

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

Dated: October 2020

1. 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 wetlands.

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

2. There are two SNA's mapped on 62 Bluff Road. 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.
3. SNA Area 1 (northern) is a large area of the introduced reed sweetgrass *Glyceria maxima*¹. That species forms more than 95% of the vegetation in the SNA. There are scattered grey and crack willow in this area and elder trees around the southern perimeter of the lower part. Rushes and sedges were mainly introduced species. 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.
4. 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.

¹ Reed sweet grass is listed as an environmental threat in the Waikato Regional Council Regional Pest Management Plan 2014-24

5. 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.
6. 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. The fish fauna is indicative of there being no connection between the Mangatawhiri River wetland and this sub-catchment.

SNA Assessment



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

SNA Criterion	Area 1 (Green Area)	Area 2
SNA Assessment	Does not meet SNA criteria	May meet SNA criteria 4, 6, 8

8. 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.
9. SNA Area 2 appears to meet three criteria.

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10. Another matter is whether the proposed SNA Area 1 is a wetland under the NPS and the NES regulations.
11. The definition of wetland for the NPS and NES is same as in the Resource Management Act 1991 (**RMA**) and has not been changed. 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 a natural ecosystem and not a wetland under the RMA, the NPS or NES.
12. The landowner has engaged an accredited ecology specialist to assess the proposed SNAs and it does not need further ground-truthing, as proposed by Council in the s.42A report.