

# Application for resource consent or fast-track resource consent

(Or Associated Consent Pursuant to the Resource Management Act 1991 (RMA)) (If applying for a Resource Consent pursuant to Section 87AAC or 88 of the RMA, this form can be used to satisfy the requirements of [Form 9](#)). Prior to, and during, completion of this application form, please refer to [Resource Consent Guidance Notes](#) and [Schedule of Fees and Charges](#) — both available on the Council's web page.

## 1. Pre-Lodgement Meeting

Have you met with a council Resource Consent representative to discuss this application prior to lodgement?

Yes  No

If yes, who have you spoken with?

## 2. Type of consent being applied for

(more than one circle can be ticked):

Land Use

Discharge

Fast Track Land Use\*

Change of Consent Notice (s.221(3))

Subdivision

Extension of time (s.125)

Consent under National Environmental Standard  
(e.g. Assessing and Managing Contaminants in Soil)

Other (please specify)

*\*The fast track is for simple land use consents and is restricted to consents with a controlled activity status.*

## 3. Would you like to opt out of the fast track process?

Yes  No

## 4. Consultation

Have you consulted with iwi/Hapū?  Yes  No

If yes, which groups have you consulted with?

Who else have you consulted with?

*For any questions or information regarding iwi/hapū consultation, please contact Te Hono at Far North District Council, [tehonosupport@fndc.govt.nz](mailto:tehonosupport@fndc.govt.nz)*

## 5. Applicant details

**Name/s:**

Tait Systems NZ Limited

**Email:**

**Phone number:**

**Postal address:**

(or alternative method of service under section 352 of the act)

Have you been the subject of abatement notices, enforcement orders, infringement notices and/or convictions under the Resource Management Act 1991?  Yes  No

If yes, please provide details.


## 6. Address for correspondence

*Name and address for service and correspondence (if using an Agent write their details here)*

**Name/s:**

Jessica Andrews, SLR Consulting

**Email:**

**Phone number:**

**Postal address:**

(or alternative method of service under section 352 of the act)

All correspondence will be sent by email in the first instance. Please advise us if you would prefer an alternative means of communication.

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## 7. Details of property owner/s and occupier/s

*Name and Address of the owner/occupiers of the land to which this application relates (where there are multiple owners or occupiers please list on a separate sheet if required)*

**Name/s:**

Department of Conservation

Property address/  
location:

Please contact applicant for contact information

Postcode

## 8. Application site details

Location and/or property street address of the proposed activity:

Name/s:

Site address/  
location:

  
  
  
 Postcode

Legal description:

Val Number:

Certificate of title:

Please remember to attach a copy of your Certificate of Title to the application, along with relevant consent notices and/or easements and encumbrances (search copy must be less than 6 months old)

### Site visit requirements:

Is there a locked gate or security system restricting access by Council staff?  Yes  No

Is there a dog on the property?  Yes  No

Please provide details of any other entry restrictions that Council staff should be aware of, e.g. health and safety, caretaker's details. This is important to avoid a wasted trip and having to re-arrange a second visit.

## 9. Description of the proposal

Please enter a brief description of the proposal here. Please refer to Chapter 4 of the *District Plan, and Guidance Notes*, for further details of information requirements.

If this is an application for a Change or Cancellation of Consent Notice conditions (s.221(3)), please quote relevant existing Resource Consents and Consent Notice identifiers and provide details of the change(s), with reasons for requesting them.

## 10. Would you like to request public notification?

Yes  No

## 11. Other consent required/being applied for under different legislation

(more than one circle can be ticked):

Building Consent

Regional Council Consent (ref # if known)

National Environmental Standard Consent

Other (please specify)

## 12. National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health:

The site and proposal may be subject to the above NES. In order to determine whether regard needs to be had to the NES please answer the following:

Is the piece of land currently being used or has it historically ever been used for an activity or industry on the Hazardous Industries and Activities List (HAIL)?  Yes  No  Don't know

Is the proposed activity an activity covered by the NES? Please tick if any of the following apply to your proposal, as the NESCS may apply as a result?  Yes  No  Don't know

Subdividing land

Disturbing, removing or sampling soil

Changing the use of a piece of land

Removing or replacing a fuel storage system

## 13. Assessment of environmental effects:

Every application for resource consent must be accompanied by an Assessment of Environmental Effects (AEE). This is a requirement of Schedule 4 of the Resource Management Act 1991 and an application can be rejected if an adequate AEE is not provided. The information in an AEE must be specified in sufficient detail to satisfy the purpose for which it is required. Your AEE may include additional information such as written approvals from adjoining property owners, or affected parties.

Your AEE is attached to this application  Yes

## 14. Draft conditions:

Do you wish to see the draft conditions prior to the release of the resource consent decision?  Yes  No

If yes, please be advised that the timeframe will be suspended for 5 working days as per s107G of the RMA to enable consideration for the draft conditions.

## 15. Billing Details:

This identifies the person or entity that will be responsible for paying any invoices or receiving any refunds associated with processing this resource consent. Please also refer to Council's Fees and Charges Schedule.

**Name/s:** (please write in full)

Tait Systems NZ Limited c/o SLR Consulting New Zealand

**Email:**

**Phone number:**

**Postal address:**  
(or alternative method of service under section 352 of the act)

### Fees Information

An instalment fee for processing this application is payable at the time of lodgement and must accompany your application in order for it to be lodged. Please note that if the instalment fee is insufficient to cover the actual and reasonable costs of work undertaken to process the application you will be required to pay any additional costs. Invoiced amounts are payable by the 20th of the month following invoice date. You may also be required to make additional payments if your application requires notification.

## 15. Billing details continued...

### Declaration concerning Payment of Fees

I/we understand that the Council may charge me/us for all costs actually and reasonably incurred in processing this application. Subject to my/our rights under Sections 357B and 358 of the RMA, to object to any costs, I/we undertake to pay all and future processing costs incurred by the Council. Without limiting the Far North District Council's legal rights if any steps (including the use of debt collection agencies) are necessary to recover unpaid processing costs I/we agree to pay all costs of recovering those processing costs. If this application is made on behalf of a trust (private or family), a society (incorporated or unincorporated) or a company in signing this application I/we are binding the trust, society or company to pay all the above costs and guaranteeing to pay all the above costs in my/our personal capacity.

**Name:** (please write in full)

Jessica Andrews

**Signature:**

(signature of bill payer)

**Date** 25-Feb-2026

**MANDATORY**

## 16. Important Information:

### Note to applicant

You must include all information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for 2 or more resource consents that are needed for the same activity on the same form.

You must pay the charge payable to the consent authority for the resource consent application under the Resource Management Act 1991.

### Fast-track application

Under the fast-track resource consent process, notice of the decision must be given within 10 working days after the date the application was first lodged with the authority, unless the applicant opts out of that process at the time of lodgement.

A fast-track application may cease to be a fast-track application under section 87AAC(2) of the RMA.

### Privacy Information:

Once this application is lodged with the Council it becomes public information. Please advise Council if there is sensitive information in the proposal. The information you have provided on this form is required so that your application for consent pursuant to the Resource Management Act 1991 can be processed under that Act. The information will be stored on a public register and held by the Far North District Council. The details of your application may also be made available to the public on the Council's website, [www.fndc.govt.nz](http://www.fndc.govt.nz). These details are collected to inform the general public and community groups about all consents which have been issued through the Far North District Council.

## 17. Declaration

The information I have supplied with this application is true and complete to the best of my knowledge.

**Name** (please write in full)

Jessica Andrews

**Signature**

**Date** 24-Feb-2026

*A signature is not required if the application is made by electronic means*

*See overleaf for a checklist of your information...*

## Checklist

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*Please tick if information is provided*

- Payment (cheques payable to Far North District Council)
- A current Certificate of Title (Search Copy not more than 6 months old)
- Details of your consultation with Iwi and hapū
- Copies of any listed encumbrances, easements and/or consent notices relevant to the application
- Applicant / Agent / Property Owner / Bill Payer details provided
- Location of property and description of proposal
- Assessment of Environmental Effects
- Written Approvals / correspondence from consulted parties
- Reports from technical experts (if required)
- Copies of other relevant consents associated with this application
- Location and Site plans (land use) AND/OR
- Location and Scheme Plan (subdivision)
- Elevations / Floor plans
- Topographical / contour plans

Please refer to Chapter 4 of the District Plan for details of the information that must be provided with an application. Please also refer to the RC Checklist available on the Council's website. This contains more helpful hints as to what information needs to be shown on plans.



# Resource Consent Application

**Installation of a new communications facility at Raetea Forest, Northland**

**Tait Systems NZ Limited**

Prepared by:

**SLR Consulting New Zealand**

SLR Project No.: 810.V16122.00001

Client Reference No.: RATE

24 February 2026

Revision: Issued v1.0

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## Revision Record

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Prepared for: Tait Systems NZ Limited

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Prepared by: Jessica Andrews  
Associate Consultant – Planning



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Checked by: Jennifer Valentine  
Auckland Planning Manager



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Authorised by: Jennifer Valentine  
Auckland Planning Manager



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SLR Project No.: 810.V16122.00001

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SLR Ref No.: Tait Raetia - RC Application - Issued v1.0

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Draft v0.1 24 February 2026

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Issued v1.0 24 February 2026

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## Basis of Report

This report has been prepared by SLR Consulting New Zealand (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Tait Systems NZ Limited (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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Appendix D	Ecological Impact Assessment
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Appendix F	Mana Whenua Consultation



## Application details

Consent authority:	Far North District Council
Applicant:	Tait Systems NZ Limited
Address for service:	SLR Consulting New Zealand 20 Victoria Street West Auckland Central 1010 Attention: Jessica Andrews Email: <a href="mailto:Jessica.Andrews@slrconsulting.com">Jessica.Andrews@slrconsulting.com</a> Phone: 027-666-2881
Address for fees:	Tait Kordia JV Co Limited C/- SLR Consulting As above
Site:	Raetea Forest (Coordinates: -35.21606, 173.41803)
Legal description:	Part Kauriputete 1 Block and Part Takahue 2 Block
Owner:	Crown (Administered by the Department of Conservation)
Site area:	204 ha
Plan:	Far North Operative District Plan
Zone:	Conservation Zone
Overlays:	Outstanding Landscape: Maungataniwha Range
Proposed plan:	Far North Proposed District Plan – Notified Version
Proposed Zoning:	Natural Open Space Zone
Proposed overlays:	Outstanding Natural Landscape Overlay: Maungataniwha Range (Ref: 32)
Proposed other notations:	Treaty Settlement Area of Interest: Te Rarawa
Brief description of the proposed activity:	Establish, operate, and maintain a communications facility, including a 15m monopole with two VHF dipole arrays, microwave dish antenna, cabinets housed within a shelter, solar arrays, and one backup generator within a shelter. Ancillary vegetation removal and earthworks are required to establish the facility.
Resource consent(s) required:	<u>National Environmental Standards for Telecommunication Facilities (NESTF)</u> Nil – the proposal is a permitted activity under the NESTF. <u>Far North Operative District Plan (ODP)</u> The proposed facility (mast and antennas), generator shelter, equipment shelter, solar arrays



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and associated vegetation removal within an Outstanding Landscape is a discretionary activity.

