

Submission to Christchurch City Council

On the Long Term Plan 2018

By

Greening the Red Zone



26th March 2018

Greening the Red Zone – Introduction

Thank you to the Christchurch City Council for enabling the community to submit on the council's long-term plan. Our vision is for the Ōtākaro-Avon River Red Zone to be returned to native bush and wetland. We believe an urban forest and wetland park can support most of the objectives in the long-term plan.

The term 'residential red zone' is used in the Council's proposal and we would like some clarification on what that means. Is that referring to the Ōtākaro-Avon river residential red zone or all residential red-zoned areas?

We have reviewed the long-term proposal and will comment on each of the 6 sections, but would like to note that the budget for the residential red zone in the LTP is currently \$0. This does not show any commitment to the area, and given the council has been mooted as one of the potential operating partners, ideally we would like to at least see some finance available for community projects to do next-level development/feasibility studies.

1. Community Facilities

We support spending \$27m less on community facilities. This money could then be reallocated for parks and heritage, to support the Ōtākaro-Avon river red zone which, as a city-to-sea park, will be a unique facility for the whole city.

2. Drinking Water

We support the current proposed spend as good quality drinking water is a priority for Christchurch and Banks Peninsula. Preserving our freshwater aquifers is a linked objective of Greening the Red Zone.

3. Parks and Heritage

We propose the Council spend more money on parks and heritage, and include development funds for the Ōtākaro-Avon river red zone. A forest park would require a maintenance budget for a period of time (*appendix 1*), but this may well be cheaper than the current red zone maintenance spend. It also relates to the Government's proposed [zero carbon act](#) which aims to reduce climate change impacts. The [Million metre streams](#) project is a possible source of funds for the planting of native trees in the Ōtākaro-Avon River Red Zone; or perhaps council would make a commitment similar to [Auckland Council](#) which is planning to plant 1 million trees. All this greening would also help towards the government's [2030 climate change target](#).

Greening the Red Zone also supports the formation of an [Ecosanctuary](#) incorporating Travis Wetland and part of the Ōtākaro-Avon river red zone, forming the heart of a halo effect that would repopulate east Canterbury with native plant and bird species. Our region is the only one without a dedicated sanctuary for our taonga species. [Mahinga kai](#) is a key Ngāi Tahu value for

earthquake recovery, with the aims of restoring and enhancing water quality, ecosystems, natural habitat and biodiversity. The community-driven exemplar, now thriving on Anzac Drive, received support from council. All these projects go hand-in-hand with the council's [Biodiversity Strategy 2008](#) with its goal of protecting and restoring ecosystems, species and habitats, that are unique to our whenua.

4. Storm water and flood protection

We are disappointed that Christchurch will experience a deterioration in our storm water infrastructure, (heralding a further reduction in water quality), over the next ten years; this makes the restoration of the Ōtākaro-Avon River more difficult, and leaves our groundwater, and potentially our town supply aquifers, vulnerable to contamination. Christchurch City Council's [climate change policy](#) pledges to "support activities that counter the causes and effects of those changes". We submit that nurturing estuarine wetlands, planting out the red zone in natives, and using it as Christchurch's climate change buffer, is a great way to do just that.

5. Transport

We propose to spend less on road pavement, footpaths and carriageway sealing. While we appreciate it is a frustration for the community, even a saving of \$50 million could be put into parks and heritage, flood protection or waste water management. We support the proposed expenditure on public transport and cycle infrastructure.

We do not support the white LED lighting re-fit proposed for the city. Evidence from around the world shows that exposure to blue/white light at night is detrimental to animal and [human health](#). It adversely affects behaviours such as [migration and predation](#), and in humans suppresses the production of the 'sleep hormone', melatonin, a lack of which has various [potential negative consequences](#). Brighter is not even safer, as blue light creates a lot of glare while also destroying our own adaptive [night vision](#). We would urge council to, at the very least, do an environmental impact study on these lights, and not only consider cost-savings. [Environmentally-friendly LEDs](#) (in lower colour temperatures) are now available. We support the formation of a red zone dark sky park for all these reasons, and to make Christchurch a dark sky destination.

