

Appendix 3: Supporting Technical Reports

BEFORE THE HEARINGS PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the Proposed Selwyn District Plan

**STATEMENT OF DES HARRY VINCENT SMITH
ON BEHALF OF SELWYN DISTRICT COUNCIL
Ecosystems and Indigenous Biodiversity
Activities on the Surface of Water**

30 March 2022

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INTRODUCTION

1. My full name is Des Harry Vincent Smith and I am based in Christchurch. I am the South Island Regional Manager of Wildland Consultants Ltd, and a Principal Ecologist specialising in fauna.
2. I have been engaged by the Selwyn District Council to present expert evidence on submission points received on the Activities on the Surface of Water chapter of the Proposed Selwyn District Plan. I also address one submission point on the Ecosystems and Indigenous Biodiversity chapter with respect to EIB-R1.20 Restricted Discretionary Activity (Crested Grebe Overlay).

QUALIFICATIONS AND EXPERIENCE

3. I have a BSc in Zoology from the University of Canterbury, and an MSc and PhD in Zoology from the University of Otago (both in animal ecology).
4. I have 25 years' experience working in the conservation of indigenous fauna in New Zealand and overseas, and in the management of their threats such as introduced predators. My career commenced by working on monitoring the impacts of off-road vehicle disturbance on braided river birds in 1996. Following that, I worked for several years for the Department of Conservation as a biodiversity ranger working with endangered avifauna in Fiordland National Park (e.g. takahe, mohua and Fiordland tokoeka (brown kiwi)). I have been with Wildland Consultants Ltd since 2013.
5. Following completion of my PhD 2005 I undertook a four-year postdoctoral position in Canada. Here I researched and published on egg hatching failure in whooping crane (Endangered), and on the translocation success of burrowing owls to parts of their former range. I have 25 peer reviewed scientific publications that cover a range of topics including avifauna, introduced mammalian predators, herpetology, and indigenous bats. In 2015 I published a paper on the impacts of a constructed diversion channel on water birds in Lake Rotoiti.
6. Since working at Wildlands, I have worked on or overseen a large number of avifauna projects. These include modelling the effects of predator control on forest birds; modelling for the revision of the threat status of black-billed gulls; review of the yellow-eyed penguin monitoring programme on Rakiura/Stewart Island; research into the effects of mussel

farms on king shags; avifauna monitoring and assessments of effects for infrastructure projects including wind farms, roading, dam developments, and irrigation pipelines; surveys of braided river birds prior to gravel extraction; preparation of high priority avifauna management plans (e.g. recently for the Bexley Landfill remediation works); bird surveys and management plans for the New Zealand Conservation Trust's adopted valley programmes.

7. I am a member of the Canterbury Branch of Birds New Zealand (the Ornithological Society of New Zealand) and participate in their winter and spring Te Waihora wading bird surveys. I am also a Team Leader for the Waihora Ellesmere Trust during their annual Te Waihora/Lake Ellesmere annual bird census. I have been involved with this census since it commenced in 2013.
8. I have read the Environment Court "Code of conduct for expert witnesses", and I agree to abide by it. I have prepared this affidavit in accordance with that Code. I confirm that my evidence is within my area of expertise. I have not omitted to consider any material facts known to me that alter or detract from the opinions I express in this affidavit. I have acknowledged the material used or relied on in forming my opinions and in the preparation of this affidavit.
9. In preparing this statement I have reviewed the following documents:
 - a. The Activities on the Surface of Water chapter of the proposed Selwyn District Plan, notified 5 October 2020;
 - b. The section of the Ecosystems and Indigenous Biodiversity chapter of the proposed Selwyn District Plan, notified 5 October 2020, relating to EIB-R1.20 (Crested Grebe Overlay);
 - c. Definitions for the proposed Selwyn District Plan, notified 5 October 2020;
 - d. Submissions by three submitters on the Activities on the Surface of Water chapter, and one submission on ECO-R1.20 (Crested Grebe Overlay);

SUMMARY OF EVIDENCE

10. My evidence addresses submissions on the Activities on the Surface Water chapter of the proposed Selwyn District Plan by Christchurch City Council,

the Royal Forest and Bird Society of New Zealand Inc, and the New Zealand Defence Force. It also addresses a submission by the Director General of Conservation on the Crested Grebe Overlay in the Ecosystems and Indigenous Biodiversity chapter.

