

**IN THE ENVIRONMENT COURT OF NEW ZEALAND  
AUCKLAND REGISTRY**

**I TE KŌTI TAIAO O AOTEAROA  
TĀMAKI MAKAURAU ROHE**

**IN THE MATTER** of the Resource Management Act 1991

**AND** of an appeal under clause 14 of Schedule 1 of the Act

**BETWEEN** **BAY OF ISLANDS MARITIME PARK INCORPORATED**

**CEP SERVICES MATAUWHI LIMITED**

**MANGAWHAI HARBOUR RESTORATION SOCIETY  
INCORPORATED**

**ROYAL FOREST AND BIRD PROTECTION SOCIETY  
OF NEW ZEALAND INCORPORATED**

**Appellants**

**AND** **NORTHLAND REGIONAL COUNCIL**

**Respondent**

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**VINCENT CARLYLE KERR EVIDENCE IN CHIEF**

**MARINE ECOLOGIST**

**TOPIC 15: MANGROVE REMOVAL**

**26 JUNE 2020**

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**WYNNWILLIAMS**

## 1. Introduction, qualifications and experience

- 1.1 My name is Vincent Carlyle Kerr. I hold a Bachelor of Biological Science degree from the University of Oregon, USA and a National Diploma in Horticulture from the Royal Institute of Horticulture, Lincoln College.
- 1.2 I am a member of the New Zealand Marine Sciences Association. I am the principal of Kerr and Associates and am engaged in environmental consulting with a focus on marine ecology work and marine protected area planning. I have worked as a marine technical officer for Northland Conservancy, Department of Conservation (**DOC**). I have also worked as a contractor and consultant in marine and freshwater ecology for DOC in Northland.
- 1.3 I am a founder and current Trustee of the Northland based Mountains to Sea Conservation Trust which is amongst New Zealand's largest marine and freshwater environmental education providers.
- 1.4 I have been involved in marine ecology work in northland for the past twenty years. In that time I have lead numerous marine habitat mapping projects, coastal inventories, ecological descriptions and have established a number of survey and monitoring programs around Northland. I have been an active diver and marine photographer here in New Zealand and throughout the Central Pacific for forty years.
- 1.5 I have a website which has a complete list of the technical reports and publications that I have authored.<sup>1</sup>
- 1.6 I was engaged by Northland Regional Council (**Council**) in 2015 to assist with the review and development of the Proposed Regional Plan for Northland's (**Proposed Plan**) mapping projects for significant ecological areas, significant bird areas and other biodiversity mapping. I led the Significant Ecological Areas mapping project for the Council, which I describe further below.

### Code of conduct

- 1.7 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014 and agree to comply with it. The contents of this statement are within my area of expertise. I have not

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<sup>1</sup> [www.kerrandassociates.co.nz](http://www.kerrandassociates.co.nz)

omitted to consider material facts known to me that might alter or detract from the opinions expressed in this statement.

## **2. Scope of evidence**

1.1 This evidence is structured as follows:

- (a) Executive summary;
- (b) Overview of mangroves and their ecological significance;
- (c) Background and purpose of the significant ecological area (**SEA**) and significant bird area (**SBA**) worksheets developed for SEA and SBA mapping;
- (d) Analysis of the mangroves provisions in the Proposed Regional Plan for Northland (**Proposed Plan**); and
- (e) Conclusion.

## **3. Executive summary**

3.1 The consideration of the management of mangrove areas bring together both significant ecological values and urgent conservation needs as well as a host of justified needs of the community to interact with these areas.

3.2 This submission relates the ecology of our estuarine systems, which mangroves are an intergral part of, to the need to plan and manage human interaction within these areas.

3.3 A central theme of what I can contribute is to add some detail and discussion around what a precautionary approach can look like in considering these issues. Today this process is made somewhat clearer with the effort which has gone into mapping of various natural values in the sea as well as on land. This mapping effort was clearly signaled by the Coastal Policy statement and has largely been achieved in Northland. I have tried in this submission to balance the planning needs while still recognising a prime importance of ecological processes and Northland's unique high values. I believe the advances in mapping natural values, the Council's work and the Appellants contributions offer a good framework to lift our environmental performance and provide a clearer set of directions to our community.

