

MATAI MOANA, WELLINGTON

ECOLOGICAL ASSESSMENT FOR COVID-19 FAST- TRACK REFERRAL APPLICATION

Report prepared for

The Wellington Company Asset Management Limited

Prepared by

RMA Ecology Limited

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1.0 Introduction

The Wellington Company Asset Management Limited (TWC) are seeking to develop a c. 13ha property at Matai Moana/ Mount Crawford, Maupuia, Wellington ("the site" **Figure 1**) under the COVID-19 Recovery (Fast-track Consenting) Act 2020. This includes an application to the Ministry for the Environment (MfE) for the COVID-19 Fast Track Referral ("the referral"). If the Matai Moana site is accepted as part of the referral, future detailed structure planning and resource consents will be sought from the Environmental Protection Agency (EPA).

RMA Ecology Limited was commissioned by TWC to provide ecological advice with respect to proposed Matai Moana development. This report provides an assessment of ecological values, and possible impacts and effects management prepared in regard to the ecological provisions of the Wellington City Council (WCC) Proposed District Plan (PDP), Greater Wellington Regional Council (GWRC) Proposed Natural Resources Plan (PNRP), Wellington Regional Policy Statement (RPS), and National Policy Statement for Freshwater Management 2020 (NPS-FM) and National Environmental Standards for Freshwater 2020 (NES-F).

Our brief included:

- A literature and database review to assess likely biodiversity values;
- A site walkover to identify and assess the extent (mapping) and general condition (values assessment) of ecological features, in particular vegetation, watercourses, wetlands, and habitat of indigenous wildlife;
- Input into a project team workshop, and review of the draft Masterplan concepts.
- Preparation of an ecological site assessment summary report (this report).¹

A site walkover assessment was undertaken on 26 and 28 October 2022.

Streams were classified according to the PNRP. Wetlands were classified according to the Resource Management Act 1991 (RMA), NPS-FM ('natural inland wetland') and PNRP definitions.

Indigenous vegetation was assessed against the RPS Significant Natural Area (SNA) criteria and the species listed in Schedule 9 of the WCC PDP.

¹ This work has been undertaken in accordance with our agreement to provide ecological advice to The Wellington Company Asset Management Limited, dated 14 October 2022.

PROPOSED DEVELOPMENT
PROPOSED SITE PLAN

22.07
Matai Moana
MFE Application
Athfield Architects Ltd
Wraight and Associates
McIndoe Urban

Page 20



Figure 1. Matai Moana Masterplan proposed site plan. Courtesy of Athfield Architects Ltd, Wraight and Associates Ltd & McIndoe Urban Ltd.



Figure 2. Ecological features at the Matai Moana site. WCC PDP SNA (red area), SNA qualifying vegetation within the site (light green area), proposed Masterplan and topography (white lines).

2.0 Assessment method

A site survey was undertaken by Principal Ecologist Tony Payne on 26 and 28 October 2022.

During the site survey, native and exotic plant species and communities were recorded, and a qualitative assessment of vegetation habitats for herpetofauna (frogs and lizards), birds and bats was conducted. The assessment included, but was not limited to, areas of vegetation on site most likely to be impacted or removed by the future building platforms and roading network, focusing on the botanical and ecological value of identified plant communities.

Terrestrial vegetation and habitats were assessed against the criteria for identification of significant biodiversity as Significant Natural Areas (SNA) within the WCC PDP and Policy 23 of the RPS (**Appendix A**), as follows:

- a) *Representativeness: the ecosystems or habitats that are typical and characteristic examples of the full range of the original or current natural diversity of ecosystem and habitat types in a district or in the region, and:*
 - i. *Are no longer commonplace (less than about 30 % remaining); or*
 - ii. *Are poorly represented in existing protected areas (less than about 20 % legally protected)*
- b) *Rarity: the ecosystem or habitat has biological or physical features that are scarce or threatened in a local, regional or national context. This can include individual species, rare and distinctive biological communities and physical features that are unusual or rare.*
- c) *Diversity: the ecosystem or habitat has a natural diversity of ecological units, ecosystems, species and physical features within an area.*
- d) *Ecological context of an area: the ecosystem or habitat:*
 - i. *Enhances connectivity or otherwise buffers connectivity or otherwise buffers representative, rare or diverse indigenous ecosystems and habitats; or*
 - ii. *Provides seasonal or core habitat for protected or threatened indigenous species.*

