Before the Independent Hearing Panel appointed by the Canterbury Regional Council

IN THE MATTER OF The Resource Management Act 1991

AND

IN THE MATTER OF Applications CRC222040, CRC222041 and CRC222043 by Canterbury Regional Council to discharge agrichemicals to air, land and water within or adjacent to all waterways within the Canterbury Region for exotic weed control.

Summary Statement of Victoria Smith / Wildland Consultants Ltd. (Wildlands)

26/3/2024

1. My name is Victoria Rose Smith. I am Senior Invertebrate Ecologist, based in the Christchurch office of Wildlands. I am speaking here on behalf of a team of Wildlands ecologists that includes myself, Dr Della Bennet, Dr Samantha King, Mr Roland Payne, and Dr Morgan Tracy-Mines. Drs. Bennet, King, and Tracy-Mines are joining us online and are available to answer questions specific to their expertise.
2. The above team was contacted by Pattle Delamore Partners (PDP) to provide technical advice on behalf of Environment Canterbury as a consenting authority, for consent applications CRC222040, CRC222041 and CRC222043 by Canterbury Regional Council.
3. This statement is a summary of the findings of Report number 6914a, a technical peer review that formed Appendix 5 of the s42A report and also responds in part to submissions heard and the evidence presented by the Applicant at the hearing on 25 and 26 March 2024.
4. The technical peer review was principally related to ecological effects and their management as they pertain to lizards, birds, terrestrial invertebrates, vegetation, and bats.
5. Recommendations on improving the conditions were also provided.

Qualifications and experience

1. I have a PhD in Ecology and an MSci in Zoology.
2. I am a member of the Entomological Society of New Zealand.
3. I was formerly Associate Curator at Canterbury Museum, responsible for cataloguing, identifying, and organising the spider collection. I also assisted the Peter Johns team in working with insect collections, and I collected some harvestman and acrocerid flies to add to the Museum's collection.
4. I am an author of five invertebrate-related refereed papers in national and international journals.
5. I previously worked as a laboratory technician at Lincoln University, identifying and sequencing invertebrate species such as feather lice and ground beetles. I also worked as a laboratory demonstrator, helping students to learn about invertebrate behaviour, structure, and form.
6. I have collected and researched trapdoor spiders throughout New Zealand, including Canterbury.

7. I have taken part in community initiatives, for example a BioBlitz and an operation to salvage and relocate trapdoor spiders from a cliff in Kakanui. I have taken my private collections of live, pinned, and wet insect specimens to schools to talk about insect biology and diversity.

8. I worked for 1.5 years in pest control for Excel Biosecurity, during which time my duties included knapsack spraying of riverbed weeds in Canterbury.

9. I have worked for Wildlands since August 2021. During this time, I have contributed to many Assessments of Ecological Effects, significance assessments, biodiversity surveys, and various other reports.

10. I have also contributed to a Council court case and an Environment Court case, and written evidence for other cases, on behalf of invertebrates as part of my role as Senior Invertebrate Ecologist.

Summary of Evidence

11. The ecological implications of agrichemical spraying have generally been well-considered by the applicant, and the mitigation measures stated in the applicant's Assessment of Ecological Effects (AEE) will effectively manage many negative impacts.

12. Some effects, primarily involving bats, were not considered and we have some concerns around effects management. Lizards, avifauna, invertebrates (including exotic bees), and vegetation may all be affected by the project in ways that were not considered in the AEE and draft conditions.

13. However, our concerns can be addressed through implementing the actions outlined in our report and summarised below, in consultation with suitably-qualified ecologists.

14. Controlling weeds around Canterbury waterways will generally benefit biodiversity, though potential negative impacts must be managed according to the AEE, conditions, and the effects management outlined in our report.

15. The applicant considered input from multiple stakeholders with an extensive range of opinions and concerns, and in general addressed them appropriately. However, we have outlined responses that may need revision after ecological effects have been considered.

Summary of recommendations

16. The AEE should be altered to include effects management for bats, and plans for restoring lost habitat and preventing future weed growth, which are currently lacking.

17. We identified numerous residual effects of the project that were not adequately addressed in the AEE or conditions.

18. In our report, we made recommendations to address these effects. These I summarise below. Note that these conditions have been addressed in Dr Jolene Irvine's evidence.

