

BEFORE THE INDEPENDENT HEARINGS PANEL

PROPOSED WAIKATO DISTRICT PLAN (STAGE 1)

Under the Resource Management Act 1991 (**RMA**)

In the matter of hearing submissions and further submissions on the Proposed Waikato District Plan (Stage 1) – **Hearing 21A Significant Natural Areas**

By Hynds Pipe Systems Limited (Submitter, Further Submitter)
Hynds Foundation (Further Submitter)

**Statement of evidence by Dr Mark Bellingham, Ecology New Zealand
(Ecology)**

Dated: October 2020

Introduction

1. This ecological statement of evidence on behalf of Hynds Pipe Systems Limited and Hynds Foundation is in relation to the Proposed Waikato District Plan (**PWDP**) Significant Natural Areas (**SNAs**) provisions. Hynds Pipe Systems Limited are a submitter (S983) and further submitter (FS1341). Hynds Foundation are a further submitter (FS1306). Hynds Pipe Systems Limited and Hynds Foundation are referred to collectively as **Hynds** in this evidence.

Qualifications and Experience

2. My full name is Robert Mark Bellingham.
3. I am a Principal Ecologist with Ecology New Zealand Ltd.
4. I am an accredited Ecology Specialist with the EIANZ's¹ Certified Environmental Practitioner Scheme. I hold a PhD in Conservation Planning from Auckland University and I am a full member of the New Zealand Planning Institute. I have been a practicing ecological and planning consultant for over 25 years. My practice area has mainly been in the upper North Island.
5. I have appeared as an ecologist and planner before the Planning Tribunal/Environment Court and council plan reviews since 1986. The most recent major cases where I have appeared have been before the Independent Hearings Panel for the Auckland Unitary Plan, and then the Environment Court appeals on Rural Subdivision in the Auckland Unitary Plan.

¹ Environment Institute of Australia and New Zealand

6. I have assessed SNAs for the Rodney District Council's Rodney Plan 2000 and I have assessed many additional sites in Auckland Region that have potentially met the SNA criteria through ecological restoration and regeneration of natural areas. I initiated the DOC Threatened Species assessment process when I was employed as Royal Forest & Bird Protection Society's Senior Planner in Wellington in 1990 and provided advice to DOC on these matters.

7. I have also lectured in Environmental Planning at Auckland and Massey Universities. I have served on the Ministerial Advisory Committees for the Review of Protected Area Legislation (1989-90) Oceans Policy (2002-4), and as an Auckland Regional Councillor.

Code of Conduct

8. I have read and agree to comply with the Environment Court's Expert Witness Code of Conduct (Consolidated Practice Note 2014). This evidence is within my area of expertise, except where I state that I am relying on the evidence of other experts. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

9. The evidence that I give in these proceedings is within my area of expertise, except when I rely on the evidence of another witness or other evidence, in which case I have explained that reliance.

Scope of evidence

8. In my evidence I address the following issues:

a) The criteria used for identifying SNAs in the PWDP;

- b) The ecological values of the proposed SNA areas on 62 Bluff Rd, Pokeno; and
- c) Whether the areas identified on the PWDP maps qualify as SNAs.

Significant Natural Area Criteria for the Proposed Waikato District Plan

- 9. The criteria of the areas mapped as SNA in the PWDP are derived from section 11A of the Waikato Regional Policy Statement (operative 20 May 2016).
- 11. I have assessed the SNA areas on 62 Bluff Rd, Pokeno against the criteria in section 11A of the Waikato Regional Policy Statement as became operative on 20 May 2016.
- 12. Some of the SNA areas on 62 Bluff Rd may be considered as wetlands under the provisions of the recently operative National Policy Statement for Freshwater Management 2020 and National Environment Standards for Freshwater 2020. I will comment on those matters later.