11. I agree that Christchurch City Council's proposed amendment on ASW-P1 would assist with managing potential adverse effects of watercraft on avifauna in Te Waihora through recreational disturbance. I also agree with the Royal Forest and Birds amendment proposed amendment that the word 'Threatened' is removed from ASW-P1 so that all indigenous fauna are protected. I disagree with the New Zealand Defence Force's opposition to ASW-R1.3a, as military exercises in the listed high-country lakes could impact crested grebes during their breeding season.
12. I agree with the Director General of Conservation that permitted activities under ECO-R1.20 may pose a risk to crested grebe, but they could be permitted to occur outside the crested grebe breeding season.

PROPOSED SELWYN DISTRICT PLAN: ACTIVITIES ON THE SURFACE OF WATER

13. In its ASW-Overview the Proposed Selwyn District Plan notes that activities on the surface of water bodies can disturb wildlife, and that a number of small high-country lakes in the District are habitat for Australasian crested grebe (*Podiceps cristatus*, Threatened – Nationally Vulnerable) as well as other indigenous species. They also note that noise from motorised watercraft, even when moving at slow speeds, can cause disturbance that may result in nest abandonment.
14. ASW-R1.3 restricts the use of motorised watercraft on 17 high-country lakes to scientific investigations or monitoring, law enforcement, search and rescue, and biosecurity work carried out by Canterbury Regional Council.
15. It is important to note that Australasian crested grebe make nests out of sticks and aquatic vegetation that float on the water of these lakes. So, risks from motorised watercraft extend beyond noise disturbance, to the swamping of nests by boat wakes, and destruction through collision.

SUBMISSION BY CHRISTCHURCH CITY COUNCIL ON ASW-P1/ASW-R1.1

16. Te Waihora/Lake Ellesmere is currently not listed in the schedule of lakes in ASW-R1.3 where the use of motorised watercraft is proposed to be

restricted. Presumably, this is because Te Waihora/Lake Ellesmere is not a high country lake.

17. The Christchurch City Council would like to see ASW-P1 amended to say (amendment in square brackets) “Enable the use of motorised and non-motorised watercraft on the surface of water bodies while controlling motorised watercraft on the surface of the District’s high country lakes [and Te Waihora/Lake Ellesmere] to manage adverse effects on threatened indigenous fauna”.
18. The Christchurch City Council considers that allowing a wider range of motorised watercraft activities on Te Waihora/Lake Ellesmere than customary harvesting, fishing, shooting and conservation activities might significantly impact the natural and cultural values of the lake. The Christchurch District Plan limits watercraft use on the lake to these activities for this reason.
19. They propose a separate new rule, ASW R1.4, specific to Te Waihora/Lake Ellesmere which restricts the use of motorised watercraft on Te Waihora/Lake Ellesmere to activities involving mahinga kai, commercial and recreational fishing, game bird shooting and lake management or conservation activities.
20. Te Waihora/Lake Ellesmere is New Zealand’s largest coastal lagoon (and fifth largest lake). It is an internationally recognised wetland, and a significant bird habitat, with 167 bird species known to the lake. This is the highest recorded number of bird species for any wetland in New Zealand.
21. Birds that use the lake include international migrants such as the cattle egret (*Ardea ibis*; Migrant¹) and curlew sandpiper (*Calidris ferruginea*; Vagrant); indigenous waterfowl such as black swan (*Cygnus atratus*; Not Threatened) and grey teal (*Anas gracilis*; Not Threatened); introduced waterfowl such as mallard duck (*Anas platyrhynchos*; Introduced and Naturalised) and Canada goose (*Branta Canadensis*; Introduced and Naturalised); native gulls (*Larus* spp.), including black-billed gulls (*Larus bulleri*; Threatened-Nationally Critical) and red-billed gulls (*Larus novaehollandiae*; At Risk-Declining); Australasian crested grebe (*Podiceps cristatus*; Threatened-Nationally Vulnerable); endemic waders such as wrybill (*Anarhynchus frontalis*; Threatened-Nationally Vulnerable), banded

