaqLy4AS0o

In addition to the articles cited in the footnotes, there are these alarming scientific papers...

‘Underestimating the Challenges of Avoiding a Ghastly Future’ by Bradshaw Corey J. A., Ehrlich Paul R., Beattie Andrew, Ceballos Gerardo, Crist Eileen, Diamond Joan, Dirzo Rodolfo, Ehrlich Anne H., Harte John, Harte Mary Ellen, Pyke Graham, Raven Peter H., Ripple William J., Saltr   Fr  d  rik, Turnbull Christine, Wackernagel Mathis, Blumstein Daniel T. *Frontiers in Conservation Science Journal*, Volume 1, 2021 (**Published 13 January 2021**).

<https://www.frontiersin.org/article/10.3389/fcosc.2020.615419>

‘Upper Ocean Temperatures Hit Record High in 2020’, Cheng, L., Abraham, J., Trenberth, K.E. *et al. Advances in Atmospheric Sciences* (**12 January 2021**). <https://doi.org/10.1007/s00376-021-0447-x>

‘Insect decline in the Anthropocene: Death by a thousand cuts’ by David Wagner, Eliza Grames, Matthew Forister, May Berenbaum, and David Stopak *PNAS*, **12 January 2021**, 118 (2)

<https://doi.org/10.1073/pnas.2023989118>

‘How close are we to the temperature tipping point of the terrestrial biosphere?’ by Katharyn Duffy, Christopher Schwalm, Vickery Arcus, George Koch, Liyin Liang, and Louis Schipper, *Science Advances*, Vol. 7, No.3 (**13 January 2021**)

<https://advances.sciencemag.org/content/7/3/eaay1052/tab-pdf>

‘Net Zero and Other Climate Delusions’ by Elisabeth Robson, 9 January 2021

<https://dgrnewsservice.org/civilization/ecocode/climate-change/net-zero-and-other-climate-delusions/>

‘What if we stopped Pretending?’ – The climate apocalypse is coming. To prepare for it, we need to admit that we can’t prevent it.’ by Jonathan Franzen, *The New Yorker* (8 September 2019)

<https://www.newyorker.com/culture/cultural-comment/what-if-we-stopped-pretending>

‘The Climate Crises is Worse than You can Imagine. Here’s What Happens if You Try’ by Elizabeth Weil, 25 January 2021, <https://www.propublica.org>

‘Understanding the Permafrost–Hydrate System and Associated Methane Releases in the East Siberian Arctic Shelf’ by Natalia Shakhova, Igor Semiletov, and Evgeny Chuvilin. *Geosciences*, 5 June 2019. <https://www.mdpi.com/2076-3263/9/6/251/pdf>

The Green Swan: Central Banking and Financial Stability in the age of Climate Change, European Bank for International Settlements / Banque de France, January 2020.

<https://www.bis.org/publ/othp31.pdf>

Forests turning from Carbon sinks to Carbon sources...

Harris, N. L., Gibbs, D. A., Baccini, A., Birdsey, R. A., Bruin, S. D., Farina, M., . . . Tyukavina, A. (2021). **'Global maps of twenty-first century forest carbon fluxes'**. *Nature Climate Change*. doi:10.1038/s41558-020-00976-6

Hubbau, W., Lewis, S. L., Phillips, O. L., Affum-Baffoe, K., Beeckman, H., Cuní-Sánchez, A., ... Zemagho, L. (2020). **'Asynchronous carbon sink saturation in African and Amazonian tropical forests'**. *Nature*, 579, 80-87. doi:10.1038/s41586-020-2035-0

Deoxygenation of the Oceans...

'A bad time to be alive': Study links ocean deoxygenation to ancient die-off. Researchers present new evidence that the deoxygenation of the ocean wiped out biodiversity during one of the “Big Five” mass extinctions in Earth’s history – relevant information as climate change contributes to decreasing oxygen in the oceans today. By Adam Hadhay, Stanford University, 12 April 2020. <https://earth.stanford.edu/news/bad-time-be-alive-study-links-ocean-deoxygenation-ancient-die#gs.s4aysc>

'Why Clouds are the Key to New Troubling Projections on Warming' by Fred Pearce. Yale University, 5 February 2020. <https://e360.yale.edu/features/why-clouds-are-the-key-to-new-troubling-projections-on-warming>

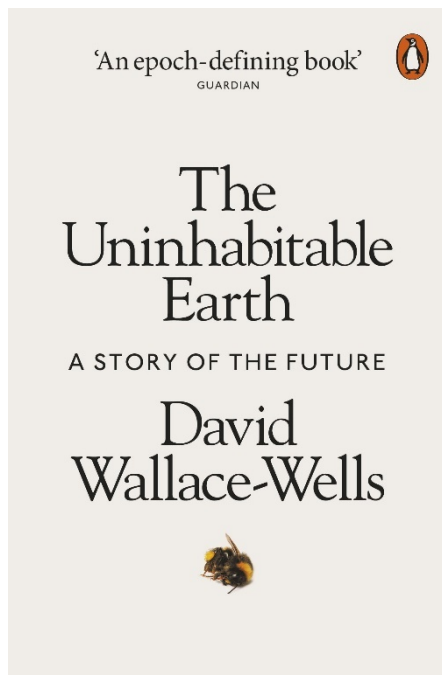
Giovanni Strona and Cory Bradshaw, **'Co-extinctions annihilate planetary life during extreme environmental change.** *Scientific Reports*, 8, 16724 (2018). <https://doi.org/10.1038/s41598-018-35068-1>

“Climate change and human activity are dooming species at an unprecedented rate via a plethora of direct and indirect, often synergic, mechanisms. Among these, primary extinctions driven by environmental change could be just the tip of an enormous extinction iceberg. As our understanding of the importance of ecological interactions in shaping ecosystem identity advances, it is becoming clearer how the disappearance of consumers following the depletion of their resources — a process known as ‘co-extinction’ - is more likely the major driver of biodiversity loss.”

'Review article: Earth’s Ice Imbalance' by T. Slater, I.R. Lawrence, I.N. Otosaka, A. Shepherd, N. Gourmelen, L. Jakob, P. Tepes, L. Gilbert, and P. lewnow. *The Cryosphere*, 15, 233–246, **25 January 2021**, <https://doi.org/10.5194/tc-15-233-2021>

“We combine satellite observations and numerical models to show that Earth lost 28 trillion tonnes of ice between 1994 and 2017. Arctic sea ice (7.6 trillion tonnes), Antarctic ice shelves (6.5 trillion tonnes), mountain glaciers (6.1 trillion tonnes), the Greenland ice sheet (3.8 trillion tonnes), the Antarctic ice sheet (2.5 trillion tonnes), and Southern Ocean sea ice (0.9 trillion tonnes) have all decreased in mass. Just over half (58 %) of the ice loss was from the Northern Hemisphere, and the remainder (42 %) was from the Southern Hemisphere. The rate of ice loss has risen by 57 % since the 1990s – from 0.8 to 1.2 trillion tonnes per year – owing to increased losses from mountain glaciers, Antarctica, Greenland and from Antarctic ice shelves.”

Extracts



The Uninhabitable Earth – Life After Warming by David Wallace-Wells (New York: Duggan Books, 2019).

The opening paragraphs...

It is worse, much worse, than you think. The slowness of climate change is a fairy tale, perhaps as pernicious as the one that says it isn't happening at all, and comes to us bundled with several others in an anthology of comforting delusions: that global warming is an Arctic saga, unfolding remotely; that it is strictly a matter of sea level and coastlines, not an enveloping crisis sparing no place and leaving no life undeformed; that it is a crisis of the "natural" world, not the human one; that those two are distinct, and that we live today somehow outside or beyond or at the very least defended against nature, not inescapably within and literally overwhelmed by it; that wealth can be a shield against the ravages of warming; that the burning of fossil fuels is the price of continued economic growth; that growth, and the

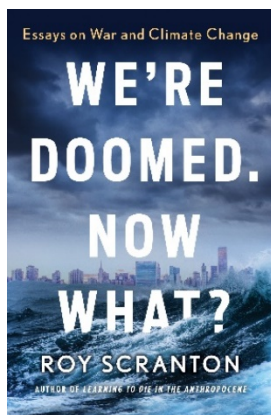
technology it produces, will allow us to engineer our way out of environmental disaster; that there is any analogue to the scale or scope of this threat, in the long span of human history, that might give us confidence in staring it down.

None of this is true. But let's begin with the speed of change. The earth has experienced five mass extinctions before the one we are living through now, each so complete a wiping of the fossil record that it functioned as an evolutionary reset, the planet's phylogenetic tree first expanding, then collapsing, at intervals, like a lung: 86 percent of all species dead, 450 million years ago; 70 million years later, 75 percent; 125 million years later, 96 percent; 50 million years later, 80 percent; 135 million years after that, 75 percent again. Unless you are a teenager, you probably read in your high school textbooks that these extinctions were the result of asteroids. In fact, all but the one that killed the dinosaurs involved climate change produced by greenhouse gas. The most notorious was 250 million years ago; it began when carbon dioxide warmed the planet by five degrees Celsius, accelerated when that warming triggered the release of methane, another greenhouse gas, and ended with all but a sliver of life on Earth dead. We are currently adding carbon to the atmosphere at a considerably faster rate; by most estimates, at least ten times faster. The rate is one hundred times faster than at any point in human history before the beginning of industrialization. And there is already, right now, fully a third more carbon in the atmosphere than at any point in the last 800,000 years - perhaps in as long as 15 million years. There were no humans then. The oceans were more than a hundred feet higher.

Many perceive global warming as a sort of moral and economic debt, accumulated since the beginning of the Industrial Revolution and now come due after several centuries. In fact, more than half of the carbon exhaled into the atmosphere by the burning of fossil fuels has been emitted in just the past three decades. Which means we have done as much damage to the fate of the planet and its ability to sustain human life and civilization since Al Gore published his first book on climate than in all the centuries - all the millennia - that came before. The United Nations established its climate change framework in 1992, advertising scientific consensus unmistakably to the world; this means we have now engineered as much ruin knowingly as we ever managed in ignorance. Global warming may seem like a distended morality tale playing out over several centuries and inflicting a kind of Old

Testament retribution on the great-great-grandchildren of those responsible, since it was carbon burning in eighteenth-century England that lit the fuse of everything that has followed. But that is a fable about historical villainy that acquits those of us alive today - and unfairly. The majority of the burning has come since the premiere of *Seinfeld*. Since the end of World War II, the figure is about 85 percent. The story of the industrial world's kamikaze mission is the story of a single lifetime - the planet brought from seeming stability to the brink of catastrophe in the years between a baptism or bar mitzvah and a funeral.

We're Doomed. Now What?: Essays on War and Climate Change by Roy Scranton (New York: Soho Press, 2018), page 43



Maybe it was the eleventh straight month of record-breaking warming. Maybe it was when the Earth's temperature hit 1.5 degrees Celsius over pre-industrial levels. Maybe it was new reports that Antarctica and the Arctic were melting faster than anyone expected. Maybe it was when Greenland started melting two months early, and then so quickly that scientists didn't believe their data. Maybe it was watching our world start to come apart, and knowing that nothing would be done until it was too late.

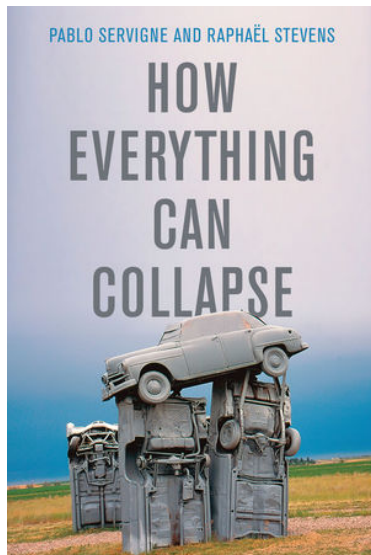
We've known that climate change was a threat since at least 1988, and the United States has done almost nothing to stop it. Today it might be too late. The feedback mechanisms that scientists have warned us about are happening. Our world is changing.

Imagine we've got twenty or thirty years before things really get bad. Imagine how that happens. Imagine soldiers putting you on a bus, imagine nine months in a FEMA trailer, imagine nine years in a temporary camp. Imagine watching the rich on the other side of the fence, the ones who can afford beef and gasoline, the ones who can afford clean water. Imagine your child growing up never knowing satiety, never knowing comfort, never knowing snow. Imagine politics in a world on fire.

Climate change is hard to think about not only because it's complex and politically contentious, not only because it's cognitively almost impossible to keep in mind the intricate relationships that tie together an oil well in Venezuela, Siberian permafrost, Saudi F-15s bombing a Yemeni wedding, subsidence along the Jersey Shore, albedo effect near Kangerlussuaq, the Pacific Decadal Oscillation, the polar vortex, shampoo, California cattle, the Great Pacific Garbage Patch, leukemia, plastic, paper, the Sixth Extinction, Zika, and the basic decisions we make every day, are forced to make every day, in a world we didn't choose but were thrown into. No, it's not just because it's mind-bendingly difficult to connect the dots. Climate change is hard to think about because it's depressing and scary.

Thinking seriously about climate change forces us to face the fact that nobody's driving the car, nobody's in charge, nobody knows how to "fix it." And even if we had a driver, there's a bigger problem: no car. There's no mechanism for uniting the entire human species to move together in one direction. There are more than seven billion of us, and we divide into almost two hundred nations, thousands of smaller subnational states, territories, counties, and municipalities, and an unimaginable multitude of corporations, community organizations, neighborhoods, religious sects, ethnic identities, clans, tribes, gangs, clubs, and families, each of which faces its own internal conflicts, disunion, and strife, all the way down to the individual human soul in conflict with itself, torn between fear and desire, hard sacrifice and easy cruelty, all of us improvising day by day, moment by moment, making decisions based on best guesses, gut hunches, comforting illusions, and too little data.

But that's the human way: reactive, ad hoc, improvised. Our ability to reconfigure our collective existence in response to changing environmental conditions has been our greatest adaptive trait. Unfortunately for us, we're still not very good at controlling the future. What we're good at is telling ourselves the stories we want to hear, the stories that help us cope with existence in a wild, unpredictable world.



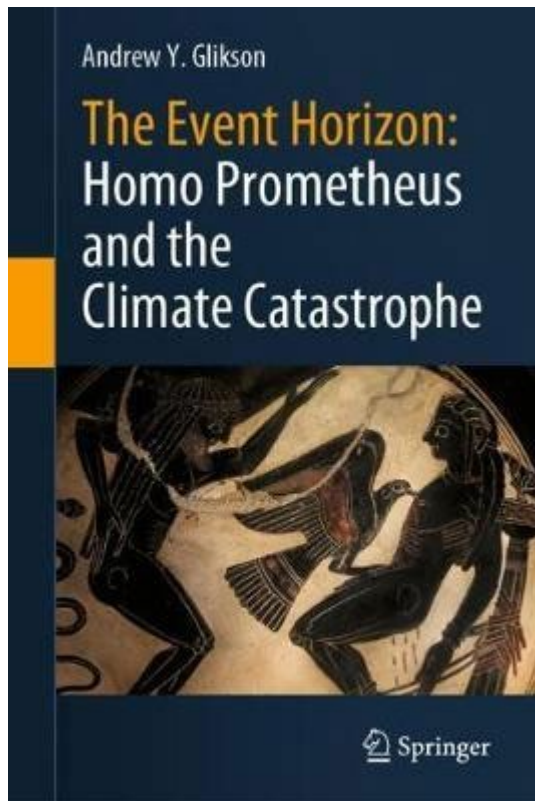
How Everything Can Collapse: A Manual for Our Times by Pablo Servigne and Raphaël Stevens | 2015 | English Translation 2020

Scientific publications that envisage global catastrophes and an increasing probability of collapse are becoming more numerous and better supported by the evidence. The Royal Society published an article by Paul and Anne Ehrlich on this subject in 2013, leaving little doubt about the outcome. The consequences of the global environmental changes viewed as likely in the second half of the twenty-first century are becoming all too evident in the light of ever more precise and overwhelming numerical data. The climate is heating up, biodiversity is collapsing, pollution is ubiquitous and becoming persistent, the economy risks going into cardiac arrest at every moment, social and geopolitical tensions are growing, etc. It is not unusual to see decision makers at the highest level, and official reports from major institutions (the World Bank, the armed

forces, the IPCC, banks, NGOs, etc.), discussing the possibility of collapse, or what Prince Charles calls 'suicide on a grand scale'. More broadly, the Anthropocene is the name given to this new geological era, namely our own present. We – human beings – emerged from the Holocene, a time of remarkable climatic stability that lasted about twelve thousand years and allowed the emergence of agriculture and civilization. In recent decades, humans (or at least many of them, in growing numbers) have become capable of upsetting the large biogeochemical cycles of the Earth system, thereby creating a new era of profound and unpredictable change.

Postscript by Yves Cochet (former French Minister of the Environment)

Is there any subject more important than that which is treated in this book? No. Is there any subject more neglected than this one? No. This is the political paradox of our world: we continue to go about our business with, of course, the firm intention of improving our lot by carrying out a few reforms, but there is never any question about our disappearance in the short term as a civilization, whereas – as this book amply demonstrates – we have never had so many indications of the possibility of an imminent global collapse. This is not surprising on the part of politicians, here and elsewhere, today and in the past. What regime, what leader would produce a catastrophist analysis of the state of the world and draw the conclusion that the direction and public policies of the society he governs need to be radically changed? This phenomenon of denial of reality is not simply due to the contradiction between the short term of politics ('I must remember I'm up for re-election soon') and the long duration of ecology (repairing the ecosphere needs a long time); no, this phenomenon stems first and foremost from the limitations of the human cognitive apparatus and the constraints of social psychology.



Andrew Y. Glikson, **The Event Horizon: Homo Prometheus and the Climate Catastrophe** (Research School of Earth Science, Australian National University, Canberra. Springer Books, 2021)

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The shift in state of the Earth's climate is most acutely manifested in the Polar Regions, where warming is driven by the ice-water albedo flip, opening dark sea-water to insolation, replacing the highly reflecting ice and snow. Warming decreases the temperature contrast between the Arctic and sub-polar regions, leading to weakening of the jet stream boundaries. Consequently the boundaries are breached by outflow of cold air fronts, such as the recent "Beast from the East" event, as well as penetration of warm air masses. The fast rate of the Anthropocene temperature rise, as compared to the LGT and PETM has major effects on the capacity of flora and fauna for adaptation to the new conditions. As the poles keep warming, to date by a mean of $\sim 2.3^{\circ}\text{C}$, the rate of shrinking of the ice sheets has accelerated by a

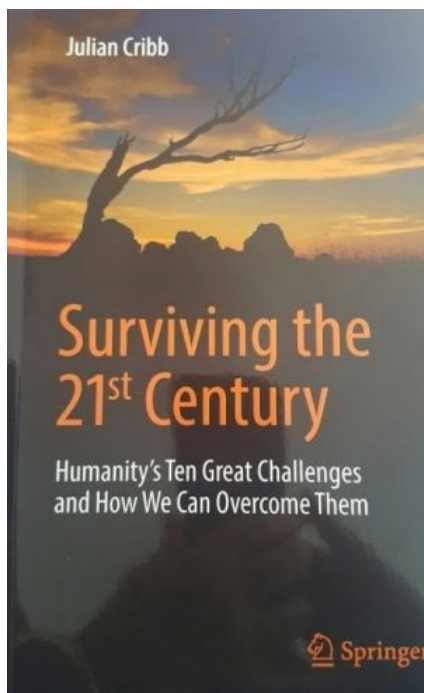
factor of more than six-fold. The threshold of collapse of the Greenland ice sheet, retarded by hysteresis, is estimated in the range of 400 – 560 ppm CO₂, already transgressed at the current 496 ppm CO₂ - equivalent. The Greenland mass loss increased from $41 \pm 17 \text{ Gt / yr}$ in 1990 – 2000, to $187 \pm 17 \text{ Gt / year}$ in 2000 – 2010, to $286 \pm 20 \text{ Gt / year}$ in 2010 – 2018, or six fold since the 1980s, or $80 \pm 6 \text{ Gt / year}$ per decade, on average. The greenhouse gas level and temperature conditions under which the East Antarctic ice sheet formed during the late Eocene 45 – 34 million years ago are estimated as $\sim 800 - 2000 \text{ ppm}$ and up to 4 degrees Celsius above pre-industrial values, whereas the threshold of collapse is estimated as 600 ppm CO₂. The total mass loss from the Antarctic ice sheet increased from $40 \pm 9 \text{ Gt / year}$ in 1979 – 1990 to $50 \pm 14 \text{ Gt / year}$ in 1989 – 2000, $166 \pm 18 \text{ Gt / year}$ in 1999 – 2009, and $252 \pm 26 \text{ Gt / year}$ in 2009 – 2017. Based on satellite gravity data the East Antarctic ice sheet is beginning to breakdown in places (Jones 2019). According to this author "East Antarctica is the coldest spot on earth, long thought to be untouched by warming. But now the glaciers and ice shelves in this frigid region are showing signs of melting, a development that portends dramatic rises in sea levels this century and beyond." Notably the Totten Glacier (Rignot et al. 2019), which could be irreversible. According to Levermann and Mengel 2014 the Wilkes Basin in East Antarctica contains enough ice to raise global sea levels by 3 – 4 m.

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Since the bulk of extant terrestrial vegetation has evolved under glacial - interglacial climate conditions, where GHG range between 180 - 300 ppm CO₂, global warming is turning large parts of Earth into a tinderbox, ignited by natural and human agents (Bowman 2009). By July and August 2019, as fires rage across large territories, including the Amazon forest, dubbed the Planet's lungs as it enriches the atmosphere in oxygen. When burnt the rainforest becomes a source of a large amount of CO₂, with some 72,843 fires in Brazil this year and extensive bushfires through Siberia, Alaska, Greenland, southern Europe, parts of Australia and elsewhere, the planet's biosphere is progressively transformed.

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The widest chasm has developed between what climate science indicates and climate policies and negotiations controlled by governments, politicians, economists and journalists - none of whom fully comprehends, or is telling the whole truth about, the full consequences of the calamitous trend in the atmosphere - ocean - land system. Future climate projections outlined by climate science have been largely put aside mainly since it is economically and politically “inconvenient” or too frightening. Over the last quarter century carbon emissions have risen by almost 63 % (1990 – 22.6 MtCO₂ / year; 2005 – 30 MtCO₂ / year; 2017 – 37 MtCO₂ / year). As a consequence of global carbon emissions, by 2018 mean global temperatures reached + 0.98°C above pre-industrial conditions and further by more than + 0.5°C over the continents, for example reaching + 2.2°C in Mongolia. The transient cooling effect of human-emitted aerosols potentially ameliorates between 0.5 and 1.0°C, as has been manifested for example when flights’ contrails were discontinued on 9/11. The melting of the polar ice sheets, where warming takes place at twice the rate as the rest of the Earth, heralds a further fundamental global climate shift, rendering even larger parts of the land subject to extreme weather events such as those already affecting island chains and coast regions, costing the lives of tens of millions. Life on Earth is controlled by the presence of water, insolation, the composition of the atmosphere and oceans, asteroid impacts and large volcanic eruptions. Cyclic and abrupt changes in these factors have affected the climate over billions of years. Sharp rises in atmospheric greenhouse gas concentrations, such as about 66 and 56 million years ago, have led to major crises in the biosphere. The current rise in atmospheric greenhouse gas concentration, combining the effects of CO₂, methane and nitric oxide, is now tracking toward 500 ppm CO₂ equivalent, the stability threshold of the large ice sheets. The consequent rise in mean global temperature by 3 to 4 degrees Celsius over a period as short as a century or two represents the highest recorded in geological history.



Surviving the 21st Century: Humanity's Ten Great Challenges and How we can Overcome them by Julian Cribb (Springer International Publishing, 2017)

This book begins with the problem with Carl Linneaus classifying our species as ‘wise’ (*Homo Sapien*) in his mid - eighteenth century work *Systema Naturae*. These are the headings for the ten chapters in Cribb’s book:

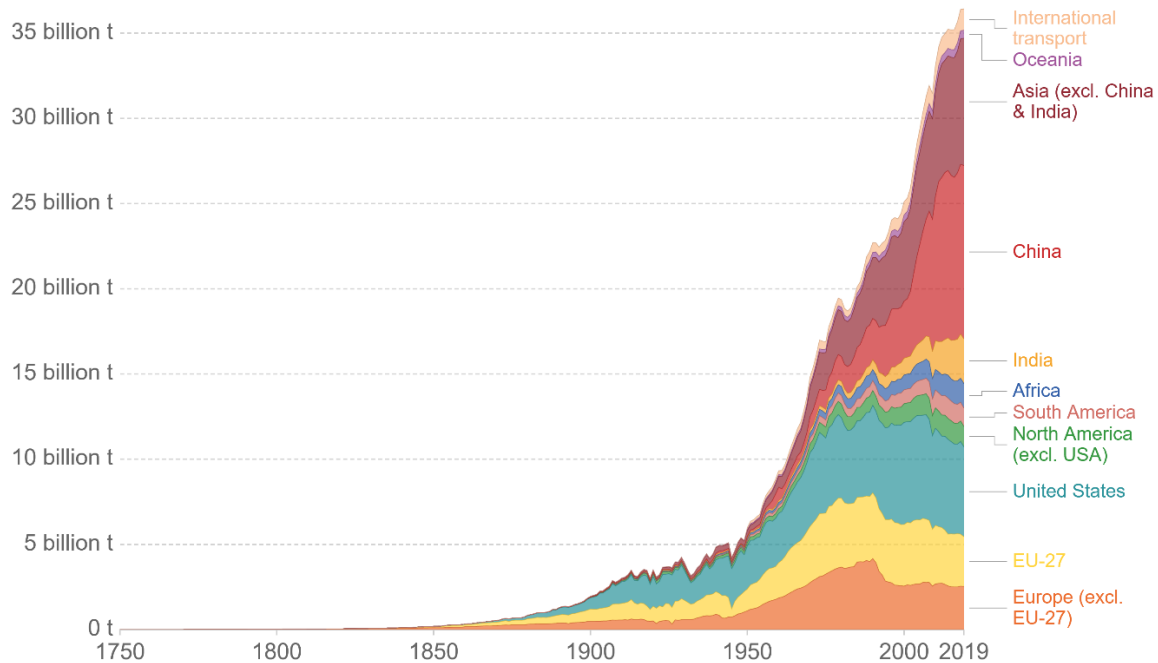
1. The Self-Worshipper (*Homo suilaudans*)
2. The Terminator (*Homo exterminans*)
3. The Degradier (*Homo eversor*)
4. The Butcher (*Homo carnifex*)
5. The Baker (*Homo pister*)
6. The Poisoner (*Homo veneficus*)
7. The Devourer (*Homo devorans*)
8. The Urbanite (*Homo urbanus*)
9. The Self-Deceiver (*Homo delusus*)
10. The Getter of Wisdom (*Homo sapientior*)

An excellent summary of the existential threat that we are to ourselves and the planet.

Annual total CO₂ emissions, by world region

This measures CO₂ emissions from fossil fuels and cement production only – land use change is not included.

Our World
in Data



Source: Our World in Data based on the Global Carbon Project

OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

Note: 'Statistical differences' included in the GCP dataset is not included here.

New Zealand contributes 0.17% of global emissions. That is about 80 million tonnes of carbon dioxide equivalent (Mt CO₂-e) annually.

The US military annual emissions are more than New Zealand. During the US invasion of Afghanistan in 2001, the military emitted 1,212 million metric tons of greenhouses.⁴² GHS emissions from the military are not accounted for by the IPCC or international agreements.

⁴² 'Report: The U.S. Military Emits More CO₂ Than Many Industrialized Nations' by Niall McCarthy, *Forbes*, June 13, 2019.

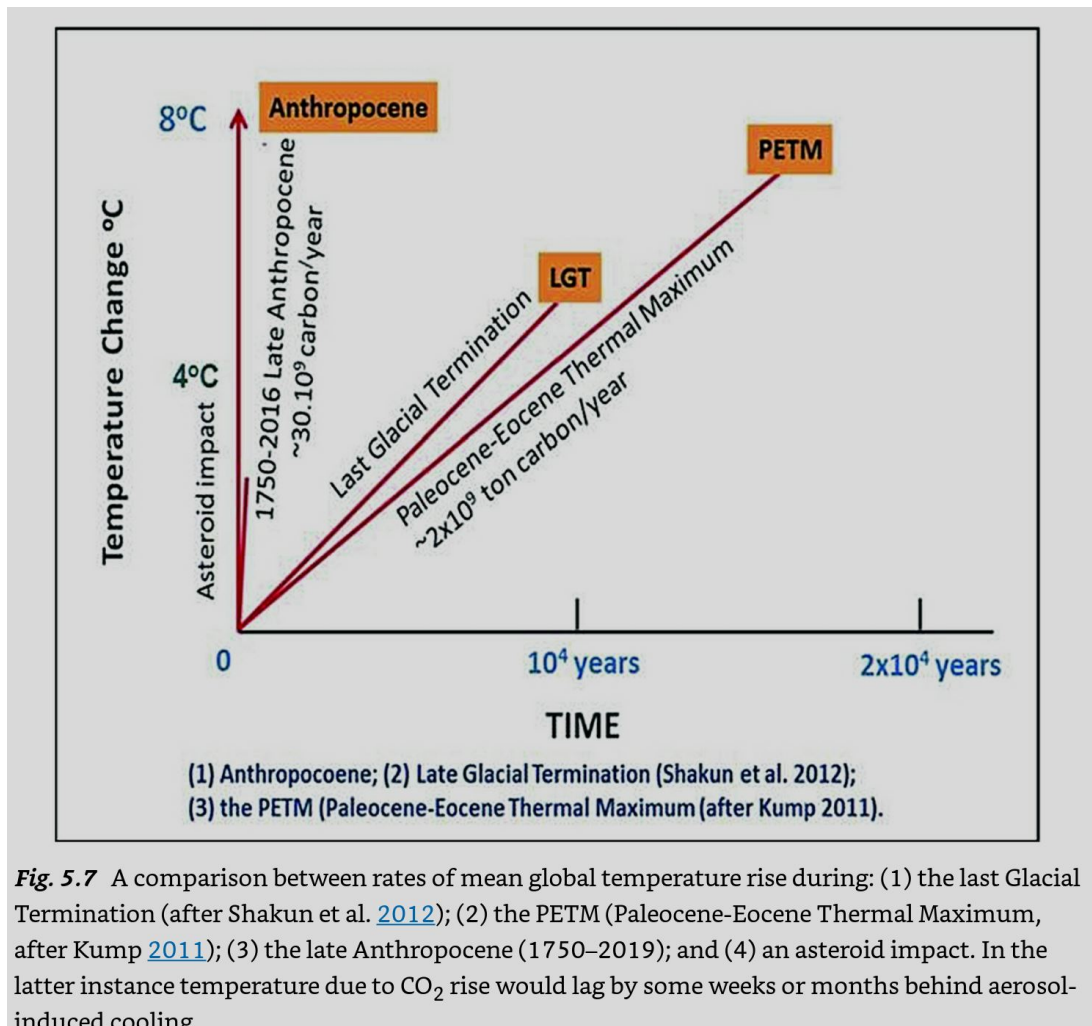
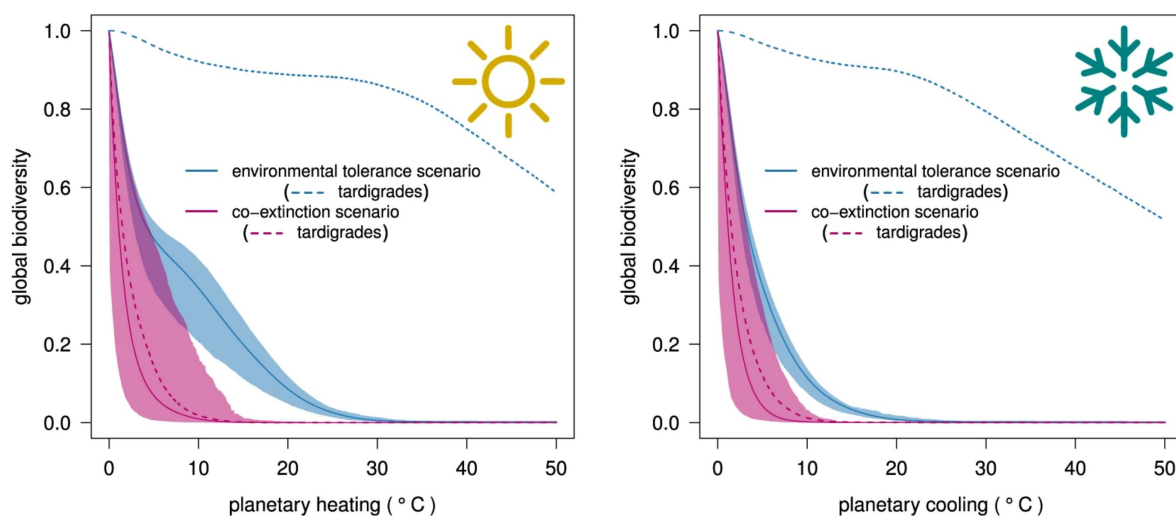


Fig. 5.7 A comparison between rates of mean global temperature rise during: (1) the last Glacial Termination (after Shakun et al. 2012); (2) the PETM (Paleocene-Eocene Thermal Maximum, after Kump 2011); (3) the late Anthropocene (1750–2019); and (4) an asteroid impact. In the latter instance temperature due to CO_2 rise would lag by some weeks or months behind aerosol-induced cooling

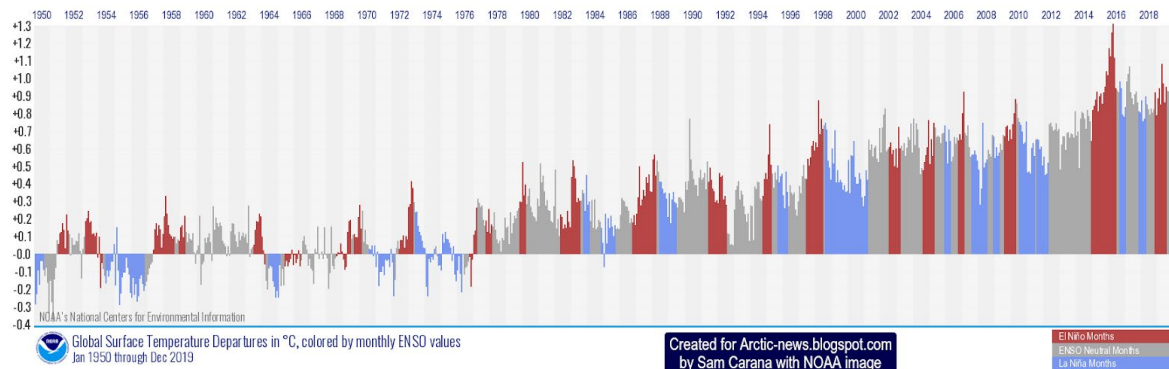
Strona, G., Bradshaw, C.J.A.' **Co-extinctions annihilate planetary life during extreme environmental change.** *Sci Rep* **8**, 16724 (2018). <https://www.nature.com/articles/s41598-018-35068-1.pdf>



At $+2^\circ\text{C}$ we are in serious trouble. At $+4^\circ\text{C}$ we're 'toast' (extinct).

