Before the Hearings Panel of Greater Wellington Regional Council and Hutt City Council

IN THE MATTER	of the Resource Management Act 1991
	(the Act)
AND	
IN THE MATTER	Resource consent application by Hutt City Council
	under section 88 of the Act for the Eastern
	Bays Shared Path Project
BETWEEN	Greater Wellington Regional Council (GWRC) and
	Hutt City Council (Local Authorities)
AND	Hutt City Council Transport Department (Applicant)

Rebuttal Evidence - Hearing

On behalf of Greater Wellington Regional Council (GWRC)

Dr Roger Uys

17 December 2020

INTRODUCTION

- 1 My full name is Roger Gregory Uys. I am a Senior Environmental Scientist at GWRC. I have worked for GWRC since 1 February 2016.
- 2 I hold a BSc and BSc(Hons) from University of Natal (now University of KwaZulu-Natal) in South Africa. I also have an MSc and PhD in Ecology from University of Cape Town in South Africa.
- 3 I am a member of the Ecological Society of New Zealand.
- 4 I have twenty years' cumulative ecological work experience, including fifteen years' experience providing environmental advice to local government.
- 5 I have been responsible for providing expert advice to GWRC on matters relating to the effects of this application on penguins and shorebirds.
- 6 I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environmental Court Practice Note 2014. I agree to comply with that Code. My qualifications are set out above.
- 7 I confirm that the issues addressed in this brief of evidence are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from my opinions expressed.

RESPONSE TO STATEMENT OF EVIDENCE OF DR JOHN FENTON COCKREM ON BEHALF OF THE APPLICANT DATED 14 DECEMBER 2020

- 8 I start by responding to Dr Cockrem's points on tōrea pango / variable oystercatchers in Te Whanganui-a-Tara / Wellington Harbour (points 9-31).
- 9 Dr Cockrem makes reference to a report by Wildlife Management International (WMIL) (2019) entitled, "A baseline survey of the indigenous values of the Wellington Region coastline" with reference to points 27 to 31 in his rebuttal evidence. I can confirm that I designed and contracted the survey and am familiar with the contents of the report.
- 10 Dr Cockrem has used the report to argue that variable oystercatcher do not meet the 'Rarity' criterion that formed the basis of Schedule F2c (Significant habitats for indigenous birds in the coastal marine area) of the Wellington region Proposed Natural Resources Plan (PNRP) (point 28e).
- 11 The 'Rarity' criterion reflects the presence of regionally significant populations of indigenous birds. The WMIL (2019) report confirms that no part of the Eastern Bays shoreline currently supports regionally significant populations of any indigenous bird species, including variable oystercatcher.
- 12 Dr Cockrem further observed that the Days Bay to Point Howard section of the project area is not listed in the appendix two of the report that provides a list of all of the Wellington region's "coastal habitats of significance for indigenous birds" identified by applying the Policy 23 translation criteria developed by McArthur et al., (2015a) to the bird abundance and distribution data collected during this region-wide coastal bird survey (points 29 and 30).

- 13 These two points do not however mean that the Days Bay to Point Howard section of the project area does not qualify as a significant bird habitat or that the population of variable oystercatcher does not contribute to this section of the Eastern Bays shoreline being a significant bird habitat.
- 14 Significance of habitats for birds is assessed according to the 'Rarity', 'Diversity' and 'Ecological Significance' criteria of Policy 23 in the Regional Policy Statement (RPS). Sites only need to meet one of these criteria to qualify as significant.
- 15 The report on "A baseline survey of the indigenous values of the Wellington Region coastline" was never designed to be used as a sole source of information against which to review significant bird habitats for indigenous birds in the coastal marine area. Instead I commissioned Mr Nikki McArthur to conduct a full review of the literature earlier this year (June 2020). Mr McArthur led the development of the criteria for assessing the significance of habitats for birds and the coastal bird survey conducted by WMIL in 2019. His assessment of all the available literature has confirmed that the Days Bay to Point Howard section of coastline continues to qualify as a significant habitat for indigenous birds in the coastal marine area.
- 16 This information has not been publically released as the PNRP is currently subject to hearings. New information pertaining to Schedule F2c could not be introduced at this stage and would need to be included through a plan change, with affected parties being notified.
- 17 Mr McArthur's assessment of all of the latest available literature identified the 'Diversity' criterion as qualifying Days Bay to Point Howard section of coastline continues to qualify as a significant habitat for indigenous birds in the coastal marine area. This criterion is based on the diversity of nationally Threatened or At Risk species. Seven bird species of national conservation concern, including the At Risk variable oystercatcher, were identified in the Days Bay to Point Howard section of coastline qualifying it as a significant bird habitat. This concurs with the existing assessment as reflected in the PNRP.
- 18 Thus, although the Eastern Bays do not support regionally significant populations of variable oystercatcher, their presence is significant in that it has contributed to the project area being identified as a regionally significant site for indigenous birds in the coastal marine area.
- 19 The fact that the Days Bay to Point Howard section of coastline was not identified as a significant bird habitat based on the data collected in the coastal bird survey (WMIL 2019) was an artefact of the survey design. I was particularly interested in the distribution and relative abundance of shorebirds to inform planning for marine oil spills. The survey covered the whole coastline of the region, divided into 1km stretches which were each visited once. This was intended as an extensive, rather than a comprehensive survey, which is why the broader literature was turned to for the revision of Schedule F2c.
- 20 Survey design, combined with seasonality and the timing of the tides is important for understanding variable oystercatcher abundance. Birds aggregate through autumn and winter, separating out along the coast into territories through spring and summer; feeding between the tides and moving to roost sites through the high tide. This may go some way to explaining the variability of the oystercatcher numbers through the surveys referenced by Dr Cockrem through points 10 to 29.