Far North Proposed District Plan – Notified Version (PDP)

The proposed indigenous vegetation removal within a Significant Natural Area is a discretionary activity as it exceeds the permitted maximum area.

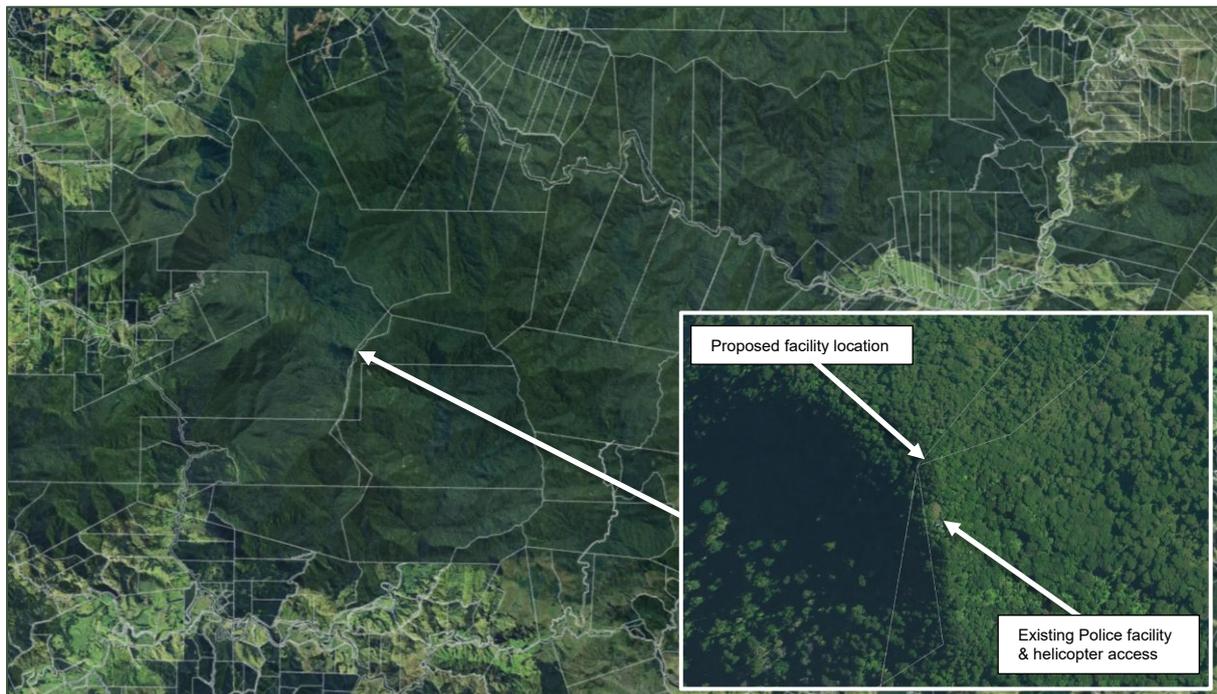
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Status of the proposed activity:

Discretionary activity

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**Figure 1: Locality plan of the site (Source: Grip Maps).**



## 1.0 Information requirements

This resource consent application has been prepared in accordance with the requirements of Schedule 4 of the Resource Management Act 1991 (the Act or the RMA). It provides the information necessary for a full understanding of the proposal, any actual and potential effects that the activity may have on the environment and is in such detail that corresponds with the scale and significance of the activity.

## 2.0 Background

In August 2022, Tait Kordia JV Co Ltd now known as Tait Systems NZ Ltd (“Tait”) was selected by the government to build and manage the Land Mobile Radio network for first responders. The project is Government funded, with that funding being overseen by Next Generation Critical Communications (NGCC). NGCC, is the government’s leading advisor on critical communications for public safety in New Zealand. More information regarding the rollout is available here: <https://www.ngcc.govt.nz/>

The Land Mobile Radio network (LMR) will provide frontline emergency responders with an encrypted, secure digital mobile radio network built with sufficient resilience to enable critical communications even in the event of a significant natural disaster. It will make it easier for them to communicate and collaborate with each other at accident or health event sites.

Tait Systems NZ Limited is a network operator in accordance with the Telecommunications Act 2001<sup>1</sup>. Therefore, the applicant is able to utilise the regulations of the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016.

## 3.0 Proposal

Tait Systems NZ Ltd (“Tait”) is seeking to establish, operate, and maintain a communication facility on the land legally described as Part Kauriputete 1 Block and Part Takahue 2 Block, and forming part of the Raetia Forest Conservation Park, Northland. The proposed communications facility will provide critical emergency services coverage to the immediate and wider surrounding area, including along State Highway 1 (Mangamuka Gorge) and along recreational hiking tracks. The exact location of the facility is at coordinates -35.21606, 173.41803, illustrated in Figure 1 above.

### 3.1 To establish, operate and maintain a new communications facility

The proposal involves the establishment of a new facility which comprises the following key elements:

- Installation of a 15m high galvanised pole with attached 1.24m high lightning pole as shown below in Figure 2 below.
- Installation of two dipole arrays attached to the pole at heights of 12.75m to 14.75m;
- Installation of one microwave dish antenna measuring 0.9m in diameter at a height of approximately 10m;

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<sup>1</sup> Gazette Notice of 19 April 2023



- Installation of equipment which is located inside a new shelter with a footprint of 4.351m (l) x 1.605m (w) and a maximum height of 2.47m (excluding the concrete slab) as shown in Figure 3 below. The equipment shelter will be painted Sandstone Grey, a recessive colour with a light reflectance value of 27%;
- Installation of an emergency generator which will be located in a new shelter with a footprint of 2.294m (l) x 2.005m (w) and a maximum height of 2.47m (excluding the concrete slab) as shown in Figure 4. The generator shelter will be painted Sandstone Grey to match the cabinet shelter;
- Power to the facility will be via two new solar arrays with footprints of 6.174m (l) x 1.092m (w), as shown in Figure 5 below. The solar arrays will have a maximum height of 2.601m.
- Earthworks, estimated to be an approximate volume of 115m<sup>3</sup> over an area of 250m<sup>2</sup> is required to establish the proposed concrete foundations, underground cabling, shelter buildings, and solar arrays. No earthworks are required to access the site, as site access will be via helicopter; and
- Vegetation removal, over an approximate area of 250m<sup>2</sup>, comprising of:
  - A 61.6m<sup>2</sup> area to enable the construction of the mast and their foundations, cabinet shelter and generator shelter.
  - A 187m<sup>2</sup> area to enable the establishment of the solar arrays and sunlight protection.
    - Approximately 53.8m<sup>2</sup> of the vegetation removal associated with the solar array structures and a 1m buffer will be permanent clearance.
    - Approximately 133.2m<sup>2</sup> of the vegetation clearance for sunlight protection will be temporary in nature and allowed to naturally regenerate to a maximum height of 1m.

The overall area that the facility will occupy a total area of 250m<sup>2</sup>.

Detailed plans of the proposal can be found in **Appendix A**.

An Ecological Impact Assessment (EIA) prepared by SLR Consulting is attached in **Appendix D**. It addresses the actual and potential ecological impacts of the proposed works and vegetation removal, and which recommends the following mitigation measures:

- Avoid the tree fern which has the Raukawa (chronically threatened) growing on it.
- Transplanting plants which cannot be avoided.
- Managing the regenerating area north of the solar arrays (sunlight protection area) to ensure that regenerating vegetation is native and healthy. Regenerating vegetation will be maintained to a height of 1m.
- Clean and disinfect all machinery and equipment including personal PPE to avoid spread of pest plants and disease.
- Management of invertebrates and lizards during construction, through the preparation and implementation of a management plan and ensuring that appropriate DOC permits are obtained.
- If construction works occur during nesting season, undertaking nesting checks of vegetation immediately prior to vegetation clearance to ensure that native bird nests



are not disturbed from construction works. If a bird nest is identified, works within the area must not occur until the birds are vacated the nest to avoid impacts on birds.

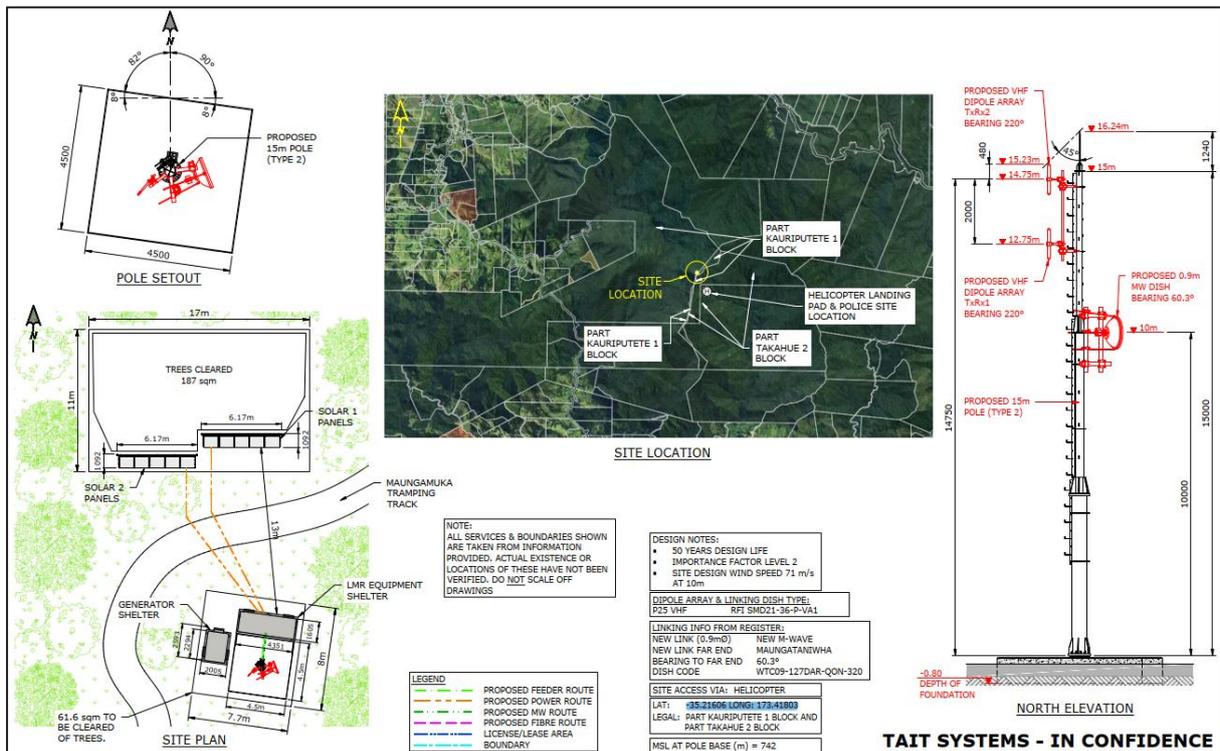
- Implementation of bat root protocols immediately prior to vegetation clearance to ensure that no bat roosts will be impacted by the proposed works. If potential bat roosts are identified, vegetation removal protocols will be implemented to avoid impacts on potentially roosting bats.