El Niño and La Niña – the East Equatorial Pacific Ocean

The El Niño phenomenon occurs every two to seven years and typically lasts for 9 to 12 months, often beginning mid-year and peaking between November and January. It is due again sometime in the next few years. If it is as large as 2016, it will certainly drive higher temperatures and extreme weather events in this part of the world, especially Australia.



If mitigation were the answer, which I've argued it is not and it's too late, then stopping population growth or better reducing world population would be the best strategy!

Tonnes of CO₂-equivalent per year for one person undertaking each action



Source: Wynes & Nicholas, Environmental Research Letters

The graphic shows how much CO₂ can be saved through a range of different actions.

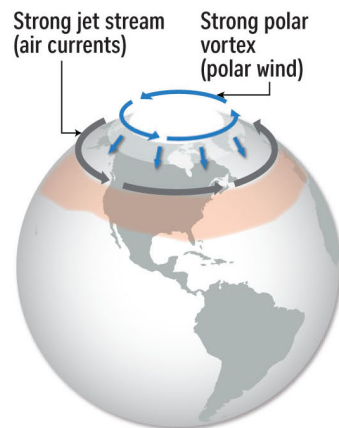
Mitigation by decreasing population and consumption, de-growth, is the most pragmatic mitigation option (if mitigation was now possible).

The Polar Vortex and Jetstream

The following explains the phenomenon for the Arctic. The same is true for the southern pole, the Antarctic. The warming of temperatures in Antarctica with the corresponding weakening and disruption of the southern Jetstream, explains why we are having cold periods in summer, e.g. snow and hail in the North Island.

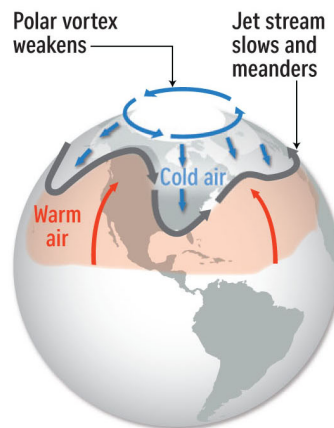
NORMAL CIRCUMSTANCES

Strong polar vortex and jet stream trap freezing air in the Arctic and warm air in lower latitudes

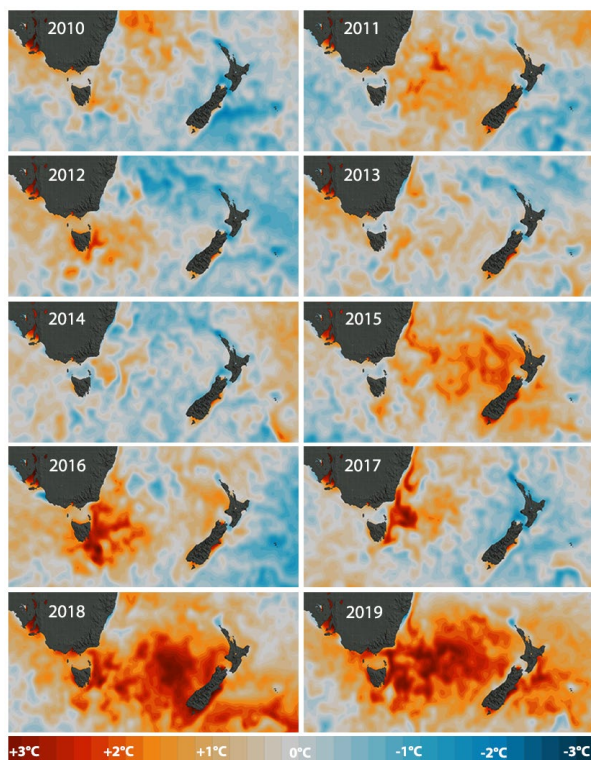
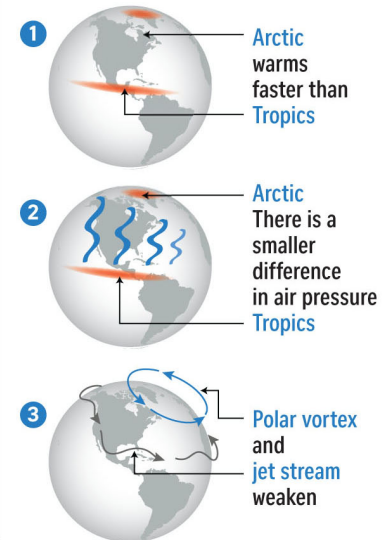


ARCTIC WARMS FASTER THAN LOWER LATITUDES

Polar vortex and jet stream weaken, so Arctic air moves south and warm air moves north



HOW CLIMATE CHANGE DISRUPTS THE POLAR VORTEX



NIWA – The National Institute of Water and Atmospheric Research, New Zealand

<https://niwa.co.nz/news/our-changing-oceans>

See also this excellent article...

‘On land, Australia’s rising heat is ‘apocalyptic.’ In the ocean, it’s worse.’ by Darryl Fears (*The Washington Post*, December 2019)

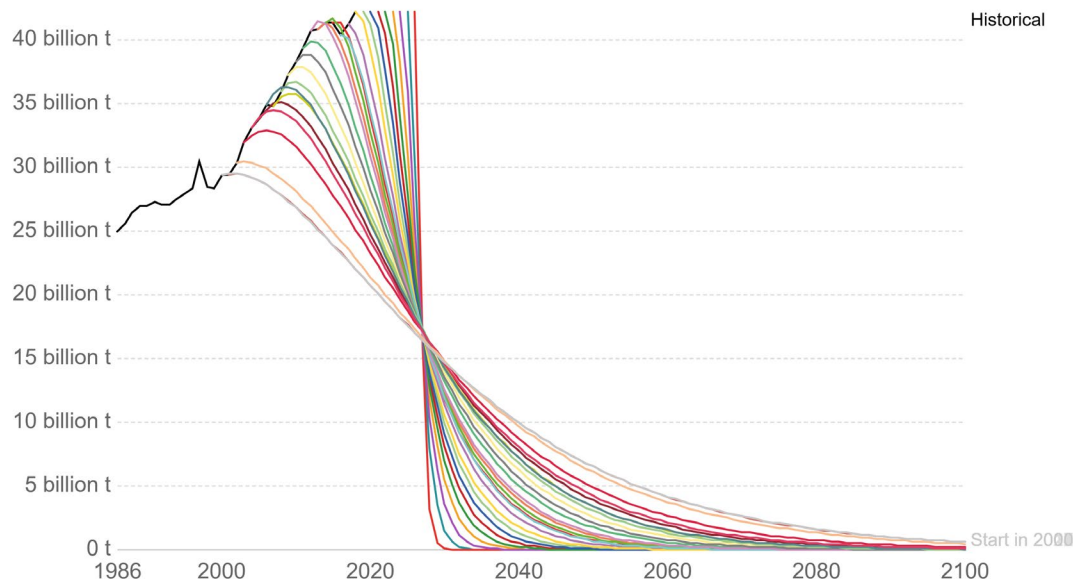
<https://www.washingtonpost.com/graphics/2019/world/climate-environment/climate-change-tasmania/>

The following graph has been removed from 'Our World Data'. It indicates that the longer you leave it the harder it gets, that we can 'fix' it, and that 'net-zero' by 2030 is impossible.

CO₂ reductions needed to keep global temperature rise below 1.5°C

Annual emissions of carbon dioxide under various mitigation scenarios to keep global average temperature rise below 1.5°C. Scenarios are based on the CO₂ reductions necessary if mitigation had started – with global emissions peaking and quickly reducing – in the given year.

Our World
in Data



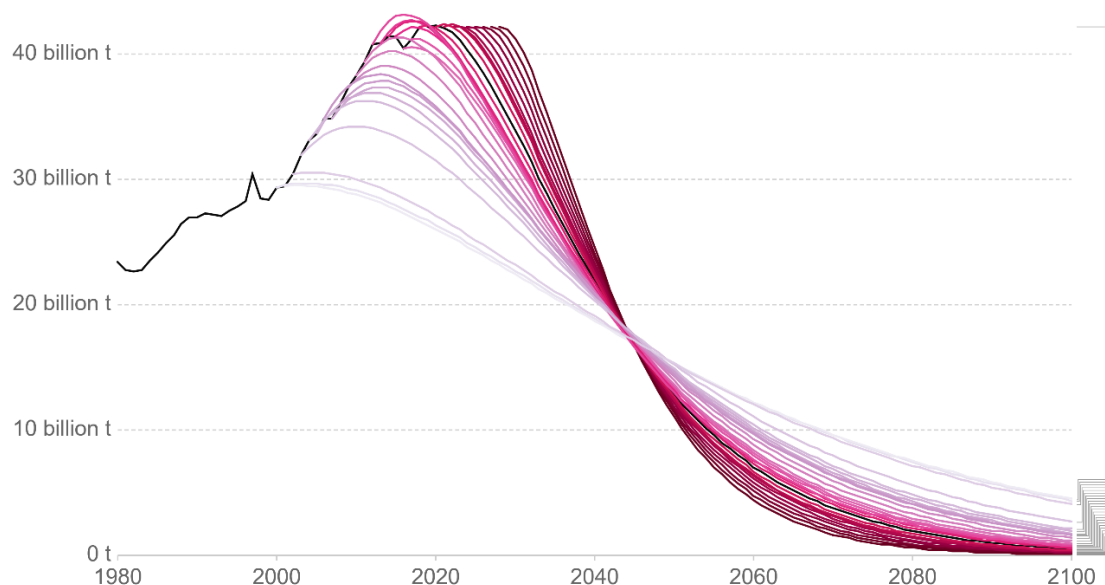
Source: Robbie Andrews (2019); based on Global Carbon Project & IPCC SR15
Note: Carbon budgets are based on a >66% chance of staying below 1.5°C from the IPCC's SR15 Report.
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

So, the above is now replaced with the following graph; change the 'goal posts' to 2°C, and aim for a 50% reduction by 2050. Unreal. As this paper has shown, it is too late to mitigate by about 50 years!

CO₂ reductions needed to keep global temperature rise below 2°C

Annual emissions of carbon dioxide under various mitigation scenarios to keep global average temperature rise below 2°C. Scenarios are based on the CO₂ reductions necessary if mitigation had started – with global emissions peaking and quickly reducing – in the given year.

Our World
in Data



Source: Robbie Andrews (2019); based on Global Carbon Project & IPCC SR15
Note: Carbon budgets are based on a >66% chance of staying below 2°C from the IPCC's SR15 Report.
OurWorldInData.org/co2-and-other-greenhouse-gas-emissions • CC BY

Addendum: The New Zealand Government Mitigation and Adaptation Effort

The New Zealand government's effort to mitigate climate change by reducing Greenhouse Gas (GHG) emissions is based on fallacious arguments and in apparent ignorance of the science which shows:

1. Natural GHS emissions now exceed human generated GHS, and are increasing, making the mitigation of the later futile. This is largely due to the planet warming. This is compounded by the corresponding reduced ability of the planet to capture carbon with the hotter land and oceans, deforestation, etc.
2. Self-accelerating feedback loops have been triggered by temperature rises from historical GHG emissions and these feedback loops will continue to accelerate despite any reduction of human GHGs. No amount of mitigation will reverse the growing 'natural' GHG emissions on the planet.
3. Human generated GHG emissions dropped by 25% during 2020 because of Covid-19 lockdowns and shutdowns. Yet CO₂ and CH₄ concentrations in the atmosphere continued to rise because of the previous two points.
4. Mitigation plans do not account for the twenty-year delay in warming from CO₂ emissions, and the delay of the same approximate period for any mitigation efforts (if discernible). In other words, no amount of mitigation in the next twenty years will slow increasing climate effects from human generated GHG emissions in the previous twenty years.

Note: New Zealand GHG emissions are 0.17% of the global human generated GHGs emissions.

The Climate Change Response (Zero Carbon) Amendment Act 2019 aims to:

- Contribute to the global effort under the Paris Agreement to limit the global average temperature increase to 1.5° Celsius above pre-industrial levels. The futility of this aim is indicated on the first graph on the previous page.
- Allow New Zealand to prepare for, and adapt to, the effects of climate change.

The domestic greenhouse gas emissions reduction target for New Zealand is to:

- reduce net emissions of all greenhouse gases (except biogenic methane) to zero by 2050.
- reduce emissions of biogenic methane to 24–47 per cent below 2017 levels by 2050, including to 10 per cent below 2017 levels by 2030.

To help achieve this, and develop policies, the NZ Government has established the **The Climate Change Commission**. They have this month produced the **2021 Draft Advice for Consultation**.

From: [Whanganui District Council](#)
To: russellandmel@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Friday, 5 February 2021 12:36:01 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	730021236210005
First name	Russell
Last name	Eades
Email address	russellandmel@xtra.co.nz
Postal address	109 LIVERPOOL STREET COLLEGE ESTATE WHANGANUI 4500
Daytime phone number	0274 477720
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	50 - 59 years
Ethnicity	Other,New Zealander
Location	Whanganui Central (Laird Park, Whanganui Central,

	Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	Action on Climate Change has been needed for a long time.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	
The council leads by example, role modelling good	

<p>practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i></p>	Neither agree nor disagree
Please provide reasons for your response	
<p>Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i></p>	Agree
Please provide reasons for your response	
<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	Agree
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in</p>	

knowing which particular actions are important to you that you think should be prioritised.

ACTION AREAS

Please indicate your level of agreement with the following action areas

Transportation
– Eke waka

Which initiatives do you believe are important and should be prioritised within this action area?

Building energy and urban form –
Te hiko /
hanaga whare

Which initiatives do you believe are important and should be prioritised within this action area?

Agriculture –
Ahu whenua

Which initiatives do you believe are important and should be prioritised within this action area?

Leadership and collaboration –
Mahi tahi

Which

initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	Flooding
Why is this a concern for you?	I currently own a building on the riverbank, and flooding is something that we are unable to do anything about. If there is too much rain, it will end up in the lower CBD area.
Please include anything that you think should be included in the strategy?	I strongly recommend that consideration be given to implementing a floodwater diversion project, that focuses on diverting excess / flood waters out of the river, directly to the sea. This can be achieved in two ways. Firstly, as a long term solution to managing flooding risk I believe the kind of storm drains used in could be an option. If it was built from where the river bends and follows the coast just before Upokongaro, straight out to the coast, that should provide a mechanism to release excess water from the River. Secondly, by constructing a channel by connecting culvert segments, as per the picture attached. This could be constructed below ground level, which would be reinstated to leave the surface unaffected.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	The best way to reduce the damaging effects that we have seen of flooding in our city is to put in place a solution that diverts as much of the excess / flood waters away from the city before it can get down the river far enough to do any damage
Supporting	144578003_131786595387668_1952791611690671091_n.jpg

documents	- Received
I would like to speak in support of my submission	No
Submission method	Online



From: [Whanganui District Council](#)
To: wendylane838@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 7 February 2021 11:27:34 am



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	318021127213307
First name	Wendy
Last name	Lane
Email address	wendylane838@gmail.com
Postal address	20 GREAT NORTH ROAD SAINT JOHNS HILL WHANGANUI 4500
Daytime phone number	063484765
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	50 - 59 years
Ethnicity	Other,Australian
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Disagree
Please provide reasons for your response	Nothing is mentioned about existing utilisation by council and how economic and climate effective it is - in particular a replacement of the vehicle fleet to electric fails to take into account the cost of making the vehicles verses the existing fleet being a 'banked cost already'. It also does not cover economic activities that have an effect on future generations and does not make allowances for changes in situations ie weather patterns which have an effect on rainfall etc which means aquifers may not get refilled
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Neither agree nor disagree
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Disagree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Neither agree nor disagree
Please provide reasons for your response	

response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Disagree
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly disagree
Which initiatives do you believe are important and should be prioritised within this action area?	See above comment
Building energy and urban form – Te hiko / hanaga whare	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	Strongly disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Without agriculture we have no food
Leadership and collaboration – Mahi tahi	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	It is not as relevant for our country

Why is this a concern for you?	Because we are making minuscule changes we need to encourage the large polluters to change not change what is a minuscule amount in the world stage
Please include anything that you think should be included in the strategy?	The right to take water needs to be stopped we do not have enough knowledge / experience in Nz to understand the ramifications of what not having access to water will do especially if that access has been given away on previous generations
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Glenda Brown](#)
To: [!Policy Submissions](#)
Subject: Submission to the Draft Climate Change Strategy
Date: Friday, 5 February 2021 4:33:30 pm
Attachments: [image002.png](#)
[image004.png](#)
[image006.png](#)
[Whanganui Council Submission.pdf](#)

Good afternoon

Please find attached our submission to this draft strategy. We would like the opportunity to speak to our submission if appropriate.

Thank you.

Kind regards

Glenda Brown MinstD BMNZ

Financial Director

glenda@ehaus.co.nz

direct +64 6 347 7220, mobile +64 27 3567324,
P O Box 359, Whanganui, 4540, New Zealand
400 Victoria Avenue, Whanganui, 4500, New Zealand



ehaus.co.nz



We congratulate the Council on declaring the Climate emergency in response to the global climate change back in February 2020. We believe by doing so, it puts Whanganui on the map nationally, and shows our commitment to do our bit towards the targets that have been set for 2050. In particular, we would like to largely endorse the Draft Climate Change Strategy and look forward to seeing the execution of actions. While in some areas the targets are ambitious, in other areas we believe actions don't go far enough and we can do better. In particular, we would like to point out the following:

- Transportation – we support targeting this area for change. This is an area that lifestyle and business can make instant changes to with relative ease. The last initiative: 'Manage climate change risks to existing transport infrastructure' - Managing the existing is not a target. Should this read manage out the climate change risks to existing transport infrastructure.
- Buildings – Construction nationally contributes an estimate of 20% to greenhouse emissions. While the figure regionally might be smaller, we believe the construction industry has a big part to play in helping to reach these targets. Energy efficient homes is significantly more than just low carbon energy options, lights, appliances and solar energy. We need to push the bar out further and have an expectation that new home and buildings will perform to the highest standard possible as these suggested actions are not bold enough. Take the example of the city of Exeter in the UK who have adopted the Passive House Standard for all new buildings. They are an example to the world and they have become very well known for it. Whanganui has the potential to do the same or similar. eHaus has successfully applied this standard to existing buildings as well. We are providing net zero energy buildings already here in NZ and is the core of what we do.
- We support the initiatives for Location and Density of Development. Co-housing is already part of urban living here in NZ and we believe it works very well for community well-being. We have just finished a co-housing project in Dunedin which we believe would work well here in Whanganui. Planting more trees is an instant action we can do. It doesn't need time on a strategy document to do it – just do it. The circular economy is not new and has been discussed for years now. It is already happening in Whanganui with small businesses operating in this manner. We encourage this to be given regional priority. We note there is no mention of water reduction use within buildings. This needs to be considered as the volume of water used in buildings impacts on the capacity of regional water supplies to meet demand. Page 8 & 11 of the Transforming Operational Efficiency published by MBIE is an excellent reference document (*) that should be considered while this document is still in draft. Operational efficiency is the first thing we think of when considering carbon emissions but embodied carbon

emissions is equally important which covers the life cycle of the building and all that effects and contributes to the construction of the building. This includes materials/products and the construction process along with site waste, and the end of life process of a building. We would urge you to include these areas into the action plan.

- Agriculture is a significant part of our regional economy, and while the industry contributes significantly to the carbon emissions, there needs to be a considered approach to the impact of imposing changes. Please be mindful of this when considering changes and what that will mean for sustainable farming businesses moving forward. Please make sure there are well experienced people in the industry around the table for these discussions.
- We implore the Council to take lead and to collaborate with those in the community who are knowledgeable in these areas of strategic priority. It is important to get first-hand expertise by those who work in these areas everyday. All initiatives set out for the Council we support and endorse except for the adoption of the Green Star Building Certification. If you study the criteria for this certification, you will see that code minimum buildings can already achieve this certification. It is not pushing the bar high enough. We believe the Passive House Standard is a loftier bar and would set Whanganui high above other regions if the Council was to adopt this standard for new buildings as previously noted.
- For every rate payer, we endorse all initiatives set out in the draft strategy except for the note to use passive solar design in new buildings. Passive solar is simply not enough and nothing more than mere nod to sustainability. It needs to be Passive House designed which is an actual measurable energy standard. If we are serious about making a difference, then the bar needs to be lifted high for our targets.

In summary:

eHaus is proud to be a national company operating its head office from Whanganui, a city that acknowledges the climate emergency and is willing to have the conversations and boldly make a plan to reduce carbon emissions as our collective responsibility. Let's do this well and keep the momentum going. There is a lot of research and planning mentioned in this strategy. Please don't let the research and forming plans take so much time that momentum is lost and targets are stretched out. You largely have a community behind you that is on board with this, so it is important to make this a priority, keep up excellent communications with achievements and results along the way. This way, you will take the community with you and you will have their support.

eHaus would be happy to contribute in discussions/be part of a work party about any of these points we have raised. We do have local and national expertise in design and construction and have adapted knowledge from overseas to work in all NZ climate regions and in particular our own.

Yours faithfully



Jon Iliffe
Director



Baden Brown
Director



Glenda Brown
Director

*Reference: Transforming Operational Efficiency <https://lnkd.in/gJB7CUe> by the Ministry of Business, Innovation & Employment

 <p>WHANGANUI DISTRICT COUNCIL Te Kaunihera a Rohe o Whanganui</p>	<p>Climate Change Strategy</p>
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Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: policysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy
Whanganui District Council
101 Guyton Street
Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: Lorna Sutherland

E-mail: ianhsuth@gmail.com

Postal Address: 2 Alexa Place, Whanganui

..... Post code 4500

Best daytime contact number: 347 2929

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:
.....

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

☒ Yes I would like to speak in support of my submission (*please ensure you have completed the details above, including contact phone number*)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.

☒ Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy	✓				
Please provide reasons for your response?	Climate change can't be ignored. Plan and initiatives seem sound.....				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	We know there will be flooding, probably more frequent and possibly more extreme. It would be criminally stupid not to prepare for this.				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>	✓				
Please provide reasons for your response?	If Council does nothing about climate change, why..... should I?.....				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	New Zealand is using more than 6 times its fair share of the global greenhouse gas emissions budget. We have not been pulling our weight. There will ultimately be a cost for this behaviour.				

Thank you for your submission

The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i>	✓				
Please provide reasons for your response?	I can think of no other way to achieve what we must.....				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Transportation – Eke waka	✓				
Which initiatives do you believe are important and should be prioritised within this action area?	Initiatives 2 to 5 in the order they are listed on page 23 of the Draft Plan. Initiative 1 could be useful if that meant seeing if Whanganui could be a small part of a hydrogen infrastructure, eg. a refilling facility. More than that would be a waste of our resources at this point.				
Building energy and urban form – Te hiko / hanaga whare	✓				
Which initiatives do you believe are important and should be prioritised within this action area?	Enabling CBD living. Support collective housing models. More trees. Review treatment of passive open spaces. Avoid building in flood-prone areas. Encourage circular economies and waste reduction				
Agriculture – Ahu whenua		✓			
Which initiatives do you believe are important and should be prioritised within this action area?	I think Horizons will have a better chance of success with this sector.				
Leadership and collaboration – Mahi tahi	✓				
Which initiatives do you believe are important and should be prioritised within this action area?	Advocating to promote changes to building standards and transpor- tation. Roll out financial incentives for Green buildings and energy efficiency upgrades.				

Thank you for your submission

What is your biggest concern with climate change?

We are not responding fast enough.

Why is this a concern for you?

We have been told there will be a point when no human intervention will be enough to reverse the damage we have done. When this will be is not known, but what IS known is that warming effects are occurring faster than computer models predicted.

Have we missed anything that you think should be included in the strategy?

Please use this space to provide further comments regarding the draft Climate Change Strategy.

Please see attached comments.

Thank you for your submission

**Further Comments to Draft Climate Change Strategy
5/02/21**

Lorna Sutherland
2 Alexa Place
Whanganui 4500
Tel: 347 2929
Email: ianhsuth@gmail.com

There are lots of good initiatives proposed in this draft plan, but I think Council's most effective possible action, is the last one mentioned, on page 27 – appointing a Climate Change Officer.

Among other things the job should entail:

1. getting an accurate picture of Council's carbon footprint
2. keeping up with the flood of reliable and current information about how that footprint can be reduced
3. suggesting appropriate policy changes and
4. helping to sell the changes to the citizens of Whanganui.

We desperately need a knowledgeable person to edit and coordinate the flow and persuade the public that change must happen.

I have concentrated my attention on local buildings and transportation. Council has considerable power in these two areas and it is time to use that power.

Regulating is, to quote from George Monbiot's 2009 book *Heat*, "deeply unfashionable", but in order to reduce our carbon footprint, a mixture of regulations and incentives that embrace many of the Building and Transportation initiatives in the draft plan should be good tools for:

- (a) encouraging the creation of more living quarters in the CBD, preferably with collected rainwater and shared roof

garden spaces. (Kudos to Councillor Reid for getting this ball rolling.)

Rent from more people living in flats above businesses on Victoria Ave. should help the building owners survive the current retail disruption until the right mix of businesses and services for the present and future evolves.

and

(b) Convincing people to change from internal combustion engine (ice) vehicles to electric ones (including mobility scooters), bikes or public transport.

Starting in the centre of town could be a good way to jump start the transition.

First, and as soon as possible, collaboration with Horizons should start to provide battery-driven small trams for Victoria Ave and later to the rest of the CBD. When there are more people living in the CBD, pedestrianising Victoria Ave will make sense, especially if there are electric trams available to whizz them up to the supermarkets and back. If all, or a significant part of the Ave is closed to ice vehicles, bike sharing/rental stations could be located at both ends of Ave.

Those willing and able to make changes have already done so. The focus needs to be on the willing but unable and the unwilling. If we look far outside the box, a learning by doing approach could be tried. For instance, collaboration with local groups might locate those likely to jeopardise bike sharing/rental stations by theft or damage. Perhaps these individuals could be put in charge of them and challenged to make them successful.

OPTIONAL:

Have you submitted to Council before?

Yes ☒ No ☐

Gender: Female ☒ Male ☐ Gender Diverse ☐

Age: Under 18 Years ☐ 18 – 29 years ☐ 30 – 39 years ☐ 40 – 49 years ☐
50 – 59 years ☐ 60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper Aramoho) <input type="checkbox"/>	Marybank-Gordon Park <input type="checkbox"/>
Bastia Hill / Durie Hill <input type="checkbox"/>	Putiki <input type="checkbox"/>
Blueskin- Maxwell <input type="checkbox"/>	St Johns Hill / Otamatea <input checked="" type="checkbox"/>
Castlecliff (Castlecliff North, Castlecliff South, Mosston) <input type="checkbox"/>	Springvale (Springvale West, Springvale East, Mosston) <input type="checkbox"/>
Fordell-Kakatahi <input type="checkbox"/>	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate) <input type="checkbox"/>
Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West) <input type="checkbox"/>	Whanganui East (Williams Domain, Wembley Park, Kowhai Park) <input type="checkbox"/>
	Other <input type="checkbox"/>

.....

Ethnicity: NZ European ☒ Maori ☐ Asian ☐ Pacific Peoples ☐
Middle Eastern/Latin American/African ☐
Other ☐

Thank you for your submission

From: [Whanganui District Council](#)
To: bmcorkery@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Tuesday, 9 February 2021 12:40:36 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	011021240213609
First name	Bernard
Last name	Corkery
Email address	bmcorkery@xtra.co.nz
Postal address	26D Virginia Road, St Johns Hill, Whanganui 4500
Daytime phone number	027 348 7010
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	On both business and leisure i have seen most of the world. The congestion in countries like China , India and smaller high intensity countries like Bangladesh has to be experienced to be believed. Personally, I believe we have too many people.....In NZ we are so lucky our ancestors came here. Nonetheless, NZ must do its bit in shouldering responsibility for climate change.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Do we have a choice?
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Council is center
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Duty of citizens

The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Reactivate public transport. Maybe push bus use? Reactivate electric trams(?). Boost bikes.
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	all
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Tread carefully, here. Agriculture our main bread winner.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	All aspects thoroughly aired....Need flagship projects. How about hundreds of Bushy Parks?
What is your biggest concern with climate change?	Intense populations need global help and example (like NZ planting our native trees).
Why is this a concern for you?	Its a crowded planet.

Please include anything that you think should be included in the strategy?	In the lock down COVIT 19 phase, quite amazing positive impact on our globe. We must learn from these outcomes and work back to root causes.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Nick Whalley](#)
To: [!Policy Submissions](#)
Cc: [Tim Grafton](#)
Subject: Draft Climate Change Strategy feedback
Date: Tuesday, 9 February 2021 3:47:18 pm
Attachments: [ICNZ submission to Whanganui District Council on climate change.pdf](#)

Hi there,

Please find **attached** ICNZ's submission to Whanganui District Council on climate change.

Regards,

Nick Whalley

Regulatory Affairs Manager

Insurance Council of New Zealand

MOB: 021 589 373

DDI: (04) 914 2224



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February 2021

ICNZ's views on climate change and the role of local government

Thank you for your interest in ICNZ's views on climate change and the role we consider local government should play.

By way of background, ICNZ's members are reinsurers, and general insurers insuring about 95% of the New Zealand general insurance market, including about a trillion dollars' worth of New Zealand property and liabilities. ICNZ insurer members provide insurance products ranging from those usually purchased by individuals (such as home and contents, travel and motor vehicle insurance) to those purchased by small businesses and larger organisations (such as product and public liability, business interruption, professional indemnity, commercial property and directors and officers insurance).

It is fair to say that ICNZ and its members have been seeing the impacts of climate change and how this affects people, businesses and communities for some time. We also have a keen interest given our knowledge and experience when it comes to identifying and engaging with climate change risks and risk management, the role insurance plays in this context, and our desire to ensure this remains available and affordable (including to support lending).

We advocate local governments take a long-term view and act in a proactive, coordinated and resilient manner when it comes to climate change, with regard to risk mitigation, adaptation, risk transfer options and setting appropriate risk signals. Particular attention should be had to avoiding developments in areas vulnerable to flooding, rising sea levels or coastal erosion.

After a high-level summary, in this document we provide a detailed overview of climate change, its impacts and the role ICNZ considers local government should have in this regard. Examples of some of the great work already being undertaken in this respect, a list of helpful resources and diagram highlighting key points from this document are included as appendices.

Summary

In our view local government must take a proactive, coordinated, and long-term view when it comes to managing the real and significant impacts of climate change putting their people, businesses and communities at the heart of any decision-making. This includes:

- Planned action and investments for adaptation and mitigation - reducing the extent of future climate change and its impacts.
- Grappling with the full impacts of climate change now head on despite the uncertainty, noting that the potential impacts stretch across generations, with the economic, social and environmental impacts being too significant to ignore and only increasing if no action is taken.
- Adopting a holistic and flexible approach when working through these matters, leveraging a risk management framework and an adaptive pathways approach.

Local government is well placed to respond to these issues because effective climate change responses are context specific and best addressed at the regional and local level. Additionally, local

government has legal duties to act, doing so ensures resources are efficiently used and bypasses avoidable harm. This also aligns with communities increasing expectations for climate change action and ensures that insurance and lending remains available and affordable.

