

DRAFT

1. My name is Friederike Lugt. I have a background in Science and Environmental Management. My submission number is number 68.

2. I have been a resident in the area for 16 years. I live on Stoney Creek Road and previously on Tutaki Road.

3. I'm asking for Fairness and Balance, specifically regarding
 - a. protection from noise and light pollution
 - b. the social inequities the RailHub will bring
 - c. the application of environmental accounting
 - d. KiwiRail's information is deceptive by design
 - e. proposed noise mitigation
 - f. noise impact transmission
 - g. noise and light abatement

a. Comprehensive environmental accounting is warranted given the enormity of the Railhub site

The proposed site was once thick forest before it was felled and drained for farming. That 200 hectares of land is to be further drained and covered by heat-absorbing asphalt, hardstand and buildings for rail and roading purposes on the grounds of environmental benefits is contestable; as is the premise that making goods cheaper by reducing transport costs will help consumption patterns.

As climate change reality bites, highly developed urban areas are being recognised as 'urban heat islands'. According to researchers in Yonkers New York, featured earlier this year on RadioNZ, the 'urban heat island effect' can make an area 1-3 degrees warmer during the day and up to 15 degrees warmer at night. 'Vegetation is critical, as well, due to the process of evapotranspiration in addition to the shade that trees provide. Evapotranspiration can reduce peak summer temperature by 1-5 degrees', they said. 'Design choices such as widespread concrete, asphalt, tall buildings, dark coloured paints and building materials allow for a higher level of solar radiation absorption that, in turn, traps more heat'¹. These factors need to be brought to the table when making environmental or carbon emission claims such as those by Kiwirail.

The impact of earth moving and construction has also yet to be counted, while keeping in mind that when finished, thousands of daily commuters would have >7km added to their trip plus several minutes wait at railway crossings. At peak traffic times as traffic pours into the city this is likely more than 10 minutes, not the 3-4 minutes reported.



Figure 1. The proposed Railhub site and adjoining new green field roads will cover around 200ha of existing dwellings farm land, with moderate-high negative impacts reported to across 1500ha the surrounding environment. Low-medium impacts can be anticipated still further out.

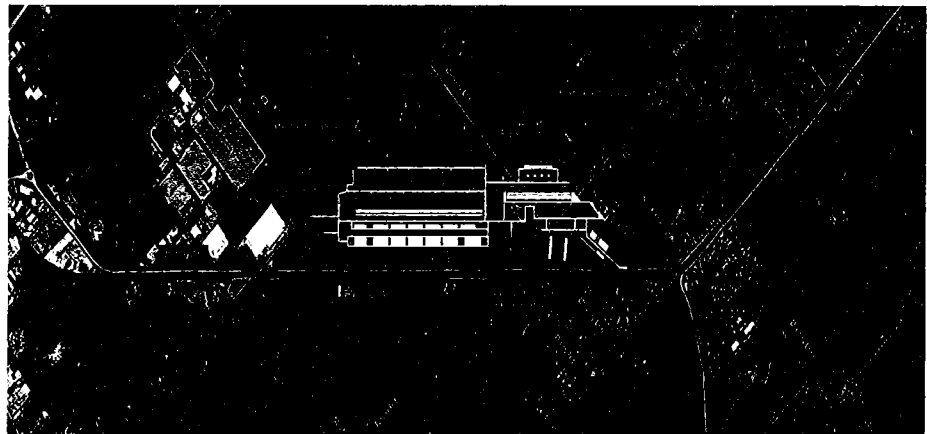
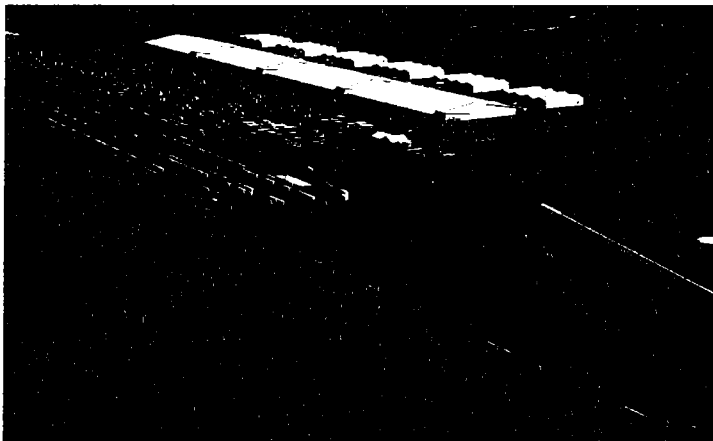
To benefit environmental outcomes, investment into reduction, reuse and recycling should be on par with procurement and movement as currently about 95% of goods end up in landfill. This proposal is not addressing the most salient issues of today or tomorrow. Upscaling the current site from 20ha to 177ha is synonymous with the type of thinking that brought us to this climate change crisis. Comprehensive environmental accounting is warranted given the enormity of the Railhub site.