The above mitigation measures are adopted by the applicant and form part of the proposal.

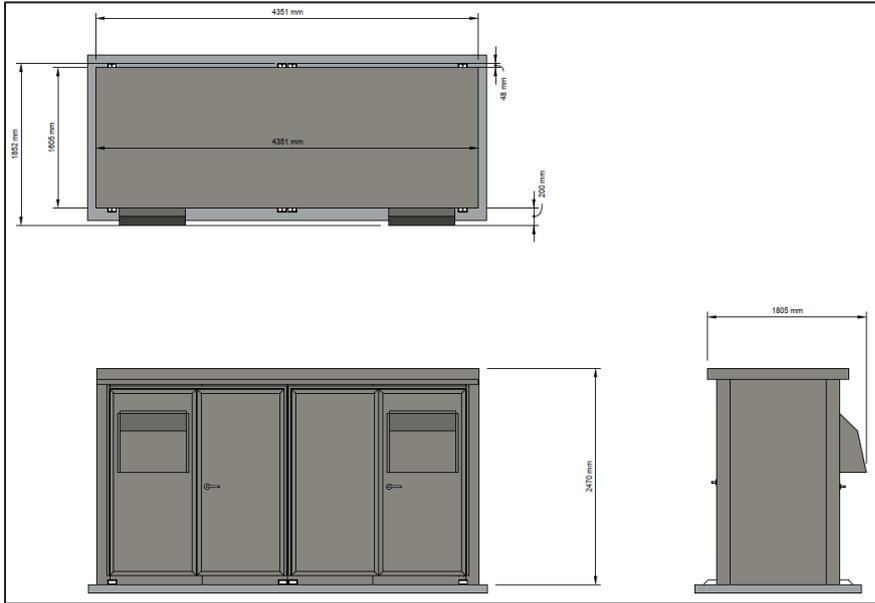
A radiofrequency assessment prepared by Kordia's Broadcast Network Architect is attached as **Appendix E**. It addresses the cumulative effects of radio emissions to demonstrate compliance with regulation 55 of the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 (NESTF) and the New Zealand Radiofrequency Standard NZS 2772.1:1999.

A concession will be obtained from the Department of Conservation for the use and occupation of the land.

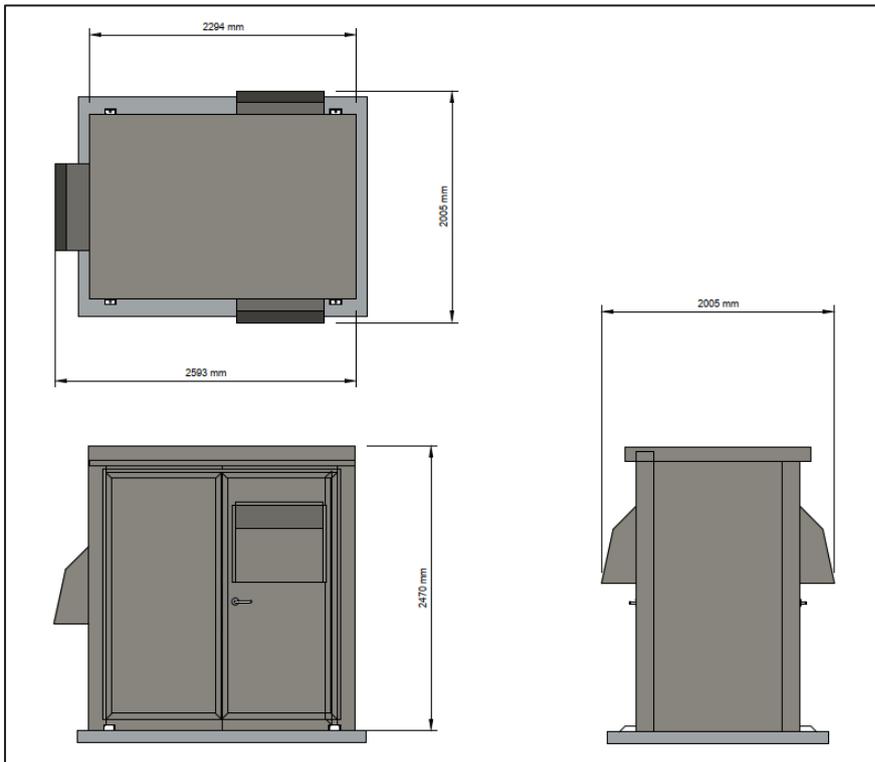
**Figure 2: Proposed Site Layout and Pole Elevation**



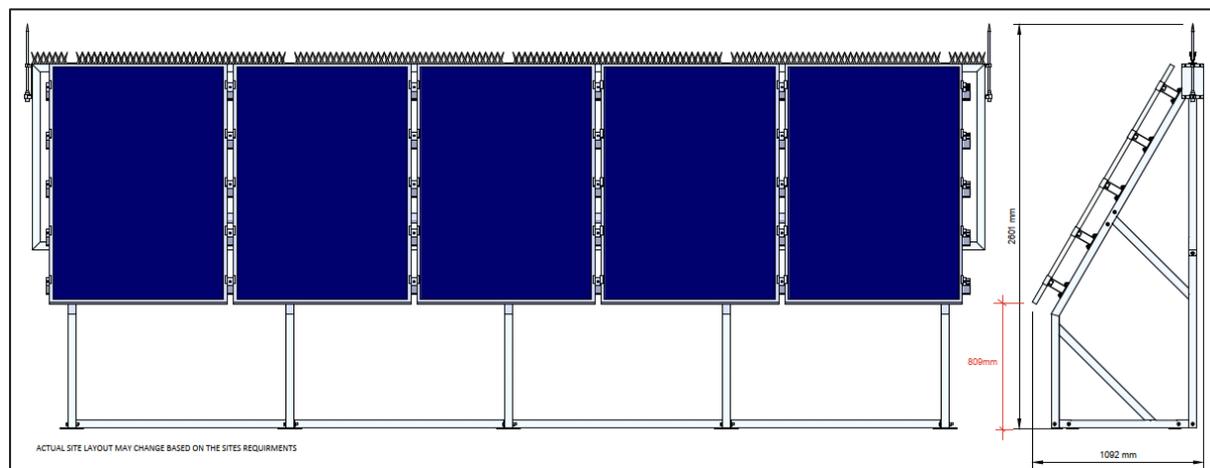
**Figure 3: Proposed Cabinet Shelter Floor Plan and Elevation**



**Figure 4: Proposed Generator Shelter Floor Plan and Elevation**



**Figure 5: Proposed Solar Array Elevations**



## 3.2 Engagement

### 3.2.1 Mana Whenua

The proposed facility is located within an area of interest to Te Rarawa. Tait have contacted Te Rarawa to advise of the proposal and provide the opportunity for discussion around the proposal should mana whenua have any questions or concerns. A copy of the mana whenua engagement is provided in **Appendix F**. At the time of writing this application, no response from Mana Whenua has been received. If a response is received during the processing of the application this will be provided to Council.

### 3.2.2 Department of Conservation

The proposal is to install a communications facility for emergency services use on conservation land managed by the Department of Conservation (DOC). Tait will shortly be applying to DOC for a concession to enable the facility to be established in this location. Furthermore, Tait's ecologists will be engaging with DOC to obtain the necessary permits to interact with native wildlife during the proposed works.

## 3.3 Permitted activities that form part of the proposal

A detailed rules assessment is provided in **Appendix B** and **C**, and the permitted activities that form part of the proposal are summarised below:

### 3.3.1 National Environmental Standards for Telecommunication Facilities

- The radiofrequency field emissions from the proposed antennas will comply with the permitted standards in regulation 55 of the NESTF.

### 3.3.2 Far North Operative District Plan

- The proposed earthworks are a permitted activity under rules 12.1.6.1.4 and 17.2.6.1.1 of the ODP.
- The underground electricity cabling is a permitted activity in the Outstanding Landscape under Rule 12.1.6.1.6 of the ODP.



- Noise generated by the equipment and generator shelters will be within the permitted limits under Rule 9.7.5.1.8 of the ODP.

### **3.3.3 Far North Proposed District Plan – Notified Version**

- The proposed earthworks and discovery of suspected sensitive material (should this occur) will be a permitted activity under Rule EW-R12 of the PDP as the accidental discovery protocols will be adhered to.
- The proposed earthworks and associated use of sediment and erosion controls are a permitted activity under Rule EW-R13 of the PDP.

## **3.4 Any other activities that are part of the proposal**

Clause 2(1)(d) of Schedule 4 of the Act requires the Applicant to identify other activities that are part of their proposal. This is intended to capture activities which need permission or licensing outside of the Act, for example, activities under the Building Act 2004 or the Hazardous Substances and New Organisms Act 1996.

A concession and wildlife permits will be obtained from DOC prior to works commencing.

## **4.0 Functional and Operational Requirements**

The proposed facility and wider network rollout will provide emergency services with a secure and resilient digital radio network which needs to function in remote locations.

The 15m-tall monopole is necessary to ensure adequate coverage as well as linking to other facilities, taking into account the topography of the surrounding landscape and compliance with radiofrequency levels. The facility has been designed to be as unobtrusive as possible within an unmodified environment by keeping the pole and accessory structure heights as low as possible, utilising a relatively flat area of land to prevent landform modification, and utilising recessive colours to limit reflectivity and overall visibility of structures.

A shelter is required, rather than outdoor cabinets and generator, to protect the equipment from high exposure to extreme weather at this elevation.