- 21 These surveys indicate that there are in the region of 100 variable oystercatcher in Te Whanganui-a-Tara / Wellington Harbour, with up to 10 percent of this population utilising the project area.
- 22 With reference to Dr Cockrem's points on effects (points 32 to 40), based on the proportion of the harbour population in the project area and the national threat status of this species (At Risk: Recovering as it relates to Schedule F2c) the loss of variable oystercatcher from the project area would be more than minor for the population in the harbour and for the significant bird habitat status of the project area.
- 23 Dr Cockrem instead refers to Roper-Lindsay et al (2018) "Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems" (EcIA) to assess the magnitude and level of effect. This relies on the national conservation threat status and the magnitude of effect.
- 24 Nationally, variable oystercatcher have been identified as At Risk: Recovering which places them in the "Moderate" value category. It is worth noting however, that he species has been assessed as regionally Threatened: Vulnerable, which would place its regional value as "Very High". This assessment is based on the population being between 250-1000 animals, there being around 728 variable oystercatcher in the region. This regional assessment criteria have been developed by Greater Wellington Regional Council and experts from the national Conservation Threat Status team at the Department of Conservation, and used to assess the regional status of birds, plants and reptiles. The status of variable oystercatcher has been reviewed by a panel of experts (including Hugh Robertson who leads the national threat listing of birds for DOC) and the regional conservation threat assessment for birds is currently in draft.
- 25 Dr Cockrem contends that the magnitude of effect on variable oystercatcher in the project area is low which leads to the conclusion that the overall effects on the species are low (point 38).
- 26 He points to there being only a single known breeding pair in the project area (point 36) and to variable oystercatcher not automatically being displaced from feeding or roosting by people walking in close proximity to the birds (point 46).
- 27 This assessment does not recognise the value of a breeding pair of variable oystercatchers to the population in the project area and the Wellington Harbour over the life of the project. Variable oystercatcher are long lived, some reported to reach more than 30 years old. Being territorial, they would typically not start breeding straight away, but would need to mature and find a mate with which to defend a territory that provides sufficient resources to support successful breeding. Defending territories is labour intensive and the birds would be unlikely to continue breeding for the entire span of their adult lives. So, it is highly likely that although there is only one known nesting site currently, this may be occupied by several pairs of variable oystercatchers over the life of the project. This year it appears that the resident pair in Sorrento Bay may be successful in raising two chicks to fledge (ie mature to be independent of their parents). I don't imagine that every year would be this successful however, over the life of the project this nesting site could produce enough birds to replace the population in the Eastern Bays and will contribute to the maintenance of the population and its genetic diversity in the Wellington Harbour. Thus, although the contribution of one nest may appear to be of low value when compared against the regional or national population, the breeding contribution of this site to a long-lived species over the life of the

project is high because naturally only a small proportion of the total population would breed.