¹ <https://nylcv.org/news/rising-temperatures-urban-heat-island-means-nyc/>

b. KiwiRail's information is deceptive by design

the information biases in material supplied by KiwiRail (eg doctored illustrations and maps, language style, word selection consistent with PR spin rather than technical reporting) – consistently forging a falsehood that the proposed development is a green space development, affecting only a small number of people, somewhere on the outskirts of Palmerston North on land that has already been trashed.

Spot the difference



c. Regional cohesiveness and overall social inequity has not been properly addressed

With Bunnythorpe is in essence being asked to 'take one for the team', there is a risk of creating imbalance between those negatively affected and those expecting to benefit. The striking difference between the increasingly industrialised Palmerston North west and the ongoing gentrification of the eastern riverside has potential to divide the city in socio-economic terms. Visible examples, being the multiple millions spent by PNCC in and around Victoria Esplanade with multi-million dollar overruns while the Bunnythorpe region suffers from treacherously poor roading conditions and lack of safe cycleways. Such disparity has been shown to have measurable consequences as illustrated around the world (re: Yonker's research, above) with widespread social impact, (for example, the rise of gangs and crime in Napier).

Re-instating overall amenity worth by giving back to the community would help off-set the loss. For example, development of cycleway network along Stoney Creek Road, Tutaki linking to the Whakarongo School and the adjoining cycle way would enhance this would potentially. For every dollar of investment, cycleways are said to have double the returns compared to roading².

- Enhance the feeling of connection and inclusivity
- Improve road safety as these roads get busier
- Encourage more environmentally-friendly commuter transport to the city
- Create a safe link to the Feilding to Palmerston North cycle path
- Connect safely to Ashurst as well as the river cycle track and new cycleway along saddle'gorge crossing

d. The focus on the 1km social impact zone is overly narrow

Given the combined effects of (a) exclusions of significant noise attributing activities from both inside the site and outside, (b) the sweeping assumptions and (c) reported margins of error in the Acoustic Assessment report by Chiles there needs to be acknowledgement of potential social harm. Sleep is precious and the cost of disturbed sleep is measurable in terms of economics. This is justified by the significant body of research that now exists outlining the effects on health, social outcomes and life expectancy as a consequence of night time disturbance (reference list attached). It is linked to obesity. That bylaws permit these activities does not change these health and social outcomes.

² RadioNZ, 15 August 2021, 'The Double Standard in the Bike-Bridge Backlash'

e. Proposed noise mitigation is woefully under-sized for the design and scale of the site plan

The effectual width of the buffer zone has misrepresented and severely comprised by the inclusion of:

- The existence of Sangsters Road
- The proposed walk trail and cyclepath
- The required setback of plant from railtracks
- The lookout window
- Distance from noise sources to be effective, noise barriers need to be positioned close to the noise source such as those along motorways. Because of the width of the tracks and associated industrial activities, the span the 3-5m high barriers are expected to mitigate is hundreds of meter way.