In our view there are five practical ways local government can advance climate change issues in the near term. These include:

- **Avoiding developments in areas vulnerable to flooding, rising sea levels or coastal erosion**, noting this is fundamental to bypassing costly and avoidable climate change which otherwise local governments (and ultimately ratepayers) will have to meet, and if not addressed, may lead to insurance and lending availability and affordability issues.
- **Embracing collaboration and coordination on climate change issues within regions**, with all elements of local government working together to establish a consistent understanding of climate change risks and what should be done to address them.
- **Identifying and filling gaps in regional knowledge about climate change**, championing public education and, from specific property information perspective, making good quality, transparent and consistent information about all-natural disaster available.
- **Prioritising climate change mitigation and adaptation in planning and investment decisions**, including incorporating emissions reduction targets into investment decisions, and having regard to managing or reducing natural disaster risk and protecting assets casting a broad net (e.g. both built and natural infrastructure).
- **Ensuring buildings are resilient to climate change impacts**, specifically making sure that any new building work approved contributes to reducing emissions and is more resilient to climate change impacts alongside other natural hazard risks.
- **Supporting vulnerable groups or areas particularly adversely impacted climate change**, including potentially subsidising resiliency improvements or managed retreat, noting that climate change has the potential to exacerbate existing inequalities.

Background

Climate change is here

Without question the full impacts of climate change is coming to bear around the globe and need to be taken extremely seriously. This includes:

- larger, longer and more extreme weather events occurring leading to increasingly frequent and extreme flooding and storm events (including hailstorms, tornadoes and cyclones)
- sea levels rising leading to issues with coastal flooding, storm surge and king tides, and
- associated increases in landslips and land erosion.

Climate change has also resulted in the increasing likelihood and severity of droughts, heat waves, water shortages and wildfire. Then there are the pest and health effects associated with higher temperatures.

Climate change responds to cumulative emissions, and unless these are close to zero increases over time, it is clear that the associated temperature increases will lead to the sea level rising and that this will continue for centuries to come.¹ The same applies to the impact of emissions on weather patterns and increasingly frequent and extreme weather events.

¹ Choices made now are critical for the future of our ocean and cryosphere (25 September 2019), <https://www.ipcc.ch/2019/09/25/srocc-press-release/> and Preparing New Zealand for rising seas: Certainty and Uncertainty (November 2015) <https://www.pce.parliament.nz/media/1390/preparing-nz-for-rising-seas-web-small.pdf>.

There is clear international scientific consensus about the cause of climate change and its impact. In their special report on global warming of 1.5 °C, the Intergovernmental Panel on Climate Change (IPCC) highlights that:²

- There is a certain level of climate change already locked into the global climate system due to emissions to date.
- Every extra bit of warming matters, with warming of 1.5°C or higher increasing the risk associated with long-lasting or irreversible changes, such as the loss of ecosystems. Conversely, limiting global warming gives people and ecosystems more room to adapt and remain below relevant risk thresholds.

This report highlights several climate change impacts that could be avoided by limiting global warming to 1.5°C compared to 2°C, or more (noting that damage is not linear, with a 2°C or more increase in temperature being significantly worse than 1.5°C). However, even limiting global warming to 1.5 °C would require:

- Global net human-caused emissions of carbon dioxide (CO₂) to fall by about 45% from 2010 levels by 2030, reaching 'net zero' around 2050, with the remaining emissions needing to be balanced by removing CO₂ from the air.
- "Rapid and far-reaching" transitions in land, energy, industry, buildings, transport, and cities.

The report records that even with 1.5°C of warming, there will be more frequent heatwaves and heavy rainfall events, more intense tropical cyclones, losses of some species, spread of diseases, and issues with water and food security.

New Zealand has committed to limit global warming to 1.5 °C and the 'net zero' emissions by 2050 target as a signatory of the Paris Agreement.³ These obligations are, in turn, reflected in the Zero Carbon legislation domestically.⁴ This legislation provides for a centralised adaptation framework with the newly formed Climate Change Commission responsible for preparing a national climate change risk assessment every six years.⁵ In response to this assessment, the Government will prepare a national adaptation plan with progress reports being provided every two years.

New Zealand is significantly impacted by climate change

As well as considering climate change as a general phenomenon and New Zealand's international commitment to emissions reductions, it is important to reflect on New Zealand's vulnerability to climate change impacts. As a nation with a very long coastline and a high proportion of urban development in coastal areas,⁶ New Zealand is particularly susceptible to sea levels rising, inundation, coastal erosion and other climate change impacts. According to a Lloyd's of London study, New Zealand is the second most vulnerable country in the world to natural disaster (behind

² Global Warming of 1.5°C (January 2019), https://www.ipcc.ch/site/assets/uploads/2018/10/SR15_SPM_version_stand_alone_LR.pdf. More than 6,000 scientific references are cited in this report with thousands of experts and government reviewers worldwide contributing to it. The report has ninety-one authors and review editors from 40 countries.

³ The Paris Agreement is the new global agreement on climate change. It was adopted by Parties under the United Nations Framework Convention on Climate Change (UNFCCC) on 12 December 2015. It commits all countries to act on climate change. In addition to the 2050 target, pursuant to this Agreement, New Zealand has also committed to reducing emissions by 30 per cent below 2005 levels, and 11 per cent below 1990 levels, by 2030.

⁴ Climate Change Response (Zero Carbon) Amendment Act 2019.

⁵ Details on the first risk assessment published 2 August 2020 are provided below.

⁶ Coastal Hazards and Climate Change: A Guidance Manual for Local Government in New Zealand (July 2008), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/coastal-hazards-guide-final.pdf>

Bangladesh).⁷ In addition to the risks associated with New Zealand being in a high seismic zone (e.g. earthquakes, tsunamis and volcanoes), this is a reflection of the risk of climate change and weather events (particularly flood).

Looking at sea levels rising, a Parliamentary Commissioner Report for the Environment refers to a projected rise of 30 cm between 2015 and 2065.⁸ This report also indicates that:

- By 2065 it is expected that today's 1:100 year flood event will occur annually in Wellington and Christchurch, every two years in Dunedin and every four years in Auckland, if sea-levels rose by 30cm. A 40cm rise would see these events occur several times a year in Wellington and Christchurch. This is unlikely be much different for rural and provincial coastal areas.
- The estimated replacement value of buildings within 0.5m of the spring high tide mark is \$3 billion (equating to 9,000 homes). Buildings within 1.5m of the spring high tide mark is estimated at \$20 billion.⁹

New Zealand's first national climate change risk assessment records that an estimated 675,500 New Zealanders live in areas already prone to flooding, and that over 72,000 are potentially impacted due to sea levels rising in the future.¹⁰ Also, nearly 50,000 buildings are currently exposed to coastal flooding, and at the highest range of warming scenarios, that could rise to nearly 120,000 this century. Preliminary research shows we could lose 125,600 buildings, at a replacement cost of \$38 billion, if the sea level rose 1m.¹¹

It is important to acknowledge that the above research does not provide a full picture of climate change impacts - focussing only on the consequences of sea levels rising. It also does not consider costs associated with local government owned infrastructure (of which up to \$14 billion is estimated to be at risk from sea level rise),¹² ongoing development and growth,¹³ broader economic and social impacts (including impacts to people, businesses and communities) and to the natural environment.

Consideration should also be given to the fact that New Zealand's current infrastructure is not well positioned to manage the impact of climate change. Specifically, for the most part, our aging storm and wastewater networks are only designed to cope with today's 1:10 year event. Much of this is also gravity dependent and vulnerable if running-off in low lying coastal areas. The quality of some of the older infrastructure is also somewhat unknown.

⁷ A world at risk: Closing the insurance gap (2018), https://www.lloyds.com/~media/files/news-and-insight/risk-insight/2018/underinsurance/lloyds_underinsurance-report_final.pdf

⁸ Preparing New Zealand for rising seas: Certainty and Uncertainty (November 2015), <https://www.pce.parliament.nz/media/1390/preparing-nz-for-rising-seas-web-small.pdf>.

⁹ We expect that this analysis may understate matters somewhat as it does not consider storm surge, king tides, and heavy rainfall, as well as things like the ability of infrastructure such as stormwater drainage systems to respond.

¹⁰ National climate change risk assessment for New Zealand - Main report (2 August 2020), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-main-report.pdf>

¹¹ From the National Institute of Water and Atmospheric Research (NIWA). 125,000 buildings at risk from first metre of sea level rise (21 November 2018), <https://www.newsroom.co.nz/125000-buildings-worth-38bn-at-risk-from-first-1m-sea-level-rise-draft-report>

¹² \$14 billion of council infrastructure at risk from sea level rise (31 January 2019), <https://www.lgnz.co.nz/news-and-media/2019-media-releases/14-billion-of-council-infrastructure-at-risk-from-sea-level-rise/>

¹³ The Productivity Commission projects that over the next 30 years have 28 urban areas in New Zealand experiencing population growth of 20% or more and 61 experiencing depopulation, <http://www.chapmantripp.com/publications/building-resilience-to-climate-change-local-government-the-front-line-in-the-climate-change-response>

Consistent with this broad view of climate change impacts, New Zealand's first national climate change risk assessment refers to ten major threats in need of urgent action within the next six years under five categories:¹⁴

- **The natural environment**, including coastal ecosystems and indigenous ecosystems –described as having major consequences.
- **The human domain**, including social cohesion, displacement of communities and the entrenchment and further opening of inequalities - seen as risks with extreme consequences.
- **The economic domain**, including costs associated with disaster relief and long-term changes, and the risk of instability in the financial sector.
- **The built environment**, including infrastructure and buildings being vulnerable to sea level rise and more extreme weather conditions generally –described as being an extreme risk.
- **The governance domain**, in respect of which reference was made to 'maladaptation' (actions that may lead to increased risk of adverse climate-related outcomes), and the risk that climate change impacts across all domains are exacerbated because current institutional arrangements are not fit for adaptation.

The report highlights the potential cascading nature of climate change impacts. For example, where an extreme weather event impacts a region's potable water supply that in turn negatively impacts the ability to earn income, quality of life and public health.¹⁵

The fact that New Zealand is in a high seismic zone also increases the impact that climate change will have. For example, analysis of pre- and post-earthquake data from the 2010 and 2011 Christchurch earthquakes revealed that seismic shaking, tectonic movements and/or liquefaction associated with earthquakes led to land surface and waterway deformation and substantial floodplain subsidence.¹⁶ In turn, this greatly enhanced the risk posed by floods, storm surges and the sea-level rising. The likelihood and severity of impact of tsunamis also increases as the sea level rises.

Stepping back, and taking the above into account, it should come as no surprise that the cost to New Zealand of climate change is significant and growing. Nationwide insured costs of extreme weather events are as follows (noting that this somewhat understates the issue given other climate change related events and uninsured costs are excluded):¹⁷

Year	2013	2014	2015	2016	2017	2018	2019	2020	Average
\$million	175	153	115	52	242	226	176	207* estimate to-date	161* 2013- 2019

¹⁴ National climate change risk assessment for New Zealand - Main report (2 August 2020), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-main-report.pdf>.

¹⁵ National climate change risk assessment for New Zealand - Main report (2 August 2020), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-main-report.pdf>, Figure 10.

¹⁶ The sinking city: Earthquakes increase flood hazard in Christchurch, New Zealand (April 2015), <https://www.geosociety.org/gsatoday/archive/25/3/pdf/gt1503-04.pdf>. See also Report of the Public Inquiry into EQC (March 2020), <https://eqcinquiry.govt.nz/assets/Inquiry-Reports/Report-of-the-Public-Inquiry-into-EQC.pdf>.

¹⁷ Cost of natural disasters, <https://www.icnz.org.nz/natural-disasters/cost-of-natural-disasters/>.

From 2003-2015 insured costs of floods alone averaged \$75m. However, Water NZ estimates that this is about 40% of the total cost (i.e. \$190 million per year).¹⁸

The Ministry of the Environment have advised that, in the past 10 years, the cost of weather events to our transport network alone has risen from about \$20 million per year to over \$90 million per year. Additionally, they have advised that the 2012-2013 drought in the North Island cost the economy around \$1.5 billion, with climate change only making droughts more likely.¹⁹

The role of local government with climate change

ICNZ considers that local government should take a proactive, coordinated and consistent approach to engage with the clear challenges posed with climate change highlighted above. This involves investigating, analysing and managing risk associated with climate change within your region, taking a long-term view.

In practical terms a key principle here is, while you cannot control the forces of nature associated with climate change, you can reduce their impact significantly through well thought out and planned action and investments for mitigation and adaptation. Expanding upon these concepts:

- **Mitigation** involves action to reduce emissions and modify conduct, with a view to reduce the likelihood of further climate change, which may have more severe, damaging and costly impacts.
- **Adaptation** involves action to reduce the risk and impact of climate change, including strengthening resilience and preparedness to minimise risk and disruption.

Both matters should have a balanced and equal focus. Failure to sufficiently focus on adaptation may lead to significant economic loss or disruption which in turn could undermine efforts to reduce emissions. Conversely, failure to sufficiently focus on mitigation, may necessitate more urgent and extreme adaptation measures. Local and central government need to work together here. While central government has the central role to play with mitigation, local government is well placed to contribute as both a provider of infrastructure and services and by virtue of its influence over activities and duty to connect with communities, preparing them for mitigation and adaptation measures through information and education and by supporting local social services.

One of the challenges of implementing adaptation in this context is the complexity of climate change, uncertainty about what its full impacts will be and when they will occur over a long-time frame. However, this uncertainty and long horizon is not something to shy away from or ignore. To the contrary, this is something that should be grappled with now head on, the sooner the process begins the better, noting that extreme events can and do happen now. Also, ongoing potential impacts will stretch across generations, with the economic, social and environmental impacts being too significant to ignore. These risks only increase if no action is taken and become more costly to address later.

In investigating climate change matters reliance should be placed on the best available science and scenario planning, to understand the widest possible range of what could happen, being explicit with others about what assumptions have been made and being prepared for debate and discussion. The position should also be regularly monitored and reviewed.

In our view it is also important to take a holistic position – having regard to how individuals, businesses and communities are likely to behave. With that in mind, it is critical that you bring people on the

¹⁸ Water NZ (October 2015), https://www.waternz.org.nz/Attachment?Action=Download&Attachment_id=235

¹⁹ Adapting to Climate Change in New Zealand (31 May 2017), <https://www.mfe.govt.nz/sites/default/files/media/adapting-to-climate-change-stocktake-tag-report-final.pdf>

journey, sharing what is known about the impact of climate change in your region based on evidence and getting them to meaningfully contribute to the solution, putting all options on the table, noting that initiatives on the ground are the most effective when they are driven by motivated and engaged people who can see a way forward and do not consider that their interests are threatened.²⁰ Planning and investments should also involve consideration of what must be protected and what is a tolerable level of loss. Again, this requires community conversations (factoring in human, social, natural, physical, cultural and financial capital).

In considering climate change issues it is helpful to analyse and prioritise matters using a risk management framework.²¹ This involves an assessment of the likelihood and consequence of each risk with reference to the following treatment options:

Avoid	Changing plans to circumvent the problem. This may involve developing an alternative strategy that is more likely to succeed but have a higher cost. This may require a judgement call weighing up the cost of avoidance against the cost of impact if not treated. In a climate change context, this could involve relocating or abandoning areas as retreat is virtually inevitable.
Control	Taking steps to reduce the impact and /or likelihood of impact. Elements of this option relate to mitigation or adaptation referred to above, noting whereas mitigation relates to reducing the likelihood of something occurring (i.e. by reducing emissions leading to further climate change), adaptation relates to reducing the inevitable impact of climate change. In a climate change context, this may involve better protecting assets or modifying them so they are more resilient to the impacts of climate change.
Accept	Assuming the chance of the negative impact and taking this into account.
Transfer	Outsourcing the risk (or a portion of it) to a third party to manage (e.g. via insurance). Simply put, this involves paying someone else (e.g. an insurer) to accept the risk. However, risks will not be transferable if they are not sufficiently managed. This is something outlined in more detail later on.

In planning for climate change, local governments should also consider adopting an adaptive pathways approach.²² This involves testing a range of responses against possible future scenarios and then mapping pathways that will best manage, reduce or avoid risk. Under this approach a plan is subsequently developed with short-term actions and long-term options with pre-defined trigger points when decisions can be revisited. Ways forward can then be identified despite uncertainty, with flexibility provided should the agreed course of action need to change (e.g. because more scientific information or new technology becomes available). By foreshadowing future change at the outset, without committing to a particular course of action long-term, this approach helps avoid locking in investments early that may be later rendered obsolete or which make future adjustments difficult and/or costly.

Why it is important for local government to act on climate change

²⁰ See How to Talk About Climate Change: A Toolkit for Encouraging Collective Action (31 July 2019), <https://www.oxfam.org.nz/news-media/reports/talking-about-climate-change/> for more details in this regard.

²¹ See for sample risk management framework produced by Massey University available here: <https://www.massey.ac.nz/massey/fms/PolicyGuide/Documents/Risk%20Management/Risk%20Management%20Framework.pdf>. Also see, by way of example, the Risk Management Framework, Policy and Guidelines put together by the Thames Coromandel District Council available here: https://docs.tcdc.govt.nz/store/default/2914590?fbclid=IwAR0cHOJtQK9I5bNZDTPkHr8AmLNwefAzPVx44SnnnwHowq_0F3bM-TqshfA

²² Preparing for coastal change: A summary of coastal hazards and climate change guidance for local government (December 2017), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/coastal-hazards-summary.pdf>. See also Supporting decision making through adaptive tools in a changing climate: Practice guidance on signals and triggers (2020), <https://www.deepsouthchallenge.co.nz/sites/default/files/2020-03/Supporting%20decision%20making%20through%20adaptive%20tools%20in%20a%20changing%20climate%20Practice%20guidance%20on%20signals%20and%20triggers.pdf>

Drawing upon the call for action outlined above, it is important to reflect on the reasons why local government should act on climate change. The most obvious reason being effective responses to climate change are context specific and accordingly best addressed at a regional level. Other reasons are outlined below.

Local government has a legal requirement to do so

Local government has statutory duties related to climate change. These include:

- Under the Local Government Act 2002:
 - Meeting the current and future needs of communities for ‘good-quality’ local infrastructure, public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses.²³ ‘Good quality’ in this context means infrastructure, services and performance that is efficient, effective and appropriate to meet present and anticipated future circumstances.²⁴
 - Avoiding or mitigating natural hazards, which include subsidence, sedimentation, wind, drought, fire and flooding.²⁵
 - Considering the interests of future, as well as current communities, and community diversity in decision making.²⁶
- Under the Resource Management Act:
 - Having regard to the maintenance and enhancement of the quality of the environment and the impacts of climate change.²⁷
 - Controlling the effects of the use or development of land, including avoiding or mitigating natural hazards.²⁸
 - Considering the effects of a changing climate on communities and incorporating climate change into existing frameworks, plans, projects and standard decision-making procedures, including activities such as flood management, water resources, planning, building regulations and transport.²⁹

Additionally, under the New Zealand Coastal Policy Statement 2010, local government is required to ensure that coastal hazard risks are managed and identified for a period of at least 100 years, taking account of climate change, and applying a precautionary approach.³⁰

The aforementioned Zero Carbon legislation also contains obligation for local government. Specifically, under this legislation the Minister or Commission have the power to require local government organisations, and ‘lifeline utility providers’ to provide information, including the organisations’ assessments of the risks climate change poses to their functions, the organisations’

²³ Section 10(1).

²⁴ Section 10(2).

²⁵ Section 11A.

²⁶ Section 14.

²⁷ Section 7.

²⁸ Section 31.

²⁹ Climate change adaptation and local government, <https://www.mfe.govt.nz/climate-change/climate-change-and-government/adapting-climate-change/adaptation-and-local-government>. Also see section 30 and 62.

³⁰ New Zealand Coastal Policy Statement 2010, <https://www.doc.govt.nz/about-us/science-publications/conservation-publications/marine-and-coastal/new-zealand-coastal-policy-statement/new-zealand-coastal-policy-statement-2010/>. Specific requirements of note include policies 3 (precautionary approach), 7 (strategic planning), 24 (identification of coastal hazards), 25 (subdivision, use, and development in areas of coastal hazard risk), 26 (natural defences against coastal hazards) and 27 (strategies for protecting significant existing development from coastal hazard risk). This statement is to be applied as required by the Resource Management Act 1991 by persons exercising functions and powers under that legislation.

proposals and policies for adapting to climate change, and their progress towards implementing these.

There has also been recent commentary about the responsibility of company directors, investment managers, professional trustees and other professionals with fiduciary obligations to consider climate change risk in their decision making and take appropriate action.³¹ This includes officers, trustees or directors of council controlled organisations (CCOs).

Additionally, there is the proposed climate-related financial disclosure reporting requirements, which would oblige publicly listed companies and large insurers, banks and investment managers (including crown financial institutions with greater than \$1 billion in total assets under management) to report on the climate-related impacts for their business and investments in a consistent way, with the aim of helping investors, shareholders and companies make informed decisions.³² Consideration should be given to local government entities (including CCOs) complying with these requirements to raise greater awareness and focus attention on climate change impacts.

One of the challenges local governments need to work through for planning and investment purposes is the different and sometimes short timeframes set out in the applicable legislation.³³ As outlined above, the ICNZ's view is that a coordinated, consistent and holistic approach should be taken looking at climate change issues with a long-term perspective in mind. This includes land-use decisions, district plans, urban development, energy use, infrastructure, and waste and transport management.

Doing so ensures the efficient use of resources and reduces harm

Another key reason for action is that adapting to climate change is efficient and reduces avoidable harm. Numerous studies show that investing before disaster strikes is substantially more cost effective than responding afterwards.³⁴ It is estimated that every \$1 invested in pre-event prevention saves \$5 in post-event costs, also avoiding the wider social and economic disruption.³⁵ When a natural disaster strikes, it is also important to remember that in addition to costs associated with at-risk local government owned infrastructure and the emergency response, there is a significant wider economic, social and community impact that it is difficult to put a price on. Lives can be lost, homes destroyed, utility systems wrecked, business insolvency and jobs lost. Then there is the mental trauma and stress families suffer as they try to pull their lives back together and rebuild, and the impact on the natural environment. The more that can be done to avoid or control the risks associated with climate change upfront and reduce these economic and social impacts the better.

Fortunately, the long horizon of some climate change impacts means that in some cases, in conjunction with an adaptive pathways approach, an incremental investment strategy can be

³¹ Chapman Tripp's 2019 legal opinion to The Aotearoa Circle https://static1.squarespace.com/static/5bb6cb19c2ff61422a0d7b17/t/5db95b00780a6c1bc1af5743/1572428552373/SFF_Climate+Change+Risk+Legal+Opinion_301019.pdf. See also MinterEllisonRuddWatts Litigation Forecast for 2020 <https://www.minterellison.co.nz/our-view/2020-litigation-forecast-climate-change-risks-for-companies-and-directors>

³² <https://www.mfe.govt.nz/consultations/climate-related-financial-disclosures>.

³³ For example, the Local Government Act 2002 refers to a Long-term Council Community Plan with an anticipated 10 year minimum timeframe. The Resource Management Act 1991 provides for Regional Policy Statement and Regional and District plans referring to 10 year timeframes. This contrasts with requirement under the Local Government Act 2002 to produce an Infrastructure Strategy identifying significant infrastructure issues (including ones related to flooding) over at least a 30 year period. Also, there is the former Building Act 1991, which was based on an assumed building life of 50 years. While the current Building Act 2004 does not include an assumed building life many structures are intended to, or do, last a century or more.

³⁴ For example see Building our nation's resilience to natural disasters (June 2013), https://www2.deloitte.com/content/dam/Deloitte/global/Documents/About-Deloitte/dttl_crs_humanitarian_australia_resilience.pdf. See also 34 below.

³⁵ Flood Resilience in Numbers: 1-5-13-87-88 The Zurich Flood Resilience Alliance as a mode presentation, Berlin (May 2017). In this presentation it is also commented that they see only 13% going into pre-event resilience & risk reduction, 87% go to post-event relief.

deployed with costs allocated over the timeframe of potential climate change impacts. As highlighted above, the earlier this planning occurs, the less costly it will be later on.

Communities are increasingly demanding action

Property owners and communities are already facing the impacts of climate change and it should come as no surprise that there is also strong and growing public support within New Zealand for action on climate change including action by local government. An insurance company's recent climate poll indicates that:³⁶

- 79% of respondents consider that climate change is important to them personally (consistent with the 2019 result and up from 72% in 2018).
- 68% of respondents have become more concerned about climate change over the past few years (down slightly from 69% in 2018 but up from 60% in 2018).
- 68% of respondents consider that local councils are responsible for acting on climate change (consistent with the 2019 result but up from 48% in 2018).

This poll indicates that 79% of respondents believe that local councils should take a long-term view on climate change, with 80% indicating that local councils should provide information on the local impacts of climate change.

Doing so ensures insurance remains available and affordable

Another key reason for proactive action by local government on climate change is that this ensures the associated risks are well managed so they remain partly transferrable to insurers. In turn this will:

- Ensure that insurance remains available and affordable for people and businesses within your community.
- Avoid a situation where climate change related risks become too great to be transferred to insurers and must be self-insured instead. This would put considerable strain on people, businesses and/or local and central government, particularly when financial resources are already stretched. This may also involve situations when the burden of covering losses falls with local and central government (and in turn ratepayers and taxpayers generally), because the specific people and businesses impacted lack sufficient resources to cover these losses themselves.³⁷

The importance of keeping insurance available and affordable is well demonstrated by research,³⁸ with well insured countries spending less on emergencies, freeing up capital for investment and growth.

To understand the connection between climate change and the availability and affordability of insurance in more detail, it is helpful to consider how an insurer looks at risk. In particular:

- Insurance only transfers risk, it does not manage or reduce it. An insurer business will not take on a risk that it is not sustainable for it to do so in the longer term. In so far as a risk is taken on by an insurer, the higher the risk the higher the premium charged. If over time risks are not addressed and allowed to get worse, to ensure risks taken on remain sustainable, higher

³⁶ Adapting to climate change July 2020, <https://www.iag.co.nz/content/dam/iag-nz-main/corporate-documents/Climate%20Change%20Survey%20Detailed%20Results%202018-2020.pdf>. This survey was of 1,000 people and ran between 18 and 24 June 2020. It has a margin of error of 3.1%.

³⁷ In this regard also see comments from the New Zealand Productivity Commission in their report Local government funding and financing (November 2019), https://www.productivity.govt.nz/assets/Documents/a40d80048d/Final-report_Local-government-funding-and-financing.pdf.

³⁸ Lloyd's Underinsurance Report 2018, prepared by the Centre For Business and Economic Research, https://www.lloyds.com/~media/files/news-and-insight/risk-insight/2018/underinsurance/lloyds_underinsurance-report_final.pdf. This report reinforces the correlation between low insurance penetration and taxpayers required contribution post-disaster.

premiums or excesses are applied. In extreme cases cover for some risks may be removed entirely, on the basis that it is not viable at all.

- While traditionally insurers assessed risk looking backwards (based on claims received), decision making today also increasingly involves forward looking predictive models leveraging technology and the latest scientific insights, including ones related to climate change (for example, flood and weather pattern modelling). Insurers are also increasingly using more sophisticated and granular data to form a much more precise picture of a particular risk and then underwrite it accordingly (either by imposed specific terms or conditions and/or via risk-based pricing).³⁹
- From a first principles perspective, insurance follows the pooling principle ‘the many paying for the unfortunate few’. While this works well for a diverse range of accidental (i.e. sudden, unintended and unforeseen) events, where the numbers suffering losses at any one time is small (e.g. a vehicle crash or house fire), this does not work well for wide scale and predictable climate change events. For example, coastal properties in a certain area known to be at risk of coastal erosion and/or tidal inundation. Additionally, losses connected with the sea level rising or coastal erosion are not sufficiently accidental because they are neither sudden or unforeseen. Insurers also generally exclude cover for land damage.⁴⁰
- Lastly, whereas insurance responses to climate change operate on short annual renewal cycles, as outlined above, local government planning for climate change operates on very long timeframes, with potential impacts stretching across generations.

In light of the above, it should come as no surprise that in other countries where flooding has been an issue it has been removed from standard insurance offerings because doing so has not been sustainable, being removed entirely or offered instead as an optional extension for additional premium.⁴¹ Consistent with this, property damage from coastal erosion and “actions by the sea” is excluded from the majority of home insurance policies in Australia.⁴² Local government action to manage the impact of climate change risks is critical to ensuring the same thing does not happen in New Zealand.

Ensuring lending remains available

Another reason for action, connected with the availability of insurance, is property lending. Generally, banks and other lenders require insurance to be in place for property securing lending as this ensures there are funds available if something goes wrong. The banking sector alone lends over \$280 billion in residential mortgage lending in total.⁴³ Substantial lending is also secured against commercial properties. If insurance and therefore lending is reduced in an area within your region due to climate change risks, this will restrict growth, deflate people and business’ property values (and in turn rateable income).

³⁹ Risk-based pricing results in increased premiums for high-risks and promotes low risk behaviour. This contrasts with a community-based pricing approach where everyone pays the same rate regardless of the varying risk, with people in low risk areas effectively paying higher premiums to subsidise people in high risk areas who have no premium incentive to reduce their risk.

⁴⁰ Land is insured by EQC provided this is within the residential property boundary and either: (1) under the relevant home and outbuildings; (2) within 8ms of these buildings; or (3) under or supporting your main accessway up to 60ms from the home. <https://www.eqc.govt.nz/what-we-do/land-cover>.

⁴¹ For example, until the 1960s US had all risks house policies as we have in New Zealand to <https://www.rbnz.govt.nz/statistics/c31> day. However, frequent flooding events drove the predictable premium response until insurance became unaffordable.

⁴² Beachfront homeowners at risk of losing millions as properties uninsurable against the sea (28 July 2020), <https://www.news.com.au/finance/business/beachfront-homeowners-at-risk-of-losing-millions-as-properties-uninsurable-against-the-sea/news-story/2d9d3f73f7a03f248448f62731800a12>.

⁴³ New and existing residential mortgage lending by payment type - C32 (24 July 2020), https://www.rbnz.govt.nz/statistics/c32?fbclid=IwAR2lu_C8v_i3h94bdudJo2RMDQahFI07N9QbAiTDTToShI_I8I42MjD0yE5Y.

Another issue is the asymmetry of the term of lending and insurance. Unlike mortgage lending, which is generally structured over several decades, as mentioned above insurance is generally renewed annually and can be withdrawn if risk gets too high. Accordingly, the risk that lenders are left with an uninsured secured asset in the future due to evolving climate change risks is likely to flow through to higher deposit requirements and lending rates and shorter loan terms, restricting growth, deflating property values and rateable income.⁴⁴

Action is required to manage local government liability exposures

Another important reason for action is local government's potential liability exposures related to climate change. For example, the risk of an allegation being made that a local authority failed to have sufficient regard to known climate change issues in decision making or planning and this led to a third party suffering property damage or financial loss. This could lead to substantial defences costs being incurred, and liability payments being made, from ratepayer funds.

To this end, a recent presentation by a Queens Counsel to a local government audience records that:⁴⁵

- In addition to issues associated with breaching statutory duties as outlined above, common law is changing, and the Judiciary appear to have an increasing appetite to entertain arguments about climate change in common law.⁴⁶
- While current local government litigation mostly relates to decisions to limit development (short-term judicial review), in the future it seems likely to extend to the consequences of allowing development and failing to implement adaptation measures (e.g. from homeowners suffering physical and economic consequences of climate change in the longer term).
- While there have not been any large damages claims in relation to failure to implement adaptation measures in New Zealand to date, this may be only a matter of time.

Insurance may also have a role to play here and to that extent the same principles as outlined in the insurance section above apply equally here. Specifically, if local government's liability exposures associated with climate change are not sufficiently managed this may lead to liability insurance becoming unaffordable or unavailable. Liability insurance also commonly excludes reckless or intentional conduct, which may be an issue if the climate change impacts are known but ignored.

If the relevant liability insurance is not in place and a large climate change related event occur, this could put extreme pressure on local governments already strained resources – diverting ratepayer funds to fight litigation that otherwise could be used to repair infrastructure and fund the emergency response.

Specific areas for local government action

Reflecting on the above, we consider there are five practical ways local government can advance climate change issues in the near term, focusing on matters directly in their control. In some regions these matters may be already well advanced, while others may be just at the start of their climate change journey.

⁴⁴ Also in this regard see comments from the New Zealand Productivity Commission in their report Local government funding and financing (November 2019), https://www.productivity.govt.nz/assets/Documents/a40d80048d/Final-report_Local-government-funding-and-financing.pdf.

⁴⁵ "Climate Change Adaptation" session of the Local Government New Zealand Rural and Provincial Sector Meeting, Wellington (7 March 2019) <https://www.lgnz.co.nz/assets/Uploads/f488365773/Climate-change-litigation-Whos-afraid-of-creative-judges.pdf>.

⁴⁶ See also the paper 'Climate Change and the Law' produced by three justices of the Supreme Court available here: <https://www.courtsofnz.govt.nz/assets/speechpapers/ccw.pdf>.

Embracing collaboration and coordination

One key area of action by local government in our view is leading and embracing collaboration and coordination on climate change within the region. While local government has a great deal of autonomy in deciding what to do regarding climate change, unfortunately this means there is a lack of consistency across the country in terms of approaches. Things may be further complicated by different bodies (i.e. regional/unitary, district or city councils) having different but overlapping roles and responsibilities.⁴⁷ However, climate change and its impacts do not respect local government boundaries.

To combat this, all elements of local government within a region must collectively work together – having regard to their specific functions/roles whilst leveraging their combined leadership, resources, knowledge and expertise. This should include:

- Establishing a consistent understanding of how to identify climate change risks, undertake risk modelling, planning and the appropriate terminology and methodologies to use, drawing upon approaches set out by Local Government New Zealand, other local and central government (including the Ministry for the Environment and the Climate Change Commission).
- Developing a shared understanding of overarching climate changes issues in the region and what should be done to address them, with coordinated roles and accountabilities, noting that all of local government is charged with meeting the current and future needs of communities.⁴⁸

It is important that mitigation and adaptation measures are considered together in a coordinated fashion that involves all relevant stakeholders, noting that while mitigation on climate change (reducing emissions) is principally being progressed at a national and central government level much of the decision making and implementation around adaptation occurs at the local government level. Working together enables a full picture of climate change to be formed and a balanced approach to be taken when prioritising responses and allocating responsibilities and accountabilities.