Given the isolated location of the facility, it must also generate its own power. The proposed power solution includes two solar arrays with backup generators that provide intermittent additional power during periods when the solar panels cannot maintain consistent operation. The solar arrays will be oriented north to optimize energy generation throughout the year, by maximising exposure to sunlight.

Power connections between the solar arrays and pole, cabinets and generators will be provided via an underground cable to minimise the impact of this necessary infrastructure.

The layout, design and operation of the site has been carefully considered in order to ensure that the effects on landscape, ecological and recreational values would not be inappropriate (as assessed in the following section) while providing for the functional and operational requirements of the facility.

### **4.1 Alternatives considered**

The proposal is not one that will generate more than minor adverse environmental effects (refer to Section 8 below), so alternative locations and options do not need to be provided in accordance with the information requirements stipulated in Schedule 4 of the Act.



The facility is necessary to provide emergency services coverage through the Raetea Forest, State Highway 1, other public roads, recreation users, and well as those working and living in the surrounding area. The ability for the Tait equipment to be collocated on the nearby Police mast was investigated but ruled out due to the existing pole being overloaded and unsuitable for the Tait equipment. Furthermore, there is insufficient space in the cleared areas within or adjacent to the helicopter landing area to safely establish the proposed equipment without constraining the use of this area by helicopters.

## 5.0 Site and surrounding environment

### 5.1 Site

The proposed facility will be established within Part Kauriputete 1 Block and Part Takahue 2 Block (coordinates -35.21606, 173.41803). The site location is at the summit of the Mangamuka Tramping Track within the Raetea Forest Conservation Park, approximately 90m north of the Police Radio Station at the Raetea Summit and approximately 4.5km south-west of the Maungamuka Gorge section of State Highway 1. The Raetea Forest forms part of the wider Maungataniwha Range. The indicative site layout is shown in Figure 6 below.

**Figure 6: Aerial image identifying indicative site layout (source: SLR)**



#### 5.1.1 Site Characteristics and Ecology

In terms of the site and its immediate locality, with the exception of the existing Police infrastructure, helicopter landing area and Mangamuka Tramping Track, the site comprises



of dense established native bush. The EIA in Appendix D provides the following description of the ecological context and proposed facility location:

*The project site is located within the Maungataniwha Ecological District and the wider Northland Ecological Region (Brook, 1996). The Maungataniwha Ecological District (ED) covers approximately 101,900 ha and comprises a high number of fragmented remnants of indigenous forest and shrubland. The ED also contains a large tract of lowland forest on steep hill country that has strong connectivity between areas of indigenous vegetation. The Maungataniwha ED is considered to have significant remnants of kauri (*Agathis australis*, At Risk - Declining) (de Lange et al., 2003) forest, although these are now being affected by the pathogen *Phytophthora agathidicida* (kauri dieback disease).*

*The project site is located on a ridgeline within Raetea Forest, a Department of Conservation managed forest tract encompassing approximately 7,793 ha of indigenous vegetation. The forest is characterised by predominantly hardwood communities, with minor kauri components, and is adjoined by reserves supporting kahikatea - rimu lowland forest. The project site proposed is located at approximately -35.2167°S, 173.4180°E (WGS 84) approximately 700 metres above sea level. The site is located along the existing Mangamuka Summit walking track which forms a part of the Te Araroa Trail, a long-distance trail that spans the length of New Zealand.*

Additional commentary and imagery of the vegetation found on site is provided within the EIA in **Appendix D**.

There are no archaeological sites within the vicinity of the site. The site is not a known HAIL site, therefore it is not considered to be a piece of land subject to the Resource Management (National Environmental Standards for Contaminants in Soil to Protect Human Health) Regulations 2011.

The site comprises LUC Class 7 land, therefore it is not considered to have productive capacity under the National Policy Statement for Highly Productive Land.

### **5.1.2 Zoning and overlays**

The site is within the Conservation Zone and subject to the Outstanding Landscape (ONL) Overlay under the Far North Operative District Plan (ODP).

The site is within the Natural Open Space Zone and subject to the Outstanding Natural Landscape (ONL) Overlay under the Far North Proposed District Plan – Notified Version (PDP). The site is also situated within a Treaty Settlement Area of Interest to Te Rarawa.

The ONL Overlay notations under the ODP and PDP relate to the site's location within the Maungataniwha Range which encompasses the Raetea Forest and Mangamuka Scenic Reserve to further east.

Schedule 5 of the PDP describes the Maungataniwha Range as:

*A bold belt of bush-clad, elevation land that runs across central upper Northland, spanning from the upper Hokianga to immediately inland of Whangaroa Harbour. In this position it pairs with the Omahuta / Puketi Forests to form something of a divide between the terrain centred around Kaikohe and the upper regional extent that runs north from Kaitaia. The path of State Highway One over the range via the Mangamuka is some of the most spectacular on the main highway's route through*



*Northland – and indeed over its entire corridor nationwide. Here the combination of the adjacent Mangamuka River, the steep, imposing landform, substantial and diverse indigenous forest cover and the winding, intimate character of the highway itself are very distinctive and memorable. A lookout at the apex of the highway pass gives an impressive view north and a sense of the elevation of the terrain.*

*The scale of the underlying landform sees the Maungataniwha Range and related hill country act as defining element in the small valleys and lowlands that surround. A number of small settlements, such as Mangamuka, Broadwood, Parmapurua, and Otangaroa, feature the landmass as a backdrop. It fulfills a similar, but more distant role in the same way for parts of the Hokianga Harbour.*

*Whilst there are a range of ecological units present in the Outstanding Landscape, with resulting variations in vegetative compositions, the blanketing of an indigenous cover that reflects that variety is a key characteristic of this landscape. In some areas the vegetation is at a less advanced stage of development from colonisation or recovery from past clearance, but that less lofty vegetation is contiguous with the main body.*

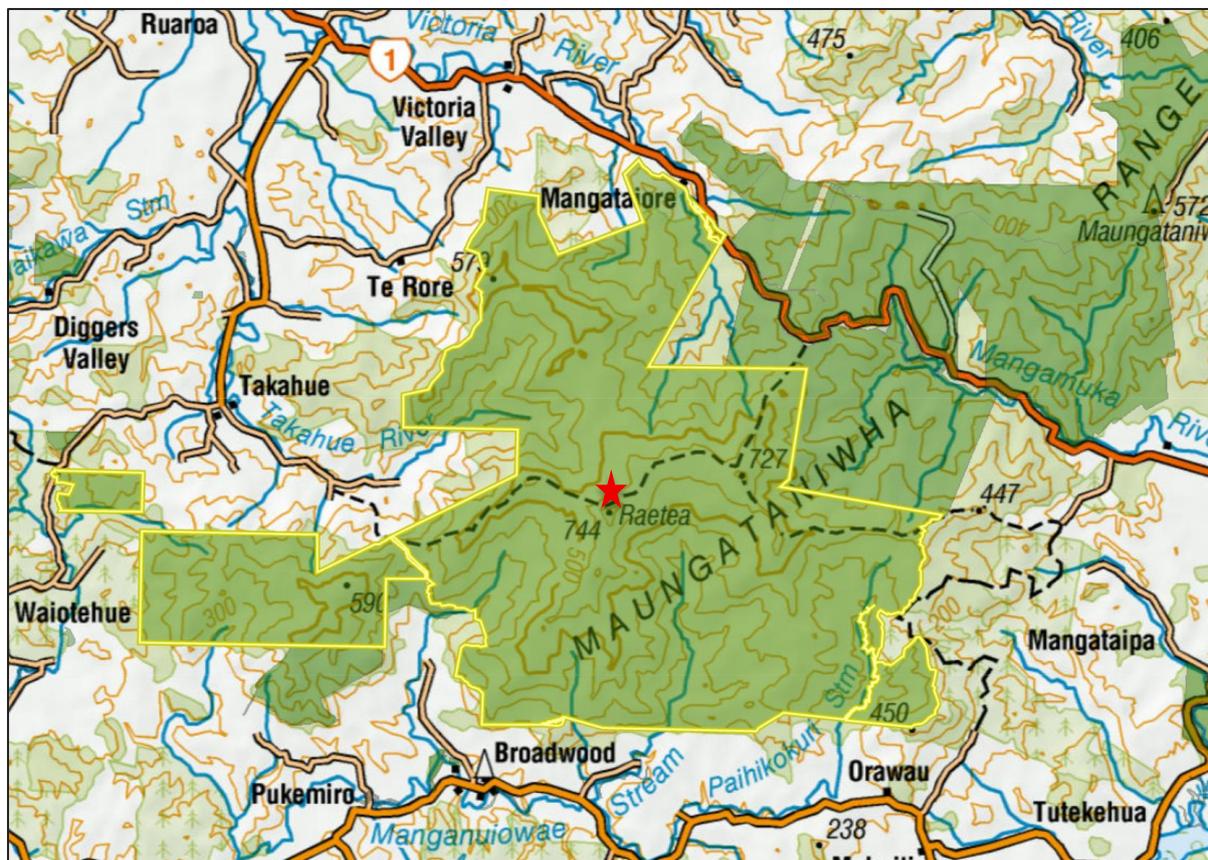
*Whilst the Department of Conservation administers the substantial majority of this landscape, there are portions around the perimeter which share the same characteristics and which are privately owned.*

### **5.1.3 Raetea Forest Conservation Park**

The site is located within the Raetea Forest Conservation Park Area, which adjoins the Mangamuka Gorge Scenic Reserve to the north-west. The extent of these conservation areas is shown in Figure 7 below.



**Figure 7: Raetea Forest Conservation Park Extent. Proposed facility location identified with red star (source: DOC)**



## 5.2 Surrounding environment

The surrounding environment comprises of the wider Raetea Forest and includes the Mangamuka Tramping Track which traverses through the forest in a generally west to east direction. The Mangamuka Gorge and State Highway 1 are situated further north-west of the site location. Due to the remote location, undulating topography and dense vegetation cover, it is considered unlikely that the proposed facility will be visible from the wider surrounding environment.

## 6.0 Reasons for the application

An assessment of the proposal against the relevant statutory documents, being the ODP, PDP, and the NEST) has been undertaken in **Appendix B** and **C**. The following reasons for consent have been identified.

### 6.1 Far North Operative District Plan

The proposal requires resource consent under the ODP for the following reasons:

#### 6.1.1 Chapter 12.1 Landscapes and Natural Features

- Pursuant to Rule 12.1.6.3, the proposed indigenous vegetation removal within an Outstanding Landscape is a **discretionary activity** as it is not provided for as a permitted activity under Rule 12.1.6.1.2.



- Pursuant to Rule 12.1.6.3, it is a **discretionary activity** to establish the proposed facility (mast and antennas), generator shelter and equipment shelter within an Outstanding Landscape.