Bird populations on site were surveyed through incidental observations during the site survey. Lizard populations were surveyed by way of targeted habitat searches during the site survey. Habitat searches for ground dwelling lizards involved inspecting areas of the site likely to be utilised by native lizards as shelter. Examples of lizard retreats include beneath dense vegetation, logs and rock. Lizards also frequently utilise discarded building materials such as timber and broken concrete, as well as dumped garden waste. Any terrestrial invertebrates uncovered were also noted during the habitat searches.

3.0 Overview of current environment

3.1 Terrestrial Environment

The subject site occupies c. 17.7 ha of coastal escarpment situated along the ridge of Matai Moana / Mount Crawford. The site is within the Wellington Ecological District. The modification of native bush and

terrestrial ecosystems, and the resultant loss of biodiversity is characteristic of the state of biodiversity for most parts of the site, however patches of regenerating coastal forest and scrub listed as SNA bound parts of the site to the east, south and west.

The site has historically been cleared of native forest and currently consists of the closed Wellington Prison serviced by Nevay Road surrounded by predominantly novel and exotic vegetation communities. The western margin of the site is covered mostly by mature pine trees (*Pinus radiata*) with common regenerating native shrubs and trees within the understory (e.g. mahoe *Melicytus ramiflorus*, rangiora *Brachyglottis repanda*). To the north and west the vegetation communities reflect recent and historic agriculture land use and vegetation clearance, consisting of degraded pasture with regenerating gorse (*Ulex europaeus*), patches of exotic tree land, large areas of scrambling weedland, and regenerating native coastal forest and scrub listed as SNA WC163 and SNA WC169, respectively.

The central portion of the site, south of the prison, consists of grassland with patches of exotic trees and a small portion of SNA WC166, which extends within the southern boundary of the site. Similarly, a small portion of SNA WC167 extends within the south western corner of the site.

Outside of SNAs, notable native species consist of small patches of mahoe and ngaio (*Myoporum laetum*) scrub, restoration plantings with young common trees and shrub such as manuka (*Leptospermum scoparium*) and tarata (*Pittosporum eugenoides*), and planted native trees such as Pohutukawa (*Metrosideros excelsa*) which line Nevay Road.

There are two areas on site and two areas nearby the site listed as SNAs in the WCC PDP, details of which are provided in **Table 1** below. The boundary of SNA WCC166 within the site includes vegetation communities that do not meet the SNA criteria such as exotic trees and shrubs (e.g. gorse) and native species outside of their natural distribution (e.g. karo *Pittosporum crassifolium*). The WCC PDP boundary of SNA WC166 has taken a coarse approach to mapping at a scale that is inappropriate for the site. The boundary of SNA qualifying vegetation within SNA WC166 has been refined by RMA Ecology. In addition, the extent of SNA qualifying vegetation contiguous with SNA WC169 has been mapped, and includes a 2,763 m² portion of the south eastern corner of the site. This area includes the seral mahoe forest which meets criterion (c) and criterion (d)(i). The two areas that we have assessed as qualifying as SNAs are shown on **Figure 2** as light green shaded polygons.

Table 1. Significant Natural Areas identified within and nearby the Matai Moana site (wording as per WCC PDP).