For efficiency and economies of scale, local government should look for opportunities to partner up or draw upon insights from other regions grappling with similar issues or who have done so in the past.

Lastly, if good collaboration and coordination is already occurring within your region, now is a good opportunity to ‘take this to the next level’ by formalising these arrangements.

Building knowledge about climate change and sharing it

Local government also needs to focus on identifying and filling gaps in regional knowledge about climate change,⁴⁹ investing in specialist personnel, training and additional research (leveraging the latest scientific insights and technology), to gain a better understanding. Improving the information available will enhance the efficacy of the actions local government can take. In undertaking this work,

⁴⁷ For example, while regional councils focus on decisions that relate to resource use and hazard management, district or city councils focus may focus on core services that can impact on resources including land, water and coastal areas.

⁴⁸ Local Government Act 2002, section 10(1)(b).

⁴⁹ This issue is compounded by the fact that there is currently no national public database of natural hazard risks. While this work has recently stalled due to a lack of government funding, ICNZ has been advocating for work to be undertaken in this regard through the ReZealiance project. The intention of this project is to use publicly funded research undertaken by GNS, NIWA and LINZ to produce a natural risk database that many stakeholders including homeowners, businesses and central and local government can use. Another challenge is that there is no consistent hazard information for assessing the exposure of the built environment at a national scale, <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-new-zealand-snapshot.pdf>.

again regard should be had to successful approaches others have adopted so as to coordinate and ensure consistency and efficiency as much as possible.⁵⁰

Local government should also champion public education on climate change within their regions. This involves actively looking for opportunities to share what it knows about climate change risks within the region to individuals, businesses and communities in a form they can easily engage with – bringing them on the climate change journey and giving them better information to make decisions and take personal action. While there has been growing awareness of climate change issues, many still do not fully understand the specific risks climate change poses to them.⁵¹ Simply put, people cannot be expected to manage and reduce their climate change risks if they do not know what they are.

From specific property information perspective, all current and potential property owners should have easy access to good quality, transparent and consistent information about all-natural disaster risks a particular property faces including the climate change related ones.

While we acknowledge providing more information about property related natural disaster risks may cause challenges, in our view, local governments should not shy away from doing so. Providing this information enables individuals and businesses to make more informed decisions and the market (including insurers⁵² and lenders) to price for this risk signal. Just like other natural hazard risks, climate change impacts are likely to have an impact at some future point, if they have not done so already. The alternative is that the added costs associated with the property due to climate change risk remain hidden and ignored, with local government and ratepayers ultimately subsidising arrangements (via future infrastructure costs, protection measures, emergency response costs etc). Providing this information incentivises people to act in a more resilient manner (e.g. to undertake the appropriate protection measures or factoring these before making decisions).

In the property information context, how things are framed can be very important. For example, a '1:100-year event' may mislead people into thinking it will not happen in their lifetime when it could happen tomorrow. Consider framing things as 'a 1 in 4 chance of an event over the term of a 25 year mortgage' or 'if there are 100 locations that face 1:100 year events in New Zealand, then one will most likely happen in the next 12 months'. Another obvious consideration is that, due to climate change, these low probability events are becoming increasingly common and the associated probability may need to be re-assessed.

Avoid development in areas vulnerable to flooding, rising sea levels or coastal erosion

Wherever possible local governments should avoid development in areas vulnerable to flooding, rising sea levels or erosion. This should be a fundamental element of a local government's adaptation framework, to bypass costly and avoidable climate change risk which otherwise local governments

⁵⁰ As outlined by the Productivity Commission, specific consideration could be given to developing regional spatial plans which will assist with efficient use of resources and aid in coordinating efforts across councils and with central government. These plans can also draw upon insights from the Climate Change Commission's national climate change risk assessments so that responses to climate change occur in a coordinated fashion, https://www.productivity.govt.nz/assets/Documents/a40d80048d/Final-report_Local-government-funding-and-financing.pdf.

⁵¹ For example, IAG's climate poll 2020 records that only 34% of individuals indicated they had all the information they needed to make decisions to reduce the impact of climate change on themselves.

⁵² Property owners are generally required to disclose to their insurer if their property has been identified as being at risk from any natural hazard by their local Council, through information being placed on the properties LIM or by way of a notice on the property title under section 74 of the Building Act 2004. This notice alerts prospective purchasers and others with an interest in the property (such as lenders and insurers) that the land is subject to a natural hazard and specifies what the natural hazard (or hazards) are. Failing to disclose this information may lead to a claim being declined.

(and ultimately ratepayers) will have to meet. There is growing public awareness and recognition of this issue.⁵³

The alternative (allowing development in such areas to proceed) will result in, at best, costly and potentially uneconomic protection measures needing to be put in place or, at worst, interruption, emergency responses costs and an eventual managed retreat and/or claims for compensation by property owners which local governments (and ultimately rate payers) have to meet. There may also be insurance and lending availability and affordability issues to consider amongst other things. If developments in areas vulnerable to flooding, rising sea levels or coastal erosion are considered, the full cost implications of doing so must be evaluated and appropriate protection measure requirements imposed (such as lifting floor-levels, raising land or inundation or erosion protection measures).

Local government should also consider undertaking managed retreats of existing developments in areas vulnerable to flooding or rising sea levels where either the avoidable risk of loss is calculated as being too high and/or it is uneconomic to protect them (with reference to the cost of future interruptions, emergency response costs, protection measures and potential property damage etc). Again, the future availability and affordability of insurance and lending should be considered in decision making here. Consideration should be given to adopting an adaptive pathway in this context, noting that under it, the specific process to retreat may vary. In some cases, this may involve less disruptive and expensive interim measures being put in place before a decision is ultimately made to retreat or move onto some other pathway once more is known.

Climate change should be prioritised in planning and investment decisions

Climate change risks should be prioritised in local government's planning and investment decisions about infrastructure,⁵⁴ including incorporating emissions reduction targets into investment decisions on transport, fleet procurement and waste management.

Planning and investment decisions should have specific regard to managing or reducing natural disaster risk and protecting assets casting a broad net covering both built infrastructure (such as stormwater drains, culverts, stock banks, seawalls and transport and waste management), natural infrastructure (such as dunes, wetlands, rain gardens, swales) and potential changes to land use, and with regard to potential:

- **direct costs**, such as the cost of remediating public infrastructure, privately owned assets, emergency response costs and damage to regional ecosystems, flora and fauna
- **broader economic, social and natural environment impacts**, such as business interruption, prevention of access and loss of supply chains, depopulation, displacement, entrenchment, the further opening up of inequalities or loss of habitats
- **downstream impacts**, such as contamination to potable water supply that in turn negatively impacts the ability to earn income, quality of life and public health, and
- **impacts to resiliency**, such as the impact of an essential road, public facility or utilities being cut off or out of operation, for a number of months or years.

⁵³ For example, the aforementioned IAG's climate poll 2020 records that 72% of respondents considered that local councils should zone land specifically to reduce the impacts of climate change, while 65% considered that local councils should only consent development that reduces or avoids the impact of climate change. See also Just how safe from the rising sea level are our beach houses? (12 July 2020), <https://www.stuff.co.nz/life-style/homed/latest/300050107/just-how-safe-from-the-rising-sea-level-are-our-beach-houses> and Climate change may soon render beach houses uninsurable (15 July 2020), <https://www.insurancebusinessmag.com/nz/news/breaking-news/climate-change-may-soon-render-beach-houses-uninsurable-227816.aspx>.

⁵⁴ This is reinforced by insights from the IAG's climate poll 2020 where 72% of respondents indicated that local councils should use funds to help build infrastructure that reduces the impact of climate change.

In considering these issues, a consistent and coordinated approach must be taken looking at the total pool of infrastructure assets in the region, potential climate change impacts and avoidable losses over the long-term. This will invariably involve liaising with central government, other public agencies and private utility companies (e.g. electricity, gas and telecommunications network operators and suppliers). Regard should be had to making decisions that maximize co-benefits.

In evaluating these matters, local government should also consider adopting an adaptative pathways approach. Rather than committing to substantial investments upfront (which may be subsequently rendered obsolete or make further adjustments difficult or costly), focussing on short-term actions and long-term options providing flexibility to make the right decision later once more is known.

Ensuring buildings are resilient to climate change impacts

In conjunction with the above, it is also important that any new building work approved (including design, construction and materials used) contributes to reducing emissions (in both its construction and operation),⁵⁵ and is more resilient to climate change impacts alongside other natural hazard risks (e.g. earthquakes) with a view to bolstering longevity and avoiding inefficient redundancy or obsolescence.⁵⁶

Again, this is all about bypassing avoidable climate change risk. This approach also reflects that ensuring building resiliency at the outset is much more cost efficient than waiting until a climate change related event occurs and addressing it at that point. Consideration could also be given to subsidising resiliency improvements for homes or managed retreat in low income areas with a high risk to climate change impacts, or providing additional support to particularly vulnerable groups,⁵⁷ noting that climate change has the potential to exacerbate existing inequalities.⁵⁸

If owners are rebuilding following a climate change related event, local government should encourage them to make changes to improve resiliency in their rebuild, rather than simply reinstating things as they were (as if nothing had happened). If these risks are not appropriately addressed, future avoidable property damage and interruption is likely inevitable. Failing to adequately address these issues is likely to impact insurance availability and affordability too.⁵⁹

Conclusion

Thank you again for the opportunity to provide our views on the issues climate change raises and the role we see local government having in this regard. If you have any questions, please contact our Regulatory Affairs Manager, Nick Whalley on (04) 914 2224 or by emailing nickw@icnz.org.nz.

The issues posed by climate change are confronting. However, local governments are well placed in many respects to address these issues. Good progress can be made by acting proactively and in a

⁵⁵ To this end, the Government recently announced a Building for Climate change programme focussing on finding ways to reduce emissions from buildings during their construction and operation, while also preparing buildings to withstand changes in the climate, <https://www.building.govt.nz/about-building-performance/news-and-updates/all-news-and-updates/building-for-climate-change-programme-gets-underway/>.

⁵⁶ The Building Research Association of New Zealand (BRANZ) have some useful resources in this regard, <https://www.branz.co.nz/>

⁵⁷ Including the elderly, the disabled, those with mental health issues or financial hardship.

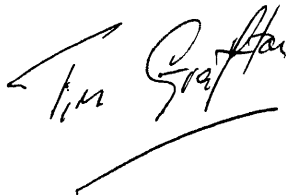
⁵⁸ National climate change risk assessment for New Zealand - Main report (2 August 2020), <https://www.mfe.govt.nz/sites/default/files/media/Climate%20Change/national-climate-change-risk-assessment-main-report.pdf>

⁵⁹ In general terms insurers may be able to work their customers to factor in adjustments in the rebuild to better protect it from future losses in the future as doing so is to their mutual benefit. However, the particular claim response will depend on the specific insurance policy in force and circumstances, sum insured and betterment limitations may apply and generally insurers do not contribute to additional costs to comply with changes required by the Government or a local authority unless the relevant building complied with all relevant legislation and regulations at the time it was built or altered.

consistent and coordinated manner, taking a long-term view that focusses on both climate change mitigation and adaptation.

It is truly positive that some local councils have already made great strides to engage with and progress climate change issues - some of this work is outlined in Appendix 1. There are also some helpful resources local governments can leverage in this regard - as outlined in Appendix 2.

Yours sincerely,

A handwritten signature in black ink, reading "Tim Grafton". The signature is fluid and cursive, with a long horizontal stroke at the bottom.

Tim Grafton
Chief Executive

A handwritten signature in black ink, reading "Nick Whalley". The signature is cursive and written on a light-colored rectangular piece of paper.

Nick Whalley
Regulatory Affairs Manager

EXAMPLES OF LOCAL GOVERNMENT PROGRESS ON CLIMATE CHANGE

- Whangarei District Council's draft Natural Hazard Plan Change for their District Plan (which includes a review of flooding and coastal hazards). More information is available [here](#).
- Waikato District Council's Stage 2 of the Waikato District Plan Review (which focusses on Natural hazards and the effects of climate change). More information on this available [here](#). *Waikato Regional Council also recently secured \$23.8 million from the Government for 10 flood protection and catchment projects (4 August 2020). More information on this is available [here](#).*
- The Bay of Plenty's Rangitāiki River Scheme Review – April 2017 Flood Event (18 September 2017). More information on this is available [here](#).
- Whakatane District Council's Awatarariki Managed Retreat Programme. More information of this is available [here](#).
- The Hawkes Bay's Coastal Hazard Committee's⁶⁰ Clifton to Tangoio Coastal Hazard Management Strategy 2120 (August 2016). More information of this is available [here](#).
- Work done by Wellington City Council and the Greater Christchurch Partnership as two of the 100 cities that have joined the Rockefeller Foundation's Resilient Cities network, which helps cities survive, adapt and grow no matter what kind of stresses and shocks they experience. More information about this is available [here](#) and [here](#).
- Tasman District Council's community centric coastal management work. More information on this is available [here](#).
- Christchurch City Council's flood intervention policy (including investigation and mitigation of the Flockton area). More information on this is available [here](#).
- Queenstown Lakes District Council's flood management work (including a joint flood mitigation strategy). More information on this is available [here](#).
- Nelson City Council's Online Coastal Inundation Map which includes modelling for 0.5m, 1m, 1.5m and 2.m seal level rise scenarios. More information on this i available [here](#).

⁶⁰ This is a joint committee, bringing together elected representatives from Hastings District Council, Napier City Council and Hawke's Bay Regional Council.

APPENDIX 2:

HELPFUL RESOURCES FOR LOCAL GOVERNMENT ON CLIMATE CHANGE

Author	Title and hyperlinks for access	Date
Ministry for the Environment	Coastal Hazards and Climate Change: A Guidance Manual for Local Government in New Zealand available here	July 2008
Department of Conservation	New Zealand Coastal Policy Statement 2010 available here	2010
Judy Lawrence, Frances Sullivan, Alison Lash, Gavin Ide, Chris Cameron & Lisa McGlinchey	Adapting to changing climate risk by local government in New Zealand: institutional practice barriers and enablers available here	2015
Parliamentary Commissioner for the Environment	Preparing New Zealand for rising seas: Certainty and Uncertainty available here	November 2015
Tonkin+Taylor	Risk based approach to natural hazards under the RMA available here	September 2016
Climate Change Adaptation Technical Working Group	Adapting to Climate Change in New Zealand available here	31 May 2017
Ministry for the Environment	Preparing for coastal change: A summary of coastal hazards and climate change guidance for local government available here .	December 2017
Jack Hodder QC	Climate Change Adaptation: session of the Local Government New Zealand Rural and Provincial Sector Meeting, Wellington available here	7 March 2019
Oxfam NZ	How to Talk About Climate Change: A Toolkit for Encouraging Collective Action available here	31 July 2019
Deep South Challenge: Changing our climate	Supporting decision making through adaptive tools in a changing climate: Practice guidance on signals and triggers available here	2020
Local Government New Zealand	Various resources for local governments on climate change available on their Climate Change Project page here and case studies regarding community engagement on climate change adaptation here	Various
Ministry for the Environment	Climate change adaptation and local government available here	
Massey University	Sample risk management framework produced by available here . <i>Also see, by way of example, the Risk Management Framework, Policy and Guidelines put together by the Thames Coromandel District Council available here</i>	

APPENDIX 3:

ICNZ's view of the role of local government on climate change

What (the problem: climate change is here)

Larger and more extreme weather events

Sea levels rising, coastal erosion and flooding

Droughts, water shortages and wildfire

Flow on impacts to:

- Natural and built environments
- human, economic and governance

The potential impacts stretch across generations, with the economic, social and environmental impacts being too significant to ignore and only increasing if no action is taken

Why (local government need to act)

The best responses are context specific (addressing matters at a local level)

Ensuring resources are efficiently used

Communities are increasingly demanding action

Ensuring insurance and therefore lending remains available and affordable

There is a legal duty to do so

Bypassing avoidable harm

How (local government can act)

Grapple with the full impacts of climate change (taking your community on the journey, leveraging the best available science and regional capability)

Thorough planned action and investments for adaptation and mitigation (reducing the extent of future climate change and its impacts)

Take a holistic, long term and flexible approach (using a risk management framework to prioritise and an adaptive pathways approach)

Practical actions includes:

- ✓ collaboration and co-ordination
- ✓ building and sharing knowledge
- ✓ embedding mitigation and adaptation in investment and planning decisions
- ✓ declining development in areas vulnerable to flooding or rising sea levels
- ✓ ensuring buildings are resilient

A pro-active, co-ordinated, and long-term view should be taken to managing the real and significant impacts of climate change, putting people, businesses and communities at the heart of decision-making

From: cheriejohansson@xtra.co.nz
To: [!Policy Submissions](#)
Subject: Response to the draft Climate Change Strategy from Veronica Maxey, 35 College Street Whanganui
Date: Tuesday, 9 February 2021 7:59:29 pm
Attachments: [Climate Change Draft Strategy comments_Veronica Maxey.docx](#)

Please find Veronica's ideas attached.

Kind regards

Cherie Johansson (on behalf of Veronica Maxey)

I congratulate the Council on this comprehensive and well set out document. I thought it would be useful to have a Glossary for those who don't understand some of the jargon in the draft strategy, e.g. 'active transport'.

After submissions have been dealt with, I hope the community will receive regular updates on actions plans so we can then give feedback.

Agriculture

I would encourage planting trees such as willow for cows to feed on to reduce methane production.

Transportation

I ask that there is an end to the unnecessary use of vehicles such as the cemetery circuit racing. I believe there is no place for motor car racing in the current situation.

I suggest car-free days as we had in the 70s and more recently during the Covid lockdown – it made a huge reduction to our emissions across that time.

I support the implementation of a standard for all petrol-powered engines, e.g. lawn-mowers so emissions are significantly reduced.

Water use

Include community education about how to reduce water use and climate change impacts e.g. longer lawns support important insect life, protects the soil, and reduces the need to waste precious water resources.

Electricity generation

Provide subsidies for solar power on all Whanganui homes.

Governance

Establish a Climate Change Committee that liaises with the other Council committees. The Climate Change Officer holds workshops and visits homes to advise how each household can conserve power and water and reduce waste.

Whanganui District Council carbon footprint

Extend the baseline research to include the measurement of each household's carbon footprint.

What you can do section

Add into the Strategy in this section "Use natural fibres rather than synthetic materials as much as possible, e.g. for insulation.

Where it suggests plant native trees – suggest that the strategy includes "Plant productive trees on Council land, e.g. Devonport, Auckland had olive trees down their streets.

Lobby the government to take GST off all food – to encourage people to purchase fresh local food.

General comments

Recommend the Council uses the "Investing in People and the Planet" by Robert Howell as a reference for all climate change strategic and action planning.

Tap into the experiences and best practice of other Councils around climate change – both nationally and internationally.

Implement a Suggestion Box (physical and online) to collect ideas from the community to share their novel ideas to conserve energy. Publicize these ideas each week in the free papers and online.

Provide the support for communities to establish community gardens – growing local reduces our emissions!

Ongoing reporting to the public on how the Council AND Whanganui households are 'stacking up' against each of the climate change actions.

From: cheriejohansson@xtra.co.nz
To: [!Policy Submissions](#)
Subject: Cherie Johansson - Response to the Climate Change Draft Strategy
Date: Tuesday, 9 February 2021 8:04:12 pm
Attachments: [Climate Change Draft Strategy comments.docx](#)

Please find my response attached.

Kind regards

Cherie Johansson

Congratulations! I think this will do it – but the devil is in the detail!

Leadership and collaboration

- Embed the Doughnut Economy (Kate Raworth) principles into this strategy and across the Council.
- Establish a Climate Change Committee. This overarches all committees. 1-2 climate change champions in each committee. Those champions are in the Climate Change Committee.
- Add a climate change 'lens' to the scope of each Council committee.

Decision-making and capability

Provide leadership through business networks in Whanganui (e.g. Chamber of Commerce) where best business practice climatic change mitigation examples are shared.

Whanganui District Council

Energy efficiency

The use of the word 'consider' at the start of two actions is weak. It could show definite action and commitment by the following words:

- Consider Green Star Building certification for new building projects.
- Collate overseas examples of how to eliminate the use of fossil fuels (to heat and cool) and implement best practice in Council owned buildings and facilities.
- Add infrastructure to generate energy to all owned buildings and facilities.

Add:

- Provide interest free loans to households to encourage uptake of solar energy
- Implement a bylaw that requires all new builds to have greywater and rainwater collection.

Procurement

Instead of "Consider carbon emissions when awarding contracts" amend to "Embed climate change impacts and implications into Council procurement processes and procedures."

What you can do about climate change

In this section, match every action you are asking of individuals and households with a Council action to 'enable' that actions, e.g.

"Use recycling services and recycle bins" is supported by the Council providing green waste and recycling centres in hubs in suburbs across the City.

"Plant native trees on your property" is supported by providing low cost native plants from a Council owned nursery (provides employment too).

General comments

Select some 'low hanging fruit' changes e.g. recycling and green waste hubs.

Biodigester: Whanganui owns a biodigester and the Council could actively support Easy Earth (if they don't already). This will process all green waste collected from community hubs. The by-product could be sold as compost back to households at a cheap price.

Te ao Māori: Add this: Utilise te ao Māori and mātauranga practices that support the reduction of our carbon emissions.

Productive trees: Replace some/all trees that line streets with productive trees (olives, figs, fruit trees) and natives.

Public transport: Research bus patronage and average capacity on the large buses. It may be better to replace the large buses with smaller electric/hybrid 'people movers' that buzz around the suburbs more frequently.

Pedestrianize parts of Whanganui: Get people out of cars and walking and biking.

Bottle and can collection: The Council purchases a can and bottle deposit system.

Encourage cycling: Yes please and more of this! AND add bike parking spaces everywhere!

From: [Whanganui District Council](#)
To: susanroon@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Wednesday, 10 February 2021 4:26:16 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	258021626211510
First name	Susan
Last name	Roon
Email address	susanroon@gmail.com
Postal address	4 Acton Place St John's Hill Whanganui 4500
Daytime phone number	06 348 0415
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	Reduce carbon emissions. Support collective housing. Prepare for future flood control. Maintain safe water for all users. Appoint a Climate Change Officer.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	This depends on the actions of Council and citizens. Bike ways, water infrastructure work are good starts. Much more needs to be done. council and
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Informed citizens can join and support actions that will improve all of our lives. Lead on, Council.
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	We all need to understand impacts of Climate Change and what each of us must do to meet these changes. This is an emergency for everyone. We can all help.

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint</p> <p><i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	Strongly agree
Please provide reasons for your response	Working with Horizons and our national government plans can provide more input and wider actions.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS</p> <p>Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encourage EV charging. Encourage rail transport. Work with Horizons on electric buses. Promote bicycle use, (paths and lanes are a good start), and wise behavior of cyclists and motorists.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Prohibit new development on wetlands and on flood prone areas. Wetlands are great carbon sinks, Support collective housing and communal roof gardens. Prohibit new single story buildings in CBD. Encourage circular economies.
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encourage farmers to be responsible for water pollution, excess use of contaminating fertilizers and chemicals. Acknowledge Maori farm management practices. Support Urban gardens on roofs. Research to find sustainable water sources.
Leadership and collaboration – Mahi tahi	Strongly agree

Which initiatives do you believe are important and should be prioritised within this action area?	Join Sustainable Living Trust. Appoint a Climate Change Officer. Inform public and promote collective actions. Promote Home Energy Save and Warmer Kiwi Homes.
What is your biggest concern with climate change?	Sustaining clean water, clean air and soil that will support healthful food production.
Why is this a concern for you?	Everything we do to our environment we do to ourselves. Do we pollute and exploit for profit? or sustain and thrive? Can we innovate and survive well together?
Please include anything that you think should be included in the strategy?	How is Council going to sustain clean water in rivers and for personal use? Are local industries who are breaching wastewater consents to be held responsible? Can Council work with Local Government NZ, Minister Mahuta and Minister Parker to stop these excesses?
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	Is Whanganui a Smart City? Digital technology is essential to solving problems of Climate Change. Appoint a Climate Change Officer. We're in an emergency situation worldwide. We need an Offfcer to edit reliable data and advise realistic actions, knowing Council's budget and responsibilities.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: polycysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy

Whanganui District Council
101 Guyton Street
Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: Marie Skidmore

E-mail: marie.skidmore@sosj.org.au

Postal Address: 36 Guyton St

Whanganui Post code 4500

Best daytime contact number: 027 356 2733

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☐ Yes I would like to speak in support of my submission (please ensure you have completed the details above, including contact **phone number**)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.

☒ Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy	✓				
Please provide reasons for your response?	Emphasis on inter-connectedness with environment, especially the Awa				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	This is just common sense - to try to be as proactive in possible in responding to scientific facts				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>	✓				
Please provide reasons for your response?	It would give priority to this goal along with goal 4 - think this needs lots of publicity				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	Yes - again publicity about what is happening already - groups which could be more encouraging of new participants				

Thank you for your submission

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i></p>	✓				
<p>Please provide reasons for your response?</p>	<p><i>This is particularly important - many agencies/groups exist & p'ships can focus the energy.</i></p>				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
<p>Transportation – Eke waka</p>	✓				
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p><i>4.1.1 is vital. All the others are included.</i></p>				
<p>Building energy and urban form – Te hiko / hanaga whare</p>	✓				
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p><i>4.2.3 This seems to be more aware of housing difficulties. Homelessness needs to be catered for in a forward thinking plan</i></p>				
<p>Agriculture – Ahu whenua</p>	✓				
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p><i>4.3.4 Given that the % of emissions of agriculture is high. Also 4.3.1 - area of much concern - awareness of packaging and disposal of food needs urgent attention</i></p>				
<p>Leadership and collaboration – Mahi tahi</p>					
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p><i>4.4.2 - educational resources very important & needed at all levels. Use of media and existing groups for publicity</i></p>				

Thank you for your submission

What is your biggest concern with climate change?

Currently - food waste reduction
" redistribution

Why is this a concern for you?

A huge amount of food is dumped at a time when many in our city go hungry or have access to only 'junk' food which is not nourishing

Have we missed anything that you think should be included in the strategy?

CSS have said that as well as making food available to those who are needy, food waste/dumping is an aspect of concern which could easily be changed.

Many concerned citizens wish to do something about re-distribution of food but are concerned re lack of knowledge of existing groups & their connections.

Please use this space to provide further comments regarding the draft Climate Change Strategy.

I would like to suggest that:

WPC employ a Coordinator who would

* Investigate the many existing groups who already gather 'waste' food & redistribute it. (Whanganui Kiri Collective e.g.)

* Research & call attention to gaps

* Collate this information in an easy-to-understand format. (as in this Climate Change Strategy document) Use graphics

* Utilise all levels of media to make this info available to as many as possible in the community

This could be a 6-month contract.

Thank you for your submission

Have you submitted to Council before?

Yes ☒ No ☐

Gender: Female ☒ Male ☐ Gender Diverse ☐

Age: Under 18 Years ☐ 18 – 29 years ☐ 30 – 39 years ☐ 40 – 49 years ☐
50 – 59 years ☐ 60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper Aramoho) <input type="checkbox"/>	Marybank-Gordon Park <input type="checkbox"/>
Bastia Hill / Durie Hill <input type="checkbox"/>	Putiki <input type="checkbox"/>
Blueskin- Maxwell <input type="checkbox"/>	St Johns Hill / Otamatea <input type="checkbox"/>
Castlecliff (Castlecliff North, Castlecliff South, Mosston) <input type="checkbox"/>	Springvale (Springvale West, Springvale East, Mosston) <input type="checkbox"/>
Fordell-Kakatahi <input type="checkbox"/>	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate) <input checked="" type="checkbox"/>
Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West) <input type="checkbox"/>	Whanganui East (Williams Domain, Wembley Park, Kowhai Park) <input type="checkbox"/>
	Other <input type="checkbox"/>

.....

Ethnicity: NZ European ☒ Maori ☐ Asian ☐ Pacific Peoples ☐

Middle Eastern/Latin American/African ☐

Other ☐

Thank you for your submission

From: [Whanganui District Council](#)
To: chester.penaflor@wdhb.org.nz
Subject: Policy Submission Acknowledgment - Submission: Climate Change Strategy
Date: Thursday, 11 February 2021 1:18:23 pm



Submission: Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	291021318212211
First name	Chester
Last name	Penaflor
Email address	chester.penaflor@wdhb.org.nz
Postal address	Public Health Centre, 100 Heads Road, Whanganui, 4540
Daytime phone number	06 3483150
Organisation name	WDHB - Public Health Centre
Your role	Health Promotion Officer
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	30 - 39 years
Ethnicity	
Location	Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West)
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change	Strongly agree

<i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauritia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etahi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	

Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	The New Zealand Psychological Society are beginning to understand many of the adaptive measures that can help people to cope with climate change. These include individual as well as community based interventions that will enable capacity building and, among many other options, environmental preservation programmes that can provide “a sense of stewardship and personal investment” that can mitigate the potentially negative psychological effects. https://www.researchgate.net/publication/270835783_Climate_Change_Psychological_Solutions_and_Strategies_for_Change
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	Mental outlook is important for health and repeated stresses from extreme weather and other impacts of climate change may take a toll on our well-being. Increased temperatures, extreme weather events, and displacement of people from homes and communities will all have significant mental health and well-being consequences. These range from minimal stress and distress symptoms to clinical disorders such as anxiety, depression, post-traumatic stress and suicidal thoughts. Other consequences include effects on everyday life, perceptions, and experiences of individuals and communities attempting to understand and respond appropriately to climate change and its implications. Degradation of a familiar environment can cause distress. Research in Australia during the decade-long drought which officially ended in 2012 revealed an increase in anxiety, depression, and possibly suicide in rural populations. In these communities, concerns about financial and work-related issues were compounded by loss of hope for the future and by a sense of powerlessness or lack of control. For New Zealanders, the natural environment is at the heart of the nation's identity, particularly for Māori, shaping the economy, lifestyles and culture. Disruption of cherished bonds between individuals and their environment, such as during the managed retreat of threatened coastal communities, can cause grief, loss, and anxiety. https://www.royalsociety.org.nz/assets/documents/Report-Human-Health-Impacts-of-Climate-Change-for-New-Zealand-Oct-2017.pdf
Why is this a concern for you?	Multiple national population surveys have found that about half of those who experience a mental illness during their lives will also experience a substance use disorder and vice versa. Data show high rates of comorbid substance use disorders and anxiety disorders—which include generalized anxiety disorder, panic disorder, and post-traumatic stress disorder. https://www.drugabuse.gov/download/1155/common-comorbidities-substance-use-disorders-research-report.pdf?v=5d6a5983e0e9353d46d01767fb20354b
Please include anything that you think should be included in the strategy?	Preparing to support climate migrants. The community should ready its health system to support the mental health needs of Pacific climate migrants. “Pacific peoples, we are intimately entwined with the land and the environment and the moana, so when you do lose that or it has been impacted by natural disasters in any kind of way, or forced to relocate or migrate to another setting, one can expect that there will be some impact on mental health and wellbeing. With any population that is forced to migrate - with climate change induced migration – one would assume that in the new setting there are added stresses on top of leaving your home environment and that could be looking for a job, engaging in the ins and outs of the new country. Mental health disorders, those would be exacerbated ... things like Post-Traumatic Stress Disorder, loss of a sense of belonging and quite possibly identity issues.” – Dr. Jemaima Tiatia-Seath https://www.stuff.co.nz/environment/climate-news/300207718/ecotherapy-mental-health-and-the-climate-crisis
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the	There is already significant and growing awareness about the potential adverse environmental effects of climate change including the human health impacts, as outlined in the New Zealand Royal Society's 2017 Report: Human Health Impacts of Climate Change for New Zealand. What is evident is that adverse weather patterns, loss of land and livelihoods and displacement of people from their homes and communities will have devastating outcomes, particularly for the less privileged. Our response requires widespread adaptation and amelioration of effects. Uncertainty and lack of control will increase, and we know these are key factors in psychological disorders. There is growing psychological knowledge about the mental health outcomes of climate change. Clinician members of the New Zealand Psychological Society are already seeing emotional distress in clients that is being described in the international literature by terms as eco-anxiety, eco-paralysis, climate despair or solastalgia - a form of existential distress, commonly related to environmental change. However, psychological research also indicates that people are finding positive ways to cope. https://www.psychology.org.nz/public/climate-change References https://www.psychology.org.nz/public/climate-change

proposals please let us know why and provide any alternative options you may have:	https://www.researchgate.net/publication/270835783_Climate_Change_Psychological_Solutions_and_Strategies_for_Change https://www.royalsociety.org.nz/assets/documents/Report-Human-Health-Impacts-of-Climate-Change-for-New-Zealand-Oct-2017.pdf https://www.drugabuse.gov/download/1155/common-comorbidities-substance-use-disorders-research-report.pdf?v=5d6a5983e0e9353d46d01767fb20354b https://www.stuff.co.nz/environment/climate-news/300207718/ecotherapy-mental-health-and-the-climate-crisis
Supporting documents	Position-statement-on-alcohol-2019.pdf - Received
I would like to speak in support of my submission	No
Submission method	Online



Whanganui District Health Board

Position statement on alcohol

October 2019

Introduction

The following document is Whanganui District Health Board's view on alcohol and alcohol-related harm. It uses evidence and policies gathered locally, nationally and internationally to show where we stand on alcohol harm minimisation in our community and how we will help reduce it through our health services and promotion.

