

Nick Goldwater – Ecology (dated 1 August 2022)

1. The scope of my evidence includes the following: a brief background and methodology used for the field surveys, a description of the existing environment, a summary of the Ecological Impact Assessment and key conclusions as to the potential effects, responses to matters raised by submitters, a response to the Officer's S42A report, and a review of the draft conditions.
2. Following visits to the site in 2020 and 2021 by Wildlands' ecologists, all vegetation types were described and mapped, and areas visually recognisable as potential wetlands were identified and confirmed and delineated. Any accessible indigenous trees were identified, marked with a handheld GPS device, and their diameters measured. A targeted survey for indigenous lizards was undertaken in March 2020 by Wildlands' herpetologists. Targeted surveys for all other fauna species were beyond the scope of the assessment, although all fauna species observed at the site were recorded.
3. Most of the study site comprises rank grassland on old dunes, with exotic grass species occurring with frequent pest plants species such as tree lupin and gorse. Several kānuka groves occur in the northern and central part of the site, ranging in size from several to c.50 trees. Based on the latest version of the scheme plan, none of these trees will be cleared during the earthworks and these existing stands will be protected and enhanced.
4. The dunes are highly modified and are largely covered by exotic pasture species, and are no longer functioning as 'active dune systems' due to the stabilising effect of pasture and exotic shelterbelts. Overall, the dunes are considered to have low ecological values.
5. Four natural wetlands were identified at the site. Due to the rarity of wetlands in the Wellington Region, all natural wetlands meet the 'representativeness' and 'rarity' criteria listed in Policy 23 of the Wellington Regional Policy Statement, and therefore meet the definition of a significant natural wetland. Two other wetlands were identified that did not meet the criteria. Overall, the wetlands in their current state provide limited habitat for indigenous flora and fauna, with the exception of common indigenous bird species such as pūkeko. Most of the wetlands are considered to have moderate capacity for flood flow attenuation and for attenuating and trapping nutrients and sediment.
6. Rank pasture provides habitat for a relatively sparse population of northern grass skink, a 'Not Threatened' indigenous lizard species that is legally protected by the Wildlife Act (1953). Exotic shelterbelts and kānuka groves on site provide some habitat for common indigenous fauna species and may act as stepping stones for indigenous avifauna species as they move across the landscape. Overall, however, the fauna and habitat values at the study site are considered to be low.
7. Measures to mitigate the potential adverse effects of vegetation clearance include the protection and enhancement of natural wetlands and kānuka groves. This would largely involve revegetation and pest plant and animal control, and should be guided by a Council-approved Ecological Management Plan (as per the

amended proposed condition 72 included in Annexure A to Chris Hansen's supplementary planning evidence). All the natural wetlands and kānuka groves will be protected in perpetuity under covenants.

8. Measures to mitigate the potential adverse effects on birds and lizards include undertaking vegetation clearance outside of the bird breeding season, preparing and implementing a Lizard Management Plan, and protecting a one-hectare area of lizard habitat in Lot 5. It is also noted that the Applicant has revised their plans to retain as much of the exotic shelterbelts as possible, following feedback from neighbours with regards to potential effects on indigenous fauna. Some clearance of these trees may be needed, but the extent has been substantially reduced. Replanting of these areas with appropriate indigenous species will occur if needed.
9. Controls for stormwater run-off and sediment and erosion are appropriately addressed in the reports prepared by Cuttriss and Awa. I note that the applicant has already obtained consent from Greater Wellington Regional Council relating to the discharge of sediment laden run off to land/water, bulk earthworks and a discharge permit for operational stormwater where it may enter water including to land within 100 metres from a natural wetland.
10. The construction of the wetland in Lot 200 (Wetland 4) will provide effective flood mitigation and treatment of run-off. Over time, indigenous plantings in the constructed wetland will provide local habitat for indigenous waterfowl and wetland bird species, as well as providing important ecosystem services such as nutrient uptake and additional bio-filtration.
11. I acknowledge the concerns raised by the submitters with respect to the ecological effects of the proposal, these being the potential loss of habitat for indigenous fauna and flora, the loss of hunting territory for falcon, and the potential adverse impacts of cats and windows on birds. I consider the responses outlined in my evidence have sufficiently addressed these concerns, particularly in light of the proposed mitigation and compensation measures ~~the~~ described in my assessment, such as protecting and enhancing all natural wetlands, creating new areas of indigenous habitat through wetland buffer planting, creating a one-hectare lizard protection and enhancement area, retaining most of the exotic shelterbelt, undertaking rabbit control, and undertaking the control of gorse and blackberry across the site.
12. I have reviewed Section 6.9 of the Officer's report, which pertains to ecological effects. I agree with the Officer's conclusions with regards to potential effects of the proposal being less than minor, particularly in light of the mitigation measures proposed by the Applicant. I note that paragraph 178 of the Officer's report states the following:
 - (a) "No review of the Wildlands Consultants report was considered necessary given the site does not contain any ecological features under the District Plan (i.e., an ecological site), the limited removal of indigenous vegetation proposed and requirements of the applicants with the Regional Council."

13. I have reviewed KCDC conditions 69 to 74 as they relate to ecology and made suggested amendments as outline in my statement of evidence (and included in the revised conditions in Annexure A of Chris Hansen's supplementary planning evidence). These largely pertain to the inclusion of an Ecological Management Plan (EMP) and measures by which to reduce adverse effects on indigenous birds during breeding season.
14. I consider that the proposed protection and enhancement of the four natural wetlands, together with the establishment of a lizard protection area and the control of pest animals and plants, if appropriately implemented, will have a net positive effect on indigenous biodiversity through the provision of fauna habitat and enhanced floristic diversity.