### 6.1.2 Chapter 12.9 Renewable Energy and Energy Efficiency

- Pursuant to Rule 12.9.6.3.2, the proposed solar arrays are a **discretionary activity** as they do not comply with the permitted activity standards in 12.9.6.1.4(a), (d) and (f) due to their location within a Conservation Zone, proximity to site boundaries and location within an Outstanding Landscape.

### 6.1.3 Chapter 17 – Designations and Utility Services

- Pursuant to Rule 17.2.7.6.5, the proposed facility (mast and antennas), generator shelter and equipment shelter is a **discretionary activity** as they are a discretionary activity under the other district-wide provisions contained in Chapter 12.1 of the ODP.

The overall activity status of the proposal under the ODP is **discretionary**.

## 6.2 Far North Proposed District Plan – Notified Version

The PDP was publicly notified in 2022, and decisions on submissions are yet to be notified at the time of writing this application. There are rules in the PDP relating to the clearance of vegetation within a Significant Natural Area which have immediate legal effect at the time of notification and have been assessed in **Appendix B**.

The proposal requires resource consent under the PDP for the following reasons:

### 6.2.1 Part 2 – District Wide Matters

#### 6.2.1.1 Ecosystems and Biodiversity

- Pursuant to Rule IB-R3 of the PDP, the proposed indigenous vegetation removal within a Significant Natural Area is a **discretionary activity** as it exceeds the maximum permitted area of clearance per calendar year.

The overall activity status of the proposal under the PDP is **discretionary**.

## 6.3 Overall activity status

Overall, resource consent is required for a **discretionary activity**.

# 7.0 Assessment of effects on the environment

## 7.1 Introduction

Having reviewed the relevant plan provisions, visited the site and taking into account the matters that must be addressed by an assessment of effects on the environment as outlined in clause 7 of Schedule 4 of the Act, the effects that warrant consideration as part of this application are listed below:

- Landscape and visual effects
- Temporary construction effects
- Cultural effects



- Ecological effects
- Positive effects

An assessment of these effects, that corresponds with the scale and significance of the effects that the proposed activity may have on the environment, is provided below. Clause 7(2) notes that the requirement to address matters in the assessment of effects on the environment is subject to the provisions of any policy statement or plan. The relevant documents are also assessed in this report.

### **7.1.1 Permitted baseline**

The “permitted baseline” is relevant to the assessments under sections 95A to 95G and 104 of the Act. Under these sections, the consent authority may disregard an adverse effect on the environment if a national environmental standard or the plan permits an activity with that effect. This is the permitted baseline. It is only the adverse effects over and above those forming a part of the baseline that are relevant when considering an application.

The purpose of the permitted baseline test is to isolate, and make irrelevant, the effects of activities on the environment that are permitted by the plan. When applying the baseline, such effects cannot then be taken into account when assessing the effects of a particular resource consent application. The baseline has been defined by case law as comprising the “existing environment” and non-fanciful (i.e., credible) activities that would be permitted as of right by the plan and/or national environmental standard in question.

In this case, the permitted baseline relevant to this application is limited to the permitted activity components of the proposal, in relation to the proposed earthworks, radiofrequency fields, noise levels and underground cabling. No further consideration of these aspects is therefore required.

The proposed facility (mast and antennas), equipment shelter and generator shelter, require resource consent due to their location above-ground within an Outstanding Landscape. Accordingly, there is considered to be no relevant permitted baseline in relation to these built components.

Additionally, the proposed solar arrays require resource consent in this location and therefore there is no relevant permitted baseline in relation to this component.

### **7.1.2 Receiving environment**

In assessing the potential effects on the environment, the “receiving environment” for effects must be considered.

The receiving environment is a mandatory consideration that is defined by case law, and it is the environment beyond the site upon which a proposed activity might have effects. This includes the future state of the environment upon which effects will occur, including:

- the environment as it might be modified by the utilisation of rights to carry out permitted activities; and
- the environment as it might be modified by implementing resource consents that have been granted at the time a particular application is considered, where it appears likely that those resource consents will be implemented.

In this case, the receiving environment is as described in Section 4.0 of this report.



### 7.1.3 Other considerations

Sections 95D(d) to 95D(e) and 104(3)(a) of the Act require that assessments must disregard:

- trade competition, or the effects of trade competition; and
- any effect on a person who has given written approval to this application.

Trade competition and written approval are not relevant to this application.

## 7.2 Landscape and Visual Effects

The proposal is to establish a new communications facility, ancillary shelters, solar arrays and associated vegetation clearance within an Outstanding Landscape, and therefore consideration as to whether the proposal will give rise to adverse landscape and visual effects on the immediate and wider surrounding landscape.

It is important to note that a change in the landscape does not constitute as an adverse landscape or visual effect, as a landscape is dynamic and changing over time, both by natural and human factors. What is fundamental to managing landscape change, is that any substantial and/or inappropriate adverse effects are avoided or sufficiently mitigated to remedy the effects of the change.

### 7.2.1 Landscape character values

The communications facility is proposed on the uppermost ridgeline within the Raetia Forest, which forms part of an identified Outstanding Landscape relating to the Maungataniwha Range.

The landscape characteristics of this Outstanding Landscape are described in Section 5.1 of this report above. At a high level, the Maungataniwha Range is characterised as a rugged bush-clad mountain range which runs along the central-upper Northland area, spanning from the upper Hokianga to immediately inland of the Whangaroa Harbour. The location in which the facility is proposed is characterised as an elevated ridgeline covered in dense established bush and which is set amongst an isolated and undulating bush-clad landscape, comprising of steep slopes and low gullies.

It is acknowledged that there are infrastructure elements present in the immediate surrounding locality, including a NZ Police shelter, radio mast and equipment and solar arrays which are situated immediately south of a nearby grassed helicopter landing area approximately 90m south of the proposed facility location.

### 7.2.2 Effects on landscape values

The proposal will result in a small-scale change to the landscape character values of the site location, due to the removal of indigenous vegetation canopy and the introduction of new built infrastructure into an area of well-established native bush. It is noted that the Raetia Forest in the site's location is not entirely undisturbed, due to the presence of the Police radio station and associated infrastructure approximately 90 south of the site location.

Given the relatively small-scale footprint of the proposal in relation to the wider forest area and that the facility will be slimline and located below the forest canopy except for a small portion of the mast which will protrude above the tree canopy, the proposal is not considered to result in a marked change to the forest's landscape character values. Furthermore, the proposed facility will be located in proximity to other infrastructural elements, which limits the presence of built elements to a relatively inconspicuous area of Raetia Forest and the wider



Outstanding Landscape. It is also noted that the wider Maungataniwha Range Outstanding Landscape does contain other infrastructure components in the wider landscape, including State Highway 1 and a broadcast communications tower in the eastern extent of the Outstanding Landscape.

Overall, the adverse effects of the proposal on the landscape values of the Raetia Forest and wider Outstanding Landscape are considered to be less than minor.

### **7.2.3 Visual effects**

The proposal does have the potential to give rise to adverse visual effects, through the introduction of infrastructure within a largely natural and undisturbed forest landscape. Measures have been taken to minimise visual effects, through designing the facility and ancillary structures to the minimum height and bulk necessary to provide efficient emergency services coverage to the immediate and wider area.

The proposed facility and solar arrays are unlikely to be visible from the wider surrounding landscape, due to the remote and elevated nature of the site location and surrounding undulating landscape which will obscure the proposed facility when viewed from the wider surrounding landscape. Furthermore, a majority of the infrastructure will be of a height which is below the tree canopy with the exception of the top portion of the mast.

In addition, the solar arrays are naturally recessive in colour and the proposed mast and dipole antennas will weather to a recessive grey tone to be in keeping with the skyscape. The proposed shelters will be a recessive grey tone and are unlikely to be visible from the wider surrounding area due to their small size and the surrounding dense vegetation cover.

Views of the facility and solar arrays may occur by overhead scenic, and search and rescue helicopters, however these views will be fleeting and the proposed infrastructure will be viewed as a small-scale built element in a larger dense bush area.

The predominant public views of the proposed facility and solar arrays will occur by users of the Mangamuka Tramping Track, who will pass directly by the proposed infrastructure due to the hiking track bisecting the site location. In this instance, any views of the facility and solar arrays will be fleeting and appear as a functional infrastructural component, noting its proximity to the Police radio tower. For this reasoning, the proposal is not considered to result in a marked change in the sense of 'naturalness' of this Outstanding Landscape, given the limited project footprint and dense vegetation cover that trampers will experience when continuing their journey past the site location.

Overall, the visual effects of the proposal are considered to be less than minor.

### **7.2.4 Conclusion**

Overall, it is considered that the adverse landscape and visual effects of the proposal will be less than minor and acceptable.

## **7.3 Temporary Construction Effects**

The installation of the proposed facility will result in temporary effects, during the proposed construction works. These effects will be small-scale and of a limited duration (likely approximately two weeks). Appropriate erosion and sediment control measures will be in place to minimise sediment effects.

The Mangamuka Tramping Track traverses through the construction site, and the track may be temporarily obstructed during construction works, particularly during the laying of the



underground electricity cables between the facility and solar arrays. The applicant proposes measures, such as providing a clearly signposted alternative track within the site works area, during the laying of the underground cabling, to ensure that trampers can continue their journey along the Mangamuka Tramping Track during construction works. At all other times during construction, the track will remain unobstructed.

Overall, the temporary construction effects of the proposal are considered to be less than minor and acceptable.

## 7.4 Cultural Effects

The proposed facility is not located on or near any recorded archaeological sites. While it is only mana whenua who can determine if cultural values are impacted, care has been taken to minimise the scale, design and bulk of the facility to the minimum extent practicable with the minimum required earthworks and vegetation removal being proposed. All works will be carried out using the Accidental Discovery Protocols, such that in the unlikely event that archaeological remains are discovered, appropriate protocols will be followed. Tait have contacted mana whenua who have an interest in the proposed facility's location to advise of the proposal and provide the opportunity for feedback.

## 7.5 Ecological Effects

The proposal necessitates the removal of approximately 250m<sup>2</sup> of indigenous vegetation in order to establish the proposed facility and ancillary structures, which has the potential to give rise to effects on indigenous flora and fauna. The Applicant engaged SLR to prepare an EIA to assess the ecological effects of the proposed facility (see **Appendix D**), which informs the below assessment of effects.

### 7.5.1 Ecological context and values

As discussed in Section 5.1 of this report above, the facility is proposed in the Maungataniwha Ecological District and on a ridgeline within the Raetia Forest (approximately 7,793 ha area of indigenous vegetation). The Raetia Forest forms part of the overall Maungataniwha Forest Range which is identified as an ecologically significant area by the Northland Regional Council.