Ecological values of the proposed SNA areas on 62 Bluff Rd, Pokeno

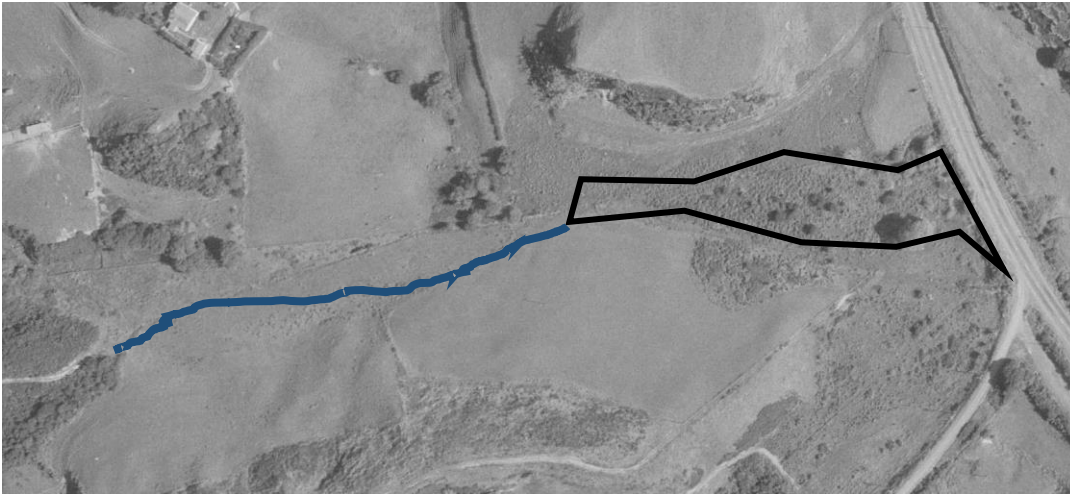
- 10. On 2nd September 2020 I led an ecological team from Ecology New Zealand that surveyed the ecological values on the SNA areas on 62 Bluff Rd, Pokeno. We conducted a visual assessment of the vegetation within the areas outlined as SNA in the PWDP maps and assessed the species cover and composition.
- 11. We also carried out visual assessments of the bird species present across the SNA areas, and we searched for lizards in vegetation debris around the edge of the wetland.
- 12. Ecology NZ had previously assessed the ecological values of a small pond and stream on the property that was proposed for a landfill by a previous owner. That work included detailed fish trapping in the proposed SNA area and side catchments.

13. I have also examined historical aerial images of the site and the SNA areas from 1961 to the present to understand the hydrology of the sub-catchment.
14. There are two SNA's mapped on 62 Bluff Road on the map, as is shown in **Appendix 1** of this evidence. Area 1, which is located in the lower part of this catchment and adjacent to the Synlait and Hynds industrial plants to the north and farmland to the south, and Area 2 which has a pond and stream in the upper part of the catchment.
15. SNA Area 1 (northern) is a large area of the introduced reed sweetgrass *Glyceria maxima*². That species forms more than 95% of the vegetation in the SNA. There are scattered grey and crack willow in the SNA and elder trees around the southern perimeter of the lower part of the SNA. We encountered a small number of rushes and sedges in the SNA and most of those were introduced species.

Some of the SNA Area 1 is pasture around the edge of the reed sweetgrass wet area. These are the areas on the aerial imagery below without any shading within the SNA boundary. The only birds observed in SNA Area 1 were pukeko which are not threatened and are a game bird under the Wildlife Act 1953. The Ecology NZ survey of the site in 2017 trapped aquatic life in much of this sub-catchment including the SNA areas. Two fish species were found in this SNA, native short-finned eel *Anguilla australis* and introduced mosquito fish *Gambusia affinis*. Short-finned eel is a common native species and is not Threatened or At-risk. Mosquito fish is an aggressive introduced predatory species that attack native fish and is listed as an environmental threat in the WRC Regional Pest Management Plan.