#### **4. Overview of mangroves and their ecological significance**

- 4.1 Over the course of my career as a marine ecologist I have spent considerable time in all of Northland's estuaries and visited virtually all of the mangrove areas of these estuaries. This experience and other overseas experience with mangrove systems has led me to have a great appreciation for our indigenous mangrove forests.
- 4.2 Mangroves play a key ecological role in the extensive range of estuaries in Northland. In size and ecological importance, mangrove systems in Northland dwarf the mangrove systems seen in other regions of New Zealand.
- 4.3 Over the past 200 years, mangroves in Northland have typically colonised, persisted and thrived in areas where sedimentation accelerates. Accelerated erosion and sedimentation transport into waterways is a common problem in Northland due to historically poor riparian management and our combination of heavy rain patterns and short steep catchments. This has resulted in increased mangrove colonisation in Northland's harbours and estuaries.
- 4.4 Mangroves contribute positively to a range of ecological processes. They are a part of the natural ecological succession of an estuary, and should be seen as such, rather than as some sort of invader or incursion.
- 4.5 Mangroves produce large quantities of organic matter in their leaves and twigs, and in their extensive root systems. This organic matter supports a large population of organisms that essentially break down this material. In this process, organic compounds consolidate fine sediments in a similar way to how humus rich soil is built in a forest. The end result of this process is that these fine sediments are removed from suspension in the tidal waters, which can be a significant benefit to the estuary as well as nearby offshore waters.
- 4.6 Mangroves are very significant for the three-dimensional structures they produce below high tide level, and their bush and tree form. Many marine invertebrates and fish species use these mangrove areas for food, shelter and protection. In addition to this large biodiversity, there are a range of seabird and other birds which use the mangroves for nesting, roosting, and feeding. Because of the extent and diversity of

mangrove forests in Northland, it has significant populations of threatened shorebirds in virtually all of these forests. The mangrove forest system is also a significant carbon sink.

4.7 When mangrove systems are disturbed at any scale, there is disruption to their organic cycles, biological communities and ecological function. In addition, most removal methods result in the disturbance of fine sediments that the mangrove forests trap, which are resuspended in the estuarine environment. Additionally, where mangroves are removed, new sediments entering the system from storm runoff events are less likely to be trapped and consolidated, which then can disturb marine life in the system elsewhere. Typically, fine sediments would be deposited downstream in the lower estuary or nearby coastal benthic areas adversely affecting those communities and their productivity and diversity.

4.8 In short, the disturbance of mangroves even at a small scale can adversely affect the positive functions and benefits described above. Scale is a crucial factor in terms of the degree of loss or degradation of the system, as each estuary will have its own properties of flushing rates, sediment loads and so on. In turn, each of the biological communities involved also have their own critical threshold levels of fine sediment or other adverse effects. For example, a cockle bed can stand some fine sediment inputs, but beyond a certain point the cockle bed fails and ceases to exist. The cockle's role of filtering the estuarine waters and as a food source for birds and fish is lost, along with a benthic community shift to a less diverse and productive ecosystem with multiple impacts on other marine and bird life. Overall, given the benefits associated with mangroves and the potential for adverse effects from their removal (even from small-scale removal), I consider that a cautious approach to mangrove removal is justified in Northland.

## **5. Background and summary of SEA and SBA mapping**

5.1 As part of the work preparing for the Proposed Plan I was engaged by the Council to create a Significant Ecological Marine Mapping Resource based on Regional Policy Statement for Northland's Appendix 5 criteria for ecological significance. The Appendix 5 criteria provides a methodology for assessing and identifying areas of significant indigenous vegetation and significant habitats of indigenous fauna in

terrestrial, freshwater and marine environments. I have included the text of Appendix 5 in **Attachment 1** to this evidence.