Alcohol in our communities

Alcohol is not an ordinary commodity (Babor, 2010). It is an intoxicant, toxin, and addictive psychotropic drug. Alcohol has been normalised and largely accepted by society, and causes more harm than any other drug in society (Nutt et al., 2010). Hazardous alcohol use contributes to large physical and mental ill-health, social, and economic burdens in New Zealand with impacts extending across sectors (Ministry of Health, 2016). Harm from alcohol extends beyond the individual and can result in harm to children (including those exposed to alcohol during pregnancy), whānau, friends, and the wider community (Connor et al., 2012).

In New Zealand, inequitable outcomes are apparent in men, Māori, young people, and those living in more socioeconomically deprived areas, who are all at higher risk of alcohol-related harm (Meiklejohn et al., 2012). The harmful health impacts of hazardous alcohol use in New Zealand are divided almost equally between injury and chronic disease relating to alcohol abuse in both inpatient and outpatient hospital services, and in primary care services in the community. Alcohol-related health conditions are not confined to the minority of people who experience alcohol dependence (The New Zealand Law Commission, 2010). Even low consumption increases the risk of some chronic conditions such as breast cancer (Key et al., 2006).

The following issues were identified in [Whanganui District Council's Provisional Local Alcohol Policy](#)

- 99% of respondents reported that Whanganui has too many or enough liquor outlets.
- Many respondents said there should be more control over where alcohol can be purchased in the community. 90% of respondents believe that there should be restriction on how close outlets that sell alcohol should be to preschools, kindergartens, primary and secondary schools.
- In 2014, 18.7% of residents (compared to the New Zealand average of 15.5%) identify themselves as a hazardous drinker.
- Whanganui's population is more prone to alcohol related harm (this is because 22% of the district's population identify as Māori, 7.4% are aged 18 to 24, and 39% experience high degrees of deprivation).
- When contrasting on and off-licence closing hours to Emergency Department (ED) presentations, more alcohol-related ED presentations occur in conjunction with the availability of alcohol and the closing times of on and off-licence outlets.
- Alcohol-related chronic disease admissions for the most part have been relatively steady across 2013 to 2015 for both discharge and patient counts.
- Deaths and injuries where alcohol was deemed a contributing factor are on the increase.
- In 2015, 45% of alcohol and other drug referrals have a diagnosis of Alcohol Use Disorder.
- Over the last five years, Police actions undertaken where a person is found intoxicated in public (drunk custodies) peak between 1am to 1:59am, coinciding with the final hour of trade for off-licences.
- Police data indicates that alcohol was a factor in 19% of all family violence cases attended during 2014/15 and 2015/16.
- Where there is a concentration of licences, and the relatively higher availability of alcohol (Central Whanganui, Whanganui East, Aramoho, Gonville and Castlecliff), there is also a higher frequency of violence events and drunk custodies than in areas where there is a lesser concentration of licences and relatively less availability of alcohol.
- 15% of the total vehicle crashes recorded for the Whanganui district in 2014 were alcohol-related.

WDHB Position statement on alcohol

1. We support a broad and comprehensive package of evidence-based strategies that prevent and reduce hazardous alcohol use and alcohol-related harm including:

- restricting the availability of alcohol
- increasing the minimum legal purchase age
- increasing the price of alcohol
- reducing alcohol advertising, promotion and sponsorship
- increasing drink driving countermeasures
- increasing treatment options for harmful alcohol use.

2. We support equitable access to appropriate healthcare services including assessment for hazardous alcohol use, brief and early intervention, and referral to treatment when indicated.

3. We support collection and reporting of alcohol-related health presentations within the Whanganui District Health Board (WDHB) region in a consistent manner and provision of assistance with regulatory issues, as required.

4. We support providing health promotion activities with a focus on addressing and reducing alcohol-related harm in the Whanganui District Health Board region through:

- working with Territorial Authorities (local councils) to develop and implement Local Alcohol Policies and other licensing issues
- making submissions to liquor licence applications and policies concerning alcohol. This requires that our Health Protection Service communicates with WDHB regarding new licence applications
- strengthening intersectoral collaboration and engagement to deliver coordinated alcohol-related harm reduction approaches and treatment strategies
- promoting awareness of alcohol-related harm before, during and after pregnancy to reduce the risk of Fetal Alcohol Spectrum Disorder
- supporting and encouraging research and evaluation to ensure interventions targeting hazardous alcohol use and alcohol-related harm are effective and equitable
- promoting alcohol harm reduction amongst WDHB staff, including education and services available for treatment and support
- choosing not to advertise and promote alcohol and not accepting sponsorship from alcohol companies.

Rationale for our position

Hazardous and harmful alcohol use is identified as a major contributor to inequities and is amenable to healthy public policy (Wilkinson et al., 2003). Each of the evidence-based strategies below is identified as an area for national action in the World Health Organization 2010 global strategy to reduce the harmful use of alcohol.

1. Equitable prevention of hazardous alcohol use and alcohol-related harm

- **Restricting the availability of alcohol**
Increased alcohol outlet density is associated with increased alcohol-related harm (Connor et al., 2011). Alcohol outlets are inequitably distributed in New Zealand with more alcohol outlets situated in socioeconomically deprived areas further contributing to the unequal distribution of harm (Hay et al., 2009). There is strong evidence pertaining to the beneficial effects of reduced trading hours on alcohol-related harm (Popova et al., 2009).
- **Increasing the minimum legal purchase age**
Young people are more vulnerable to alcohol-related harm than other age groups. Alcohol use during mid-to-late adolescence is associated with impacts on brain development (Luciana et al., 2013). Raising the purchase age reduces adolescent access to alcohol, reduces harmful youth drinking, and raises the age at which young people start drinking.
- **Increasing the price of alcohol**
Raising alcohol prices is internationally recognised as an effective way to reduce alcohol-related harm (Wagenaar et al., 2010). Policies that increase the price of alcohol delay the start of drinking, reduce the volume consumed per occasion by young people, and have a greater effect on heavy drinkers (Anderson et al., 2009).
- **Addressing alcohol advertising, promotion and sponsorship**
Alcohol advertising and promotion increases the likelihood that adolescents will start to use alcohol and drink more if they are already consuming alcohol. Advertising and promotion also makes it more difficult for hazardous users of alcohol to abstain (Thomson et al., 1997).
- **Drink driving countermeasures**
The risk of motor vehicle accidents increases exponentially with increasing alcohol consumption (Taylor et al., 2010). In New Zealand, it has been estimated that over a quarter of road traffic injuries across all road user groups involve alcohol. Laws setting a low level of blood alcohol concentration at which one may drive legally and well-publicised enforcement significantly reduce drink-driving and alcohol-related driving fatalities.
- **Increasing treatment options for harmful alcohol use**
The cumulative evidence from more than 100 randomised controlled trials conducted to evaluate the efficacy of brief interventions shows that clinically significant reductions in drinking and alcohol-related problems can follow from this kind of intervention (Babor et al., 2010). In addition to this, mutual help groups are often used as a substitute or as an adjunct to treatment and can have incremental effect when combined with formal treatment, and attendance alone may be better than no intervention.

2. Equitable access to appropriate healthcare services

Assessment, brief advice, and referral to specialist services when indicated in healthcare settings reduce hazardous drinking and alcohol-related harms (O'Donnell et al., 2014).

3. Collection and reporting of alcohol-related presentations on hazardous alcohol use and alcohol-related harm

Robust data is needed to accurately describe the burden from alcohol, inform decisions on what strategies and initiatives we need to develop and fund, and to support our community and partners in the sector with their alcohol data needs.

4. Continue to promote health activities with a focus on addressing and reducing alcohol-related harm in the Whanganui DHB region.

Health promotion is the process of enabling people to increase control over, and to improve, their health. Health is a positive concept emphasising social and personal resources, as well as physical capacities. Health promotion is not just the responsibility of the health sector, but goes beyond healthy lifestyles to wellbeing (Ottawa Charter, 1986).

Policy and legislation which supports our statement

The WDHB's position on alcohol in our communities has been developed in the context of the [National Drug Policy](#), which sets out the Government's approach to alcohol and other drug issues, with the overarching goal of minimising alcohol and other drug harm, and promoting and protecting health and wellbeing.

Additionally, the principles of Te Tiriti o Waitangi and the United Nations Declaration on the Rights of Indigenous Peoples mean comprehensive strategies must be developed to address longstanding inequities in alcohol-related harm between Māori and non-Māori.

The National Drug Policy

The policy frames alcohol and other drug (AOD) problems as, first and foremost, health issues. The policy aims to minimise AOD-related harm and protect health and wellbeing by delaying the uptake of AOD by young people, reducing illness and injury from AOD, reducing hazardous drinking, and shifting attitudes towards AOD.

Evidence-based strategies included in the policy are:

Problem limitation

- Reduce harm that is already occurring to those who use AOD services or those affected by someone else's AOD use through safer use, ensuring access to quality AOD treatment services, and supporting people in recovery.
- Protect the most vulnerable members of our community when it comes to alcohol-related harm including children and young people, pregnant women and babies (Fetal Alcohol Spectrum Disorder).

Demand reduction

- Reduce the desire to use AOD through education, health promotion, advertising and marketing restrictions, and influence conditions that promote AOD use.

Supply control

- Prevent or reduce the availability of AOD through border control, supply restrictions, licensing conditions and permitted trading hours.

The Sale and Supply of Alcohol Act 2012

This Act, which replaces the Sale of Liquor Act 1989, adopts a harm minimisation approach. Its adoption followed a lengthy review by the Law Commission which recommended greater restrictions to the sale and supply of alcohol. Compared to the previous Act, alcohol-related harm is more broadly defined as both direct and indirect harm to an individual, society or the community caused by the excessive or inappropriate consumption of alcohol. The Act provides for Territorial Authorities (local councils) to develop and implement a Local Alcohol Policy (LAP).

The aim of a LAP is to minimise alcohol-related harm through controlling the local availability of alcohol. Ideally, they should address local concerns and target inequities in alcohol-related harm. LAPs are drafted in consultation with the Police, alcohol licensing inspectors, and Medical Officers of Health, with community input.

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From: [Whanganui District Council](#)
To: banno@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Thursday, 11 February 2021 2:48:33 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	722021448213211
First name	Roger
Last name	Bannister
Email address	banno@xtra.co.nz
Postal address	29 A BRASSEY ROAD SAINT JOHNS HILL WHANGANUI 4500
Daytime phone number	021 626 937
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION

Please indicate your level of agreement with the following

I support the general direction of the draft Climate Change Strategy

Strongly agree

WHANGANUI DISTRICT COUNCIL DRAFT CLIMATE CHANGE STRATEGY The Council is to be congratulated on declaring an emergency last year. It is a public recognition of the impending impact of increased greenhouse gas emissions on our planet. More importantly it signals the need for urgent action to address the prospective impacts. I realise that the Strategy is a high-level and essential first step. For this reason, the lack of detail or specifics is acknowledged. However, I would encourage the Council and officers to be more specific and perhaps bolder in finalizing the Strategy and developing an Action Plan in short order. This is important to me because of the prophesied impacts on the planet ecosystem (birds, animals [including human species], plants, insects and marine life) and the implications for young and future generations.

Transportation The initiatives are strongly supported with the following comments; Alternative fuels – I'm not sure that WDC or the Whanganui community currently has the resources/capability to make progress in this area. However, supporting work in this area is laudable. There may be benefit, as with other initiatives in this category, to actively align with other entities and initiate such alignment/groupings, in order to make progress. Other entities may include adjoining councils or business enterprises – professional groups. Some detail around these proposed initiatives would be welcome, such as:

- how to improve public transport or which aspects require improvement,
- how to move towards ensuring sufficient EV charging stations are available
- how to increase rail

Please provide reasons for your response

transport. Which parties would we join with, what is an anticipated result?

Buildings Similar comments to the above, recognizing that this is an early strategy but given the current state/trend and the declaration of an emergency, one would hope the Council would move more quickly to add detail to some of the important headings listed in this section.

Agriculture Again the initiatives are strongly supported. The items relating to “encouraging farmers” and “develop plans forsustainable farm outcomes” would benefit from more specificity, even at a high level, such as with whom and what.

Leadership Strongly support but similar comments to above.

Whanganui District Council I again, strongly support the initiatives except I would question the idea of appointing a Climate Change champion. In light of the serious and wide spread or pervasive impacts, I would suggest it would be more appropriate that all staff, from the CE down (and including council sponsored organizations such as Whanganui Partners) be required to consider implications of climate change in each and every decision including policy options, rule/regulation development and expenditure. “Consideration” would obviously extend to documenting for public consideration, reasons, rationale and decisions. The document recognizes the need for support for some staff but it is suggested such support needs to be across the organization and its subsidiaries. A single champion may suggest or lead to responsibility being laid upon a specific position, whereas the responsibility to address these issues is organization wide. One possible small addition may be to review street lighting – does it use the least energy forms available? Thank you for consideration of these points.

GOALS AND OBJECTIVES

Please indicate your level of agreement with the following goals and their associated objectives.

<p>The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i></p>	
Please provide reasons for your response	
<p>The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i></p>	
Please provide reasons for your response	
<p>Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i></p>	
Please provide reasons for your response	
<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	

Which initiatives do you believe are important and should be prioritised within this action area?	
Building energy and urban form – Te hiko / hanaga whare	
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	
Why is this a concern for you?	
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [David Bennett](#)
To: [!Policy Submissions](#)
Subject: Climat change submission
Date: Thursday, 11 February 2021 3:06:08 pm
Attachments: [SC368R141221021115140.pdf](#)

CFYL.

What is not clear in the questionnaire, are what the Council plans with regarding to manufacturing industries? Many of us use raw materials or processes that are largely oil based, is it intended to close these businesses down so that they go elsewhere and do what they have always done, so that the air is clearer and the climate more settled just around Whanganui??

Sorry, I am totally cynical about climate issues, as I don't think we can do very much about global warming at all.

Kindest regards,

David Bennett ONZM. CA (Rtd)

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**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: polycysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy

Whanganui District Council

101 Guyton Street

Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: DAVID BENNETT

E-mail: dave@pacifichelmets.com

Postal Address: 21 Sandcroft Dr.

Whanganui Post code 4501

Best daytime contact number: 021 650 902

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☒ Yes I would like to speak in support of my submission (*please ensure you have completed the details above, including contact phone number*)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.



Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy					X
Please provide reasons for your response?	There is no climate emergency that this Council can in anyway affect.				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>					X
Please provide reasons for your response?	There is nothing we can effectively do to affect our climate one way or another				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauritia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>					X
Please provide reasons for your response?	Waste of time, money and effort, unless WDC intends to be really brave.				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>				X	
Please provide reasons for your response?	For at least 1.5 more generations, there is nothing that will show any benefit				

Thank you for your submission

The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i>					X
Please provide reasons for your response?	Please explain who the partners are and what this means				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Transportation – Eke waka					X
Which initiatives do you believe are important and should be prioritised within this action area?	Not your call, except as far as WDC owned vehicles				
Building energy and urban form – Te hiko / hanaga whare					X
Which initiatives do you believe are important and should be prioritised within this action area?	Again, this might become a national issue – wait till it is.				
Agriculture – Ahu whenua					X
Which initiatives do you believe are important and should be prioritised within this action area?	Mind your own business – agriculture operations are not in your brief				
Leadership and collaboration – Mahi tahi					X
Which initiatives do you believe are important and should be prioritised within this action area?	Almost no-body want WDC or mayoral leadership. WDC responsibilities are best described as the three 'P's.				

Thank you for your submission

What is your biggest concern with climate change?

I don't have any.

Why is this a concern for you?

I'm concerned only because a lot of people are unnecessarily worried. For at least 30 yrs (probably more) there will be no obvious climatic effects that we can influence

Have we missed anything that you think should be included in the strategy?

If you are serious, have a think about what climatic effect the W.D.C can influence. N.Z as a whole contributes about 0.25% of global warming. Assuming our regional population were 100,000 that would mean that our contribution on a population basis is about 0%.

Please use this space to provide further comments regarding the draft Climate Change Strategy.

Again, if you are really seriously concerned here are some steps to take:

- 1) Stop the use of cement for building & construction.
- 2) Stop tar sealing or bitumen on roads.
- 3) Sell all WDC vehicles & convert to E-bikes
- 4) Close the Glisht school & airport.
- 5) Don't expect to be re-elected if you took

these steps. Obviously Councillors won't but unless you take serious steps (assuming Global warming is only the result of human activity (not proven) all your other suggestions are just window dressing.

Thank you for your submission

OPTIONAL:

Have you submitted to Council before?

Yes ☒ No ☐

Gender: Female ☐ Male ☒ Gender Diverse ☐

Age: Under 18 Years ☐ 18 – 29 years ☐ 30 – 39 years ☐ 40 – 49 years ☐
50 – 59 years ☐ 60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper Aramoho) <input type="checkbox"/>	Marybank-Gordon Park <input type="checkbox"/>
Bastia Hill / Durie Hill <input type="checkbox"/>	Putiki <input type="checkbox"/>
Blueskin- Maxwell <input type="checkbox"/>	St Johns Hill / Otamatea <input checked="" type="checkbox"/>
Castlecliff (Castlecliff North, Castlecliff South, Mosston) <input type="checkbox"/>	Springvale (Springvale West, Springvale East, Mosston) <input type="checkbox"/>
Fordell-Kakatahi <input type="checkbox"/>	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate) <input type="checkbox"/>
Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West) <input type="checkbox"/>	Whanganui East (Williams Domain, Wembley Park, Kowhai Park) <input type="checkbox"/>
	Other <input type="checkbox"/>

Ethnicity: NZ European ☒ Maori ☐ Asian ☐ Pacific Peoples ☐
Middle Eastern/Latin American/African ☐
Other ☐

Thank you for your submission

From: [Andrew Watt](#)
To: [!Policy Submissions](#)
Cc: [Patrick O'Connor](#)
Subject: Whanganui Public Health Centre feedback for the Whanganui District Council; Climate Change Strategy/ Te Rautaki Huringa Āhuarangi.
Date: Thursday, 11 February 2021 4:17:12 pm
Attachments: [20210203_WDC_Climate_Change_submission\(final\).pdf](#)

Kia ora Jasmine

Attached is feedback from the Whanganui Public Health Centre on the draft climate change strategy.

Regards,

Andrew Watt

Health Protection Officer, Public Health Services

MidCentral Health | Private Bag 11036, Ruahine Street, Palmerston North 4442

Ph (06) 3509110 | Fax: (06) 350 9111

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"Quality Living - Healthy Lives"



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Feedback for the Whanganui District Council; Climate Change Strategy / Te Rautaki Huringa Āhuarangi.

To: Whanganui District Council
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Private Bag 11025
Manawatū Mail Centre
Palmerston North 4414
Email: policysubmissions@whanganui.govt.nz

From: Whanganui Public Health Centre
Contact person: Dr Patrick O'Connor
Address: Private Bag 3003,
Whanganui 4500
Phone: 06 350 9110
Email: patrick.oconnor@midcentraldhb.govt.nz;
andrew.watt@midcentraldhb.govt.nz.

Executive Summary

1. We commend WDC for this document, which is a good foundation for future expectations on local authorities, such as setting targets for district adaptation plans
2. We support the partnership approach taken in this document, and the incorporation of Maori whakatauki and matauranga
3. In the national context we note significant developments ahead such as the National Adaptation Plan, and the changes to the Resource Management Act, and we encourage WDC to have input where possible.
4. We have noted some matters of correction and clarification regarding statistics presented in the report.
5. We recommend acknowledgement of the source of information about Whanganui's carbon footprint.
6. We note that the minimum interim district mitigation target (pg 16) is taken directly from the Climate Change Response (Zero Carbon) Amendment Act (2019), and this source should be acknowledged.
7. We also note that a number of the objectives noted in the document are minimum requirements of the National Policy Statement on Urban Development 2020; this source should be acknowledged.
8. We agree with the focus areas and the goals.
9. As a strategy with both environmental and health benefits, we strongly support the promotion of active transport.
10. The objectives under goal 2 (Council as role model) could make specific reference to Council's intention to change to electric vehicles; it would also be of interest to know the percentage of the current vehicle fleet which is electric or hybrid.
11. We support the creation of a Climate Change Officer role within WDC and we note that Palmerston North City Council (PNCC) employs an Eco-Design Advisor who provides a free service for builders, architects, designers and residents on sustainable options and energy options for homes.
12. We have discussed health implications of climate change; one practical step the Council can take is to minimise the creation of mosquito breeding habitats.

Introduction.

Whanganui Public Health Centre is responsible for improving, promoting and protecting health of the community, pursuant to the New Zealand Public Health and Disability Act 2000 and the Health Act 1956. The statutory component of Public Health activity is carried out by the Whanganui Health Protection Team which is part of the MidCentral Public Health Service.

Human health is influenced by a wide range of factors beyond the health sector so we are grateful for the opportunity to submit. The Rākau Model incorporated in the Whanganui District Council; Climate Change Strategy/ Te Rautaki Huringa Āhuarangi reflects the interconnection of human health and the environment. The health effects of climate change are projected to become increasingly severe in the future, and threaten to undermine the last half-century of gains in public health and development.

We commend Whanganui District Council (WDC) for developing a draft climate change strategy and inviting public feedback on that strategy. We support development of a comprehensive strategy and its timely implementation. Horizons Regional Council note that The Regional Climate Risk Assessment is due to be completed by July 2021. The Draft Climate Change Strategy states that targets for district adaption plans are to be set upon completion of that assessment. We submit that given that the New Zealand Government has declared a climate emergency, WDC should prioritise the completion of district adaption plans with an ambitious timeframe. Developing the roadmap to meet climate change targets as outlined in the draft climate change strategy must also be a matter of urgency.

Even if the 1.5°C limit of pre-industrial level global average temperature rise is achieved as per the goal of the Paris Agreement, there will still be adverse public health effects for Whanganui District communities and residents attributable to climate change. Access and disruption to health services, contamination threats to potable drinking water, increased incidence of non-communicable disease, the potential emergence of arboviral diseases, food security, heat waves and extreme weather events are some of the impacts of climate change likely to adversely affect public health.

Modelling the effects of climate change is complex. Historical modelling has often underestimated the current measured impacts of climate change. The precautionary principle is regularly used in public health to provide a safety factor when quantifying risk and creating procedures or setting standards to mitigate risk. The Whanganui Public Health Centre recommend that Whanganui District Council use a precautionary approach when developing their climate change strategy given the variability of climate modelling. The climate change strategy will need regular review to incorporate new information such as changes in climate modelling to ensure it is fit for purpose.

Although recommending specific measures to reduce green-house gas emissions is not an area of expertise for Public Health Units, we strongly support actions WDC take to both reduce their own emissions and support individuals and communities to reduce their climate footprint by reducing their CO₂ and other greenhouse gas emissions. The severity and frequency of adverse health impacts increase with any rise beyond the 1.5°C limit goal of the Paris Accord. We thus support all efforts to reduce emissions that will help New Zealand meet its commitments under the Paris Climate Accord.

Errors, Clarification required in Draft Climate Change Strategy

There are two errors on page 13 of the document. The CO₂ footprint for

Whanganui notes the same amount of emissions for gross (excluding forestry) and net, including forestry, 779.736 tCO₂e. The AECOM report, 'Whanganui Community Carbon Footprint 2019' notes that Whanganui gross emission were 905613 tCO₂e, as noted correctly on page 14 of the Draft Climate Change Strategy.

The pie-chart on page 13 appears to mix up stationary energy and transportation as the text on page 13 notes transport as the second highest contributing sector followed by stationary energy though the pie-graph as stationary energy as 24% and transportation at 14%.

We also note that there is no reference provided in the draft strategy of the for the source of greenhouse gas emission profile or the likely impacts of climate change for Whanganui. We recommend that the source of this information, the 'Whanganui Community Carbon Footprint 2019' is referenced in the Climate Change Strategy for clarity.

We also recommend sources of information be acknowledged for the minimum interim district mitigation target (the Climate Change Response (Zero Carbon) Amendment Act (2019), and for a number of the objectives noted in the document (minimum requirements of the National Policy Statement on Urban Development 2020).

The Public Health Impact of Climate Change

Health impacts of climate change are already apparent worldwide. The WHO report, *Health and Climate change*, lists these impacts as:

- increased incidence of non- communicable disease such as cardiovascular disease
- injury due to extreme weather events
- spread of climate sensitive disease (such as dengue fever)
- changes to ecology leading to changes in water supplies, sanitation, ability to grow food
- increased levels of pathogens within foods/water ways
- increased risk of contamination due to extreme weather disrupting vulnerable infrastructure including disruption to health services.¹

Disadvantaged and vulnerable populations, especially coastal and agricultural communities are at higher risk of adverse health effects due to climate change. In New Zealand, the elderly, people with disabilities and low income groups are particularly vulnerable. Housing and economic inequalities make Māori particularly vulnerable.² Climate change adaption and mitigation strategy should priorities those groups at most risk of adverse health effects. The 2018 census notes that close to 25% of the Whanganui District's population are Māori compared to approximately 17% of New Zealand's population. Strategy developed with mana whenua will address the vulnerability of Māori to the adverse effects of climate change.

Public Health Issues Relevant to the Climate Change Strategy

Planning to adapt and creating resilience to climate change will involve addressing a number of issues that could adversely affect public health outcomes. Specific areas to address are listed below. Any specific recommendations are noted.

Transportation/ Access to Health Services.

Climate change is modelled to impact access to health services, especially for deprived communities.² Using public transport or other modes of transport apart from private motor

vehicles to access health services may become more of a necessity for communities in the future if levels of ownership or access to private motor vehicles drops. Improving public transport capacity and frequency to service WDC communities will improve access to health (and other) services should there be a decline in access to private motor vehicles.

Transport infrastructure may also be affected by sea level rise and inundation. We recommend that the climate change strategy should include long-term planning to ensure that transport routes remain usable as the effects of climate change continue to occur.

Although Horizons Regional Council (HRC) lead regional land transport and contracting passenger services, we support the inclusion as an action in the climate change strategy for WDC to work with Horizons to improve public transport.

Active transport has well established health benefits as well as creating minimal greenhouse gas emissions compared to petrol/ diesel vehicles. Improved mental health and reduced risk of disease such as cancer and cardiovascular disease are some benefits.³ We support the enabling and encouragement of active transport in the strategy. The inclusion of safe cycle and walking paths in new urban development or when current roading and transport networks are redeveloped or upgraded are initiatives that would support active transport. Active transport participation can be limited by road safety concerns, a lack of safe places to travel and poor urban design. Higher levels of walking and cycling occur with lower traffic volumes and reduced speed.³

We support the inclusion in the strategy both the enabling of CBD living and development of a growth plan that promotes more compact urban form and reduced travel requirements as a measure to mitigate future travel impediments.

We recommend inclusion of specific strategies to promote active transport:

- Appropriate separation of active and motor vehicle transport.
- Setting speed limits on secondary roads and the CBD to promote active transport.
- Connectedness of major active transport routes.
- Minimising or eliminating driveway crossing of foot or cycle paths in any new developments

Fresh and Marine Water Quality.

Climate change is expected to lead to increased exposure to waterborne diseases. Higher levels of evaporation and less rainfall in summer is likely to lead to increases in cyanobacteria growth if nutrient inputs into vulnerable catchments are not adequately controlled. Higher temperatures, more extreme rainfall events interacting with agricultural runoff is likely to decrease water quality and increase the risk of illness from waterborne diseases such as campylobacteriosis in both fresh and marine water. Rising sea temperatures may trigger marine toxic algal blooms.²

There are numerous private household water supplies in the district who source water through shallow bores or surface water takes that are prone to contamination. Small community and private supplies where water is untreated or receives minimal treatment are especially prone to contamination after heavy rainfall events.²

WDC climate strategy should include encouraging households who are not serviced by public water supplies to adequately protect their water supplies from contamination through source protection and treatment.

Lake Wiritoa and other coastal dune lakes in the district are prone to cyanobacteria growth. Small coastal streams such as the Mowhanau and Kai iwi streams currently have poor water quality. Both these streams have permanent warning signs located on them. Climate change may nullify current programmes to improve the water quality of these streams.

One of the kawa included in the draft climate change strategy, 'Ko au te Awa, ko te Awa ko au' acknowledges the inextricable connection between mana whenua, the Whanganui Awa and the environment. Climate change threatens to adversely impact water quality of the awa.

We recommend that the climate change strategy should include WDC working with HRC to improve water quality in the riverine and lake catchments within the district, especially the Whanganui Awa.

Increased Flooding, Coastal Inundation

Whanganui has areas of coastal land exposed to sea level rise/ inundation and storm tides.⁴ Parts of Whanganui city may be displaced by 2100. Storm tide events will cause displacement under all modelled scenarios in the NIWA report by the end of the 21st Century. Displacement is likely to most effect vulnerable communities and may lead to mental health issues and difficulty resettling.²

Increased inundation and flooding in inland and coastal areas due to climate change induced sea level rise and extreme rainfall events will expose communities to contaminated floodwater, create psychosocial adverse health effects as well as the acute risks to lives and property. There will also be increased pressure on storm water and wastewater systems, and infrastructure improvements may be needed.

The Whanganui water supply is sourced from secure bores and is not overly vulnerable to either supply or contamination issues due to the source and treatment. Although the source and water treatment system is unlikely to be vulnerable to the effects of climate change, parts of the reticulation system may be. Some water pipelines and water nodes are expected to fall into the coastal inundation impact zone in Whanganui, up to 32.5km exposed piping depending on the severity of sea level rise.⁴

Comprehensive planning for coastal or flood plain retreat or protection will be required based on the projections in the NIWA report by the end of the century.⁴ Comprehensive planning will also allow cost benefit analysis to be undertaken to identify areas where flood protection or other adaption is viable to protect communities.

We support provisions in the draft strategy to identify, understand and reduce climate change risk to existing building and infrastructure and to avoid building in areas prone or likely to be at risk of inundation.

Other possible actions to consider are:

- The assessment of flood, storm tide and coastal inundation on the sustainability of dwellings and buildings in flood and inundation prone parts of the district.
- Early engagement with communities and landowners prone to the increased likelihood of inundation or flooding.
- Planning to mitigate the effects of climate change as water infrastructure is maintained, upgraded or built. Increasing capacity or the resilience of systems as required.

- That potential health risks of any land use change or activities requiring Council approval in areas prone to inundation is assessed prior to approval of that activity or change.
- WDC working closely with Horizons Regional Council (HRC) to identify and advocate for appropriate adaption measures.

Outdoor Air Quality

Climate change is also likely to increase the length and severity of pollen seasons. Increased atmospheric CO₂ results in greater pollen production and will lead to an increase in the incidence of allergic illnesses. Studies have shown that allergenic potential of grass and pine trees increases with an increase in CO₂.² Minimising the exposure to pollens, especially from plants that produce pollen likely to affect allergy sufferers in urban areas could lessen the exposure to these allergens and adverse health effects.

The climate change strategy includes the Council's intention to increase tree planting. We recommend that WDC consider allergen potential when choosing which varieties of tree to plant.

Heatwaves/ extreme temperatures

Moderate increases in temperature beyond seasonal norms are associated with adverse health effects and even death. Most of the adverse health effects of excessive heat are preventable.⁶ Of concern to the WDC is that overall 'hot days' per year are modelled as being highest in the Whanganui coastal area as well as areas around Taumaranui.⁴ Factors that affect the health impacts of heat include day and night-time temperature, humidity and the duration of hot, humid weather.⁶

The elderly are most at risk of the effects of extreme heat. As the New Zealand population ages, the proportion of elderly (older than 65) will increase to approximately 25% of the population by 2043. People with mental illness are especially vulnerable to high temperatures and other groups such as pregnant women are also susceptible.⁶

Temperatures can also be higher in built environments compared to surrounding rural areas. Known as urban heat islands, these have been recorded having temperatures up to 10°C higher than adjacent areas.⁶ NIWA's report did not assess if Whanganui is prone to urban heat island effects. The heatwave risk to Whanganui is thus not quantified in modelling.⁴ Areas of high socio-economic deprivation are more prone to the effects of heatwaves as housing is less likely to include air-conditioning or heat pumps or residents may be unable to afford to use units if they have them.

Heat Health Plans, outlining the systems and actions in place to support the most vulnerable during heatwaves are an emergency management tool to mitigate the adverse health effects of heatwaves. Territorial Local Authorities and District Health Boards are responsible for preparing their own heat health plans. For rural communities, as the effects of drought disproportionately affect them, drought planning should inform heatwave plans for rural communities.⁶

The Ministry of Health's 2018 Heat Health Plans Guidelines provide high level guidance of heat health plan requirements. The link to that document is included in the reference section of this submission.

Buildings/ Urban Built Environment

Good urban and building design has the potential to mitigate some of the adverse health effects of climate change including, heat waves, as well as improve health outcomes for residents. Improvements in energy efficiency through insulating homes reduces CO₂ emissions and also has proven health benefits through reduced sick days for school children and adults and a decrease in hospital emissions.⁶ Good urban and building design can also reduce greenhouse gas emissions by increased building energy efficiency, reduced travel distances and promoting low or emission transport. Urban design is a key element to enable residents to reduce their emission footprint.⁵

Urban design can mitigate the adverse effects of heatwaves and extreme temperatures. Planting of trees and other vegetation, the inclusion of green spaces in urban areas and the cooling effects of evaporation from waterways are some examples of measures that can be applied to urban planning to help mitigate the impacts of heatwaves.⁶

We support the inclusion of the objectives in 4.2 and the proposed initiatives for energy efficiency and location and density development in the Draft Climate Change Strategy. To make those high level initiatives a reality, significant resource and expertise will be required to implement those initiatives and meet the objectives.