² Reed sweet grass is listed as an environmental threat in the Waikato Regional Council Regional Pest Management Plan 2014-24

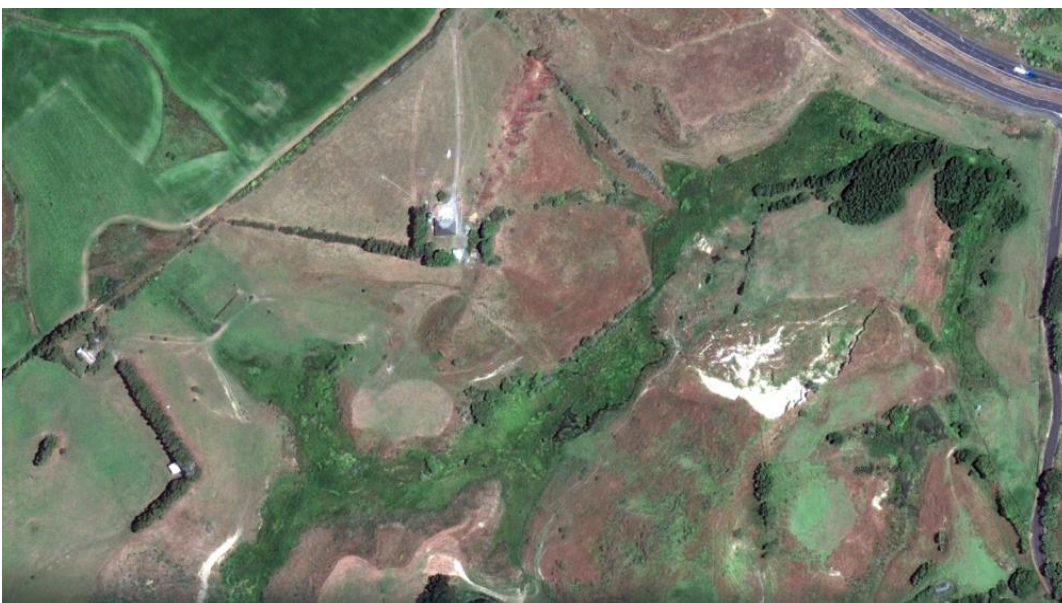
18. SNA Area 2 (southern) covers a farm pond and the small wetland at the head of the pond and a boulder stream that feeds the pond. The pond drains into the lower SNA Area 1. The riparian area along the lower stream have been cleared of gorse and other weedy vegetation and replanted in native species.
19. There were some native wetland plants in the pond and reed sweetgrass around the edges and the stream flowing into the pond had occasional sedges along its riparian edges.
20. No native wetland birds were observed in this area and the 2017 survey recorded the same fish species as in SNA Area 1, native short-finned eel *Anguilla australis* and introduced mosquito fish *Gambusia affinis*.
21. We would have expected other migratory native fish species to be present in the sub-catchment, including galaxids (e.g. banded kokopu), bullies and crustaceans and freshwater mussel. We inspected the outlet culverts for the wetland and the only operative outlet had a very low flow and was raised above the inoperative outlets that go under the Waikato Expressway.
22. Ecology NZ had correspondence with Waikato Fish and Game staff in 2017, who commented that the new outlet for the Expressway (State Highway 1) appeared to have become blocked during the construction of the Expressway in the 1990s.
23. Examination of historical aerial images of the site and the areas proposed as in the PWRP from 1961 to the present show the proposed SNA Area 1 was relatively small from 1961-1981 and then became much larger by 2001, after the completion of the Expressway earthworks. A selection of these photos is on the following page:



Proposed SNA Area 1 (18/12/1961) – Black area outlines wet pasture/ possible wetland