- 5.2 At the outset of this project it was clear that this was going to be a very challenging task considering the complexity of Northland's estuarine and coastal environment, and the very high natural values in much of Northland. We convened an expert group to examine the issues involved and test solutions to adapting the Appendix 5 ecological criteria to marine coastal and estuarine marine habitats.<sup>2</sup> We worked through a number of examples and tested various ways of using the criteria.
- 5.3 Observations and recommendations from the Expert Group process were documented in a summary report<sup>3</sup> that served as a guideline for completing the project. In this process a checklist was adapted to facilitate a scoring process of candidate areas from a marine perspective using the Appendix 5 criteria.
- 5.4 In the second stage of the project we worked through each area of Northland, gathering useful background information and going through the exercise of scoring each area with our criteria worksheet. For each high ranking area, we produced a SEA worksheet that:
  - a. summarised the scoring process and evaluation of the criteria;
  - b. ranked the reliability of the information; and
  - c. gave a general description of the ecological values present, supported by key references.
- 5.5 The intention of this process was to produce worksheets that would guide users of the system to immediately get an overview of the ecological values represented in the area, their importance and information contained in key references for that area.
- 5.6 In some area worksheets where mangroves are a key community, there is discussion of the importance of the mangrove areas. The Rangaungu Harbor SEA worksheet is one such example. Generally the mangrove systems were considered in the evaluation of several of the ecological

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<sup>2</sup> A list of the members of the expert group is provided in Appendix 2 to the Methodology report in footnote 4 below.

<sup>3</sup> Kerr, V.C., 2015. Identification and Mapping of Significant Ecological Marine Areas in Northland: Project Brief and Guide to Assessment. Prepared for the Northland Regional Council. Kerr and Associates, Whangarei.

criteria, however, this is not detailed in the text sections of all worksheets due to the limits we had on time to detail worksheets.

- 5.7 At the conclusion of the mapping project a second technical report was produced that outlined in further detail the processes and decisions that were taken in implementing the mapping and scoring of ecological significance.<sup>4</sup> The ultimate result was the Significant Ecological Area mapping that was notified with the Proposed Plan and associated worksheets.
- 5.8 During the course of working with marine SEA scoring guidelines for estuaries and exposed coast we became conscious that the bird values were wide spread across Northland and found ourselves undertaking two parallel scoring efforts for each area that dealt with different information systems and different ecological considerations which lead to difference in results. It was equally obvious to all the ecologists involved that these shorebirds and seabirds are indeed part or integrated with the marine ecosystems. Council staff proposed that we separate the two layers into marine SEA and bird SEA layers. They argued that from a planning point of view this allowed for more flexibility in the development and application of planning provisions.
- 5.9 In considering the split between a bird SEA and a marine SEA the most significant difference came when applying criteria 2 (b) below to estuarine bird species.
- 5.10 *“2. Rarity / distinctiveness (b) Indigenous vegetation or habitat of indigenous fauna that supports one or more indigenous taxa that are threatened, at risk, data deficient or uncommon, either nationally or at the relevant ecological scale.”*
- 5.11 The New Zealand Threat Classification System for birds, unlike for marine organisms, is sophisticated. Northland estuarine environments have some of the highest numbers of threatened bird species in the country. These species can be described in functional groups of birds that use the estuaries, nearby beaches and shallow coastal waters in different ways. Collectively there are very few areas in Northland

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<sup>4</sup> Kerr, V.C., 2016. Methodology Report Mapping of significant ecological areas in Northland. A report to the Northland Regional Council, Kerr & Associates, Whangarei, New Zealand.

estuaries that do not support threatened shorebirds. This includes many areas that would be considered degraded in terms of marine biodiversity values. To resolve this difference in evaluation based on bird values a decision was made to create separate maps, scoring evaluations and worksheets for birds and marine values. When the process moved to the coastal areas a similar situation arose where significant shorebirds and seabird values were supported by all Northland's open coastline when assessed against criteria 2 (b). The method chosen for the open coasts and offshore islands bird values and marine values was to do the evaluation separately and produce separate layers.

