

STATEMENT IN OPPOSITION TO PLAN CHANGE 69 PROPOSAL - LINCOLN.

Submitted by Dr. Anita Wreford

18 November 2021

1. My name is Anita Wreford. I hold a PhD in Agricultural Economics from Lincoln University (2008), a Masters degree in Applied Science (Natural Resource Management) (2000) and a Bachelors degree in Applied Science (Natural Resource Management) (1997), both from Massey University. I am currently an Associate Professor in the Agribusiness and Economics Research Unit (AERU) at Lincoln University.
2. My research is focused on social and economic responses to climate change. I am a lead author on two Intergovernmental Panel on Climate Change (IPCC) reports – The Special Report on Climate Change and Land (2019), and the Australasia Chapter of the Impacts, Adaptation and Vulnerability report that will be published in 2022. I was also an author on New Zealand's first National Climate Change Risk Assessment (2019). I have over 20 years research experience both in New Zealand and internationally, and have carried out work for the EU Commission, the OECD, the UK and Scottish Governments as well as many organisations in New Zealand.
3. My personal submission is informed by my expertise in the area of climate change, and motivated by my understanding of the urgency with which climate change must be addressed and the implications of this development for New Zealand's response to climate change.
4. The world is facing a climate emergency, a truly **existential threat**. With current global policies the world is on track for temperature increases of 2.6 degrees above pre-industrial temperatures¹. We are already observing the effects of climate change here in Aotearoa NZ and in Canterbury – for example increasing frequency and intensity of floods and drought that are directly attributable to climate change², are already presenting costs to the economy that will increase substantially as the climate changes further. There is an urgent need to reduce emissions to avoid the worst impacts of climate change, and this needs to **start now in our local government decisions**.
5. Avoiding dangerous levels of warming and its associated implications for our communities and systems requires **transformational change**.
6. In its final advice to Government³, the Climate Change Commission recommends that action is taken to *“reduce emissions from existing and new urban areas and improve understanding*

¹ <https://www.carbonbrief.org/analysis-do-cop26-promises-keep-global-warming-below-2c>

² Frame, D. J. et al., 2020: Climate change attribution and the economic costs of extreme weather events: a study on damages from extreme rainfall and drought. Climatic Change, doi:10.1007/s10584-020-02729-y.

³ Climate Change Commission (2021) Ināia tonu nei: a low emissions future for Aotearoa. P7

of how changes to urban form and function can reduce emissions”, and to “make sure all Government decisions support the transition to low emissions”, and to “drive system transformation by....supporting behaviour change”. They also state that “elected officials need to make changes to legislation and structures to make it easier for people and industry to make low-emissions choices”.

7. It is in this context that I am making this submission as I am concerned that the proposed development, covering a large area and housing a large number of residents, is **not fit for the purpose** of transforming (or even transitioning) our communities to a low-Carbon future and addressing climate change.
8. I have two main objections to this development in the context of climate change:
 - a. The location of the development
 - b. The nature of the development

Location of the development

9. The location of the development (similar to many others in the area) means that most residents will commute into Christchurch for work. Transport generates 17.6% of New Zealand’s total Greenhouse Gas (GHG) emissions. Committing thousands more people to a dependency on private cars will create future costs both for individuals as well as the region who in future will be likely to be required to account and reduce its GHG emissions.
10. The Government’s recent consultation on addressing climate change states that *“There are major opportunities in planning and investing for a more compact mixed-use urban form, oriented around public and active transport”*⁴ In my opinion this proposed development currently does not take advantage of such opportunities.
11. The Government has indicated it will require transport emissions impact assessments to be provided for urban developments and factor these into planning decisions (with requirements to avoid, minimise and mitigate transport emissions impacts)⁴. For such a significant development to proceed without this assessment at this critical time for climate action would be irresponsible.
12. The current provision of public transport for Lincoln into Christchurch city is barely viable for most people, who would often need to take at least two buses to their final destination. The provision of improvements to these services is speculative and uncertain.
13. Evidence provided by the applicant (by Mr Paul Farrelly) on future behaviour regarding:
 - a. The uptake of electric vehicles
 - b. Future employment options in Lincoln
 - c. Frequency of commuting based on future working from home
 - d. The future provision of public transport