22/7/1981



24/1/2010

24. From my inspection of the outlet pipes, it appears that the outlet from the sub-catchment is perched well above the previous outlet level, impounding water in the sub-catchment and this may be exacerbated by the outlet pipe being blocked somewhere under the Expressway. The fish fauna is indicative of there being no connection between the Mangatawhiri River wetland and this sub-catchment, as the two fish species present in the SNA areas do not need a physical connection to the Mangatawhiri and Waikato Rivers. Eels often travel overland at night on wet surfaces and mosquito fish are commonly released in ponds in the upper North Island.
25. A significant number of indigenous aquatic species are migratory at some point in their life-cycle, including most indigenous fish species, some crustaceans and even freshwater mussels. These migratory species that need a physical connection downstream are absent from this site. In my opinion, if the aquatic fauna is to be restored then NZTA and Kiwirail might need to restore fish passage under State Highway 1 and the North Island Main Truck line, or regular introductions of juvenile species would be required. This will be dependent on whether there were any conditions attached to designations at the time of the motorway and railway works.

SNA Assessment

26. I have assessed the values of the proposed SNA areas against the criteria in the PWDP in the table below:

| SNA Criterion | Area 1 | Area 2 |
|----------------------|--|--|
| 1 | Not applicable | Not applicable |
| 2 | Not applicable | Not applicable |
| 3 | No species classed as threatened or at-risk, endemic to the Waikato region, or at the limit of their natural range present | No species classed as threatened or at-risk, endemic to the Waikato region, or at the limit of their natural range present |
| 4 | Doesn't meet criterion | May meet criterion |
| 5 | Not applicable | Not applicable |

| | | |
|-----------------------|--|--------------------------------------|
| 6 | No indigenous vegetation community | May meet criterion |
| 7 | Not indigenous vegetation | Not applicable |
| 8 | It is aquatic habitat that is an artificial waterbody | May meet criterion |
| 9 | Not indigenous vegetation | Probably does not meet criterion |
| 10 | Not indigenous vegetation | Does not meet criterion |
| 11 | Not indigenous vegetation or habitat that is significant | Not applicable |
| SNA Assessment | Does not meet SNA criteria | May meet SNA criteria 4, 6, 8 |

A SNA needs to meet one of the criteria in the table to qualify.

27. In summary, SNA Area 1 is almost entirely introduced vegetation, reed sweetgrass and willow trees, and most native fish and bird associated with wetlands in the Waikato are absent. In my opinion it does not meet the SNA criteria in the PWDP.
28. SNA Area 2 appears to meet three criteria and may need further ground-truthing.

National Policy Statement for Freshwater Management 2020

29. Another matter that has arisen during the hearings for the PWDP is the gazettal of the National Policy Statement for Freshwater Management 2020 (**NPS**) and the National Environment Standards for Freshwater 2020 (**NES**) and whether the proposed SNA Area 1 is a wetland under the NPS and the NES regulations.
30. The definition of wetland for the NPS and NES is same as in the Resource Management Act 1991 (**RMA**) and has not been changed. A wetland for RMA purposes is defined in s.2 as:

Wetland includes permanently or intermittently wet areas, shallow water, and land water margins that support a natural ecosystem of plants and animals that are adapted to wet conditions

31. Area 1 is a permanently or intermittently wet area, but the dominant introduced reed sweetgrass and willow vegetation, along with the absence of most native fish and bird associated with wetlands in the Waikato clearly shows it is not natural ecosystem and not a wetland under the RMA, and the NPS or NES.
32. The landowner has engaged an accredited ecology specialist to assess this proposed SNA (Area 1) and it does not need further ground-truthing, as proposed by Council in the s.42A report.



Dr Mark Bellingham

Principal Ecologist – Ecology New Zealand Ltd


MNZPI, PhD (Planning), CEnvP (Ecology Specialist)



Appendix 1: proposed SNAs on 62 Bluff Road, Pokeno



Legend

 Significant natural area legal effect



Legend

- Significant natural area legal effect
- Alder Trees
- Crack Willows
- Grey Willows
- Sweet Reed Grass