5.12 Once the above decision were made on creating the bird SEA layers a team of experienced ecologists supervised by Dr Ray Pierce assembled available information which was evaluated using a seabird and shorebird assessment worksheet in a scoring process similar to that done for the marine SEA's. Worksheets were created for the high scoring estuaries and descriptive documents were produced for the open coast and offshore areas. For high scoring bird and marine SEA's areas there are references, a narrative and the details of the scoring provided on the worksheets which illustrate and detail the scoring. For medium and low scoring areas the scoring process was not documented in the same manner as for the high scoring areas. This was mainly due to resource constraints. To better understand how the scoring was done, it is advisable to work through the evaluation and scoring guideline document<sup>3</sup> that was produced from the work of the Expert Group process. In this document explanations and examples are given to inform how we would delineate between low and medium and high scoring evaluations.

5.13

[Vince to outline process for developing the significant bird area mapping, what work was done and why it covers a relatively broad area. As the rules and thresholds proposed by various parties impose stricter restrictions in the SBA (e.g. seedling removal is not permitted in the SBA) we need to justify why the SBA is a useful tool for mangrove management. It would be helpful if you could explain the process used to develop the worksheets that support the SBA and the overall approach taken – we understand that the SBA occupies a large area as much of Northland supports aspects of significant bird life.]

## **6. Analysis of the proposed mangroves provisions**

- 6.1 The following section provides my analysis from an ecological standpoint on the Proposed Plan's key mangroves provisions that are in contention.
- 6.2 From an ecological perspective, I support the general approach that the Council has taken. The Council's approach recognises the importance of mangroves as indigenous vegetation and their ecological role in estuarine systems, while also allowing for their removal in certain circumstances. Generally a precautionary and practical approach is taken to controlling removal at small scales where it is needed for a host of management reasons.
- 6.3 In terms of the Appellants positions, I believe there are merits in some of suggestions, however there are also suggestions that I would not support on ecological grounds. I will detail these comments below.

### **Policy D.5.26 Mangrove removal - purpose**

- 6.4 Policy D.5.26 addresses the situations where resource consents for mangrove removal may be granted. Clause 1(b) provides that resource consent may be granted when it is necessary to maintain, restore or improve natural estuarine habitats that are 'displaced or colonised' by mangroves, including rush marsh, salt marsh and intertidal flats. Presumably this concept derives from a preference for mudflats or salt marsh over mangroves, leading to a desire to reverse or control the natural succession process that led to the mangroves establishing. I can see no ecological justification for doing this. In addition disturbance to the mangrove habitat could result in adverse effects on other estuarine habitats due to greater levels of suspended fine sediments and destroying ecological linkages between the mangroves and the other habitats. Therefore I would recommend this clause be removed from the policy. The condition 2 b) requested by BOI Maritime Trust and Forest and Bird highlights a need to protect key shellbank shorebird roost sites by allowing mangrove seedling removal. This suggestion has merit on ecological ground as roost sites are critically important for these species and often have been lost to riparian development of various forms.

6.5 Clause 1(c) signals that consent may be granted when necessary to maintain, restore or improve an area within which mangroves have previously been lawfully pruned or removed. Each of the Appellants other than the Mangawhai Harbour Restoration Society (**MHRS**), have recommended some form of deletion or change to this clause. The clause does not specifically refer to mangrove seedlings. I consider that previous disturbance of seedlings or mature trees in an area does not in itself justify continued removal at a later date. From an ecological perspective, there is a reason that mangroves are establishing themselves where they are and this is a natural succession process with benefits for the estuarine system. While there may be practical reasons why people want to remove mangroves in areas that have been pruned or removed, I consider that ecological assessment should still be undertaken as there may be unacceptable adverse effects, despite mangroves being pruned or removed there in the past. In considering this issue, it is important to be aware that estuarine ecological succession and natural evolution is dynamic in time. Changes are happening in our catchments all the time with restoration and land use activities constantly changing. I suggest this clause be removed from the policy.