¹ Robertson, H.A; Baird, K.; Dowding, J.E.; Elliott, G.P.; Hitchmough, R.A.; Miskelly, C.M.; McArthur, N.; O'Donnell, C.F.J.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2017. [Conservation status of New Zealand birds, 2016](#). *New Zealand Threat Classification Series 19*. Wellington, Department of Conservation. 27p.

dotterel (*Charadrius bicinctus*; Threatened-Nationally Vulnerable), pied stilt (*Himantopus himantopus*; Not Threatened) and black stilt (*Himantopus novaezelandiae*; Threatened-Nationally Critical). Te Waihora/Lake Ellesmere is an essential staging point and overwintering habitat for many migratory bird species. Peak numbers of wading birds assemble at the lake before dispersing to breed, or congregate at the completion of breeding before northward and overseas migration.

22. For some species, large proportions of the total New Zealand population are estimated to reside on the lake at certain times of the year, e.g. pied stilt (50%), red-necked stint (*Calidris ruficollis*; Migrant; 68%), and Australasian shoveler (*Anas rhynchos*; Not Threatened; 75%²). Since 2013, the Waihora Ellesmere Trust has coordinated an annual February bird count around the entire lake. The lake is split into sections, each of which is counted simultaneously by a large number of volunteers. Each year between 41,500 and 55,000 individual birds are counted within a single day.
23. Wetlands peripheral to Te Waihora/Lake Ellesmere are important habitat for specialist wetland birds such as Australasian bittern (*Botaurus poiciloptilus*; Threatened-Nationally Critical), marsh crake (*Porzana pusilla*; At Risk-Declining), and pūkeko (*Porphyrio melanotus*; Not Threatened). The Te Waihora/Lake Ellesmere area has been identified as a stronghold for Australasian bittern in the Canterbury Region with an estimated 25-35 birds using the area between the Halswell River mouth and Harts Creek Wildlife Management Reserve, including Yarrs Flat³.
24. To avoid confusion, it is important to note that although Australasian crested grebe are known to use Te Waihora/Lake Ellesmere they do not nest there. Christchurch City Council's submission is in relation to the overall outstanding avifauna values of Te Waihora/Lake Ellesmere.
25. Lakeside Domain at the western end of the lake has an Aquatic Club and lanes for jet skis and water skiing. The Ellesmere Aquatic Club have advised that summer boating activity can range from a few to 20 boats per weekend (depending on weather), and that generally power boats scout the lake and are not limited to its western side. The Christchurch Water

² O'Donnell C.F.J. 1985: Lake Ellesmere: a wildlife habitat of international importance. *Fauna Survey Unit Report No. 40*. NZ Wildlife Service, Department of Internal Affairs, Wellington.

³ Langlands P. 2013: Current status of the Australasian bittern (*Botaurus poiciloptilus*) in Canterbury. *Technical Report Number R13/25*. Prepared for Environment Canterbury, Christchurch.

Sports Club and the Canterbury Water Ski Association have advised that they do not typically use the lake for activities, and that power boat activity on the lake has declined substantially compared to 30-40 years ago.