⁴ Ministry for the Environment. 2021. Te hau mārohi ki anamata | Transitioning to a low-emissions and climate-resilient future: Have your say and shape the emissions reduction plan. Wellington: Ministry for the Environment.

is highly speculative, and without specific commitments from ECan regarding public transport, fail to convince me that the development will not contribute greatly to the region's GHG emissions (and therefore global climate change).

14. There is land available between Hornby, Templeton and Rolleston that is closer to Christchurch and has better access to public transport, which would seem to be more suitable for housing development (and lower quality soils – refer to Professor Keith Cameron's evidence).
15. Mr Farrelly also identifies methane reductions resulting from the conversion of dairy land to urban land as a positive contribution of this development to addressing climate change. If this argument was taken to its logical conclusion, New Zealand would be converting all of its dairy farms to urban spaces, and lose a vast area of productive land as well as a significant contribution to the national and local economy.

Nature of the development

16. I am generally supportive of a greater range of housing densities in Lincoln so I welcome the mixed density options.
17. However, there are limited provisions for low-Carbon design, water efficiency, biodiversity preservation, flood resilience etc in the development. Notwithstanding the issues created by the distance from the main employment centre (Christchurch), the development could have taken an innovative, forward-thinking approach to urban design. Instead, it is locking a large population into a development based on what was acceptable in the past – and has contributed to the problems we face today – not only climate change, but also problems such as traffic congestion, air quality and construction waste.
18. The applicant's expert evidence on Greenhouse Gas Emissions are also highly speculative regarding future actions that may reduce the development's contribution to climate change, particularly regarding the uptake of passive houses.

Without requirements from the developer for sustainability requirements in the building design and construction, these speculations can not really form an accurate picture of the future emissions associated with residents in this development.

Other points

19. I have focused this submission on the contribution of this proposed development to climate change, however I note there are significant concerns regarding the impact of climate change on flood risk to the area, and I urge this to be taken into the consideration, to avoid future costs and liabilities to home owners and the Selwyn District Council.
20. I also have concerns regarding statements from the applicant's experts that the impact of this development would be comparable to similar ones in the region. This is concerning as it implies that if poor standards are in place elsewhere they are also acceptable here. It also provides no requirement or impetus for transformation in the way development occurs in New Zealand, which as I have already mentioned, is essential if we are to tackle the climate crisis.

21. I would also like to draw attention to the evidence on urban design by Nicola Lauenstein, who states that the development links Lincoln township with the University. This is inaccurate, as the current development already links Lincoln township with the University, and the proposed development is situated to the south of both the current houses and the University.
22. Finally, New Zealand's first National Climate Change Risk Assessment⁵ identifies as one of the priority risks for New Zealand the *"Risk that climate change impacts across all domains will be exacerbated because current institutional arrangements are not fit for climate change adaptation. Institutional arrangements include legislative and decision-making frameworks, coordination within and across levels of government and funding mechanisms"*. I am highly concerned that if this development was allowed to proceed, it would be an example of this type of institutional failure.

Conclusion

23. The proposed development will lock the future residents of Selwyn, and the Selwyn District Council, into a high emissions future, and make reducing emissions and addressing the climate crisis very difficult for a large number of individuals as well as the Council itself.
24. The proposal would be in conflict with the Government's emissions reductions aims and the advice from the Climate Change Commission.

⁵ MfE (2020) MfE, 2020a: National Climate Change Risk Assessment for Aotearoa New Zealand: Main report – Arotakenga Tūraru mō te Huringa Āhuarangi o Āotearoa: Pūrongo whakatōpū. Ministry for the Environment, <https://environment.govt.nz/publications/national-climate-change-risk-assessment-for-new-zealand-main-report/>