Palmerston North City Council (PNCC) employs an Eco-Design Advisor who provides a free service for builders, architects, designers and residents on sustainable options and energy options for homes.⁸ We recommend that WDC include the creation of such a position in the climate change strategy to create an in house resource to provide independent advice for residents and businesses.

We note that PNCC also support the Eco Advisor Website along with six other Councils. We recommend that WDC consider supporting that site as part of the climate change strategy.

We recommend that the Climate Change Strategy clearly references the relevant requirements of the National Policy Statement on Urban Design 2020 so that is clear that WDC is required to meet those aspects of that policy when making planning decisions.

Food Security

Weather pattern changes and sea-level rise will have direct effects on food production which can effect food availability and affordability both locally and globally.²

We support the development of a sustainable food plan. The creation of community gardens and planting fruit trees as part of greening council open spaces are small but practical measures to ensure food security.

New disease vectors

Globally, mosquito borne transmission accounted for approximately 348 000 000 cases of disease and 612 000 deaths in 2017.⁹

The species of mosquito who carry the mosquito borne diseases of the greatest public health concern such as *Aedes aegypti* are found primarily in tropical climates and are not established in New Zealand. Exotic disease carrying mosquito species are regularly intercepted at the New Zealand border. Increasing temperatures and mild winters and

changes in rainfall patterns increase the likelihood of exotic disease carrying mosquito species establishing in New Zealand. The establishment of such species increases the risk of local transmission of mosquito borne disease occurring and these diseases becoming endemic in New Zealand. ²

Mosquitoes breed primarily in shallow stagnant water or containers. Reducing or eliminating mosquito breeding habitat such as stagnant open drains is a planning measure that can be incorporated into flood protection and other works and urban development to minimise the creation of mosquito breeding habitat.

We recommend that minimising the creation of mosquito breeding habitat is included as a specific objective in the climate change strategy.

WDC Leadership

We commend the leadership role of Whanganui District Council, and we wish to highlight two ways in which this can be demonstrated. Firstly, the document acknowledges the move to electric vehicles, and the need for sufficient EV charging infrastructure. It would be good to acknowledge the leadership role that can be taken by large public organisations, such as WDC and the Whanganui District Health Board, in changing their own vehicle fleet to electric.

Secondly, we support the creation of a Climate Change Officer role within WDC. More than one position may be required to gain the skill set required to undertake the various requirements of that role as defined in the draft strategy, to provide education, advocacy and advice within Council and to meaningfully engage and promote required actions with the community. As a possible extension of these roles, we note that Palmerston North City Council (PNCC) employs an Eco-Design Advisor who provides a free service for builders, architects, designers and residents on sustainable options and energy options for homes.



Andrew Watt
Health Protection Officer
MidCentral Public Health

Patrick O'Connor
Medical Officer of Health
Whanganui

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12 February 2021

ROA 01 07
PAT:MLB

Climate Change Strategy
Whanganui District Council
PO Box 637
WHANGANUI 4541

Attn: Jasmine Hessel

By email only: polycysubmissions@whanganui.govt.nz

Dear Jasmine,

DRAFT CLIMATE CHANGE STRATEGY – FEEDBACK

Thank you for the opportunity to provide feedback on Whanganui District Council's (WDC) Draft Climate Change Strategy.

Horizons Regional Council (Horizons) has a key role in fostering a healthy, thriving region. Our responsibilities include managing the region's natural resources, flood control, monitoring air and water quality, pest control, facilitating economic growth, leading regional land transport planning and coordinating our region's response to natural disasters.

We have been privileged to work with WDC and other territorial authorities as we develop our understanding of the implications of climate change for our region. We are pleased to note that completion of the Regional Climate Change Risk Assessment (RCCRA), currently underway, has been recognised as a key priority in the Whanganui District strategy and will inform the district's adaptation responses.

We are aware that WDC has engaged widely in developing this strategy. The strong support from your communities, stakeholders and iwi and hapū is evident through the breadth of its scope: it is clearly the district's strategy rather than council's alone. Our impression is that it is an accessible document, which should enable community members to engage with the issues and the strategy's approach. The various components are generally well articulated and connected.

The national context section provides a clear overview of New Zealand's legislative framework, although parts have already been overtaken by recent developments. If there is still an opportunity to do so, you may wish to consider including some additional information about the Climate Change Commission's emissions budgets, particularly given the attention their 31 January 2021 draft advice has received. Similarly, it could be appropriate to mention that the Resource Management Act 1991 is being reviewed, with a replacement framework expected to include a new Managed Retreat and Climate Change Adaptation Act.

The local context, and the last paragraph of the national context describing local government's roles and responsibilities, could perhaps provide a clearer sense of the role of local government generally and WDC in particular in responding to climate change. This part

of the document could also mention the regional-scale collaborative framework for action on climate change – such as the September 2019 Memorandum of Understanding, and councils' commitment to form a joint committee to coordinate our response. We acknowledge that later sections provide some additional clarity about WDC's approach.

Finally, we have noticed some minor details that may assist with the clarity and consistency of the information presented. There appears to be an error in the figure for gross emissions (excluding forestry) in the figure headed 'Whanganui District's carbon footprint' on page 13; quantity in the supporting text is 906,613 tCO₂e emissions rather than 779,736. It may also be helpful to provide a link or reference to the source of this information so interested readers can easily find more detail. Similarly, the measurements for sea-level rise in the last graphic on page 15 are presented in the reverse order to other projections in the figure.

We commend the work you have done to produce this strategy, and look forward to continuing to work closely with WDC as we – together with iwi and our communities – respond to the challenges that climate change presents.

Yours sincerely



Michael McCartney
CHIEF EXECUTIVE



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: polycysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy
Whanganui District Council
101 Guyton Street
Whanganui 4500



YOUR DETAILS (please print your details clearly)

Name: Peter Allison

E-mail: pandc.allison@gmail.com

Postal Address: 8a Millward Street

Whanganui East Post code 4500

Best daytime contact number: 021 345 4325

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:

N/A

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☐ Yes I would like to speak in support of my submission (*please ensure you have completed the details above, including contact **phone number***)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.

☒ Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy					
Please provide reasons for your response?	<div></div> <div></div> <div></div>				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>					
Please provide reasons for your response?	<div></div> <div></div> <div></div>				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>					
Please provide reasons for your response?	<div></div> <div></div> <div></div>				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>					
Please provide reasons for your response?	<div></div> <div></div> <div></div>				

Thank you for your submission

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint</p> <p><i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i></p>					
<p>Please provide reasons for your response?</p>	<p>.....</p> <p>.....</p>				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Transportation – Eke waka					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>				
Building energy and urban form – Te hiko / hanaga whare					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>				
Agriculture – Ahu whenua					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>				
Leadership and collaboration – Mahi tahi					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>				

Thank you for your submission

What is your biggest concern with climate change?

There is ~~now~~ ^{no} perceptible "Climate Change"

Why is this a concern for you?

Because of the time and effort going into this. the misinformation (propaganda) being used to support this ~~and~~ spurious information to justify your "Climate Emergency Proclamation"

Have we missed anything that you think should be included in the strategy?

The North and South Poles have not reduced, apart from seasonal fluctuations. No dramatic rise in temperatures.

There is no sea rise happening at alarming rates or any measurable rate.

Please use this space to provide further comments regarding the draft Climate Change Strategy.

OPTIONAL:

Have you submitted to Council before?

Yes ☐

No ☐

Gender:

Female ☐

Male ☐

Gender Diverse ☐

Age:

Under 18 Years ☐

18 – 29 years ☐

30 – 39 years ☐

40 – 49 years ☐

50 – 59 years ☐

60 years and over ☐

Location:

Aramoho (Lower Aramoho, Upper Aramoho) ☐

Bastia Hill / Durie Hill ☐

Blueskin- Maxwell ☐

Castlecliff (Castlecliff North,

Castlecliff South, Mosston) ☐

Fordell-Kakatahi ☐

Gonville (Balgownie, Tawhero,

Gonville South, Gonville East, Gonville West) ☐

Marybank-Gordon Park ☐

Putiki ☐

St Johns Hill / Otamatea ☐

Springvale (Springvale West,

Springvale East, Mosston) ☐

Whanganui Central (Laird Park,

Whanganui Central, Whanganui

Collegiate) ☐

Whanganui East (Williams Domain,

Wembley Park, Kowhai Park) ☐

Other ☐

.....

Ethnicity:

NZ European ☐

Maori ☐

Asian ☐

Pacific Peoples ☐

Middle Eastern/Latin American/African ☐

Other ☐

Thank you for your submission

From: [Whanganui District Council](#)
To: bsimmo@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Friday, 12 February 2021 4:22:51 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	163021622215012
First name	Bill
Last name	Simmons
Email address	bsimmo@xtra.co.nz
Postal address	20 Dickens Lane Otamatea RD1 WHANGANUI 4571
Daytime phone number	0274798318
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Neither agree nor disagree
Please provide reasons for your response	I think council needs to first reduce the number of functions, people and assets it manages rather than re-jigger the existing overwhelming waste. The contracting out of many council functions and assets has created enormous energy waste and duplication. The international pilot academy is a contradiction in the objectives intended to meet climate change as are other energy hungry activities. We simply need to become less demanding and more modest in all of our expectations of council and council needs to be re-shaped accordingly.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Yes I think the retirement of lands likely to be affected by sea level rise and sensible planning decisions in future will be one of the critical first steps. Building design and energy efficiency using the carrot rather than the stick will also be important.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Disagree
	Council needs to follow an affordable path to reducing its carbon footprint in

Please provide reasons for your response	a structured and unhurried fashion. The ratepayer cannot afford for council to buy a fleet of electric cars but a few electric cars and an electric bus to pick up the 200 employees and take them to work each day would make a difference.
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	In an affordable manner, with regards also to social group status and the various cost to communities. Do not copy the current Government's unachievable rush to be carbon neutral because the community cannot afford it.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Disagree
Please provide reasons for your response	No I disagree. The council should take advice from all available valid sources and act in a stepwise fashion on that advise where proven gains will occur. Our Council does not need more staff or more functions. It is not here to lead Whanagnui on addressing climate change. That is more appropriately the role of the regional council - which should have been integrated by now with its districts.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Neither agree nor disagree

Which initiatives do you believe are important and should be prioritised within this action area?	Address all of the council functions and reduce the nice to haves. Encourage working from home. When the lockdown occurred, council was not seen and needed or important.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	This is a priority area that need to be coordinated nationally with the best advice available producing new building and energy codes that people can afford and that produce clear, proven benefits. It is not the job of one council
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	Re-establishing multi-tiered, biodiverse native forests where possible rather than blidling continuing to plant the monoculture of Pinus radiata. The adverse environmental effects of these exotics on soils, waters and wildlife are long lasting. Agriculture is the life blood of the district and must not be ham strung by rules around mitigating the effects of climate change. A carrot and not a stick must be used. Council should allow a more qualified organisation to lead climate change discussions with agriculturalist.
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	Council should note the importance of taking careful steps to mitigate the effects and reduce the rate of change but should not be a leader in this area. It should follow a national combined council path where learning and change can occur in a judicious fashion.
What is your biggest concern with climate change?	Several - Sea level rise, affordable energy alternatives, biosecurity and biodiversity, the marine environment, the increasing cost of council doing increasingly more things.

Why is this a concern for you?	Because I pay the rates and I see a growing council about to try and make a meal out of this. I fully expect we will see a climate change management rate added to our rates bill. This would not be justified.
Please include anything that you think should be included in the strategy?	A statement which says Whanganui will not act alone but will generally act according to proven and useful tactics that are adopted by others.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	I have already said that while addressing climate change is important, council should stop trying to play God and follow others on this rather thanperhaps putting a roof on the new port. There have already been too many unaffordable departures from councils priority functions and leading the response to climate change is not one of them.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: [marion.sanson](#)
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Friday, 12 February 2021 9:17:12 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	745022117211012
First name	Marion
Last name	Sanson
Email address	marionbsanson@gmail.com
Postal address	76P Virginia Road, Otamatea, Whanganui 4500
Daytime phone number	027 391 3866
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	60 years or over
Ethnicity	Other,Pakeha
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	It's good the way the strategy is drawing together a Maori and Pakeha world views to tell a story of how together we can respond to climate change in a way that we hope will mitigate serious impacts. It's about quality of life for all beings and things.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Climate change is going to bring more rain and severe weather events which are likely to produce flooding. Through zoning and other mechanisms the District Plan needs to encourage building in places on land that is not at risk of flooding. Land in river catchments needs to be returned to native bush to reduce run-off.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Council needs to promote a united community. One way WDC can help is by paying all its workers the Living Wage and extending the Living Wage out to contractors through the tendering process. This is one of the ways to ensure the burden of adapting to Climate Change is borne more fairly across the community.

<p>Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i></p>	Strongly agree
Please provide reasons for your response	Education and clear messages across multi-media so that everyone understands the rationale and urgency of what WDC is doing.
<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	Strongly agree
Please provide reasons for your response	Public bodies are accountable and have resources to use in this way.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encourage walking, cycling, public transport use through incentives and measures to encourage less use of petrol and diesel fuelled transportation. It would be great to see greater use of rail and less bulk transported by road. Heavy traffic makes walking and cycling less safe and attractive.
Building energy and urban form – Te hiko / hanaga where	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	It's good the Strategy is looking at the whole of life cycle for buildings from materials and construction to low energy and liveable to disposal at end of life. Also more compact urban design.

Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	A shift is needed away from cattle to lower-carbon emitting stock and horticulture.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	WDC paying the Living Wage so that the burden of adaptation is more fairly shared across the community. Work on building a resilient, caring community.
What is your biggest concern with climate change?	That we won't act in time and won't bring everyone along.
Why is this a concern for you?	We'll only succeed in mitigating and adapting if we do it together.
Please include anything that you think should be included in the strategy?	Reduction of use of nitrate nitrogen in the District. Council needs to have its own programme of planting native trees.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	The production and use of nitrate nitrogen fertiliser has a high carbon footprint. It's also a problem for our freshwater. Native bush is a carbon sink and has a cooling effect. Native bush creates microclimates and is a big help for ecodiversity.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	Yes
Submission method	Online

From: [Whanganui District Council](#)
To: jmcusack@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Saturday, 13 February 2021 1:03:13 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	057021303211213
First name	Janis
Last name	Cusack
Email address	jmcusack@xtra.co.nz
Postal address	
Daytime phone number	3458718
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	
Age group	
Ethnicity	NZ European
Location	Other
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	Looks like something needs to be done. Not keen on doing al lot.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	looks like we are compelled to do something in this direction but am not keen on putting a lot of time and/or money into it.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Agree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	A lot of us are already doing our bit. We do not want to be hit over the head with more rules and regulations thanks.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o</i>	Agree

<i>to tatau rohe</i>	
Please provide reasons for your response	So long as it's done sensibly with no excess pressure on people who are already busy keeping our economy working.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Reduce the number of trucks on the roads. Rail is a good option but it has to be efficient and not run by a bunch of no hopers like it used to be. Someone would have to look into this and upgrade their systems. Trucks still needed to take livestock etc to and from trains.
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Keep the usual option for those who want it, but encourage use of solar energy with subsidies available. Everyone should be conserving electricity; helps reduce the power bills.
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Keep all the animals! Work around other farm systems maybe but farmers already have more than enough pressures to conform. We need their expertise for our economy. Most of them are already doing their part. BE KIND TO FARMERS!
Leadership and collaboration – Mahi tahi	Agree
	Discussion and education are very

Which initiatives do you believe are important and should be prioritised within this action area?	important. No heavy handed roll outs without first finding what people are already doing! Make sure your education is based on scientific FACTS. Not Green Party politics(or any other poltics).
What is your biggest concern with climate change?	People who expect us all to buy/change to electric cars.
Why is this a concern for you?	Most of us do not have that sort of money. Only the rich kiwis can afford them. Also what happens to the batteries when they are no longer rechargeable?
Please include anything that you think should be included in the strategy?	Common sense so that options and recommendations are within the reach of average and below average income kiwis. Include what is ALREADY happening eg recovery centre in Whanganui and other initiatives. I would also find out and acknowledge what farmers are already doing with their land and livestock to help with climate change reduction..
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	As I said at the beginning I am noit a big fan of making changes to reduce climate change in NZ. Much bigger countries have a lot more to worry about than us.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: lu.mcdoo@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Saturday, 13 February 2021 7:12:17 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	347021912211613
First name	Lucy
Last name	McDougall
Email address	lu.mcdoo@gmail.com
Postal address	194 NO 3 LINE WHANGANUI EAST WHANGANUI 4500
Daytime phone number	0221884803
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	50 - 59 years
Ethnicity	NZ European
Location	Whanganui East (Williams Domain, Wembley Park, Kowhai Park)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	
Please provide reasons for your response	I am not commenting on any thing except regarding 5G (see below comments) that is missing in the strategy.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	
Please provide reasons for your response	
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	
Please provide reasons for your response	
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etahi atu ki te whakaiti i te tapuwae waro o</i>	

<i>to tatau rohe</i>	
Please provide reasons for your response	
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	
Which initiatives do you believe are important and should be prioritised within this action area?	
Building energy and urban form – Te hiko / hanaga whare	
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	
What is your biggest concern with climate change?	the lack of focus from central and local government on the impacts of the rollout of 5G.
Why is this a concern for you?	Evidence how destructive it is to the environment - please refer to uploaded flyer below.
	There should be a commitment from the Council to oppose 5G, by making it clear it is not acceptable from an

Please include anything that you think should be included in the strategy?	environmental (in this context) health and security perspective. Myself and Kristel Hepi did a deputation on it to the full Council meeting in October 2020.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	Please see the flyer uploaded below from the Environmental Health Trust (EHT) on 5G and Climate Change. It is a very serious issue that is not being considered by the WDC.
Supporting documents	5G-and-Climate-Change-Flyer-EHT.pdf - Received
I would like to speak in support of my submission	Yes
Submission method	Online

"The digital transition as it is currently implemented participates to global warming more than it helps preventing it. The need for action is therefore urgent."

- The Shift Project Report on the Environmental Impact of Information and Communication Technologies, 2019

Climate Change, 5G & the Internet of Things

Massive Increases in 5G Equipment = Massive Increases in Energy Use

Big Tech is Pushing 5G

5G requires millions of new cellular antennas called "small cells" (basically shorter cell towers) to be built in neighborhoods *directly in front of our homes*. These 5G antennas are to connect with billions of new wirelessly connected "smart" devices referred to as the Internet of Things (IoT). Researchers are warning us that the energy consumption of 5G and the IoT is projected to skyrocket.

5G is NOT Sustainable

The demand for technology is outstripping the increase in efficiency. The energy consumption will rise sharply due to the ever increasing IoT energy demands *at every stage of the lifecycle* of 5G equipment, from device manufacture to data centers to data transmissions, and networks.

5G is an Energy Hog

"A lurking threat behind the promise of 5G delivering up to 1,000 times as much data as today's networks is that 5G could also consume up to 1,000 times as much energy."

— IEEE Spectrum, 5G's Waveform Is a Battery Vampire

We must consider the environmental footprint of the digital ecosystem.

"Behind each byte we have mining and metal processing, oil extraction and petrochemicals, manufacturing and intermediate transports, public works (to bury the cables) and power generation with coal and gas. As a result, the carbon footprint of the global digital system is already 4% of global greenhouse gas emissions, and its energy consumption rises by 9% per year."

— Jean-Marc Jancovici, President of The Shift Project, member of the French High Climate Council

The digital version of this document is hyperlinked to online sources for more information. View all sources at EHT's Climate Change webpage ehtrust.org/climate-change-and-5g

70.2 million

"small cell" tower bases to be installed by 2025

500 billion

devices are expected to be connected to the Internet by 2030

8.9 billion

mobile phone subscriptions worldwide by 2024

60% increase

per year in production of wireless peripherals (Wi-Fi/Bluetooth speakers, appliances, wearables)

700%

increase in mobile data traffic globally projected between 2017 and 2022

"Smart" is Not Smart.**The push for all things wireless is the wrong direction.****5G Harms Bees, Trees and Birds**

Research finds bees and pollinators absorb between 3% to 370% more of the higher frequencies of 5G, leading the scientists to warn, "This could lead to changes in insect behaviour, physiology, and morphology over time..."



Research finds wireless frequencies interfere with birds' navigation systems and circadian rhythms, and can harm their development and reproduction.



Research finds trees can be harmed by the standard radiation emissions from antenna equipment. Effects include altered growth, thinner cell walls and adverse biochemical changes.

Damage to the Tree Canopy

Trees play a vital role in mitigating climate change, sequestering millions of tons of carbon that would otherwise pollute our climate. The installation of 5G equipment often requires heavy pruning and digging. This will obviously damage the canopy and root system of our trees.

"Wireless devices, antenna networks and data centers are consuming an ever-increasing portion of the global energy supply, based largely on coal..."

— "Re-Inventing Wires: The Future of Landlines and Networks"

"Our energy calculations show that by 2015, wireless cloud will consume up to 43 TWh, compared to only 9.2 TWh in 2012, **an increase of 460%**. This is an **increase in carbon footprint** from 6 megatonnes of CO₂ in 2012 to up to 30 megatonnes of CO₂ in 2015, the equivalent of adding 4.9 million cars to the roads. Up to 90% of this consumption is attributable to wireless access network technologies, data centres account for only 9%...

...wireless access networks are clearly **the biggest and most inefficient consumer of energy** in the cloud environment."

— The Centre for Energy Efficient Telecommunications, 2013

Solutions for fast, safe and secure internet connections do exist.

A national **wireline system** can guarantee a superior foundation of Internet access for everyone, unequalled connectivity speed, safety, privacy, security, energy efficiency and long-term sustainability.

Referenced Reports

- Engels, Svenja, et al. "Anthropogenic electromagnetic noise disrupts magnetic compass orientation in a migratory bird." *Nature*, 2014
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- The Shift Project, "Lean ICT: Towards Digital Sobriety: Report on the Environmental Impact of Information and Communication Technologies," February 2019
- Andrae & Edler of Huawei Technologies, "On Global Electricity Usage of Communication Technology: Trends to 2030," *Challenges* 2015
- Vertiv, "Telco Industry Hopes and Fears from Energy Costs to Edge Computing Transformation," 2019
- Timothy Schoechele, "Re-Inventing Wires: The Future of Landlines and Networks," *National Institute for Science, Law & Public Policy*, May 2018
- Baliga et al. of the University of Melbourne, "Energy Consumption in Wired and Wireless Access Networks," *IEEE Communications*, June 2011
- Morley et al., Lancaster University, "Digitalisation, energy and data demand: The impact of Internet traffic on overall and peak electricity consumption," *Energy Research and Social Science*, 2018
- The Centre for Energy Efficient Telecommunications at the University of Melbourne, "The Power of Wireless Cloud," 2013
- Shehabi et al., "United States Data Center Energy Usage Report," *Berkeley Laboratory*, 2016

From: [Whanganui District Council](#)
To: wjohn.henderson@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 8:34:33 am



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	673020834213214
First name	William JOHN
Last name	Henderson
Email address	wjohn.henderson@xtra.co.nz
Postal address	13 Kent Road
Daytime phone number	027315 1032
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION

Please indicate your level of agreement with the following

I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	<p>In the circumstances someone must lead the community response and provide both direction and focus to what positive actions can/are being taken. Leading by example is a good start but initiatives need to reflect the impact that particular actions may have on some sectors of the community and not impose additional hardship or burden on them which will create a need for greater support. e.g older people, disadvantaged groups, solo parents and those who have limited means. We need to remember that Climate change is a global issue, NZ is but a small contributor, and unless the big emitter Countries actually control their emissions the situation will get worse. The life of what is in the atmosphere now is long and savings and minimisation steps taken now will take some years to have any meaningful impact. Doing something may make us feel virtuous but in the end may achieve little. The emphasis must be on what can we do that will help the current and future generations more resilient to a situation which exists, may improve but in the long-term will remain for many years even if everyone globally does their bit - which is unlikely.</p>

GOALS AND OBJECTIVES

Please indicate your level of agreement with the following goals and their associated objectives.

<p>The Whanganui District becomes more resilient to the impacts of climate change</p> <p><i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i></p>	Strongly agree
	This should be a prime requirement both in the short and long term. I understand that the Council carried out

<p>Please provide reasons for your response</p>	<p>a Lifelines Study an number of years ago - this need to be revisited and planning initiated as soon as practicable to make issues identified are addressed. Lifeline studies in the past concentrated on infrastructure services such as water supply, wastewater systems, electricity, communications and the like but now must include hospital and medical services, food supply and medical supplies for example. Further the impact of incidents remote from the area must be considered as part of the evaluation of individual lifelines - how will the area cope if electricity supply from the National Grid is lost for a significant period of time, how will the community and individuals communicate if their phones don't work because phones cannot be charged, how will the community feed itself if links to the current remote bulk suppliers are lost for significant periods of time, is the wastewater system (both foul and stormwater) adequate and will it cope with a rise in ground water levels adjacent to the river, how will critical facilities such as the hospital and medical centres, water and wastewater pumping stations, Council services their contractors survive and remain operational in the event of protracted unavailability of electricity for example. Should we be looking at establishing more resilient sources of power locally (wind and solar) and become less dependent on a national system, should we be placing greater emphasis on local food supply and reduce the dependence on remote bulk suppliers such as Supermarket chains, are there alternative food production methods which can be developed to suit our evolving climate.</p>
<p>The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i></p>	<p>Strongly agree</p>

<p>Please provide reasons for your response</p>	<p>Not only should it be reducing its own carbon footprint but it should also be thinking about how it can be more resilient in light any future significant event, such as loss of electricity or communications or supplies of critical items from places beyond the region, for an extended period/s. What should be done if fuel supplies are not available for extended periods of time - does the City have any reserve supplies?.</p>
<p>Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i></p>	<p>Agree</p>
<p>Please provide reasons for your response</p>	<p>In principle this is obvious but not everyone is in a position to meaningfully do this without reducing their (and their dependents) ability to just survive. To say what needs to be done is easy - giving people the tools so they can meaningfully do it is also required. Further with greater emphasis being places by banks, supermarkets and retailers on on-line transactions thought needs to be given to how such services will be possible in the event of extended loss of power - computer systems need power as do laptops and phones (albeit using batteries and chargers).</p>
<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	<p>Strongly agree</p>
	<p>A regional response will be required for many issues to be sorted out to provided greater resilience. Development of additional and alternative food supply sources will require the best locations for it to be encouraged and developed, provision of local facilities and shops permitted allowing access without extended traffic, a public transport system using</p>

Please provide reasons for your response	renewable energy which has a timetable and cost which meets the future needs of a less mobile population and which will encourage use rather than individuals driving for example. Use of digital meetings would help minimise traffic. A regional approach to identifying possible renewable energy locations is also required - where can such facilities be established so as to minimise local and regional dependence on the national supply.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Vulnerable locations need to be identified and plans set up as to how any issues that present themselves can be dealt with expeditiously. Preferably mitigation measures should be taken now to avoid future issues. This should be particularly so on key supply routes not only from beyond the region but also within it.
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	Encouragement of renewable energy use by building owners and support of financing arrangements for them setting them up. Are there regional or areas where a communal approach may be possible and a more economic alternative - could a renewable energy facility be established to serve Turakina, Ratana or Waverley for example.
Agriculture – Ahu whenua	Strongly agree
	Identification of the locations within

Which initiatives do you believe are important and should be prioritised within this action area?	the region which are the best for particular crops and encouragement of landowners to grow them. A diversity of crops and food types should be looked at so as to reduce the dependence of the region on supplies from outside sources. Are there sites where hydroponic facilities and "vertical" farming could be established?
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	There should be close and formal links and consultation with Federated Farmers, renewable energy technology expertise perhaps through Massey University, locally owned Supermarkets to establish regionally based reserve supply sources, and with Social support groups so that the needs of all groups can be recognised in the development of strategies and actions.
What is your biggest concern with climate change?	Too much rhetoric and no meaningful action being taken
Why is this a concern for you?	Climate change is happening and even though what we do in New Zealand may have little impact in a global sense it does provide an opportunity for the community as a whole to work together and address what we can do to provide greater resilience for our community
Please include anything that you think should be included in the strategy?	See in comments above. A comprehensive Lifelines Study needs to be carried out including what have been regarded as traditional lifelines but now incorporating medical facilities and services, fuel supplies, alternative energy sources and food supply.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed	I don't disagree with any of the suggested responses. I do think that there should be less finger-pointing at the farming community which overall is probably contributing more to finding solutions than the general population for many of whom it still

with any of the proposals please let us know why and provide any alternative options you may have:	seems remote. However the time for rhetoric is over and meaningful action plans, with clearly identified time-frames identified, need to be prepared and started.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: judith.robinson.qa@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 10:37:29 am



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	924021037212814
First name	Judith
Last name	Robinson
Email address	judith.robinson.qa@gmail.com
Postal address	20/1 Guyton Street Whanganui 4500
Daytime phone number	063482369
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Female
Age group	60 years or over
Ethnicity	Other,Celtic
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	
Please provide reasons for your response	
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Essential for future generations
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Agree
Please provide reasons for your response	Obvious as a role model
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Small changes will make a difference
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Agree

Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>N.B. Why were these not numbered? Writing them out is time consuming to say the least!!!!!!!!!!!!!!!!!!!!!! I will give start of the sentence. *Provide travel efficiency *Work with Horizons R Council to *Encourage rail transport</p>
Building energy and urban form – Te hiko / hanaga whare	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>*Encourage solar energy *Support alternative more collective housing models eg Delhi village *Plant more trees..... *Encourage investment in waste reduction.....</p>
Agriculture – Ahu whenua	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	<p>*Develop a sustainable district food plan..... *Develop plans to identify sustainable productive.....</p>
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	<p>N.B This space is too small for all the initiatives. This needed to be clearer I feel. * investigate barriers to and support for sustainable..... *Advocate to promote change e.g. Transportation Waste reduction..e.g.</p>

What is your biggest concern with climate change?	The destruction of planet earth!
Why is this a concern for you?	!!!!
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	1. Public transport needs to be MUCH MORE USER FRIENDLY so that there is a vast reduction of private car use. 2. "Regenerative" farming practices have been promoted for decades (permaculture etc.) but the mainstream is only just cottoning on! The strategy should put more emphasis on this in the wording.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: megancrtr@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 1:43:51 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	397021343215014
First name	Megan
Last name	Carter
Email address	megancrtr@gmail.com
Postal address	30 Cornfoot St Castlecliff Whanganui 4501
Daytime phone number	0212800782
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	No
Gender	Female
Age group	60 years or over
Ethnicity	Other,Pakeha with a bit of Maori.
Location	Castlecliff (Castlecliff North, Castlecliff South, Mosston)
Would you be interested in being involved in further consultation opportunities with Council?	No

KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly disagree
Please provide reasons for your response	I suggest that it is a waste of ratepayers' money to devote time and effort into trying to make the slightest difference about a natural climate occurrence. A bit of time spent reading some unbiased science would be a better idea: https://co2coalition.org/ Many logical and clear articles. https://www.theblogmire.com/a-denier-explains-the-logical-fallacies-of-the-man-made-climate-change-hypothesis/ Have a read, think about it, and hopefully Whanganui won't be like sheep and follow the crowd. Thank you Meg
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly disagree
Please provide reasons for your response	Whanganui does not need to become more resilient, it needs to focus on helping it's inhabitants by making life run as smooth as possible and providing the essentials, plus encouragement to sports and arts.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly disagree
Please provide reasons for your response	Have no idea how the council reduces it's carbon footprint, and it's not important anyway. More importantly is

	reducing waste.
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly disagree
Please provide reasons for your response	Not everyone, as not everyone needs to address 'climate change', as in a 'climate emergency! Of course climates change over millions of years, so of course people need to be sensible what they do and where they live.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly disagree
Please provide reasons for your response	As stated before, what a waste of time, effort, and money. It smacks of grandstanding, sadly.
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly disagree
Which initiatives do you believe are important and should be prioritised within this action area?	Just provide normal services please.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	For a start, maybe delve into Nuclear energy - it's modernised amazingly since it was first used.
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are	Sustainable use of land, not massive,

important and should be prioritised within this action area?	water hungry, soil ruining use.
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	If Whanganui could possibly concentrate on sticking to its knitting, and stop looking for photo ops, power plays, old mythical, boring, irrational sops to collaboration...we would be better representative.
What is your biggest concern with climate change?	My biggest concern is the scare-mongering put out, and how my hard-earned money is supporting such nonsense.
Why is this a concern for you?	I don't like lies, waste, fraud and dumbness.
Please include anything that you think should be included in the strategy?	I bit of common-sense and council to study a science-based reason why our world does not have an emergency.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	As above
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: kbeautrais@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 4:39:16 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	559021639211514
First name	Keith
Last name	Beautrais
Email address	kbeautrais@gmail.com
Postal address	50 Watt Livingstone Rd RD 4 Whanganui
Daytime phone number	027 652 2289
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	Other,Pakeha
Location	Blueskin- Maxwell
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	The bicultural approach with community involvement and heavily informed by the science is a refreshing surprise from our WDC. I commend the writers.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	The writing is on the wall we have to
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Absolutely but we will have to see them walking the talk.
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Some may be better placed but as it affects all, all should act.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etahi atu ki te whakaiti i te tapuwae waro o</i>	Strongly agree

<i>to tatau rohe</i>	
Please provide reasons for your response	Ana, mahi tahi tatou.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Not sure about Hydrogen. Wait until there is some signs that this is feasible in the meantime going electric with a minimum of hybrid for a short transition period for the council. We cannot set the national direction but can show some leadership. I expect to see the mayor and councilors using electric bikes wherever possible.
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Integrate more trees into the built environment. Reduce the use of excessive heating and cooling of council owned buildings. We absolutely need to respect the flood zones, increase their scope and avoid repeating the waste of putting the Serjeant on the Quay and the i-Site within the 100 or 500 year flood zone given that we can expect those huge floods much more regularly.
Agriculture – Ahu whenua	Agree
Which initiatives do you believe are important and should be prioritised within this action area?	I don't see the WDC as being the right authority to do too much (more central and regional government) but we can get out and educate. Identifying and celebrating best practice and promoting regenerative agriculture perhaps by way of organising a conference and field days.

Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	All good but rather than following an Auckland or Wellington model let us get Whanganui community onto marae and co-constructing a bicultural response. Marae infrastructure is a great resource physically and for potential leaders.
What is your biggest concern with climate change?	Ecological damage accumulating to the point where the services nature provides in terms of healthy water, air and soils are compromised. Avoiding the collapse of the unsustainable economy.
Why is this a concern for you?	Obviously these are survival issues. That is why it is an emergency.
Please include anything that you think should be included in the strategy?	Our natural forest, wetland, and coastal ecology needs to be restored as fast as possible. The council needs to get stuck in.
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	As an educator, parent and grandparent I have a future-focus, so I congratulate WDC for saying the right things but we will all need to get stuck in. Community events and projects helped in past crises. Let's get that going again.
Supporting documents	File(s) not provided
I would like to speak in support of my submission	Yes
Submission method	Online

From: [Whanganui District Council](#)
To: earlyyearstoys@gmail.com
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 4:42:11 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	055021642211014
First name	Peter
Last name	Watson
Email address	earlyyearstoys@gmail.com
Postal address	76L Virginia Rd Otamatea
Daytime phone number	063450634
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	St Johns Hill / Otamatea
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	The situation has become so drastic through inaction for decades, even though we have known about the problems. The longer we leave things, the harder and more expensive it will be.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	The situation has become so drastic through inaction for decades, even though we have known about the problems. The longer we leave things, the harder and more expensive it will be.
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	This is essential for credibility if, as the plan includes, part of the challenge is communicating with citizens, and taking an active educational role
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	It is only fair, but this has to take into account different levels of wealth. eg those living in poverty have way less choices compared to those who are

	wealthy.
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i>	Strongly agree
Please provide reasons for your response	It is evident that the Council cannot achieve the necessary results, except in partnership.
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Education about the impact of choice of vehicle. Why do I see 4litre vehicles in our streets? For the average household, double cab utes and other large engine vehicles are completely unnecessary. Encourage people to sell their second household petrol or deisel vehicle and replace with an electric bike. Zero tolerance for use of Council footpaths and cycle lanes for parking these monstrous vehicles to promotote visibility/sales. In the past year I have made over 20 complaints to the Council about David Jones Motors, with absolutely nil change to their behaviour. Why? They continue to park their new vehicles on footpath and cycle lanes with total impunity. Why? If it continues, the vehicles should be towed away, fined the company and taken to court! Not to do so is collusion in promotion of more unnecessary SUVs!!
Building energy and urban form – Te hiko / hanaga whare	Strongly agree

Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	Finding ways to support local production of vegetables and fruit.
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	Appointing the necessary staff (ie more than one Climate Change Officer) to implement, and giving them a budget to achieve education about the issues and practical ways that individuals and households can make changes.
What is your biggest concern with climate change?	Many, perhaps most people don't see the importance of structural change that can only be made at the governmental level. The average citizen doesn't make the connection between their choices and the climate impact these choices have. "Convenience" for many people trumps every other consideration. Vested interests, (eg the cruise liner industry) get a disproportionate say in what is allowed and what is controlled in the interests of reversing climate change.
Why is this a concern for you?	Because these attitudes are a major cause of the current crisis.
Please include anything that you think should be included in the strategy?	Utilising the existing website that Auckland City created, called Sharewaste, that decreases the amount of greenwaste going to landfill through creating links within cities for people to find neighbourhood composting options. The structure is all in place - it just needs promoting!
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change	

Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	No
Submission method	Online

From: [Whanganui District Council](#)
To: rskilton@inspire.net.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Sunday, 14 February 2021 4:43:44 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	225021643214314
First name	Ross
Last name	Skilton
Email address	rskilton@inspire.net.nz
Postal address	141 Tayforth Rd R D 4 Whanganui
Daytime phone number	0272458066
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	NZ European
Location	Other
Would you be interested in being involved in further consultation opportunities with Council?	Yes
KEY ISSUES	

STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Agree
Please provide reasons for your response	Aim to decrease the impact of human population on Land water and air. Concentration should not be on CO2 and carbon as this limits the progress made on other pollutants.
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Climate change has always occurred but we are now putting more development in the way of natural hazards, so we need to plan for better mitigation of the effects on our built environment .
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Neither agree nor disagree
Please provide reasons for your response	
Everyone plays their part in addressing climate change <i>Ma tataua katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Agree
Please provide reasons for your response	Man/carbon based climate change is a failed hypothesis so our ability to influence it is very limited. Many other factors lead to change in this very complex system so relying on the output of simple models to predict future climate is folly.

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint</p> <p><i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o to tatau rohe</i></p>	Agree
Please provide reasons for your response	
<p>The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.</p>	
<p>ACTION AREAS</p> <p>Please indicate your level of agreement with the following action areas</p>	
Transportation – Eke waka	
Which initiatives do you believe are important and should be prioritised within this action area?	Use of liquid fossil fuels has powered our civilisation by providing cheap and convenient energy but we need to move to affordable alternatives in future so innovation needs to be encouraged.
Building energy and urban form – Te hiko / hanaga whare	Neither agree nor disagree
Which initiatives do you believe are important and should be prioritised within this action area?	
Agriculture – Ahu whenua	
Which initiatives do you believe are important and should be prioritised within this action area?	
Leadership and collaboration – Mahi tahi	
Which initiatives do you believe are important and should be prioritised within this action area?	
	My concern is that concentrating

What is your biggest concern with climate change?	solely on carbon use is a distraction from the real impacts of human population on our planet. We must not cripple or society financially trying to control the climate through a minor factor , it is more affordable to mitigate the effects on society and put more effort into reducing our impact on the environment in other areas.
Why is this a concern for you?	We need to increase our efforts to reduce pollution from particulates, heavy metals, radiation, plastics, and wasted plant nutrients in water.
Please include anything that you think should be included in the strategy?	
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	File(s) not provided
I would like to speak in support of my submission	Yes
Submission method	Online



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: policysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy
Whanganui District Council
101 Guyton Street
Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: GRAHAM + LYN PEARSON
E-mail: pearsons@bythebeach.co.nz
Postal Address: 9A Waitai Street
Whanganui Post code 4501
Best daytime contact number: 027 222 8378

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:
.....

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☒ Yes I would like to speak in support of my submission (please ensure you have completed the details above, including contact **phone number**)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.

- ☒ Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Climate Change Strategy Sub: 044

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy	✓				
Please provide reasons for your response?	<div style="border: 1px solid black; padding: 5px; margin: 5px;"> <p style="font-family: cursive;">Time for action so need a plan</p> </div>				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>				
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro</i>	✓				
Please provide reasons for your response?	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>				
Everyone plays their part in addressing climate change <i>Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi</i>	✓				
Please provide reasons for your response?	<div style="border: 1px solid black; height: 20px; width: 100%;"></div>				

Thank you for your submission

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i></p>	✓				
<p>Please provide reasons for your response?</p>	<p>.....</p> <p>.....</p>				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
<p>Transportation – Eke waka</p>					
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>..... See notes attached</p> <p>.....</p> <p>.....</p>				
<p>Building energy and urban form – Te hiko / hanaga whare</p>					
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>..... u</p> <p>.....</p> <p>.....</p>				
<p>Agriculture – Ahu whenua</p>					
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>..... ✓</p> <p>.....</p> <p>.....</p>				
<p>Leadership and collaboration – Mahi tahi</p>					
<p>Which initiatives do you believe are important and should be prioritised within this action area?</p>	<p>..... ✓</p> <p>.....</p> <p>.....</p>				

Thank you for your submission

What is your biggest concern with climate change?

To little, ~~to~~ late!

Why is this a concern for you?

We have been asking for
action for years

Have we missed anything that you think should be included in the strategy?

See attached

Please use this space to provide further comments regarding the draft Climate Change Strategy.

Thank you for your submission

OPTIONAL:

Have you submitted to Council before?

Yes ☒

No ☐

Gender:

Female ☒

Male ☒

Gender Diverse ☐

Age:

Under 18 Years ☐

18 – 29 years ☐

30 – 39 years ☐

40 – 49 years ☐

50 – 59 years ☐

60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper

Aramoho) ☐

Bastia Hill / Durie Hill ☐

Blueskin- Maxwell ☐

Castlecliff (Castlecliff North,

Castlecliff South, Mosston) ☐

Fordell-Kakatahi ☐

Gonville (Balgownie, Tawhero,

Gonville South, Gonville East, Gonville

West) ☐

Marybank-Gordon Park ☐

Putiki ☐

St Johns Hill / Otamatea ☐

Springvale (Springvale West,

Springvale East, Mosston) ☐

Whanganui Central (Laird Park,

Whanganui Central, Whanganui

Collegiate) ☐

Whanganui East (Williams Domain,

Wembley Park, Kowhai Park) ☐

Other ☐

.....

Ethnicity:

NZ European ☒

Maori ☐

Asian ☐

Pacific Peoples ☐

Middle Eastern/Latin American/African ☐

Other ☐

Thank you for your submission

Submission to WDC Draft Climate Change Strategy – Graham and Lyn Pearson
11 February 2021

Thank you for the opportunity to contribute to your strategy.

Congratulations, this is a tremendous step forward from four years ago when we were pointing out to WDC and Horizons that the words **climate change** were not even in the annual and 10-year plans!

Our special thanks to the WDC staff and cultural advisors who have put together the draft strategy and booklet.

Please note the typo on page 11. We believe it is the UN Framework Convention *ON* Climate Change.

And we would have appreciated explanations of all your acronyms.

The clear introduction and incorporation of the Whanganui Iwi perspective throughout the document is great, as we are all in this waka together. We are involved, through Sustainable Whanganui in the Whanganui Resource Recovery Centre, Run by a Trust of Tupoho, WDC and the community, and strongly feel that this model is the way forward.

We support the statement under Kote Awa te matapuna o te ora, as we believe we must protect the natural resources, so they are able to nourish future generations. But we feel this does not go far enough, because all our natural resources need support to RECOVER from our human induced devastations.

There is a local whakatauki which runs something like, “When Te Awa and waters are healthy, then the people are healthy.

The recognition of the Awa under Te Awa Tupua status at law sets out its Tupua Te Kawa, which must guide all decision making in respect of this River. These values have been described as the metaphysical and indivisible nature of the River; the intrinsic and inalienable place of hapu and iwi as the River; and community empowerment via collective obligation to work collaboratively for the River’s benefit. This should give Whanganui a place from which to lead with the inclusion of “indigenous natural law & value systems” mentioned in this document.

Values:

As well as responsibility, we need belief in the future of our region and its ability to support the people of our region. Encouragement to positively connect all people in the region.

The Whanganui community covers a full spectrum of socio-economic groups. therefore, the affordability of basic shopping and entertainment are important.

Recognising the importance of agriculture to our region and that it is a major emitter of greenhouse gases means development of new strategies for this sector are especially important. This is not only necessary on the land but also with the processing of agriculture products. We need to be discussing and establishing methods of change in these industries.

We support what Whanganui and Partners is doing on Regenerative Agriculture and Horizons in retiring erosion prone land. We think these are both important developments. Although there more structural changes that need to be discussed and implemented in this industry and forestry.

Possible Actions:

One of the things this city doesn't seem to have looked at yet is where people work and where the greatest groups of people go to and from work at the same times. This is vital in planning future public transport routes.

We endorse avoiding risks to housing and infrastructure by making Council planning decisions through a Climate Change lens with awareness of possible future natural adverse events.

Bulk buying installations and advise on building energy efficient buildings, for commercial building, new builds and all restorations could all be led and strategized by the Council.

Is there a role here for Whanganui & Partners ?

Would encouraging localised wind power, as well as solar power in rural areas help reduce rural areas reliance on the natural grid and the need for maintaining rural power lines ?

Please reduce waste pickups.

It is ridiculous that we have at least 3 waste trucks on all our streets each week.

If we add curb side recycling, there will be 4.

We know who pays for street maintenance, and the carbon burnt carrying it out !

Then of course there is the fuel these trucks use !

Can WDC take control here & offer us a really coordinated efficient system please ?.

We support all suggestions under Leadership & Collaboration section, pages 25-26, particularly becoming part of national schemes that give our poorer citizens warmer homes.

Under Strategic Priorities for WDC we think you need to add lots more about waste reduction activities such as opportunities to recycle in public places, education and opportunities to re-purpose and re-use. Coordinating such things is also important.

We think electric or even push bikes, should be added to the WDC vehicle fleet. If they can do this in the Tokyo Postal Service we should be able to do it here !

Promotion and explaining how using purchasing power can develop a Circular Economy and for reducing carbon, needs to be explained in future documentation as well.

We would like to know how Whanganui rates in the scheme that the Infrastructure Sustainability Council of Australia has. Are there opportunities for improving the sustainability of planning, design, construction, infrastructure, networks and assessments though this scheme ?

We believe Whanganui needs a Climate Change Officer supported by a team and funded to implement and education on all these activities immediately.

We strongly endorse the concepts necessary to support and implement community and Council decisions being made through a Climate Change Lens. Therefore, in future public discussions the diagram on page 12 needs to be reversed. So that when thinking of locations for sport, entertainment and shopping facilities we all need to be thinking about putting them into the local community and not centralising. For example, making sure local playgrounds are near enough to homes so that a person pushing a pushchair or walking a toddler has easy access.

We think everyone needs to feel involved, supported and provided with the means to make positive changes in their lives. As these changes are vital for the survival of humankind as we know it.

This makes system changes vital, otherwise we put an unacceptable burden on the individual members of society, setting them up to fail. It can start with youngsters helping plant a vegetable garden, a food forest or plants on our vulnerable dunes.

It is only when the economic value and importance of a healthy natural world is understood that the big societal changes necessary to cope with climate change can come into all our values, priorities, technology, economic, financial, and business systems. This is what we should be aiming for.



Head Office - 42 Reyburn House Lane, Whangarei 0110 Ph 021 922098
Email: secretary@socialcredit.nz Website: www.socialcredit.nz

DRAFT CLIMATE CHANGE STRATEGY - Submission to the Whanganui District Council

From: Social Credit NZ – Western Region. Mailing address: 8 Nixon St, Wanganui East

'We want to do it right' – Kym Fell, Council CEO (Whanganui Chronicle, 10-02-21)

Congratulations to Council for adopting a Climate Change Emergency policy. Even climate change sceptics must concede that the policy serves to focus attention on pollution, which is a prime cause of any anthropogenic contributions to changes in global temperatures.

What concerns Socreds in the draft strategy is the failure to (a) define the meaning of 'growth' and (b) to give some outline of funding intentions. There are so many negative aspects to 'growth' e.g. expanding prison populations or fighting forest fires. GDP growth does not distinguish between those economic activities and positive ones such education and farming. We prefer the phrase: economic development' which aligns with the draft plan's reference to a circular economy.

The key to proper funding for projects designed for adapting to or mitigating climate change lies in the prefix to the word 'economy'. "Eco" derives from the Greek word for good housekeeping: the careful use of resources i.e. sustainability. This is impossible to achieve if the neo-liberal insistence on debt-funding continues. Putting a burden of debt on our mokopuna requires stealing from the future to fund today's economic system. This can be easily avoided if ecological strategies are funded without interest, using credit-lines and grants from our sovereign Reserve Bank. Now that the Covid19 crisis has revealed the RBNZ's powers to create fiat money, Council could and should show leadership by demanding direct credit-funding (pourea pai) for any projects envisioned for the Strategy.

Wishing Council every success in implementing the Strategy. We wish to speak to the hearings. Thankyou.

Written for Social Credit Western Region by:
Heather Marion Smith, B.A., Dip.Soc.Sci.[Econ.]

Contact: heathermarionsmith24@gmail.com Phone: 06/344-1365

Feb 2021



**WHANGANUI
DISTRICT COUNCIL**
Te Kaunihera a Rohe o Whanganui

Climate Change Strategy

Submissions close 5.00pm Sunday 14 February 2021

Privacy statement: Please be aware when providing personal information that this submission form is part of the public consultation process. As such, this document (including contact details) will be copied and made publicly available. Personal information will be used for the administration of this consultation process and decision-making. All information will be held by the Whanganui District Council, 101 Guyton Street, and submitters have the right to access and correct personal information.

Online: You can complete this submission online at www.whanganui.govt.nz/Have-Your-Say

Email: polycysubmissions@whanganui.govt.nz

Alternatively, please return this form, or send your written submission to:

Climate Change Strategy

Whanganui District Council

101 Guyton Street

Whanganui 4500

YOUR DETAILS (please print your details clearly)

Name: *Cristhela deis Robson*

E-mail: *cleisrobson@gmail.com*

Postal Address: *28c College Street*

Post code *4500*

Best daytime contact number: *0204 0096 857*

Organisation: If you are completing this submission on behalf of an organisation please name the organisation and your role:

Oral submissions

If you wish to speak to Council in support of your written submission please tick the box below.

- ☐ Yes I would like to speak in support of my submission (please ensure you have completed the details above, including contact **phone number**)

Note: Hearings will be in early/mid 2021. If you have indicated that you wish to speak on your submission we will contact you to arrange a time.

If you would be interested in being involved in further consultation opportunities with Council please tick the box below and ensure your contact details have been completed.



Yes I would like to be involved in future consultation and am happy for you to retain my contact details.

Thank you for your submission

Please indicate your level of agreement with the following:

Strategic Direction	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I support the general direction of the draft Climate Change Strategy	✓				
Please provide reasons for your response?	Comprehensive overview but in a simple form of what is desirable and necessary. practice reinforcing reality of climate heating / climate change.				

Please indicate your level of agreement with the following goals and their associated objectives:

GOALS AND OBJECTIVES	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
The Whanganui District becomes more resilient to the impacts of climate change Ka manawanui te rohe o Whanganui ki ngā pēhitanga o te hurihuringa āhuarangi	✓				
Please provide reasons for your response?	preventing land, money, energy, human energy wastage, and ensure you transparently anchor in learning from mis-steps &				
The council leads by example, role modelling good practice and reducing its own carbon footprint Ka whakatauiratia e te Kaunihera ngā mahi tika ki te whakaiti i tōna ake tapuwae waro					
Please provide reasons for your response?	✓ Means money to create change needed. Not impactful, and mitigate events, as needed. Central govt needs to assist more too!				
Everyone plays their part in addressing climate change Mā tātau katoa e whai tikanga i ngā hurihuringa āhuarangi					
Please provide reasons for your response?	No room for personal egos, personal business, real estate concerns. Any councillor who doesn't fully acknowledge urgent need to act on climate issues is unfit for the job. They must be challenged at all levels, at all times. ✓ Remove politics and insert care for people.				
Please provide reasons for your response?	Councillors, Farmers, students, pensioners, Business owners, individuals need education. Not catchy and concise about minimising their waste streams. How to communicate complexity is key. We are not there yet.				

Thank you for your submission

<p>The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me ētehi atu ki te whakaiti i te tapuwae waro o tō tātau rohe</i></p>	✓				
Please provide reasons for your response?	<p>people developing skills to change peoples distress, inflex- ability and change what will it take this individual to change their mind and own practices what do they need? how much time to personal life of individual's own self interest (sadly)</p>				

The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.

Please indicate your level of agreement with the following action areas:

ACTION AREA	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Transportation – Eke waka					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>* please pedestrianize CBD main street and provide a shuttle services in AKS Queen Street in the past make it free. * Diesel has to go.</p>				
Building energy and urban form – Te hiko / hanaga whare					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>gas needs to be utterly gone although solar energy panel production and recycling is a massive carbon hit. Same with wind cycle blade recycling.</p>				
Agriculture – Ahu whenua					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>tree planting wetland restoration water source protection. Being kept informed of best science/practice in very accessible info. individual, family, business focus for benefits must be clearly stated. More tree planting needs to be mixed. carbon.</p>				
Leadership and collaboration – Mahi tahi					
Which initiatives do you believe are important and should be prioritised within this action area?	<p>Councillors must be educated and utterly contemporary in their thinking - Workshops from knowledgeable best practice individuals - at face to face opportunities where possible. Ewi must be full partners in this process.</p>				

Thank you for your submission

What is your biggest concern with climate change?

Decentralising effectively, community hubs, mixed housing estates or low carbon use of concrete - very globally warming.
Community gardens are essential in many suburbs, food waste must be minimised drastically!

Why is this a concern for you? Common sense!

A Green Book of Services - updated yearly

- ① First for food recycle sites/Businesses
- ② Building waste, Education First, then recycling to a dedicated site for Salvage
- ③ Whose to source them? Whoseware is the waste.

Have we missed anything that you think should be included in the strategy?

Why can't we buy more/some bread, fish, meat, fruit, veges without wasteful, polluting packaging. I could do most of this in malls in AK in 1989? We don't even have a Butcher in the main street to buy unpackaged, varied meat cuts in small quantities. Dedicated bakers, fruit and veg stops would enhance our boutique CBD look.
Solar energy - panel recycling is a huge issue. I believe a new material is in Education and adoption (with what we already have use, an overuse)
Hydrogen energy is not a goer for many countries. Why us?

Please use this space to provide further comments regarding the draft Climate Change Strategy.

Gift trees (by individuals) in our area to farms, mariland, individuals on a much larger scale. Connect the urban/rural community more.
I would happily donate trees as presents for family + friends at gift giving times, for community/official reasons to enhance our environment. In the Whanganui Region local growers could provide vouchers to buy. They could also be sold in supermarkets, garden centres.

What is Council's policy around whiteware, tech. built in absolute sense?
This problem needs seriously addressing nationwide from the production point of import.
And in relation to how Council buys products also.

Compost gardening, resilience workshops need to occur in the suburbs. The teacher goes to the students, decentralise and get community buy in.

Free buses on all weekdays and public holidays to increase community resilience and allow poorer families to participate in community events.

Grey water ideas
Potted small gardens.
How to keep houses cooler
Thank you for your submission
Tiny houses need to be allowed, not just traditional big builds, including tiny house communities designs.
In some countries better electric generation builds have been avoided by this type of education/promotion.
Page 4 of 5

OPTIONAL:

Have you submitted to Council before?

Yes ☒ No ☐Gender: Female ☒ Male ☐ Gender Diverse ☐Age: Under 18 Years ☐ 18 – 29 years ☐ 30 – 39 years ☐ 40 – 49 years ☐
50 – 59 years ☐ 60 years and over ☒

Location:

Aramoho (Lower Aramoho, Upper Aramoho) <input type="checkbox"/>	Marybank-Gordon Park <input type="checkbox"/>
Bastia Hill / Durie Hill <input type="checkbox"/>	Putiki <input type="checkbox"/>
Blueskin- Maxwell <input type="checkbox"/>	St Johns Hill / Otamatea <input type="checkbox"/>
Castlecliff (Castlecliff North, Castlecliff South, Mosston) <input type="checkbox"/>	Springvale (Springvale West, Springvale East, Mosston) <input type="checkbox"/>
Fordell-Kakatahi <input type="checkbox"/>	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate) <input checked="" type="checkbox"/>
Gonville (Balgownie, Tawhero, Gonville South, Gonville East, Gonville West) <input type="checkbox"/>	Whanganui East (Williams Domain, Wembley Park, Kowhai Park) <input type="checkbox"/>
	Other <input type="checkbox"/>

.....

Ethnicity: NZ European ☒ Maori ☐ Asian ☐ Pacific Peoples ☐Middle Eastern/Latin American/African ☐Other ☐

A form that can be filled in and pulled out beside relevant sections then placed in an envelope (Switching back and forth between info and submission) would have made my submission more comprehensive as pushed for time.

Thank you for your submission

Background

Whanganui city developed in the 1800's as the service town for a fertile coastal plain that could grow food and supply it to the rest of New Zealand using the Whanganui River, particularly when the West Coast ports became vital access during the various gold-rushes on the West Coast and Central Otago gold fields. The development of refrigeration and industrial dairy production in the late 1800's, along with the clearing and grassing of the Whanganui hinterland meant that Whanganui became New Zealand's 5th largest city in the early 1900's. The city's early prominence in N.Z. history, and the rich architectural and cultural heritage can be attributed to its success as a community developing its farming assets, processing meat, dairy products plus wool and timber exports to the rest of the country and the world.

What has changed? Whanganui is still largely a service centre for its agricultural and forestry hinterland. There are very few businesses in town that are not directly or indirectly a product of its agricultural heritage, even though better transport connections have changed the makeup of its industries. Even though the proportion of GDP directly attributable to agriculture is quite small, the reality is that most of the GDP created in the community is a flow-on effect from the people employed to service others employed or benefitting from the agricultural and forestry sector.

Consequently, Whanganui is somewhat dependent on the fortunes of those primary industries and has largely been shielded from the worst excesses of the outside catastrophes like the Global Financial Crisis and Covid-19 epidemic. The lockdown experiences for Auckland and Queenstown show that Whanganui has been relatively fortunate to have its agricultural heritage.

However that is about to change. The Government's haste to become carbon neutral has produced a flurry of legislation and rules that will hamper and cost farmers in the wider Whanganui region to the point that the city will be affected. Most farms in the region have a mixture of sheep and cattle which produce methane as a by-product of digesting plant cellulose contained in their pasture feed. Methane production is related to the quality of the feed consumed and varies slightly between animals, but cannot be eliminated, without removing the animals. While it has greater global warming potential than carbon dioxide, it is a short-lived gas, and is part of a cycle that has been around for thousands of years. In fact N.Z. has reduced its methane production since 1990, because farmers have improved efficiency, producing more lamb meat despite reducing sheep numbers. Some beef cattle have been replaced by dairy cattle, which because of the high production of milk, produce slightly higher methane amounts because they eat more but higher quality pasture.

The move to a carbon charge for methane production, and a higher value for carbon will directly impact farm returns in Whanganui, because farmers have no way of reducing their animal's methane emissions other than reducing stock numbers. Despite about 20 years of research by the NZ Pastoral Greenhouse Gas Research Consortium there are no magic bullets that will reduce a ruminant's methane gas production yet. It would seem extremely short-sighted to penalise food and fibre producers for producing a natural by-product, when the real cause of anthropogenic warming is continued use of fossil carbon fuels like oil and coal.

Likewise the new Climate Change Commission's report suggesting replacing hill country pastures on LUC Class VI and VII land with exotic pine forestry to provide a carbon sink is stupid. While it may store carbon for 20-40 years until it reaches maturity, it also releases carbon if harvested, necessitating a new crop to offset that additional carbon released.

Simply replacing pastoral farms with exotic or even native vegetation will not make a significant difference to the district's carbon balance but will substantially reduce regional income from farming, and food for export. Whanganui District is particularly vulnerable to this type of proposed land-use change given that it has the highest proportion of LUC Class VI and VII land in Horizons region, closely followed by Ruapehu D.C. and Rangitikei D.C.

Federated Farmers is concerned about the measuring and accounting for carbon and greenhouse gases, and the arbitrary nature of those accounting rules. In addition there are more modern accounting systems such as GWP* that make scientifically valid comparisons of the global warming potential of gases such as methane, that were not available at the time of the Kyoto Protocol signing in 1997. We urge the Council to revise the Draft Strategy to reflect the different characteristics of the main gases involved.

It may also be prudent to wait for the response of the Climate Change Commission to submissions to its draft report, before committing the Whanganui District to its Draft Strategy. Unless there were significant changes proposed by the CCC, there need not be too much delay to the June 2021 Hearings suggested in the Draft, or the Council might be forced to review the Strategy shortly after adopting it.

Key Recommendations

The Reporting of Different GHGs

The WDC Climate Change Strategy's methods used to report the different sectors contribution of GHGs must be consistent with those of the Central Government and the independent Climate Change Commission.

The Zero Carbon Act states that a split gas approach should be used that recognises the different contributions to global warming of long lived gases(CO₂ and N₂O) relative to short lived gases such as Methane(CH₄). Consistent with this, there have been separate targets set for these two different gas categories, Long lived gases to zero by 2050 and a 24% -47% reduction in methane.

The WDC strategy should report the two gas types separately, and each sectors contribution calculated for each gas type. This is consistent with the reporting and commentary in the Climate Change Commission February 2021 report.

With the strategy's current reporting, the wider Whanganui community could be excused to think that any of their mitigation efforts will be insignificant, since most emissions appear to come from livestock. Transport is the major contributor of CO₂, and decarbonising this sector is a key focus of the CCC report. Agriculture has the challenge of reducing its long lived gases, predominately N₂O.

This statement in section 3.1 on Biogenic Methane is incorrect on a science and national policy basis.

Biogenic CH₄ emissions are included in gross emissions due to their relatively large impact on warming relative to Biogenic CO₂. For example, farmed cattle produce Biogenic CH₄ emissions, via enteric fermentation, that are included in gross emissions.

The 24%-47% target for methane reduction in central government policy is an acknowledgment that biogenic methane emissions from stable livestock numbers has significantly lower contribution to additional global warming compared to long lived gases.

The correct approach is to report long lived and short lived gases separately, and state the respective reduction targets that have been set by central government.

Treatment of regenerating native vegetation

In the strategy the net exotic forest emissions are shown as an absolute value of Mtons CO₂e, whereas all other sectors are expressed as a percentage of gross emissions. Currently the net emissions from the exotic forestry sector are offset by the sequestration of regenerating native forest.

Forestry: Whanganui has a regenerative native forested area which includes Gorse, Broom, Manuka, Kanuka, Mixed Exotic Shrubland and Broadleaved Hardwoods. Regenerating natives occupy 30,535 ha with exotics occupying a further 22,453 ha of land. In total, 1,051,850 tCO₂e were sequestered by forests in Whanganui in 2019. Of the total sequestered CO₂, native forests sequestered 199,593 tCO₂e while exotic forests sequestered 852,257 tCO₂e in 2019. Forest harvesting releases carbon stored in forests in the form of carbon dioxide. Harvesting of forestry in Whanganui in 2019 produced 925,972 tCO₂e.

The 30,535 ha of regenerating native forest will predominately be on privately owned farmland, the vast majority will be marginal areas that have been retired on operational sheep and beef properties. Some of this retirement will have been initiated and supported through the Horizon's Sustainable Land Use Initiative. This sequestration is not a benefit from the commercial exotic forestry sector and should not be included in their sectors contribution.

It is justified that it should be allocated as a credit to the agriculture sector since the majority of this sequestration is occurring on operational livestock businesses. An alternative would be to show it as a separate sector namely Land Use Change, and it could be expressed as a volume of CO₂ sequestered. Separating regenerating native would mean that forestry emissions could be represented as a positive or negative % of total gross long lived gas emissions, this a consistent metric that is used across other sectors.

Other Strategy Comments

1. Draft Plan of Possible Actions

Transportation Roading

Alternative fuel options

Heavy vehicle / Construction or Earthmoving Equipment / Tractor / Harvesting Equipment / Farm transport are unlikely to be powered by battery or EV technology. District infrastructure and District Plan provisions will have to include hydrogen (or other propellant) storage and dispensing options.

Define what "active" transport is.

2. Buildings

Would "encourage" include subsidies from other ratepayers? What are the implications for Long Term Planning?

3. Leadership and Collaboration

Would “reducing Development Contributions” and “targeted rates schemes” include subsidies from other ratepayers? What are the implications for Long Term Planning?

4. Whanganui District Council

Staff

Should Council need to employ a dedicated Climate Change Officer? Would it not be more cost effective to engage outside specialist resources as needed to educate and advise or train staff as required?

5. What you can do about Climate Change

Reduce, reuse and recycle

Would not composting create avoidable methane gas production? Shouldn't green waste and food waste be recycled in a biogas digester (perhaps with solid waste emissions) and utilised as useable/saleable biogas?

Many of these suggestions are not WDC Strategy specific and could be applied on a national basis. Federated Farmers sees serious risk of duplication (and consequent waste of resources) amongst 74 Territorial Authorities, when much of this could be implemented nationally, and with considerable cost savings to local Councils.

ADDITIONAL INFORMATION FROM FEDERATED FARMERS OF NZ

- 2.1 Federated Farmers of New Zealand welcomes the opportunity to submit to the Whanganui District Council on The Climate Change Strategy
- 2.2 Federated Farmers and our farming members take climate change very seriously and are keenly aware of the need to meet the challenges posed by this wicked problem. This includes, mitigating the impacts of primary production on New Zealand's emissions profile. For farmers it involves balancing a fundamental requirement for food and fibre production, a requirement to reduce the warming from our emissions and the need to prepare for the potential future impacts caused by a more variable and changing climate.
- 2.3 Food production is, however, also an essential process that cannot be sacrificed. For those products we produce, New Zealand is comparatively a low emission producer – and New Zealand farmers are confident they can continue to improve production systems if given the chance.
- 2.4 Federated Farmers supports New Zealand playing its part in addressing climate change by pursuing action consistent with the goals of the 2015 Paris Agreement, including recognising the fundamental priority of food production. New Zealand farmers are world leaders in the highly efficient production of safe, protein-dense, and low-emissions food. Per kilogram of product, New Zealand sheep meat is twice as emissions efficient as the global average, our dairy milk is over three times as emissions efficient, and Kiwi beef is over four times as emissions efficient.