#### **Rule C.1.4.1 Mangrove seedling removal – permitted activity**

6.6 In this section I address various aspects of Rule C.1.4.1 which provides for mangrove seedling removal as a permitted activity.

##### *Threshold for seedling removal – 50cm and unbranched vs. 60cm*

1.2 The Proposed Plan decisions version provides a simple threshold for mangrove seedling removal – removal is permitted if seedlings are less than 60cm tall. Other parties either support that threshold, or seek that the threshold be changed to 50cm tall and unbranched. Resolving this dispute on ecological grounds is difficult, based on known information.

6.7 The height of mangrove seedlings can be a proxy for determining when a mangrove is established and proceeding to maturity. Allowing removal of mangrove seedlings of up to 50cm would typically enable the removal of juveniles under one year in age. Whether a seedling is branched is also an indicator of maturity, which suggests the seedling is likely to survive and become established if branched and larger at 60cm. From

an ecological perspective, the most precautionary approach would be to limit mangrove seedling removal to seedlings less than 50cm in height and which are unbranched.

*Location of mangrove seedling removal – canopy of mangroves vs. pneumatophore system*

6.8 The Proposed Plan's Rule C.1.4.1(2), enables seedling removal provided that the seedlings are not under the canopy area of any existing mature mangrove. Some parties support that and others seek that removal is restricted within the pneumatophore system of any existing mangroves.

1.3 Most trees have a root system area approximately 1/3 larger than their above ground canopy. With mangroves, the spatial extent of the root system is typically even larger in relation to the above ground canopy. Further, the area marked by the pneumatophores is where important mangrove processes and communities are present. From an ecological perspective, it would be desirable to avoid any disturbance to this zone associated with seedling removal. Examples of the processes involved in this canopy area are breakdown of the mangrove leaf litter by invertebrates communities that perform several valuable ecological functions such as consolidating fine sediments and stabilising nutrients. A further group of organisms live off these decomposer species examples being the mud crabs which reach very high densities in these areas. These crabs in turn are food sources for fish and birds. Mangrove seedlings in this zone (within the areas of live mangrove roots systems) are controlled naturally via the succession of the mangrove forest. They are either outcompeted by the other trees or fill gaps created in time by trees dying from natural causes and as such are a natural part of that forest community.

*That removal only occurs by hand or hand-held tools (i.e. excluding the use of motorised hand-held tools)*

6.9 The Proposed Plan decisions version provides that the removal of mangrove seedlings can be undertaken by hand or using handheld tools, including motorised handheld tools. Again, some parties support this, but others seek that motorised tools not be used.

6.10 Motorised tools typically generate noise and may encourage more removal of mangroves (as removal may be quicker or easier). This seems a reasonable and precautionary position to exclude motorised tools. There are threatened bird species associated with these area in many cases. I would favour the more precautionary approach.

*Bird breeding season – August-March vs. September-February*

6.11 The Proposed Plan decisions version restricts seedling removal by motorised handheld tools during the bird breeding season between 1 August and 31 March. MHRS has sought to amend that to a shorter season of 1 September to 28 February. I do not support that change.

6.12 While September to February is typically considered the core breeding season, the months of August and March include key pre-breeding, post breeding and preparations for migration life cycle requirements that could be disturbed by use of motorised equipment in these areas. Furthermore, a number of at risk or threatened bird species that are present in Northland have identified breeding seasons that extend into the August to March period. These include:

- a. Banded dotterel (*Charadrius bicinctus*) – July-January;
- b. Banded rail (*Gallirallus philippensis*) – September-March;
- c. Eastern bar-tailed godwit (*Limosa lapponica baueri*) – September-March;
- d. South Island pied oystercatcher (*Haematopus finschi*) – August-January;
- e. New Zealand dotterel (*Charadrius obscurus*) – August-February; and
- f. Variable oystercatcher (*Haematopus unicolor*) – September-March.
- g. Fairy tern (*Sternula nereis davisae*) – Sept-March<sup>5</sup>

6.13 Fair Tern Sept-March *Sternula nereis davisae*

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<sup>5</sup> Ismar, S.M.H., Trnski, T., Beauchamp, T., Bury, S.J., Wilson, D., Kannemeyer, R., Bellingham, M., and Baird, K. 2014. Foraging ecology and choice of feeding habitat in the New Zealand Fairy Tern *Sternula nereis davisae*. *Bird Conserv. Int.* 24(1):72-87.

