Speaking notes for Richard Clayton, Te Papa Atawhai Department of Conservation
Proposed Timaru District Plan, Hearing A Strategic Directions, 9th May 2024

1. Introduction / Mihi

2. My expertise is as a terrestrial ecologist, having spent 25 years studying and practicing conservation management in New Zealand. Most of my experience has been applied in the back-country, but increasingly involved in front-country landscape conservation, which in the Timaru district overlaps with braided rivers, limestone ecosystems and numerous uncommon ecosystems associated with the coastal and dryland parts of the district.

3. I have undertaken many surveys around New Zealand to assess the ecological significance of sites and have experience managing threatened plant species both on and off public conservation land.

4. The focus of my evidence provided today is to support the strategic direction 02 of the pTDP, to achieve "at least no overall loss" of indigenous biodiversity by providing the ecological context that justifies this direction.

5. Many of the remnant indigenous ecosystems and species remaining in Timaru are threatened or vulnerable as a direct result of widespread historic vegetation clearance and compromised functioning from introduced animal and plant species.

6. Formal protection of large areas of the remaining forests in uplands has achieved a degree of security for most of the remaining montane forests and sub-alpine ecosystems and the indigenous flora and fauna that they contain.

7. However, indigenous vegetation clearance still occurs in the lower altitude "front country" landscapes, and has often been coupled with the development and intensification of use in semi-natural landscapes that surround natural features. Examples of the former are increasing amounts of forestry, cropping and subdivision; and of the latter irrigation, increased nutrient and pesticide application and homogenization of crops.

8. Additional pressure on species and ecosystems from introduced browsing animals, predators and invasive plant species is ongoing, and in some cases (such as wilding pines) is increasing.

9. We also now have new pressures, being a warming climate and associated increasing severe weather events which exacerbates many of the traditional pressures.

10. Combined, these negative effects are disproportionately higher around coastal, wetland, dryland and river margins, which are in turn the very sites where many uncommon ecosystems and most of the threatened plant species exist.

11. Good examples of these are any remaining wetlands, particularly around coastlines and braided river margins such as the Rangitata and Pareora Rivers; or

the many limestone outcrops associated with the low hill country in the district such as Te Ana-awai; and any remaining moraine or alluvial outwash plains.

12. Some plant species that live in these environments, such as the Pareora *Azorella* and *Gentians*, *Cardamine* along the Te Anawai scarp are found nowhere else in New Zealand. All of these species are highly vulnerable and have recently been given the ignoble status of being "on the brink of extinction".

13. I will provide more detailed ecological evidence in relation to the ECO chapter.

14. Finally, I want to place particular emphasis on the need to continue the programme of survey work already undertaken by the Timaru District Council to identify the importance, status and trend of remaining biodiversity using appropriate criteria and qualified ecologists.

15. In my opinion, Timaru District have undertaken this work perhaps more judiciously than any other council in the South Island and should be commended on the results of this exercise and are strongly encouraged to continue with this programme which is both unfinished and requires ongoing effort.

16. These data are crucial to informing future decisions around our ability to measure changes in the status and trend of all existing biodiversity, ultimately achieving at least no net loss.