6. Waste water

We support reducing the wastewater that is making its way into our streams and rivers, so news that this infrastructure is going to deteriorate and increase the amount of pollution leaching out over the next ten years is not encouraging. Restoring our waterways to good health must be a bigger priority. Again, green infrastructure can help soak up contamination.

Conclusion

The Greening the Red Zone Committee submits that:

More money should be spent in the Parks and Heritage and Storm Water/Flood Protection proposal sections. By investing in the Ōtākaro-Avon River red zone you will not only be providing a community space in the form of a forest park, you will be helping to meet our own and the government's carbon reduction and biodiversity targets.

The benefits are many and varied, including cultural connections, education and economic development, biodiversity and birdsong, storm water cleansing, flood mitigation, carbon storage, joining the city and the sea, recreation, increased social cohesion, improved human mental and physical health – the park will be a source of well-being for the city,

The Ōtākaro-Avon red zone is neglected in the current proposal, we hope you will reconsider this, because it represents a significant opportunity to return strong ecological values to the city, to respect our heritage, and to face the future with courage and good preparation.

Greening the Red Zone Committee

29th March 2018

Estimated Costings for the Ecological Restoration of the Red Zone

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Summary

Christchurch's residential red zone, located in the eastern suburbs, forms a riparian, floodplain and partly land-filled corridor along the tidal reaches of the Avon-Ōtākaro. This dynamic and changing environment represents a significant opportunity to see the return of ecological values to the city that will bring widespread benefits, including human health and wellbeing, social cohesion, cultural connection, outdoor learning experience, biodiversity and flood mitigation.

In this proposal we outline preliminary costings for the ecological restoration of approximately 430 hectares of the red zone using Nodal planting. This method consists of a low-intensity/input planting of source patches that feed regeneration, complemented by selective weed management, with a timeline approaching 50 years for forest regeneration.

The total cost for a five-year restoration plan, using the basic nodal model, as also used by Tuhaitara Park, is approximately \$5.1 M. This figure does not include labour costs as those would become part of a more detailed development of a restoration work plan. We do, however, envisage that most of the plantings would be carried out by a largely volunteer labour force, although this would require at least 1-2 fulltime position equivalents to project manage and co-ordinate with groups. The ongoing maintenance will be approximately \$43,000 per annum for the total 430 hectares.

Site preparation on the filled land will likely require ripping, however, we have not included this in the costs as it will depend upon the location of the stop-banks which has yet to be decided.

Nodal planting method proposed

Canterbury is a difficult place to get plants established compared with other warmer New Zealand locations with greater rainfall, which will be a contributing factor in establishment and maintenance of the site.

The cost of plants represents a small part of total restoration costs. Species of Carex planted along riparian margins can usually be planted without “combi-guards”, however, other sites will need such protection and release spraying at least twice a year in first five years.

Once the position of stop-banks has been defined, the mix of forest and wetland restoration and amenity planting will be set and the species for each habitat/soil/drainage condition determined from regional restoration guides (i.e. DOC Motukarara Conservation Nursery; Quail Island Restoration Trust; Lucas, Meurk, & Lynn 1995-6). These guides contain a description of the native plant assemblage for each ecosystem and a recommended list of species for planting (and their respective staging).

Once this has been determined a more comprehensive plan can be developed which incorporates the following factors: desired outcome, map of the site (size, micro-habitat, topography, micro-climate, drainage), plant composition, staging, spacings, public amenity (walking/cycling tracks, culverts, bridges, interpretation signage), key stakeholders (including potential funders, which has often been local businesses).

It will be desirable to consider how to incorporate regionally distinctive or threatened species as the project develops. We anticipate that work would be in collaboration with local nurseries as these can require a 1-2 year lead-in to ensure plant material is available at the right time.

Item	Method costs
	Nodal planting. e.g. Tuhaitara Park
Spraying (per hectare)	2,000
Plant Costs (per plant)	
• Plants	3.95
• Combi-guard	1.03
Subtotal	4.98
• Number of plants per hectare	2,000
• Plant costs per hectare	9,960
• Subtotal per hectare over 5 years (planting and maintenance)	11,960
• Area of Project (hectare)	430
Total cost of project over 5 years	\$5,142,800