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- 6.14 I also note Fairy Tern Trust's concern over protection of roosting areas which are used throughout the year.<sup>6</sup> This is a specific impact that should be recognised at a local level for a critically endangered species, such as the Fairy Tern.

#### **Rule C.1.4.2 Minor mangrove removal – permitted activity**

- 6.15 The Proposed Plan decisions version Rule C.1.4.2 provides for certain mangrove pruning and removal as permitted activity. It allows running and removal that is associated with other existing activities, with threshold limits detailed in Table 3 of the rule.
- 6.16 As detailed in Mr Grffin's evidence, the Council has proposed to introduce a new standard that requires that the total area of mangroves pruned or removed not exceed the area limits in Table 3 and not be more than 200m<sup>2</sup> if it occurs within identified "high value" areas.
- 6.17 In general terms, I consider that the ecological importance of mangrove systems and the updated mapping information resources support the Council's approach. In my opinion, the disturbance area thresholds prescribed in Table 3 and the 200m<sup>2</sup> threshold for high value areas appears to be a reasonable approach. The situations outlined in Table 3 are all activities that arguably involve maintenance issues of public access and navigation and amenities that are arguably justified as being necessary for the public good. And in relation to this 200m<sup>2</sup> is a small area in relation to the habitats were considering here.
- 6.18 The other parties do not support the inclusion of an additional threshold. MHRS' preferred provisions seek no additional threshold, whereas the other parties seek that no removal or pruning occur in "high value" areas, other than for regionally significant infrastructure.
- 6.19 I consider that the Council is attempting to set a reasonable and precautionary maximum limit for the list of authorised activities that require consent holders or infrastructure owners to go about their work in an efficient manner..

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<sup>6</sup> Baird, K. 2014. Foraging ecology and choice of feeding habitat in the New Zealand Fairy Tern *Sternula nereis davisae*. *Bird Conserv. Int.* 24(1):72-87.

6.20 Noting the concerns of the consolidated position I could say that in some cases the 200m<sup>2</sup> threshold maximum in a permitted activity could lead to significant disturbances occurring. An example would be where the Table 3 activity is carried out in a mapped significant area that was small in scale, such as a narrow channel in which case the 200m<sup>2</sup> area could lead to an undesirable impact. For this reason, I consider that a lower spatial area threshold could be considered in the context of a permitted activity within a mapped significant area.

#### **Rule C.1.4.3 Mangrove removal – controlled activity**

6.21 Rule C.1.4.3 provides for mangrove removal as a controlled activity for certain specified activities, including:

- a. providing access tracks to marae, urupa or public land;
- b. maintaining navigable channels;
- c. improving private land where the pruning is on freehold title; or
- d. re consenting existing authorised mangrove removal.

6.22 The Proposed Plan decisions version includes a 200m<sup>2</sup> limit within Significant Ecological Areas and Outstanding Natural Character Areas and a 500m<sup>2</sup> limit in all other areas.

6.23 The key areas of dispute for this rule are:

- a. whether re consenting existing authorised mangrove removal should be enabled;
- b. whether such removal should be able to occur in “high value” areas up to 200m<sup>2</sup> per year; and
- c. which “high value” areas should be included in any restrictions.

6.24 Clause 4 of the Rule enables resource consent to be granted as a controlled activity to replace an existing resource consent. New activities should be evaluated on merits under current environmental conditions and constraints. Estuarine ecosystems are dynamic and changing through time. Conditions could have changed since the time a previous consent was granted leading to potential adverse impacts. Also there could be cumulative impacts of repeated removal activities, for example increases in suspended fine settlements beyond what adjoining

biological communities can tolerate. I support the consolidated Appellant position that proposes to delete this section.