Site ID	Area on site identified in WCC PDP	Area on site identified by RMA Ecology	Site name	Site summary
WC163	0 m ²	0 m ²	Fort Balance Road forest	Regenerating mahoe scrub and forest with relatively high diversity. Site is divided into two by Fort Ballance Road and includes a forest remnant identified by Park (1999) and described as primary remnant of kohekohe, wharangi, Veronica parviflora, ngaio,
WC166	960 m ²	445 m ²	Maupuia Reserve coastal forest	Site contains the headwater valleys above a historic swamp, which was drained following the 1855 quake and comprises mahoe, manuka treeland, with Pseudopanax arboreus, whau, karaka,

Site ID	Area on site identified in WCC PDP	Area on site identified by RMA Ecology	Site name	Site summary
				cabbage trees, Pittosporum eugenioides, akeake, coprosma and exotic conifers.
WC167	460 m ²	460 m ²	Shark Bay coastal escarpment forest	Nine areas of coastal escarpment mahoe and wharariki shrubland with coastal forest at the northern end of the escarpment comprising ngaio//taupata-mahoe with kawakawa, Coprosma propinqua, cabbage tree, flaxes, hebes, karo and pohutukawa.
WC169	0 m ²	2,763 m ²	Scorching Bay reserve shrubland and karaka stand	Two areas of coastal mahoe scrub with a karaka stand identified by Park (1999) and described as karaka surrounded by mahoe, five finger, kawakawa, Pittosporum eugenioides, Muehlenbeckia complexa, ngaio, cabbage tree and kanuka.



Plate 1. SNA WC166 within the site

3.2 Freshwater environment

There are no areas recorded on site that meet the classification of a 'Category 2 Waterbody' in the PNRP and no areas that meet the classification of a 'wetland' in the PNRP, or 'natural inland wetland' in the NPS-FM.

Overland flow paths are vegetated within the site and lead to ephemeral watercourses or an intermittent stream which flows north to south through SNA WC166, to the south of the site.

3.3 Native Fauna

It is expected that a wide range of local native birds that occur in the surrounding greenbelt and residential area would frequent the site – almost all of which would be common cosmopolitan species. Species of birds listed as 'Threatened' or 'At Risk' that may utilise the site for nesting are most likely limited to the 'At Risk' New Zealand falcon (*Falco novaeseelandiae*), which have been recorded transiting through the site and may use the upper ridge of the wider area as nesting sites, and the 'At Risk' New Zealand pipit (*Anthus novaeseelandiae*) which nests in rough pasture and dense groundcover vegetation such as that in the degraded pasture/ gorse areas on site. As part of any resource consent process a detailed survey for these species should be undertaken.

The areas of scrub, scrambling weedland and rank grass throughout the site provide suitable habitat for the 'At Risk' listed glossy brown skink (*Oligosoma zelandicum*), northern grass skink (*Oligosoma polychroma*) and copper skink (*Oligosoma aeneum*). The coastal forest also provides suitable habitat for the 'At Risk' barking gecko (*Naultinus punctatus*) and 'At Risk' Ngahere gecko (*Mokopirirakau* 'Southern North Island'). Again, as part of any resource consent process a detailed survey for these species should be undertaken.

Long-tailed bats/ pekapeka (*Chalinolobus tuberculatus*, currently classified 'nationally vulnerable' - O'Donnell et. al., 2011), require large trees (including standing dead trees) with cavities (e.g. deep knot holes), epiphytes or loose bark for roosting, and typically use linear landscape features such as bush edges, gullies, water courses and roadways to transit between roosting and feeding sites.

While the site supports some characteristics preferred by bats, (e.g. mature native trees along a watercourse), due to the lack of any confirmed records and null results from surrounding surveys, it is unlikely that a resident long-tailed bat population would occur onsite, or even transit through the site on occasion.

4.0 Summary of ecological values

In our view, the most important ecological values on site include:

1. The indigenous coastal forest and scrub listed as SNAs WC166 and WC167;
2. SNA qualifying vegetation contiguous with SNA WC169 that has been mapped by RMA Ecology, which includes a 2,763 m² area at the south eastern corner of the site;
3. Native and exotic vegetation communities that provide habitat for native skinks and geckos; and
4. Native and exotic vegetation communities that provide nesting habitat for native avifauna.