The project location can be split into two vegetation clearance areas, one comprising of the solar arrays and the other comprising of the proposed facility and shelters.

The solar array area is heavily vegetated and located on a north facing slope. The predominant vegetation in this location was Towai (12 – 15m) interspersed with toro underneath (10– 12m), and smiths tree fern were also common in this location. Much of the vegetation was deteriorating, with canopy dieback and numerous dead trunks being observed. The canopy understorey comprised predominantly of kanono, kiekie was common growing along the ground and trees, and other ground cover included bush rice grass, sedges and non-threatened ferns. Leaf litter, mosses, seedlings and woody debris comprised a thick ground layer, and there was evidence of predator presence (possums and pigs).

The vegetation in the facility and shelter location was reduced, with prior tree fallings having naturally created an open space. The dominant vegetation was kanono with a few smiths tree fern in a deteriorating condition. Some towai seedlings, kiekie and bush rice grass was present in the understorey. The ground layer was a lot drier and leaf litter finer than the solar array area.



Both areas did not contain emerging specimens and the vegetation tiers were limited to the upper canopy (12 – 25m in height) and below. There were 36 plant species identified across the project's footprint. Threatened flora of note was one specimen of the At Risk – Declining Raukawa that had grown on the trunk of a smiths tree fern on the edge of the area to be cleared for the equipment shelter. The site's flora was identified as having moderate to high ecological value, and the site's ecological value of its ecosystems was considered to be high.

Lizard records in the vicinity of the site location are limited, with the closest recording being approximately 13km from the site, within the wider contiguous forest. The site had abundant habitat for lizards given the prevalence of woody debris and leaf litter within the ground cover. No lizards were found or observed during a site visit, however there is potential for lizards to be present in the site location. The site was identified as being of high ecological significance for lizards.

There are no bird records for the Raetia Forest, and during the site assessment, only common forest birds were observed, including tomtit and kereru. The site's habitat is suitable for common forest birds, and it is likely the area is being used for foraging. There were several old rotting trees and rotting tree fern stumps that could be used for roosts by native owl. The habitat for birds within the site location was considered typical of the surrounding forest and did not comprise of unique or discrete features which would elevate the importance of the habitat for birds. The ecological value of the site for bird habitat was assessed as being moderate.

The long-tailed bat and northern lesser short-tailed bat have been recorded in the Raetia Forest, as well as within the wider contiguous forest areas. Long-tailed bats were recorded within 200m of the site location, and the site contains habitat for bats, in the form of trees greater than 15cm in diameter at breast height and contained roost features such as cavities, fractured broken limbs, flaking bark, epiphytes and crevices. The site's ecological value for bat habitat was considered to be high.

The site's location contains habitats that support threatened indigenous invertebrates, including the kauri snail and tusked weta, both of which have been recorded in the Raetia Forest. The ecological value of the site for invertebrate habitat was considered to be high.

### **7.5.2 Effects of vegetation removal on terrestrial habitat**

Temporary vegetation clearance will be required to construct the proposed facility and solar arrays, as well as the trenching of cables between the infrastructure. The vegetation cover in this location includes several mature (but in a late stage of senescing) trees and one mature towai tree in the middle of the existing hiking track may be impacted by trenching of cabling in its root zone. Temporary clearance areas have been reduced as far as practicable, and it is anticipated that these areas will naturally regenerate over time. The temporary clearance of vegetation in front of the solar arrays for sunlight protection will alter the vegetation composition in this location, as vegetation in this location will be maintained to a lower height (maximum 1m) on an ongoing basis.

The proposal will involve the permanent loss of approximately 123.8m<sup>2</sup> of vegetation cover, associated with the footprints of the proposed infrastructure and solar arrays and appropriate buffers around structures. The extent of permanent vegetation removal will account for 0.00017% of the wider Raetia Forest vegetation, and it is anticipated that the vegetation below the solar panels (approximate 49.6m<sup>2</sup> area) would continue to persist with low-height species such as ferns and grasses.



To mitigate the effects of the temporary and permanent vegetation loss, the Applicant proposes to avoid sensitive areas where practicable or transplanting plants that cannot be avoided, and manage regenerating areas to ensure that the vegetation that regenerates is native and healthy.

The Raetia Forest is at risk of kauri dieback. Whilst there were no kauri noted within the site location, the Applicant proposes to undertake measures to ensure that the construction team appropriately cleans equipment prior to entering and exiting the area to minimise the spread of pest plants and diseases.

Overall, when taking into account the mitigation measures inherent in this application, the adverse effects of the vegetation removal on the site's terrestrial habitat is considered to be low. This correlates to a less than minor effect from an RMA perspective.

### **7.5.3 Effects on lizards and invertebrates**

Construction works have the potential to affect indigenous lizards, primarily through vegetation clearance, ground disturbance and removal of sheltering features such as leaf litter, logs and rock material. Accordingly, there is risk of lizard injury or mortality during construction works which can have a disproportionate effect at a local scale given the threatened classification of lizards in New Zealand.

The construction works may also cause short-term disturbance or temporary displacement of lizard habitat during works. However, these are considered to be localised and readily absorbed due to the availability of extensive lizard habitat in areas adjacent to the works area.

The loss of habitat is not considered to result in a large reduction of the available habitat for indigenous invertebrates due to the abundance of habitat immediately adjacent to the works area, but there is potential for injury or death during construction works.

To mitigate effects on native lizards and invertebrates, the Applicant proposes to prepare and implement a management plan during construction works and obtain the appropriate Wildlife Act 1953 permits from DOC to enable the surveying and relocating of native lizards and invertebrates during construction works.

Overall, when accounting for the mitigation measures inherent in the application, the adverse effects of the proposal on native lizards and invertebrates will be low. This corresponds to a less than minor effects rating under the RMA.

### **7.5.4 Effects on birds**

The vegetation loss is not considered to represent a large reduction in bird habitat, given the abundance of similar habitat in the wider area. However, there is potential risk of injury or death of nesting birds that are unable to relocate, if the vegetation removal occurs during the breeding season. To mitigate these effects, the Applicant proposes to undertake nesting checks by a suitably qualified person immediately prior to vegetation removal to ensure that trees with nests are avoided.

There is also potential for bird strike from the proposed facility and solar arrays, however this is considered unlikely due to the limited height and absence of lights attached to the pole. In relation to the solar arrays, the likelihood of bird strike is considered to be low given the small-scale size of the solar arrays proposed and that the panels will be recessed within the vegetation canopy. Accordingly, no mitigation is considered warranted to manage potential bird strike, as this is considered unlikely.



Overall, when consider the mitigation measures inherent in the application, the adverse effects of the proposal on native birds will be low, or less than minor in an RMA context.

### **7.5.5 Effects on bats**

It is considered unlikely that foraging and traversing bats will strike the proposed infrastructure. The key effects on bats from the proposed vegetation clearance relates to the potential for roosting bads to be present in trees during removal which could lead to injury or death. Approximately six trees within the area of clearance were identified as having suitable roost features, but this is likely to change over time and would need to be re-assessed prior to the clearance occurring. To manage effects, the Applicant proposes to implement vegetation clearance protocols which will be undertaken by a suitably qualified bat ecologist, and which will involve pre-clearance bat monitoring of the site. If bats are identified, tree inspections will be undertaken to full assess roost features and roosting trees will be avoided until the bats naturally leave the trees.

Overall, when considering the mitigation measures inherent in the application, the adverse effects of the proposal on native bats will be low, or less than minor from an RMA perspective.

### **7.5.6 Effects conclusion**

Overall, the short-term and long-term effects on the site's ecological values is considered to be less than minor and acceptable.

## **7.6 Positive Effects**

The proposal will generate positive effects on the environment. The proposed facility will provide digital mobile radio coverage in the area for frontline emergency services. The technology allows for emergency services to send and receive secure communication while remaining focused on the event at hand.

Subsequently, the facility will result in improved resiliency in large-scale emergency situations such as disaster events and provide for the health and safety of people and communities.

## **7.7 Conclusion**

Overall, based on the preceding assessment, the effects of the proposed activity on the environment are less than minor and acceptable.

## **8.0 Statutory assessment**

Section 104(1) of the Act requires that, when considering a resource consent application, the consent authority must have regard to the matters set out in subsections (1)(a), (ab), (b) and (c). These matters are addressed below, and all are subject to Part 2.

### **8.1 Section 104(1)(a) (Actual and potential effects)**

Section 104(1)(a) requires the consent authority to have regard to “any actual and potential effects on the environment of allowing the activity”.

As assessed in Section 7.0 of this report above, the proposed activity will have actual and potential effects on the environment that are acceptable.



## 8.2 Section 104(1)(ab) (Offsetting or compensation)

Section 104(1)(ab) requires that the consent authority to consider “any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity”.

In this case, the proposed activity is not of a scale or nature that would require specific offsetting or environmental compensation measures to ensure positive effects on the environment.

## 8.3 Section 104(1)(b) (Statutory documents)

Section 104(1)(b) requires the consent authority to have regard to any relevant provisions of the following:

- a national environmental standard;
- a wastewater environmental performance standard;
- a stormwater environmental performance standard;
- an infrastructure design solution;
- other regulations;
- a national policy statement;
- a New Zealand coastal policy statement;
- a regional policy statement or proposed regional policy statement; and
- a plan or proposed plan.

An assessment of the relevant statutory documents that corresponds with the scale and significance of the effects that the proposed activity may have on the environment is provided below.

### 8.3.1 National Environmental Standards for Telecommunication Facilities

The National Environmental Standards for Telecommunication Facilities 2016 (NESTF) apply to all telecommunication facilities that generate radiofrequency fields (RF). The NESTF sets environmental standards to manage and protect our natural resources by providing benchmarks for the planning and operation of telecommunications facilities with regards to radiofrequency fields, installation of equipment cabinets, erection or replacement of masts and antennas, and associated noise generation.

#### Assessment

The assessment against the relevant provisions of the NESTF confirms compliance with relevant noise and radio frequency standards, however consent is required for the facility and associated indigenous vegetation removal due to its location within an Outstanding Landscape and Conservation Zone. The foregoing assessment determined that the proposal will result in less than minor adverse effects on landscape and visual amenity and ecological values, as well as providing a range of positive effects. For this reason, the proposal is considered to meet the overall intent of the NESTF.