Appendix 1

a. KiwiRails has widely depicted wide bands of mass planting where there are roads and housing in reality

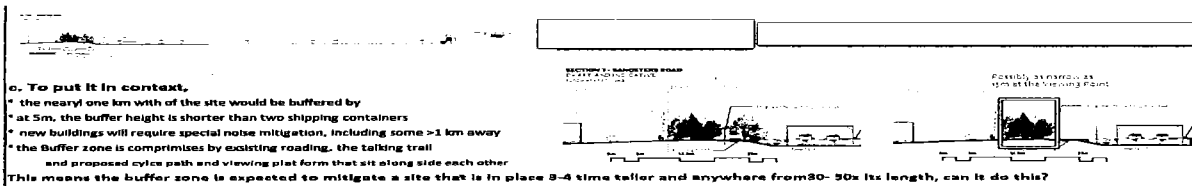
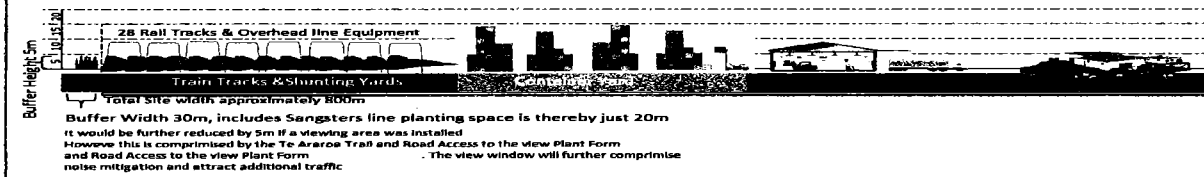


Appendix 1A:

a. KiwiRails has widely depicted wide bands of mass planting where there are roads and housing in reality



b. 30m Noise Barrier along Sangster's Line in context of 177 hectare Rail Hub Development



The premise that a 30 meter buffer zone is adequate is arguable an urban myth, by rural standards it and in context of the scale of the proposed site it is clearly inadequate. In conclusion, 30m bands of vegetation and or 3-5meter walls that are understood to reduce noise by approximately 5 decibels in the wake of the gigantic 800 by 3000 meter site is fanciful given the proposed height of much of the infrastructure and equipment on and the range off noise routinely exceeding 75 decibels. Fanciful to it that the noise mitigation barrier will live up to expectation, with not contingency planned if it doesn't.



h. The social impact assessment lacks depth - social science is a rapidly developing field and numerous new analytical methods are being increasingly recognised

The concept of 'willingness to pay' has been widely accepted in environmental social science as a measurement tool (even when things like 'the right to breathing fresh air' isn't literally for sale). The SIA details a number of FOR and AGAINST arguments from respondents with those outside of the impact zone being largely for the project – while those within are unilaterally opposed. 'Willingness to pay' would be a useful tool to measure the strength of each FOR and AGAINST, rather than treating these as like-for-like. And, would those FOR hold the same position if they were directly asked to contribute \$100, \$1000 or \$100,000 each? And for those AGAINST, how much would they pay not to have the RailHub at their doorstep?

The SAI goals are to:

- 'Identify measures to address effects'
- 'To avoid, remedy or mitigate adverse effects'

Not one of the recommendations delivers on these. The report is woefully inadequate in dealing with the highly negative adverse effects expected. Austen's primary focus is to ensure that there is sufficient information and education to facilitate understanding and acceptance. It is, in essence, a set of a communication strategies and an educational platform aligning more with managing public relations than mitigating noise.

The SIA fails to report significant benefits for both the local and greater Palmerston North area aside from a small increase in employment for work that is already oversubscribed. This will therefore come at a cost to other growth areas in the region. Job losses in the transport industry will likely hit owner-operators harder as multination corporations gain strength under this framework. Profits will thereby leave the area.

The SIA relies overly on the Acoustic Assessment Report by Chiles that is permitted to exclude a significant amount to the noise generated from the site including road noise, noise from trains on rail tracks, noise from adjunct businesses and industries. It is reasonable to assume this noise would likely be around double that of the Acoustic assessment on which the noise barriers were designed for.

As presented there is insufficient physical space for the described mitigation allowed for as anyone with an eye for detail can work out for themselves.

The designate site was identified as the best of a bad bunch by the scoping process. It was dully scored highly in terms of negative adverse effects because of the proximity to dwellings, buildings and Bunnythorpe village.

I am therefore requesting a new independently-funded Environmental Policy, Research and Social Impact Report be carried out using more recent research methods, as this Social Impact Assessment is incomplete.

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