5.0 Potential for incorporation of ecological values into concept design

The results from our assessment, together with our input into the Masterplan confirms that residential development on the site can be compatible with protection and enhancement of ecological values of the subject site. This is possible for several reasons:

1. The proposed development areas avoid listed SNAs and SNA qualifying vegetation mapped by RMA ecology;
2. The topography of the site creates areas that would be difficult to develop and is proposed to be included as part of areas set aside for landscape and ecological enhancement;
3. The relatively large size of the site compared to the size of the SNAs, enables flexibility in development and protection options;
4. The proposed development areas identified avoid watercourses, including any streams and wetlands, and includes appropriate buffers that will protect downstream ecological values.

Historic land use of the site has altered and degraded ecological values, for example through the removal of coastal forest vegetation and proliferation of weeds and pest animals in areas of regenerating scrub. A change of land use offers the opportunity to undertake ecological enhancement of degraded ecosystems that may otherwise not be undertaken should the existing land use continue.

The proposed Masterplan includes an ecologically-sensitive design that avoids areas listed as SNA and provides the potential to augment SNAs WC166 and WC167, which could provide an ecological corridor to SNA WC 163 to the north of the site. The potential extension of SNA areas following revegetation on site is provided in **Figure 3**.

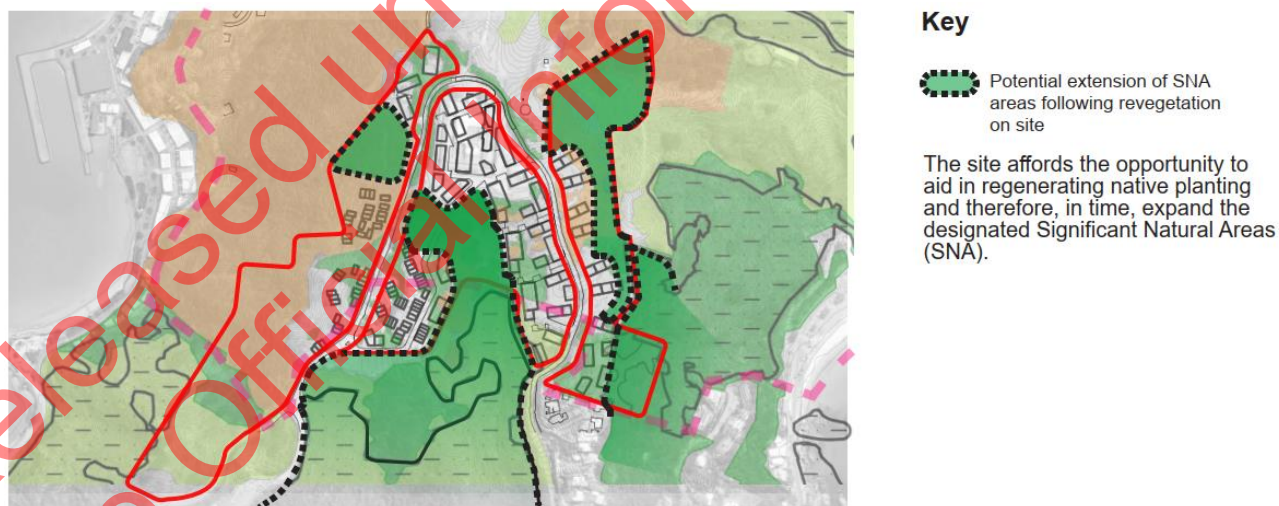


Fig 6. Response 1:8000@A3

Figure 3. Matai Moana Masterplan proposed site plan with the potential extension of SNA (green areas with dashed black line). Courtesy of Athfield Architects Ltd, Wraight and Associates Ltd & McIndoe Urban Ltd.

5.1 Ecological values to be addressed during development

There are some important ecology-related values that will need to be addressed during further development of the structure plan and future development generally on site, including:

1. The protection for SNAs listed in the WCC PDP on the site;

2. The protection of additional sites that meet SNA criteria on the site. If the full protection of these areas should not be possible, offsetting should be enabled via the effects management hierarchy outlined in the WCC PDP;
3. The generally steep contour of the site, potentially requiring relatively large volumes of earthworks for development, and the need for best practice methods of site development and of erosion and sediment control.
4. All native lizards are absolutely protected under the Wildlife Act 1953 and consequently a Wildlife Act Authority from Department of Conservation is required to undertake activities within habitat that may support native lizards and where activities may result in a significant impact on a species or habitat. Where future development could impact the areas of coastal forest, scrub, scrambling weedland and rank grass throughout the site, a survey for native lizards in general should be conducted as part of any future assessment of ecological effects.