6.25 In terms of clause 5, some parties seek that mangrove removal is not permitted in any “high value” area, whereas the Council proposes a 200m<sup>2</sup> threshold limit for removal in high value areas. Taking a precautionary approach, I consider that there is merit in the proposal not to enable removal within high value areas.

**7. Edit comment VK – It seems I am out of step of my role here in the section below 7.1 – 7.4 I can not provide specific ecological evidence to help delinieate between these planning postion details, so really all I have written Is my personal opinion based on my experieince which is to varying degrees at odds with the Council and in places aligning with the appealant. As such considering my role is not to resolve planning wording I should withdraw from commenting on any of this, so my solution is to scrap these sections.**

7.1 The two main ecological issues here concern an issue of scale and what could be appropriate or acceptable disturbance. This is difficult because any disturbance in these high value areas is just that – a disturbance – despite being small in scale. A further problem is that mangrove areas vary greatly in scale – some are very small estuaries while others are very large. This means that establishing a blanket maximum area threshold problematic.

7.2 On the other hand, clauses 1 and 2 of the Rule allow for minor removal for what could be argued as necessary and traditionally accepted purposes. Clauses 3 and 4 however are not so easy to justify.

7.3 For this reason, I suggest resolution could be a hybrid between the two positions which removes sections 3 and 4 and allows for removal in high value areas listed up to the 200m<sup>2</sup> maximum as suggested by the Council. I believe this alleviates some of the ecological impact concern and allows for needed management of access and navigation. Possibly further definition of section 3 could also be considered but must be carefully controlled if allowed at all. The consolidated position recommendation in section 6 which provides for the total area of mangroves removed to be less than 50 m<sup>2</sup> for improving private land or

500 m<sup>2</sup> for all other purposes, offers a further approach to resolving the uncertainties of section 3.

- 7.4 In terms of the matters of control, the areas of dispute generally involves planning issues, however I would like to comment on one point. Under matters of control 4(a)-(d), the consolidated position seeks to add the word 'near' before the listed high value areas. Although I think this needs to be defined spatially if adopted, I suggest that this is a well justified addition. Ecological values and functions do not stop at lines that planners draw on maps, and indeed the point of having protected high value areas is that they support ecological functions and connectivity with adjoining areas. They also act as refuges or kohanga for indigenous biodiversity and in doing so help to restore and support adjoining areas. As such, it seems reasonable to have some buffer area around highly significant ecological areas where serious impacts would be minimised or at least evaluated as part of the consent process.

**Rule C.1.4.4 Mangrove removal in the Whangārei City Centre Marine Zone and the Coastal Commercial Zone – restricted discretionary**

- 7.5 In general terms, I have no objection to Rule C.1.4.4, which provides for mangrove removal in the Whangārei City Centre Marine Zone and the Coastal Commercial Zone as a restricted discretionary activity. In my opinion Rule C.1.4.4 makes a reasonable attempt to balance interests with the ecological concern of removing mangroves.
- 7.6 I also support matters of discretion 7 of the consolidated parties' position. Matter 7 concerns the timing of the activity to avoid adverse effects on bird breeding. Whangarei Harbor despite its urban fringing areas has some very high shorebird values. In some cases, these zones can be in close proximity to high ecological value areas which relates to the need to exercise precaution when dealing with activities near high value ecological areas.

**Rule C.1.4.5 Mangrove removal – discretionary activity and Rule C.1.4.6 Mangrove removal – non-complying activity**

*VK edit note: My understanding here is that this section is to cover the exception where someone wants to run the gauntlet and establish that there is no adverse effects and that the threshold would be high, i.e. this*

*section is here for completeness and consistency from a planning view as such I don't need to comment.*

**8. Conclusion**

- 8.1 I would like to commend the Council and Appellants for their contributions to the evolution of these Planning approaches to protecting the highly valued estuarine environments of Northland. In my opinion progress for the environment is being made and I hope a bit more clarity regarding the planning regime for the people of Northland.

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**Vincent Carlyle Kerr**  
**26 June 2020**