26. Power boats have the potential to create enormous disturbance to birds inhabiting Te Waihora/Lake Ellesmere. From my experience undertaking bird surveys at Te Waihora/Lake Ellesmere, a person walking along the edge of the lake can sometimes put several hundred of birds into flight in a single instance. A power boat scouting the lake has the potential to put enormous numbers of birds to flight. If 20 power boats did this in a single day, this is potentially quite severe disturbance.
27. Given the indications in paragraph 20 that there is not a lot of interest in Te Waihora/Lake Ellesmere for water sports such as jet skiing and water skiing, it is my opinion that the Christchurch City Council's suggested changes should be adopted in an effort to reduce bird disturbance on the lake. However, it should be noted that the other permitted boating activities will still cause disturbance to birds. For example, using boats to access maimais for duck shooting or maintenance has the potential to disturb birds, including shorebirds and waders using shallower parts of the lake. However, because these activities are not undertaken rapidly, nor over large distances, the level of disturbance of this type of activity would be less than a power boat scouting the lake.

**SUBMISSION BY THE ROYAL FOREST AND BIRD SOCIETY OF NEW ZEALAND INC.
ON ASW-P1**

28. On Page 18 of their submission the Royal Forest and Bird Society of New Zealand support ASW-P1 but would like an amendment. The amendment would be to remove the word 'threatened' from ASW-P1 so that it reads "...to manage adverse effects on indigenous fauna". This is so that the focus is not just on protecting Threatened indigenous fauna, but is on the protection of all indigenous fauna.
29. This amendment should be made as it aligns with other legislation. For example, the Resource Management Act (1991), which requires councils to maintain and protect indigenous biodiversity. Also, the Wildlife Act (1953) legally protect indigenous birds (except a small number listed in Schedule 5) from disturbance and destruction. In addition, putting in place policies and rules that help protect Non-Threatened indigenous fauna may assist with preventing them from becoming Threatened in the future.

SUBMISSION BY THE NEW ZEALAND DEFENCE FORCE ON ASW-R1.3

30. The New Zealand Defence Force submission (submission point) opposes ASW-R1.3a. This is because they may want to use the listed high country lakes for military exercises, or for search and rescue training.
31. From an ecological perspective, the threat status of the Australasian crested grebe and their breeding behaviour does justify the restrictions proposed by the Selwyn District Council. Military exercises in these lakes could put crested grebe nests at risk, unless they were undertaken outside the crested grebe breeding season (September-March).

SUBMISSION BY THE DIRECTOR GENERAL OF CONSERVATION ON ECO-R1 (THE CRESTED GREBE OVERLAY)

32. On Page 28 of their submission document, the Department of Conservation oppose some of the wording in ECO-R1.20 Restricted Discretionary Activity (Crested Grebe Overlay). They would like to see removed from the wording “except where provided for in ECO-R1.4 or ECO-R1.6”. ECO-R1.4 relates to permitted indigenous vegetation clearance activities that are allowed for certain activities relating to infrastructure, emergencies, mahinga kai, utility network operation, or certain overlay areas. ECO-R1.6 relates to permitted indigenous vegetation clearance activities within a Significant Natural Area that relate to maintenance of tracks, flood protection, and drains, imminent danger, mahinga kai, or utility network operation.
33. The Department of Conservation is of the opinion that these permitted activities should not be allowed in the Crested Grebe Overlay as crested grebes are sensitive to disturbance, and the proposed rule includes appropriate setbacks that should allow for most of these activities to occur as well as providing for clearance of pest species (e.g. willow (*Salix* spp.)). The setbacks mean that vegetation over five metres in height cannot be removed within 10 metres of the lakes listed in the Crested Grebe Overlay, and that willow control must occur outside the crested grebe breeding season (i.e. between the dates 1 March to 31 August). These setback conditions are very important because Australasian crested grebe can sometimes tether their nests to tree roots, or low branches that overhang lakes, and this can include willow species.
34. A large number of activities are permitted under ECO-R1.4 and ECO-R1.6 that could potentially have adverse effects on Australasian crested grebe by creating disturbance or by accidentally removing nesting habitat during

the nesting season. It is my recommendation that either the Department of Conservation wording is accepted, or alternatively, that the wording is adjusted so that the permitted activities under ECO-R1.4 and ECO-R1.6 can only occur outside the crested grebe breeding season (1 March to 31 August), if they are to occur within the proposed setbacks.

Des Smith

25 March 2022