5.2 Potential ecological impacts of development

The ecological values and constraints applying to the site mean that significant adverse ecological effects of development will need to be avoided, remedied or mitigated. This can be achieved by managing activities including:

- a. Controlling sediment generated from earthworks;
- b. Undertaking fauna salvage (lizards) and surveys (birds) as part of vegetation clearance;
- c. Minimising loss of SNA area;
- d. Minimising loss of fauna habitat on former farm and regenerating scrubland; and
- e. Preventing the introduction of animal pests and weeds by adopting biosecurity protocols.

The Masterplan layout for the site will not result in significant loss ecological values. Some loss of regenerating indigenous vegetation may occur, however the areas potentially affected are small, will not affect the integrity of the remaining vegetation, and there are considerable adjoining areas over which active revegetation can be undertaken to provide for appropriate mitigation or offset.

5.3 Avoidance, remediation, mitigation and offset of adverse effects

Many of the constraints and potential adverse ecological effects identified above can be avoided, mitigated (minimised) or remedied, with any significant adverse residual effects remaining being offset through onsite restoration activities. General elements that should be considered in the further development of the Masterplan to manage potential effects on ecological values include:

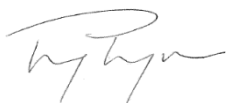
1. Permanent protection of SNAs and other ecologically important habitats by way of vesting in public agencies, joint private ownership through some type of body corporate or other communal ownership structure, or covenant registered against the titles of individual Lots;
2. Pest and weed control measures;
3. Planting using eco-sourced native species to establish shrubland and forest on priority areas, including buffers surrounding SNAs; and
4. Best practice stormwater design including incorporation of water sensitive design measures.

6.0 Conclusions

From our involvement in the preparation of the Masterplan, and from our knowledge of the site and its ecological values, we are of the view that the development of the Matai Moana site can be undertaken at an appropriate level and layout that protects important ecological values.

The development of the site offers the opportunity to significantly enhance degraded ecological values, that may not occur under the current land use. Overall, there a range of accepted management tools, and available opportunities on the site to appropriately address, and where necessary mitigate, the potential adverse ecological effects associated with the proposed concept Masterplan development designs.

Report prepared by:



Principal Ecologist

RMA Ecology Ltd

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Appendix A: RPS Policy 23

Policy 23: Identifying indigenous ecosystems and habitats with significant indigenous biodiversity values – district and regional plans

District and regional plans shall identify and evaluate indigenous ecosystems and habitats with significant indigenous biodiversity values; these ecosystems and habitats will be considered significant if they meet one or more of the following criteria:

- (a) Representativeness: the ecosystems or habitats that are typical and characteristic examples of the full range of the original or current natural diversity of ecosystem and habitat types in a district or in the region, and:
 - (i) are no longer commonplace (less than about 30% remaining); or
 - (ii) are poorly represented in existing protected areas (less than about 20% legally protected).
- (b) Rarity: the ecosystem or habitat has biological or physical features that are scarce or threatened in a local, regional or national context. This can include individual species, rare and distinctive biological communities and physical features that are unusual or rare.
- (c) Diversity: the ecosystem or habitat has a natural diversity of ecological units, ecosystems, species and physical features within an area.
- (d) Ecological context of an area: the ecosystem or habitat:
 - (i) enhances connectivity or otherwise buffers representative, rare or diverse indigenous ecosystems and habitats; or
 - (ii) provides seasonal or core habitat for protected or threatened indigenous species.
- (e) Tangata whenua values: the ecosystem or habitat contains characteristics of special spiritual, historical or cultural significance to tangata whenua, identified in accordance with tikanga Māori.