- 2.5 Demand for New Zealand livestock-based products (such as red meat and dairy milk) is strong and remained high throughout the COVID-19 pandemic. Any reduction in New Zealand food production will be replaced with often subsidised production in countries that have higher emissions per unit of output. This concept is termed “emissions leakage” and must be avoided, as it will result in increased global greenhouse gas emissions, decreased global food security, and decreased economic growth in New Zealand.
- 2.6 When taking action mitigating emissions in New Zealand, it is important to recognise not only the need for global food production and the impressive emissions efficiency of New Zealand products, but also the fundamental difference between:
- Short-lived biological emissions, which involve the short-term recycling of carbon between various states (such as those produced from growing plants and livestock) and,
 - Long-lived fossil emissions, which involve the effectively permanent conversion of solid and liquid forms of carbon (such as coal and oil) into atmospheric carbon dioxide.
- 2.7 Federated Farmers was pleased the *2019 Climate Change Response (Zero Carbon) Amendment Bill* implemented a split-gas approach for New Zealand’s emissions reduction targets. This split gas approach recognises the fundamental differences between biogenic methane and other GHG and the inability of the current GWP₁₀₀ metric to account for these differences.
- 2.8 Under current inaccurate GHG accounting methods (which rely on GWP₁₀₀) methane is reported to comprise 78% of the total warming from the agriculture sector.¹ For this reason, it is critically important that biogenic methane is reported in a manner that accurately reflects the best available science on the GHGs radiative impact, by either using an improved metric (such as GWP* or CO₂we) or by using a split gas approach (as taken for New Zealand’s domestic emissions reduction targets).
- 2.9 Federated Farmers was closely involved in the development of, and is a signatory to, the historic *He Waka Eke Noa Primary Sector Climate Action Partnership*. This industry-driven commitment was accepted by Government in late 2019 and Federated Farmers has since been an active member of the co-development process. This partnership is working on ways to equip farmers and growers with the knowledge and tools they need to reduce emissions, while continuing to sustainably produce quality food and fibre products for domestic and international markets.
- 2.10 He Waka Eke Noa includes collaboration on the detailed development of an appropriate farm gate emissions pricing mechanism by 2025. The Climate Change Commission has been asked to assess progress under *He Waka Eke Noa* and provide this no later than July 2022. It is important to Federated Farmers that any pricing

¹ The 2018 New Zealand National Greenhouse Gas National Inventory (the latest year in which

mechanism developed through *He Waka Eke Noa*, is consistent with our emissions pricing principals, namely that;

- Pricing occurs at the margin for methane (where additional warming occurs) and not on the inaccurate GWP₁₀₀ value.
- Pricing exclusively occurs to incentivise the use of a cost-effective mitigation tool that is available, with regulatory approval, to farmers.
- New Zealand farmers are not put at a disadvantage to our main international competitors. Any reduction will be replaced with production in countries that have higher emissions per unit of output, and often subsidised. This is known as “emissions leakage” and results in higher greenhouse gas emissions and higher food costs.

2.11 Federated Farmers is concerned that some councils may be considering undertaking, or being encouraged to undertake, actions to manage agricultural emissions, especially methane and nitrous oxide. By doing so these councils could end up acting prior to the completion of work under *He Waka Eke Noa* which would be at best duplicative and at worst would undermine this work.

2.12 Federated Farmers would like to meet to discuss this submission further.

3. THE APPROPRIATE ROLE FOR LOCAL GOVERNMENT IN CLIMATE CHANGE

- 3.1 Federated Farmers urges councils to stick to focusing on ensuring their regions can best adapt to the expected impacts of climate change and to only seek to mitigate emissions which they are directly responsible for. They should not seek to manage emissions that they have little ability to effectively influence and are already subject to considerable work at a central government level and, with respect to agricultural emissions, being managed in partnership with Iwi/Maori, and the agricultural sector under a historic partnership approach.
- 4.2s While there is undoubtably a need to mitigate GHG in all sectors of the economy in New Zealand (including agriculture), there is also a need to ensure that New Zealand can better adapt to the expected impacts of climate change.
- 4.3 The complex impacts of climate change will vary widely between regions in new Zealand, with some expected to experience hotter drier climatic conditions while others are expected to become colder and wetter. These expected localised impacts of climate change make it appropriate for local government to consider how best to adapt to the expected impacts of climate change in their region when preparing district or regional plans and other local government regulatory processes.
- 4.4 Mitigation and adaptation policies should not be considered independent of each other, While Federated Farmers supports New Zealand playing its part and transitioning the economy to one that is warming neutral by 2050, this must be done in a manner that enhances the ability of rural communities to adapt to the potential impacts of climate change. Bridging this gap and ensuring regional adaptation factors are adequately considered when national GHG mitigation policies are being designed is an area in which local government is required.
- 4.5 Federated Farmers is concerned that climate change mitigation and adaptation policies are being viewed in a silo to the detriment of rural communities. One prominent example is policies that have incentivised the rapid blanket afforestation of productive sheep and beef farms on the East Coast of the North Island while not adequately factoring the predicted increased fire risk that will result from climate change potentially making the region hotter and drier.
- 4.6 Another example of the siloed nature of climate change policy in New Zealand is a reluctance to support, or even to enable, infrastructure projects that improve community water security and generate renewable hydroelectricity. Water storage infrastructure projects have the potential to mitigate emissions (by producing renewable electricity) and to improve New Zealand's ability to adapt to the impacts of climate change by enabling communities to resiliently store water during times of plenty and draw upon reserves during time

- 4.7 If local government wish to mitigate GHG emissions, the focus should be on doing so in the areas in which they have direct control. This may include ensuring that council buildings are properly insulated, electrifying council vehicles and providing affordable low emissions public transport.
- 4.8 The mitigation of GHG emissions at a national level is being guided by the newly established Climate Change Commission, central government ministries, industry peak bodies and non-governmental organisations (NGOs). Developing regional climate plans in isolation of these organisations risks duplicating or undermining these processes.

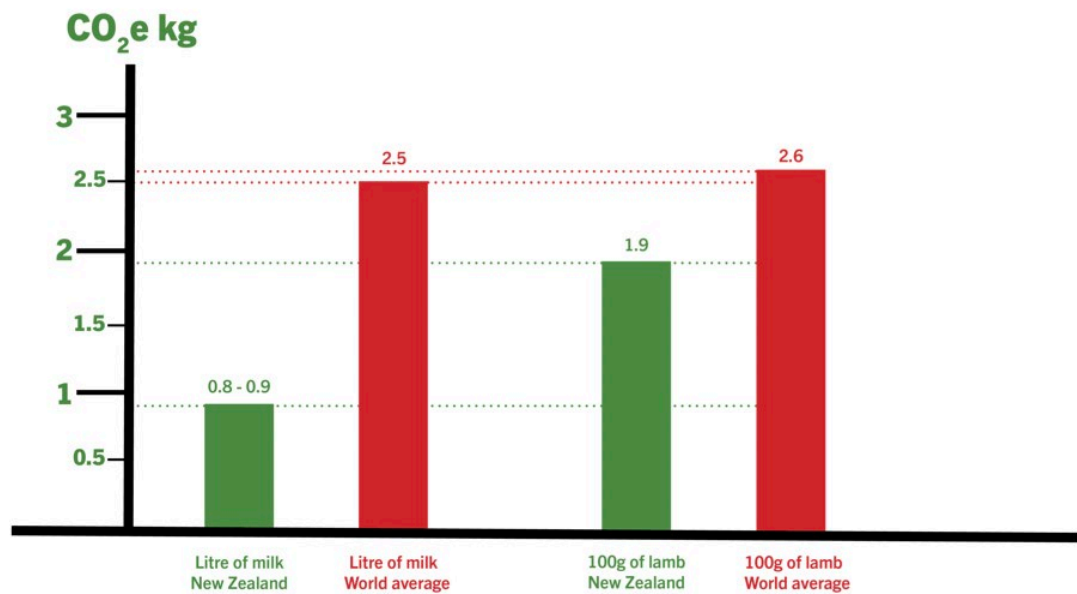
4. ACTION BEING TAKEN ON AGRICULTURAL EMISSIONS

- 4.1 New Zealand farmers want to play their part in tackling greenhouse gas emissions. They are prepared to work hard to do their fair share and Federated Farmers support the agricultural sector achieving the goal of becoming warming neutral by 2050.
- 4.2 New Zealand farmers are proud to be amongst the most efficient producers in the world and, unlike many of their overseas competitors essentially stand on their own two feet, largely unsubsidised by consumers (by way of inflated prices) or taxpayers, and they have done so for over 30 years. The unsubsidised nature of farming in New Zealand has resulted in farmers becoming economically and emissions efficient. The impressive emissions efficiency of New Zealand milk and lamb meat is demonstrated in the graph below.²

² Climate Change and the Global Dairy Cattle Sector: The role of the dairy sector in a low-carbon future, the Food and Agriculture Organisation of the United Nations and the Global Dairy Platform Inc, Rome 2019, pp.26

Clune, Stephen, Enda Crossin, and Karli Verghese. "Systematic review of greenhouse gas emissions for different fresh food categories.

Ledgard, S.F., Chobtang, J., Falconer, S.J. and McLaren, S., 2016. Life cycle assessment of dairy production systems in New Zealand, Integrated nutrient and water management for sustainable farming. (Eds L.D. Currie and R.Singh). <http://flrc.massey.ac.nz/publications.html>. Occasional Report No. 29. Fertilizer and Lime Research Centre, Massey University, Palmerston North, New Zealand. 8 pages. 1 LIFE CYCLE ASSESSMENT



- 4.3 Far from being satisfied with this impressive emissions efficiency, since 2003 the Pastoral Greenhouse Gas Research Consortium (PGGRC) has directed about \$75 million of industry and Crown funding to the challenge of lowering New Zealand agricultural emissions, including by attempting to decouple the relationship between the feed consumed by a ruminant animal and methane produced. Much valuable knowledge has been gained, but the program has yet to be successful.
- 4.4 This cutting edge research is also being supported by an ambitious co-development policy framework underway. In October 2019, government agreed to work with the primary sector and iwi/Māori to equip farmers and growers with the knowledge and tools they need to reduce warming from GHG emissions, while continuing to sustainably produce quality food and fibre products for domestic and international markets. This work involves designing a practical and cost-effective system for reducing the warming from GHG emissions at the farm level by 2025. It also includes designing an appropriate farm-level pricing mechanism building on the principles set out in *He Waka Eke Noa Primary Sector Climate Action Partnership*.³
- 4.5 Federated Farmers is concerned that councils may be considering undertaking, or being encouraged to undertake, actions to manage agricultural emissions, especially methane and nitrous oxide. By doing so councils may end up acting prior to the completion of work under *He Waka Eke Noa* which would be at best duplicative and at worst could undermine this work (along with other work underway at a national and international level).

³ <https://hewakaekenoa.nz/about/#sec-story>

From: [Robin Williamson](#)
To: [!Policy Submissions](#)
Subject: Draft Climate Change Strategy feedback
Date: Sunday, 14 February 2021 4:55:41 pm

Thank you for the opportunity to submit to the Climate Change Strategy.

I consider emphasis should be placed in two main areas:

1. Road transport - reducing petrol cars on the road. Create incentives for bicyclists, establish a fleet of electric buses/shuttles for greater public transport use.
2. Food resilience: encourage more green spaces for market-gardens in the suburbs and sharing of produce. This will increase Whanganui's resilience in event of climate emergency.

Ngā mihi
Robin Williamson

From: [Graham Feist](#)
To: [!Policy Submissions](#)
Subject: Submission to Climate Change Policy.
Date: Sunday, 14 February 2021 10:40:12 am
Attachments: [Climate Change.pdf](#)

Greetings,

I wish to make a submission to the Climate Change Policy of the Whanganui District Council.

This submission is in 2 parts.

Part 1:

As the current Whanganui District Council believes in anthropogenic CO₂ climate change then these questions need to be asked:

As the belief is that anthropogenic CO₂ is caused by humans, why is the Council promoting population growth? More humans – more CO₂ – more warming.

Increased sea levels are part of this philosophy so why has the Council actively promoted the building of apartments in the former Chronicle building on Taupo Quay? When the river floods big-time this building gets surrounded with water.

There should be an active policy to have all infrastructure at least 8 metres above the current sea level.

These factors are contradictory to the policy.

Part 2:

My belief is that the theory of anthropogenic CO₂ climate change is a nonsense because it is direct conflict with the geological evidence. Whanganui sits on a world icon geological site that contains the world's most complete climate change record. Humans can't influence the climate and that the climate is totally outside of our control.

This makes the Whanganui District Council's Climate Change Policy in the current format a meaningless document.

The attached document contains my reasoning for this belief.

My belief goes against the popular belief of most people but this does not make me wrong. What it does say is that the majority are incapable of questioning what they are told. The news media are adding to this by refusing to publish anything that goes contra to

the anthropogenic CO₂ theory (I have been told this directly by our Chronicle).

Kind Regards,
Graham Feist.

1130 Brunswick Road,
Whanganui 4571.
Ph: 027 6588680

Climate Change: - Perception or Reality?

'Climate change' is a topic of very frequent conversation today with the emphasis on the word 'change'. The inference from the word 'change' is that the climate has always been the same but now it is heading in a new direction.

Is this the right assumption?

Associated with this issue are the sea levels and CO₂ concentrations – have these, also, always been the same?

Climate-related measures are now being encased in laws and regulations which will affect everyone. The annual cost in New Zealand alone is going to run to billions of dollars.

Is this the correct course of action to take?

Every action has a process element coupled with an outcome result. Sometimes the process and the outcome elements can be difficult to determine. Failing to identify the 'process' will mean that the issue will not be resolved.

The adage of process v outcome is currently that increased anthropogenic CO₂ (process) gives warming (outcome). If the climate has previously always been the same then this adage will hold true and the expected counter-actions will have major effect.

If there has been previous change to the climate then we must ask the questions of **when, why and how**. And the adage will reverse to be warming (process) gives increased CO₂ (outcome). Proposed actions to mitigate CO₂ will cost New Zealand billions of dollars and have no effect whatsoever.

Has the climate changed?

The answer is a resounding 'yes'. Change has happened frequently and markedly over the last two and a half million years.

Okay, so where is the proof? Under our feet if we live in or around Whanganui or the Manawatu regions.

Whanganui sits on a world geological icon site that is a great resource library of climate records, in fact, the most complete climate change record in the world. This geological block is around 200kms x 200kms in surface area and is called the 'Wanganui Basin'. As the name suggests, Whanganui is placed near the middle of this block. A feature of this basin is that it is being uplifted by around 0.6mm per year and coupled with sea level retreat intervals allows marine deposits to be carried up out of the way of sea damage and preserved.

Differing sea levels have sculptured our landscape to give marine terraces, hills and valleys. Marine terraces are readily visible and marine deposits are easily seen where the land has been broken by road works or erosion. In Brunswick (near Whanganui), the most extensive and prominent marine terraces are: Ararata Marine Terrace (exposed around 400,000 years ago and now at around 240m altitude) and the Brunswick Marine Terrace (exposed around 300,000 years ago and now around 180m altitude). There are 5 more terraces between Brunswick and the coast. The next terrace is currently being wave-cut as the Tasman Sea batters and erodes the coast-line.

Climate cycles revolve from glacial period to interglacial period and this pattern has happened 47 times over the last 2.58 million years of the Wanganui Basin. Over the last few hundred thousand years this has been on around a hundred thousand year cycle. During a glacial period the earth cools by an average 8 to 10 degrees causing a massive build up of ice over land. An interglacial period is caused by warming temperatures melting the built-up ice.

The last glacial period peaked at around 19,000 years ago with massive build-up of ice in both sea-shelves and land blocks in the colder climes of the earth. Northern Europe was coated in ice that was over 1500 meters thick and New Zealand's Westland glaciers extended well out into the Tasman Sea. A consequence of the locking up of water into ice-shelves was the great reduction in the sea levels. At this time the sea levels were up to 120 meters (yes, metres) lower than what we have at present.

A consequence of massive sea level drops was the exposure of land that had been covered with relatively shallow water. At this glacial time Whanganui's nearest coastline was a choice between New Plymouth and the Wellington area.

The Tasman Sea area between the West Coast of the North Island and top of the South Island was forested lowland during glacial periods but is now flooded land due to the inter-glacial phase.

Sea-level variance of around 140 metres can happen between peak glacial and interglacial periods. CO₂ drops to lower levels in the glacial periods (around 280ppm for the last one) increasing in the interglacial period. A cold and dry climate during a glacial period has a big increase in dust levels resulting in generous layers of loess deposits on the exposed land and the freshly cut marine terrace. This action has given us fertile land from a barren base.

CO₂ levels have varied greatly over the life of our planet with peak readings of over 7,000ppm and prolonged periods of over 1600ppm. Even at 400ppm (0.04%) the current levels are still among the lowest levels that Earth has had. High CO₂ levels recorded in the past has not ruined Earth.

The period of the last couple of million years is classified as an ice age because ice deposits have remained over this time. Even in the interglacial period the average temperature is several degrees lower than for most of any previous period of time.

This geological evidence is clear concrete proof of ongoing climate change.

The evidence around us strongly suggests that interglacial warming (process) gives increased CO₂ (outcome).

What has driven this climate change?

It has happened on a regular cycle so there must be a powerful driver behind it. The driver must be something that can maintain such a regular cycle over a prolonged period of time. Homo sapiens (that is us) and fossil fuels are not part of the driver as neither has been around for 99.992% of that time.

Homo sapiens have only been around for a quarter of a million years which is a fraction of the last two and a half million years and a very tiny part of the World's 4.54 billion year life. Our numbers, coupled with our activities, have been very low over most of that quarter of a million year time only reaching 1 million by 1AD and 1 billion in 1806. Fossil fuel use only dates back to not more than a hundred years ago.

The occurrence of the higher temperatures of the current interglacial period compared with the last peak glacial period has happened without the factors of fossil fuel and Homo sapiens influence.

Our solar orbital system provides the answer to the cause of the glacial-interglacial cycles as this system has been operating for all of this time and still is.

The frequency of the glacial and interglacial cycles matches up well with the Milankovitch cycles that Earth under goes. These cycles involve Earth's axial precession (wobble), axial obliquity (tilt) and the orbital eccentricity (shape) (100,000 year cycle).

We are all well aware of the daily pattern of cooler nights and warmer days plus the annual seasonal pattern of colder in winter and warmer in summer. These patterns are still very regular and definite in their actions and everyone is a witness to it.

We need to add the third factor of the Milankovitch cycle. This is a hard one as no one has lived through the full cycle and little is yet known of the cause and effect that this creates.

Our Earth is driven by three factors: 24 hour cycle (day/night), annual cycle (summer/winter) and the glacial/interglacial cycle. Each factor is outside of Earth's internal influences and beyond the influence of humans.

What do you think?

From: [Diane Leslie Paterson](#)
To: [!Policy Submissions](#)
Subject: Thank you for your draft climate change strategy
Date: Friday, 12 February 2021 12:07:42 pm

Hello

I was heartened to see your draft climate change strategy. I am thankful for your iwi partnership and collaboration with iwi and other agencies. I am thankful that your intent is to place the environment at the heart of all decision making and action.

Leading by example is good, but specific actions spelled out are better, and I liked that your draft strategy included these.

Please promote Easy Earth composting whenever you can. I have subscribed to this service and I find my organic waste, other than green waste, is nil.

Thank you for your commitment to the environment.

Diane Paterson

Whanganui
District Council.

Dear Sir/Madam -

I won't tell you much about building new suburbs mostly because this was done many years ago.

The outlay of a new suburb should involve many people.

any city-council should make a general plan, say for a thousand houses - to suggest what is needed, where to put the church, how many shops will be needed, where to put the school, etc.

In the middle there should be an extra wide footpath, surrounded by shops and communal buildings, etc. This list should then go to the builders, to see who will build what and where.

This seems to me the only way to get an approach which is integrated, where people don't need a car to get to the shops etc.

Houses should not be built just for the owners - they will last much longer than that.

I was interested to read in the paper that in Africa there was one elected female mayor who said: "a house will be built in this town only for people with two children, who will receive full support, all their lives, from the state: Free schooling, free hospitals etc etc, while the following children will receive no support from the state at all. This approach was, according to the newspaper, enthusiastically received by the woman-folk who could call on free contraceptives!

See Jane Jacobs etc - and many like her, I myself grew up in a well-planned suburb in the Hague, Holland - planned in 1900 or before and still very popular!

N Dyle

From: [Jasmine Hessel](#)
To: [Nicola Patrick](#)
Cc: [!Policy Submissions](#)
Subject: RE: Climate change strategy submission
Date: Monday, 15 February 2021 9:04:49 am

-----Original Message-----

From: Nicola Patrick <nicola@nicolapatrick.com>
Sent: Monday, 15 February 2021 9:01 AM
To: Jasmine Hessel <Jasmine.Hessel@whanganui.govt.nz>
Subject: Climate change strategy submission

Kia ora Jasmine

So sorry, I meant to get an official submission in over the weekend but missed the cut off.

A short late submission if acceptable to say I support the general direction and thrust of the strategy and thank WDC for showing leadership in this regard.

In particular, I support actions that encourage public transport and safe cycling to help reduce dependence on individual vehicles, and I support action to improve energy efficiency and low carbon building in homes and buildings. I support the council examining its own carbon footprint and taking measures to reduce it. I also recognise the actions necessary to prepare for increased extreme weather events associated with the already changing climate.

Note, this is a submission in my personal capacity - Horizons has made its own submission separately. I do not request to speak and am happy for my details to be made public as part of the record.

Best wishes, Nicola Patrick
76H Virginia Road, Whanganui
027 871 6459

From: [Andrew G](#)
To: [!Policy Submissions](#)
Subject: Draft Climate Change Strategy feedback
Date: Monday, 15 February 2021 10:08:42 am

Hi There,

I'm sorry I missed the closing time of the submission.

I was going to propose you ban all rubbish fires, I live in Kells ave and there are 6 houses that regularly light smelly fires, burning all their rubbish, plastics etc, some burn through the night.

Recently one in the street had his fire going 4 days, smelt like a burning rubbish dump, A neighbor rang Horizons and complained but it wasn't actioned as they weren't prepared to give their details.

The offender is known for violence to the police, Horizons should have come for a look.

All people's fires make huge pollution.

In Christchurch, years ago the Council banned fires, even smoky log burner fires aren't allowed.

Please consider this.

Regards

Andrew Grieve

From: [Peter Horsley](#)
To: [Alan Taylor](#); [Policy Submissions](#); [Josh Chandulal-Mackay](#)
Subject: Local food policy links
Date: Monday, 15 February 2021 2:05:40 pm

Kia ora tatou

Congratulations on your Climate Change Strategy / Te Rautaki Huringa Āhuarangi

Your proposal under the Agriculture Food production section to develop a sustainable district food plan is excellent.

I imagine you have links on North American food policy initiatives, including those set out below.

Similarly, you'll be aware of Raglan's food waste collection initiatives. For the record, two links are noted below

Nga mihi

Peter Horsley

Food policy networks

<http://www.foodpolicynetworks.org/>

<https://livablefutureblog.com/2019/05/food-councils-connect-share-empower>

<https://localfoodnorthland.org/2017/03/27/is-the-food-policy-pasture-greener-in-new-zealand/>

<https://tfpc.to/initiatives>

Raglan xtremezerowaste initiatives

<http://xtremezerowaste.org.nz/foodwaste-collection-service/>

<http://xtremezerowaste.org.nz/consultancy/>

From: [Whanganui District Council](#)
To: jilliandavid@xtra.co.nz
Subject: Policy Submission Acknowledgment - Submission:Climate Change Strategy
Date: Tuesday, 9 February 2021 4:45:31 pm



Submission:Climate Change Strategy

Thank you for your submission. We appreciate you participating in the consultation process on this issue. This email is a formal acknowledgement of Whanganui District Council's receipt of your submission. Please print a copy of this page for your records.

Reference number	876021645213009
First name	David
Last name	James
Email address	jilliandavid@xtra.co.nz
Postal address	260 WICKSTEED STREET WHANGANUI 4500
Daytime phone number	0274863784
Organisation name	
Your role	
Have you submitted to the Whanganui District Council before?	Yes
Gender	Male
Age group	60 years or over
Ethnicity	Other,Anglo-Pakeha
Location	Whanganui Central (Laird Park, Whanganui Central, Whanganui Collegiate)
Would you be interested in being involved in further consultation opportunities with Council?	Yes

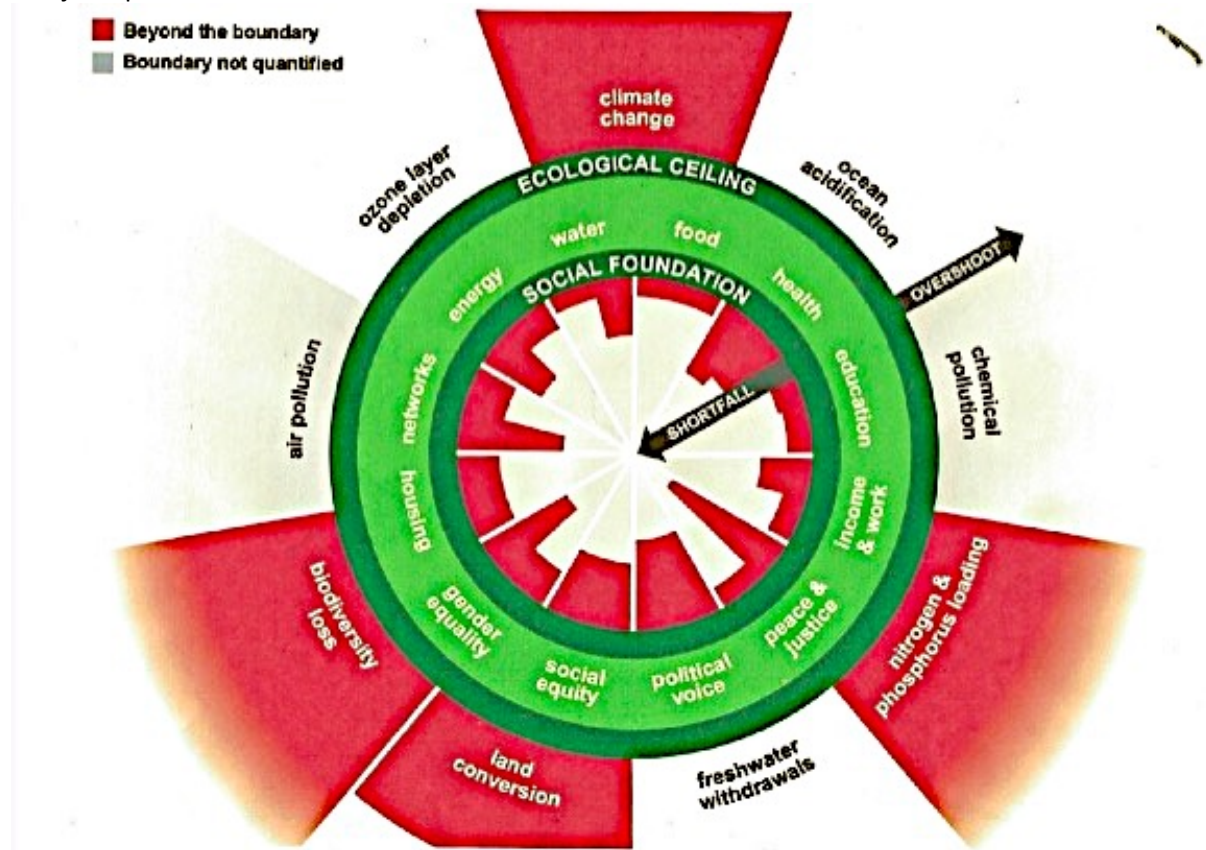
KEY ISSUES	
STRATEGIC DIRECTION Please indicate your level of agreement with the following	
I support the general direction of the draft Climate Change Strategy	Strongly agree
Please provide reasons for your response	An excellent start, in line with Climate Commission proposals
GOALS AND OBJECTIVES Please indicate your level of agreement with the following goals and their associated objectives.	
The Whanganui District becomes more resilient to the impacts of climate change <i>Ka manawanui te rohe o Whanganui ki nga pehitanga o te hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	Survival as a community
The council leads by example, role modelling good practice and reducing its own carbon footprint <i>Ka whakatauiratia e te Kaunihera nga mahi tika ki te whakaiti i tona ake tapuwae waro</i>	Strongly agree
Please provide reasons for your response	Contributing to the transition and providing modelling and leadership
Everyone plays their part in addressing climate change <i>Ma tatau katoa e whai tikanga i nga hurihuringa ahuarangi</i>	Strongly agree
Please provide reasons for your response	In this major transition members of the community need to be engaged both individually and collectively
The council demonstrates leadership and works collaboratively with partners to reduce our district's carbon footprint <i>Ka mahi tahi te Kaunihera me etehi atu ki te whakaiti i te tapuwae waro o</i>	Strongly agree

<i>to tatau rohe</i>	
Please provide reasons for your response	see above
The draft strategy includes a draft plan of possible actions. Further work is required to refine, cost and finalise the Action Plan. Council is interested in knowing which particular actions are important to you that you think should be prioritised.	
ACTION AREAS Please indicate your level of agreement with the following action areas	
Transportation – Eke waka	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	EVs for Council fleet Improve public transport Extend cycleways Set up transition fund and invite air travellers to contribute their offset amounts to it for local initiatives
Building energy and urban form – Te hiko / hanaga whare	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	"Green plumbing" initiative as in Kapiti Coast District Council
Agriculture – Ahu whenua	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Sustainable food plan for the district Sustainable food production
Leadership and collaboration – Mahi tahi	Strongly agree
Which initiatives do you believe are important and should be prioritised within this action area?	Work at making the transition a joint venture including iwi, central government, councils, non-government organisations and business
What is your biggest concern with climate change?	The delays at all levels which have increased the urgency of real action Failure to see the task as more than preventing disaster, but instead as a positive opportunity to transition into a future that provides for the needs of all within the resources of our planet - Kate Raworth's "safe, just space"

Why is this a concern for you?	
Please include anything that you think should be included in the strategy?	Please see uploaded appendix
Please use this space to provide reasons for your responses to the above and to provide further comments regarding the Climate Change Strategy. In particular, if you disagreed with any of the proposals please let us know why and provide any alternative options you may have:	
Supporting documents	Appendix to Climate Change Strategy submission by David James.docx - Received
I would like to speak in support of my submission	Yes
Submission method	Online

Appendix to Climate Change Strategy submission by David James

I have mentioned Kate Raworth, whose name and work ("Doughnut Economics") needs to be familiar to all councilors and staff. She is an outstanding economist with an essential critique of the traditional economics which have led to the climate emergency, and with a credible set of alternatives and references to initiatives taking place in various parts of the world. (She has given talks which are available on YouTube, and runs a regular blog.) The goal she proposes is to move humanity into the Doughnut: "A social foundation of wellbeing that no-one should fall below, and an ecological ceiling of planetary pressure that we should not go beyond. Between the two lies a safe and just space for all".



To deal with the challenge of climate change on its own, without taking account of social justice, other ecological parameters, and the need to question the institutional and theoretical frameworks which have created the present situation, would be dangerously short-sighted and would invite denial and minimization.

Kate Raworth has been working with local communities on practical ways to bring about the doughnut, most notably recently with the city of Amsterdam. Perhaps Whanganui could negotiate some sort of sister-city agreement with Amsterdam? (Or Oberlin – see later.)

If we were to describe what's needed as a positive transition to a new and sustainable future, rather than as a simple negative rearguard action against climate change, we would be talking about a vision in which everyone could engage. The question then arises of how that engagement can be assisted, and the place of the District Council in the process. I suggest four possibilities:

- 1) The District Council could work collegially with iwi, central government, business, and NGOs, to build a network to avoid silos and empire-building and to coordinate local action for transition – this is the climate change forum proposed on p26, but with a broader vision;
- 2) If the District Council appoints a Climate Change Officer (p27), broaden the brief as above, and look for a networker, someone able to support the forum/network as well as working on the District Council's specific areas of responsibility;
- 3) To engage the community as a whole, provide ongoing real-time data on a whole range of the metrics that will tell us how the community as a whole is doing. Instantaneous feedback is a powerful and educational way to promote change. We need to know figures for past performance, present status, and goals for a future that brings us within the doughnut. We need this data as public displays and in more detail on a website. The trailblazer in this has been the city of Oberlin, Ohio, where Kate Raworth notes (in her book *Doughnut Economics*) that the city has set itself a clear living purpose 'to improve the resilience, prosperity and sustainability of our community'. She writes: "Oberlin's Environmental Dashboard website was set up to educate, motivate and empower the city's community in transforming its ecological impact. Public data displays in the city library, in public buildings, and online show in real time the city's water use, electricity use, and the health of its river. One July evening, as I browsed the website from my UK home over 3,500 miles away, I could track minute-by-minute Oberlin's local ecological flows: the real-time carbon emissions produced in the city per person that hour, the volume of drinking water used and of wastewater treated, and even the oxygen levels in nearby Plum Creek as the stream flowed past." I was encouraged to see the figures included in the District Council's Draft Strategy, which could be developed further in similar ways;
- 4) Ensure that there is easy public access to coordinated and up-to-date information about the many local initiatives that are working towards a sustainable future, with encouragement to support them and become involved.