### 8.3.2 National Policy Statement for Infrastructure

The National Policy Statement for Infrastructure (NPS-I) provides national direction to ensure infrastructure is planned, developed, and managed in a way that supports the wellbeing, health, and safety of communities. The NPS-I recognises infrastructure as an interconnected network serving the public good and sets coherent national guidance for development, maintenance, and upgrades. Communication facilities form part of an essential interconnected network and are inherently provided for by the NPS-I as communication facilities are defined as infrastructure under the Act and therefore the NPS-I.

#### Assessment

The proposal involves the establishment of a new communications facility and ancillary activities which will provide improved emergency services coverage to the immediate and wider surrounding area, which will in turn provide for the health and safety of people and communities. For these reasons, the proposal is considered to meet the overall intent of the NPS-I.

### 8.3.3 National Policy Statement for Renewable Electricity Generation

The National Policy Statement for Renewable Electricity Generation (NPS-REG) applies to renewable electricity generation (REG) assets and activities at any scale, including small-scale REG required to power communication facilities. The NPS sets a national direction that recognises and provides for the benefits and importance of REG activities and seeks to enable REG to support the social, economic and cultural wellbeing of people and communities, and for their health and safety. The NPS-REG recognises the operational or functional need for REG assets and activities to occur in specific locations and environments, and recognises and provides for Māori interests. It seeks to enable REG while managing adverse effects of these activities on the environment. Where matters of national importance are adversely affected by a REG proposal, the NPS-REG must be read in conjunction with other relevant national direction, regional policy statements and regional and district plans. In all other circumstances, adverse effects of REG assets and activities must be, where practicable, avoided, remedied or mitigated.

#### Assessment

Where communication facilities are proposed in remote locations or where a connection to the reticulated electricity network is not feasible, such as the location proposed, there is a functional need to power the facility by on-site means such as solar.

The proposed solar arrays will facilitate the operation of the proposed communications facility, which will have localised benefits through the provision of emergency services coverage to the immediate and surrounding area, including along hiking trails and State Highway 1. Tait have consulted with mana whenua who have an interest in the site location to advise of the proposal and provide the opportunity for discussion around any cultural concerns with the proposal.

The solar arrays are proposed within an Outstanding Landscape and Significant Natural Area, and the foregoing assessment of effects has determined that any adverse landscape, visual and ecological effects of the proposed solar arrays will be less than minor. Furthermore, the below assessment against the relevant national direction and district plan objective and policy framework determines that the proposal is in alignment with these statutory documents. All other adverse effects of the proposal solar array, such as temporary construction effects, will be appropriately avoided or mitigated.

Overall, the proposal is considered to align with the NPS-REG.



### 8.3.4 National Policy Statement for Indigenous Biodiversity

The National Policy Statement for Indigenous Biodiversity (NPS-I) applies to use and development within Significant Natural Areas (SNAs), and seeks to ensure that New Zealand’s indigenous biodiversity is maintained so that there is no overall loss in indigenous biodiversity. The NPS-I seeks to protect SNAs by avoiding or managing adverse effects from new subdivision, use and development, and enabling mana whenua involvement in resource consent applications affecting indigenous biodiversity. The NPS-I provides for the construction of specified infrastructure including communication facilities that provides significant national or regional benefits, , within SNAs where there is a functional or operational need for the communication facility to be established in a particular location and where there are no other practicable alternatives.

#### Assessment

The temporary and permanent loss of SNA vegetation is necessary to establish the proposed facility and associated activities, and there is an operational need for the facility to be sited in the location proposed, to ensure emergency services coverage is available in the immediate and wider surrounding area. Care has been taken to minimise the footprint of the proposed facility to the minimum extent necessary to enable effective operation, and mitigation measures are proposed by the applicant to minimise effects on native flora and fauna during construction works. Alternative locations for the proposal have been considered but were ruled out as being unpracticable. The EIA provided in **Appendix D** and foregoing assessment of ecological effects in Section 7.0 of this report above determined that the adverse effects of the proposal on indigenous biodiversity will be appropriately mitigated to the extent that there are no residual effects requiring offsetting or compensation. In addition, Tait have contacted mana whenua to advise of the proposal and provide the opportunity for discussion around any cultural concerns mana whenua may have in relation to the proposal.

Overall, the proposal is considered to align with the intent of the NPS-IB.

### 8.3.5 Far North Operative District Plan

An assessment of the proposal against the relevant ODP objectives and policies is provided in the below table.

Objectives and Policies	Assessment
<b>Chapter 12 – Natural and Physical Resources</b>	
<b>12.1 Outstanding Landscapes</b>	
<u>Objectives</u> 12.1.3.1 <i>To protect outstanding landscapes and natural features from inappropriate, subdivision use and development.</i> 12.1.3.3 <i>To recognise and provide for the distinctiveness, natural diversity and complexity of landscapes as far as practicable including the complexity found locally within landscapes and the diversity of landscapes across the District.</i> 12.1.3.4 <i>To avoid adverse effects and to encourage positive effects resulting from land use, subdivision or development in outstanding landscapes and natural features and Māori cultural values associated with landscapes.</i>	<u>Consistent</u> The communications facility and ancillary activities are proposed within an Outstanding Landscape which comprises of the Maungataniwha range and encompasses the Raetia Forest. The foregoing assessment of effects undertaken in Section 7.0 of this report above determined that the proposal will have less than minor adverse visual and landscape effects, and that no significant adverse effects will arise from the proposal. The proposed facility has been carefully designed to ensure that the bulk and footprint



Objectives and Policies	Assessment
<p><u>Policies</u></p> <p><i>12.1.4.1 That both positive and adverse effects of development on outstanding natural features and landscapes be taken into account when assessing applications for resource consent.</i></p> <p><i>12.1.4.2 That activities avoid, remedy or mitigate significant adverse effects on both the natural and the cultural values and elements which make up the distinctive character of outstanding natural features and landscapes.</i></p> <p><i>12.1.4.3 That the cumulative effect of changes to the character of Outstanding Landscapes be taken into account in assessing applications for resource consent.</i></p> <p><i>12.1.4.5 That the adverse visual effect of built development on outstanding landscapes and ridgelines be avoided, remedied or mitigated.</i></p> <p><i>12.1.4.7 That the diversity of outstanding landscapes at a District-wide and local level be maintained and enhanced where practicable.</i></p> <p><i>12.1.4.9 That the high value of indigenous vegetation to Outstanding Landscapes be taken into account when assessing applications for resource consents.</i></p> <p><i>12.1.4.10 That landscape values be protected by encouraging development that takes in account:</i></p> <ul style="list-style-type: none"> <li><i>(a) the rarity or value of the landscape and/or landscape features;</i></li> <li><i>(b) the visibility of the development;</i></li> <li><i>(c) important views as seen from public vantage points on a public road, public reserve, the foreshore and the coastal marine area;</i></li> <li><i>(d) the desirability of avoiding adverse effects on the elements that contribute to the distinctive character of the coastal landscapes, especially outstanding landscapes and natural features, ridges and headlands or those features that have significant amenity value;</i></li> <li><i>(e) the contribution of natural patterns, composition and extensive cover of indigenous vegetation to landscape values;</i></li> <li><i>(f) Maori cultural values associated with landscapes;</i></li> <li><i>(g) the importance of the activity in enabling people and communities to provide for their social, economic and cultural well-being.</i></li> </ul>	<p>of the proposed infrastructure is the minimum extent necessary to provide efficient emergency services coverage and the new infrastructure will be located near to existing infrastructure and a helicopter landing area to cluster infrastructure to a small-scale portion of the expansive Raetia Forest.</p> <p>Due to the isolated location of the proposed facility and undulating nature of the Raetia Forest, the proposed facility will not be visible from the wider surrounding environment, and views of the facility by trampers utilising the Mangamuka Tramping Track will be fleeting in nature and not detract from the overall sense of naturalness experienced along this hiking trail.</p> <p>The vegetation removal proposed to construct the facility will be the minimum extent necessary to construct and operate the facility, and there are opportunities for specific areas for removal, such as in front and below the solar arrays, to naturally regenerate to low height species.</p> <p>The foregoing assessment of effects in Section 7.0 of this report above determined that ecological effects of the proposed vegetation removal will be appropriately mitigated to the extent that these effects will be less than minor and acceptable.</p> <p>Furthermore, the vegetation removal represents a very small-scale loss of vegetation and habitat, which can be readily absorbed by the comparable and expansive habitat present within the immediate and wider Raetia Forest.</p> <p>Tait have contacted mana whenua to advise of the proposal and provide the opportunity for discussion around any cultural concerns mana whenua may have in relation to the proposal.</p> <p>The proposed communications facility will have localised benefits to people and communities through the provision of emergency services coverage to the immediate and surrounding area, including along State Highway 1 in the Mangamuka Gorge, and hiking trails, which will improve the health and safety of hikers should they require emergency assistance.</p>



Objectives and Policies	Assessment
<b>12.9 Renewable Energy and Energy Efficiency</b>	
<p><u>Objectives</u></p> <p>12.9.3.1 <i>To become among the most energy self-sufficient local authorities in New Zealand through encouraging and promoting the efficient use of energy and the greater use and development of renewable energy.</i></p> <p>12.9.3.4 <i>To encourage and promote renewable energy use and development proposals that provide significant local community benefit as well as regional and/or national benefit.</i></p> <p>12.9.3.8 <i>To ensure actual and potential adverse effects associated with renewable energy and energy efficiency are avoided, remedied or mitigated.</i></p>	<p><u>Consistent</u></p> <p>The proposed solar arrays will provide a small-scale and on-site renewable energy solution to power the proposed communications facility which will provide critical emergency services coverage to the immediate and wider surrounding environment.</p> <p>As determined by the above assessment of effects undertaken in Section 7.0 of this report above, the adverse effects of the proposed solar arrays and associated indigenous vegetation removal will be appropriately mitigated, and significant effects will be avoided.</p>
<p><u>Policies</u></p> <p>12.9.4.1 <i>That the efficient use of energy and the greater use and development of renewable energy resources, including electricity generation and transmission, and the operation, maintenance and upgrading of existing and future renewable energy activities, is promoted, particularly where there is potential for national, regional or local community benefits, including increased security of supply and reduced greenhouse gas emissions.</i></p> <p>12.9.4.2 <i>That renewable energy use and development is facilitated in locations where significant adverse effects on the environment can be appropriately avoided, remedied or mitigated while also having regard to the local, regional and national benefits and positive effects (particularly any local benefits) associated with the proposed development.</i></p> <p>12.9.4.3 <i>That in assessing any specific renewable energy development proposal, the Council will consider the appropriateness of the proposal in terms of location, scale, and type of proposal and in terms of the effects of any supporting infrastructure.</i></p>	<p>The solar arrays have been designed and located to be of the minimum footprint necessary to efficiently power the communications facility and minimise adverse effects on the environment.</p>
<b>Chapter 17 – Designations and Utility Services</b>	
<p><u>Objectives</u></p> <p>17.2.3.1 <i>To provide for the efficient development, use, maintenance and upgrading of utility services to meet the reasonable needs of residents and businesses throughout the District while ensuring that significant adverse effects are avoided, remedied or mitigated.</i></p>	<p><u>Consistent</u></p> <p>The proposed communications facility and ancillary activities will meet the community needs through the provision of critical emergency services coverage to the immediate and wider surrounding environment. Adverse effects on the environment will be appropriately mitigated and no significant adverse effects will arise from the proposal, as assessed in Section 7.0 of this report above.</p>
<p><u>Policies</u></p> <p>17.2.4.2 <i>That any significant adverse effects of proposed utility services and radio communications</i></p>	