19. An accidental spills and leaks management plan needs to be devised, outlining prevention and management protocols for toxic chemical spills and leaks.

20. A habitat restoration plan should be prepared, describing where habitat will be restored, and methods for its restoration.

21. All important ecological values need to be mapped, and appropriate measures taken to manage effects on these values. This includes communicating areas of important ecological value to spray contractors.

22. A riparian planting plan should be prepared prior to undertaking any planting works, including the establishment of eco-sourced indigenous plants.

23. The adjuvants to be used in the spray mix should be chosen as carefully as the agrichemicals, with their known and potential effects on bees and other pollinators taken into consideration. Adjuvants to be used should be named in the AEE and any known effects should be communicated to apiarists.

24. A guidebook and interactive learning module should be created for spray operators, describing Threatened and At Risk species that are widespread or locally common along waterways in Canterbury.

25. Spraying around flowering plants in summer (October until January) should be limited to early morning or cooler days to minimise effects on pollinators.

26. Spraying berms, tracks, and stopbanks should have the same restrictions as the river bed with respect to pollinator protection.

27. Indigenous flowering plants should be restored in areas where bees need to be protected, such as near apiaries or crops pollinated by wild and feral bees.

28. Apiary companies should be provided with as much notice as possible before spraying commences. Apiary companies should receive a spray schedule for the entire spray season, and notice at least a week in advance when spray operations are planned.

29. Avoid spraying near known bat roosts as much as possible in favour of mechanical weed removal. Outside of roost areas, along flyways and other habitat used by bats, restrict spray operations to morning, to avoid spray accumulating on evening-active insects.

30. Spraying should start after sunrise, and evening spraying should cease in time to dry before dusk. This only applies in areas where bats are known to use the habitat. This is particularly important between January and March.

31. Large trees should not be felled within bat ranges. The trees may be sprayed, but should be left standing where safe to do so. Bat ranges include anywhere within 20 km of where a bat has been observed (Figure 4).

32. Ensure only standard rates of herbicides are applied.

33. Provide an information booklet to contractors/operators to ensure rare fauna can be accounted for in the field. Undertake an induction with contractors and operators to ensure species of concern can be identified and avoided where possible.

34. Areas where Threatened and At Risk avifauna breed should be sprayed outside of the breeding season (i.e. March and April), or when breeding is clearly finished. Surveys by a suitably qualified avian ecologist are required, and caution is warranted if spray occurs during the breeding season.

Comments on the applicant's revised proposed conditions

35. I disagree with paragraph 110 of Ms. Irvine's evidence. The clearance of weeds is the focus of the project, but in my opinion maintaining the reduced weed cover is equally important. Habitat restoration is one way of helping to prevent regrowth.

36. Although there will undoubtedly be flowering plants remaining in the river bed, if the project is successful they will be greatly reduced in number, which will negatively impact pollinator numbers.

37. The applicant already carries out extensive planting programmes, so they could be linked with the weed control project as part of the habitat restoration plan.

38. I agree in part with paragraph 113 of Jolene Irvine's evidence, describing mitigation for exotic bees. In most cases, sufficient weeds will likely be left over after control for bees to forage.

39. However, the amount of forage left over after each operation is likely to vary wildly between locations.

40. The Applicant should also be undertaking effective weed control, not leaving large patches of weeds for the sake of feeding the bees.

41. I suggest that discussion between the Applicant and local apiarists should include the minimum amount of forage that should remain after spray.

42. If this minimum cannot be reached by leaving a 50-metre setback away from hives, then indigenous flowers should be planted to remediate the loss.

43. In agricultural areas, wild exotic bees are important for pollinating crops. Sufficient forage needs to be available for these bees also.

Comments on Dr Jean Jack's evidence

44. Dr Jack clearly highlighted the need for clear information on each proposed spraying site. There are databases and inventory that describe areas. However, there are areas which have little to no information. More work is required on mapping sites and updating a habitat register appropriately. Nevertheless, the environment is not static and a collaborative approach will be needed with other external advisors/parties (e.g. restoration groups, iwi, scientist, consultants, council groups).

45. Ground surveys are extremely important during the breeding season as birds are highly mobile and may occupy sites which have not been previously suitable to breed. This is particularly important around wetlands, areas of ecological value, and locations which have a lack of previous surveys.