- 28 This assessment also does not recognise the pressure that use of the path will place on birds. Bonnie Kaldor has completed a recent review (2019) of bird disturbance from human activity, considering the potential effects from recreational activities on sea and shorebirds for the Avon-Heathcote Estuary Ihutai Trust. This usefully summarises the scope of literature and puts it into a New Zealand perspective. Pertinent to the ongoing use of the shared path, this review recognises increasing levels of disturbance on wildlife by walkers, joggers, cyclists and dog walkers, respectively. It also outlines that effects are not limited to birds being displaced by people, with effects including: decreased feeding rates (as more time is spent in vigilance), unattended nests (which are exposed to predation by the likes of black-backed gulls) and energy and time costs.
- 29 Beyond Kaldor's (2019) report there is a broad body of literature which has been used to inform the avoidance and mitigation of effects on shorebirds, including variable oystercatchers in the Te Ara Tupua share path development on the other side of the harbour. I therefore cannot agree with Dr Cockrem's assessment that we are unable to predict in advance what, if any, effects the ongoing use of the shared path will have on variable oystercatchers (point 51b).
- 30 Given the extent of the path in relation to their habitat, the duration of its operation and the potential numbers of people using the path I also cannot agree that the magnitude of effects on variable oystercatcher will be low.
- 31 Following the EcIA guidelines I therefore conclude that the effects may be moderate to Very High and therefore may be more than minor. The question is whether we can manage these effects.
- 32 Dr Cockrem contends that the combination of the Bishops Park, HW Shortt Park (point 47) and Sorrento Bay (point 48) protected areas, along with requiring dogs to be kept on leads (point 49b), exclusion of dogs year-round from Rona Bay and Sorrento Bay (point 49b), provision of signage (point 49b and 49c), an education campaign (point 49d), research (point 50) and pest and litter control will reduce the effects to no more than minor.
- The full extent of Bishops Park and HW Shortt Park will not be utilised by variable oystercatchers. This species feeds in the intertidal zone and nest in open areas. The extent of these habitats is described as "the majority" of the parks by Dr Cockrem (point 47), however no actual extent has been provided to compare to the extent of coastal habitat that will be lost to the development. Irrespective, the creation of these parks is not creating new habitat. There will be no change to the accessibility of these intertidal feeding grounds unless dog control can be assured and even then the mitigation may not balance out the habitat lost due to the territorial nature of the species that may affect the uptake of the area by displaced birds for at least half the year during the breeding season. It is important to recognise that the fenced portion of these protected area will be above the high tide mark, away from the zone in which variable oystercatchers feed. So they will not in effect be protected.
- 34 I reiterate my point that the proposed Sorrento Bay protected area is not new habitat to avoid the impacts of habitat loss elsewhere along the shared path. Fencing the area will help mitigate the risk of birds being disturbed by people and dogs to help support the breeding success at this nesting site. However, without adequate screening included in the design, as

has been included in Te Ara Tupua for this purpose, the literature suggests that the birds are unlikely to utilise the entire area.

- 35 There is an existing bylaw requiring dogs to be kept on leads, but locals report that this isn't being adhered to or adequately policed by Hutt City Council. It was my hope that educational signage might help address this, however a recent article (12 December 2020), entitled, "Auckland shorebird chicks stood on and starving to death due to selfish beachgoers" has lead me to question the effectiveness of this approach. The article describes how predator fencing and signage has failed to prevent people from entering a bird sanctuary on Omaha Beach to run their dogs off leash, barbecue, erect shelters, sunbathe, play sports, picnic and swim when the sanctuary only covers 500m of a roughly 3km long beach.
- 36 I remain concerned that a research project recommended by Dr Cockrem may come too late if adequate controls are not put in place and only succeed in recording the loss of the species from the project area.
- 37 I am also concerned that the litter and pest management plans are not being scaled to the duration of the effects. Ideally these mitigations need to be extended to the length of the project and continued for the duration of its effects (ie. the life of the project). This has been proposed by the Applicant in the Te Ara Tupua shared path.
- 38 Owing to the behaviour of variable oystercatcher it is always going to be difficult to reduce the magnitude of the effects of coastal development to a point where they may be considered not the have long-term adverse outcomes. This is especially difficult for populations like variable oystercatcher in the Wellington Harbour that have already been impacted by cumulative effects. However, I'd suggest that there are some additional ways in which we could manage the effects to achieve an equitable outcome.
- 39 The proposal for Bishops Park only covers the northern portion of the beach. Extending the protection to the pier and potentially including the duneland south of the pier in a rehabilitation scheme is one of the most meaningful opportunities available to manage effects on shorebirds.
- 40 I agree that signage and education programs could help, but ultimately dog exclusion is the most important intervention to facilitate the use of these areas by shorebirds.
- 41 Litter and pest control remain important components of the management of effects. I reiterate the importance of these to be scaled to the duration of the effects.
- 42 There is the potential to include screening in the designs that creates a barrier between people using the path and birds in high value habitat zones where they may be disturbed. This concept has been incorporated into the Te Ara Tupua design with slatted, angled vertical beams in key areas that allow views of the coast while protecting birds in the habitat adjacent to the shared path that has been identified as essential to them.
- 43 I would like to address Dr Cockrem's point about the effects of climate change on variable oystercatchers (point 52). Options for managing the environmental effects of climate change can be grouped into three Rs: building resilience, allowing for retreat, and repatriating fauna and flora to refugia. With reference to the resilience of the seawall to sea level rise the Applicant has repeatedly referred to the structural specification "buying some time" and this is what we also need to be doing with the environmental values. Over the lifespan of the project the Eastern Bays can still produce numerous variable oystercatcher chicks and

support others born elsewhere to help the local, regional and national population on its path to recovery before their habitat is lost. This can however only happen if we adopt some serious steps to manage the effects of this development.

- 44 Subject to the recommendations above being implemented I consider the effects of the proposal on variable oystercatchers will be avoided or mitigated to a level that I would consider the remaining residual effects to be minor. I have summarised these recommendations as:
 - Extension of the protection area at Bishops Park;
 - Effective dog control;
 - Ongoing litter and pest management;
 - Appropriate signage and education, and compliance with that signage.