and:	Lucklaw Farm Limited
and:	Vehicle Exclusion Proposal
in the matter of:	Submissions and further submissions in relation to the proposed Far North District Plan
under:	the Resource Management Act 1991

Summary of Evidence of Gareth Foley Taylor (Ecology)

Dated: 30 July 2024

SUMMARY OF EVIDENCE OF GARETH FOLEY TAYLOR

INTRODUCTION

- 1 My full name is Gareth Foley Taylor.
- I am a Director at Collaborations and hold a PhD in Environmental Science. I have worked as an environmental scientist with a focus in environmental management for over 12 years. My PhD studies are of particular relevance to issues raised by Lucklaw Farms in that the thesis examined the effects of vehicles on sand beach systems and included a detailed review of management systems for vehicles used around the world.
- 3 I provide the following summary of my evidence as below:

SUMMARY

- 4 Lucklaw Farm has commissioned a number of studies which I have relied on one such study was completed by myself and others by Boffa Miskell. The latter was prepared as part of submission to the Northland Regional Council Regional Plan Change where Lucklaw Farms had successfully sought a Vehicles Exclusion Zone (VEZ) be imposed on Puwheke Beach.
- 5 The Boffa Miskell report identified a number of threatened bird, lizard and vegetation species on Puwheke beach. The report concluded that very high ecological values are present on Puwheke Beach, and current vehicle access is threatening these values.
- 6 The Environment Court Decision¹ associated with the Northland Regional Plan emphasised that working across other agencies is required to 'ensure that the full beach area is managed effectively'.
- 7 At present management has restricted vehicles above the Mean High Water Sprin (MHWS) with the implementation of the VEZ under the Regional Plan.

IMPACTS OF VEHICLES ON ECOLOGICAL VALUES AT PUWHEKE BEACH

- 8 Vehicles have been shown to negatively impact on beaches in published academic literature around the world as noted in a review by the Department of Conservation²; though very few studies quantify effects on New Zealand flora and fauna.
- 9 Impacts on birds are difficult to quantify at a population level, but studies have assessed nest mortality from vehicles and showed that a large amount of nest destruction can occur on beaches with vehicles. Even beaches with low amounts of tracking have a high proportion of nest destruction shown in those studies.
- 10 There is relatively little literature examining effects of vehicles on dune systems in New Zealand; however, studies do show vehicles negatively affect dune systems and this was supported by observations made in the Boffa Miskell report as well as those observed myself when on Puwheke Beach.

¹ Decision [2023] NZEnvC 133

² La Cock, G.D. (2022) Vehicles on New Zealand beaches: an annotated bibliography of research on physical and ecological impacts. Prepare for the Department of Conservation. 21 Pp.

- 11 Overall, there is an adverse effect of vehicles on threatened vegetation and bird species in the area landward of the MHWS, and this may be exacerbated by the spread of tracks through the dune systems and shoreline without further regulation.
- 12 In my opinion, to maintain and protect the very high ecological values associated with dunes, vegetation and birds present on Puwheke Beach, further management of vehicles is required.

BENEFITS OF RELIEF SOUGHT

- 13 Lucklaw Farm seeks relief in the form of provisions that provide for permitted access under certain conditions (see Lucklaw Farm's legal submissions). Supporting this submission is an amended set of provisions based on the Northland Regional Plan vehicles on beaches rule.
- 14 The provisions suggested by Lucklaw Farm would limit vehicle access to Puwheke Beach through the implementation of a Vehicle Exclusion Zone, and limit vehicle access outside of the Vehicle Exclusion Zone which is only permitted if the conditions 1 to 6 are met. This, along with the Vehicle Exclusion Zone, may reduce the number of vehicles accessing the beach as well as reducing 'fanning' of tracks on the beach itself.
- 15 With regard to ecological protection, key aspects of these conditions include avoidance of shellfish beds, vegetated areas and bird nesting areas during nesting season, and a requirement to use the closest practicable point along the foreshore from the vehicle access point for the launching or retrieval of vessels as an exception to the Vehicle Exclusion Zone. All of these factors are considered to be ecologically beneficial compared to the current management in place at Puwheke Beach.
- 16 Overall I consider the imposition of these rules would be effective in minimising the spread of vehicle use within the beach as would be limited to a direct track between the shore and Puwheke Road entrance; provided compliance is monitored.

RESIDUAL MATTERS

17 With respect to Conditions (2) and (5), I consider this may be difficult to determine and/or enforce as requires knowledge of the location of bird nests and shellfish beds . It may be more beneficial to identify the particular area of the beach where vehicles may be driven. Or alternatively identify a time of year that captures bird nesting season and restricts access during this time.