Objectives and Policies	Assessment
<p><i>on amenity values is avoided, remedied or mitigated.</i></p> <p>17.2.4.3 That provision be made to enable new/upgraded utility services to meet growth demand.</p>	
<b>Chapter 9 Recreation/Conservation Environment</b>	
<b>9.7 Conservation Zone</b>	
<p><u>Objectives</u></p> <p>9.7.2.1 A network of areas of land managed to protect their conservation values, in which activities that are compatible with, or complementary to, the conservation value of the land are enabled to establish, and which do not cause adverse effects outside the conservation areas.</p>	<p><u>Consistent</u></p> <p>The proposal has been designed to minimise the environmental impact of its location on conservation land and within an SNA to the minimum extent necessary as discussed in Section 7.0 of this report. Furthermore, the proposed facility will have benefits along State Highway 1 and to users of the various tramping trails, through providing emergency services coverage should visitors require emergency services assistance. For this reasoning, the proposal is considered to be a compatible use in a conservation area.</p> <p>Tait will obtain a concession from DOC to enable the establishment of the proposed facility on conservation land.</p>
<p><u>Policies</u></p> <p>9.7.3.1 To protect the conservation values and the natural and physical resources of the district for present and future generations.</p> <p>9.7.3.2 To ensure the use, development and protection of land zoned conservation is consistent with the conservation values of the site, and avoids adverse effects on the surrounding environment.</p>	

Based on the above assessment, the proposal is considered to align with the ODP objective and policy framework.

### 8.3.6 Proposed Far North District Plan – Notified Version

An assessment of the proposal against the relevant PDP objectives and policies is provided in the below table.

Objectives and Policies	Assessment
<b>Part 2 – District Wide Matters</b>	
<b>Infrastructure</b>	
<p><u>Objectives</u></p> <p>I-O1 The district has safe, efficient and resilient infrastructure that services the current and future needs of people and communities in the district.</p> <p>I-O2 The economic and community benefits of infrastructure are recognised and provided for, including the benefits of regionally significant infrastructure to enhance economic, cultural, environmental and social well-being in the district.</p> <p>I-O4 Adverse effects of infrastructure are managed through the design and location of infrastructure to minimise adverse effects on areas with historical and cultural values, natural values, and coastal values.</p>	<p><u>Consistent</u></p> <p>The proposed communications facility and ancillary activities will benefit people and the community through the provision of critical emergency services coverage to the immediate and wider surrounding environment.</p> <p>There is an operational need for this infrastructure to be located above-ground and at elevation to ensure sufficient communication coverage. Care has been taken to design the facility to be the minimum bulk and size</p>
<p><u>Policies</u></p>	



Objectives and Policies	Assessment
<p><i>I-P3 Outside the coastal environment, manage the effects of the development, operation, maintenance and upgrading of infrastructure activities by:</i></p> <ul style="list-style-type: none"> <li>a) <i>avoiding effects on historical and cultural values, significant natural areas, and outstanding natural features or landscapes to the extent practicable;</i></li> <li>b) <i>minimising or remedying adverse effects on historical and cultural values, natural environment values that cannot be avoided;</i></li> <li>c) <i>recognising the technical, operational and functional needs and constraints of infrastructure activities; and</i></li> <li>d) <i>having regard to offsetting and environmental compensation measures where there are more than minor that cannot be avoided, remedied or mitigated.</i></li> </ul> <p><i>I-P4 Provide for infrastructure where there are benefits such as:</i></p> <ul style="list-style-type: none"> <li>a) <i>significant social, economic and cultural benefits associated with regionally significant infrastructure</i></li> <li>b) <i>improved:</i></li> <li>c) <i>quality of life;</i></li> <li>d) <i>standard of living;</i></li> <li>e) <i>public health and safety;</i></li> <li>f) <i>access to latest technology, such as fibre and high-speed wireless internet;</i></li> <li>g) <i>functioning of businesses; and</i></li> <li>h) <i>transportation of freight, goods, people.</i></li> <li>i) <i>growth and development of the district;</i></li> <li>j) <i>a reduction in the operation and maintenance costs of infrastructure;</i></li> <li>k) <i>integration of infrastructure with urban development; and</i></li> <li>l) <i>facilitating local, regional, national or international connectivity.</i></li> </ul> <p><i>I-P6 Where practicable and appropriate for the type of infrastructure, minimise the adverse visual effects of infrastructure by:</i></p> <ul style="list-style-type: none"> <li>a) <i>co-location or multiple use;</i></li> <li>b) <i>removing redundant facilities or structures;</i></li> <li>c) <i>using landscaping and/or recessive colours and finishes;</i></li> <li>d) <i>encouraging innovative design to maintain the character and amenity of the surrounding area by integrating infrastructure within the site and utilising existing built form and landform; and</i></li> <li>e) <i>requiring the undergrounding of services when locating infrastructure in the coastal environment,</i></li> </ul>	<p>necessary, and to minimise environmental effects.</p> <p>The potential for colocation on the existing Police mast was investigated but ruled out due to the radio mast being overloaded. There are no other practicable colocation options.</p> <p>Adverse effects on the environment from the proposed infrastructure will be appropriately mitigated and no significant adverse effects will arise from the proposal, as assessed in Section 7.0 of this report above. No offsetting or compensation measures are considered warranted for this application.</p>



Objectives and Policies	Assessment
<p><i>a resource overlay, heritage area or an area with high amenity value.</i></p> <p><i>I-P14 Manage infrastructure to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:</i></p> <ul style="list-style-type: none"> <li><i>a) any locational, technical, and operational requirements;</i></li> <li><i>b) bulk, height and design of any accessory buildings or structures;</i></li> <li><i>c) the extent of earthworks and/or indigenous vegetation removal associated with the infrastructure or access to it;</i></li> <li><i>d) the degree to which the environment has already been modified;</i></li> <li><i>a) potential for co-location and shared use of services and corridors;</i></li> <li><i>b) the nature, duration, timing and frequency of the adverse effects;</i></li> <li><i>c) any adverse effects on areas with historical and cultural values, natural values, coastal values, and recreational value;</i></li> <li><i>d) the health, well-being and safety of people and communities, including nuisance from noise, vibration, dust, odour emissions, temperature and light spill;</i></li> <li><i>e) the safe and efficient operation of other infrastructure;</i></li> <li><i>f) stormwater and overland flow path implications;</i></li> <li><i>g) the ability to safely access the infrastructure;</i></li> <li><i>h) the temporary or permanent nature of any adverse effects;</i></li> <li><i>i) whether the infrastructure is nationally or regionally significant;</i></li> <li><i>j) the impact of not operating, repairing, maintaining, upgrading, removing or developing the infrastructure;</i></li> <li><i>k) the benefits derived from the infrastructure at a local, regional and national scale, including the significant environmental, economic, social and cultural benefits of regionally significant infrastructure;</i></li> <li><i>l) the extent to which the infrastructure is integrated with, and necessary to support, planned development within Urban zones and the Settlement zone; and</i></li> <li><i>m) any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.</i></li> </ul>	



Objectives and Policies	Assessment
<b>Renewable Energy Generation</b>	
<p><u>Objectives</u></p> <p><i>REG-O1 The significant local, regional and national benefits from the use and development of renewable electricity generation activities, and their technical, operational and functional needs and constraints, are recognised and provided for.</i></p> <p><i>REG-O2 Renewable electricity generation activities:</i></p> <ul style="list-style-type: none"> <li><i>a) contribute to the reduction in greenhouse gas emissions;</i></li> <li><i>b) increase the security of supply of electricity for the district and the region; and</i></li> <li><i>c) support the economic, social and cultural well-being of people and communities.</i></li> </ul> <p><i>REG-O3 Renewable electricity generation activities are located and designed to avoid and minimise adverse effects on areas with historical, cultural, environmental and coastal values.</i></p>	<p><u>Consistent</u></p> <p>The proposed solar arrays will provide a small-scale and on-site renewable energy solution to power the proposed communications facility which will provide critical emergency services coverage to the immediate and wider surrounding environment to meet the health and safety needs of people and community needs</p> <p>The solar arrays have been designed and located to be of the minimum footprint necessary to efficiently power the communications facility and minimise adverse effects on the environment where practicable.</p> <p>As determined by the above assessment of effects undertaken in Section 7.0 of this report above, the adverse effects of the proposed solar arrays and associated indigenous vegetation removal will be appropriately mitigated, and significant effects will be avoided. No offsetting or compensation is required to address residual adverse effects.</p> <p>Solar arrays are required to power the communications facility due to the remote location and inability to connect to the reticulated electricity network.</p> <p>Tait have contacted mana whenua to advise of the proposal and provide the opportunity for discussion around any cultural concerns mana whenua may have in relation to the proposal.</p>
<p><u>Policies</u></p> <p><i>REG-P3 Enable new small scale renewable electricity generation activities and activities associated with the investigation, identification and assessment of potential sites and energy sources for renewable electricity generation where the activity:</i></p> <ul style="list-style-type: none"> <li><i>a) is of a form, location, and scale that minimises adverse effects on the environment; and</i></li> <li><i>b) will not result in significant adverse effects on the character and amenity values of the zone.</i></li> </ul> <p><i>REG-P6 Outside the coastal environment, manage the effects of the development, operation, maintenance and upgrading of renewable electricity generation activities by:</i></p> <ul style="list-style-type: none"> <li><i>a) avoiding effects on historical and cultural values, significant natural areas, and outstanding natural features or landscapes to the extent practicable;</i></li> <li><i>b) minimising or remedying adverse effects on historical and cultural values, natural environment values that cannot be avoided;</i></li> <li><i>c) recognising the technical, operational and functional needs and constraints of renewable electricity generation activities; and</i></li> <li><i>d) having regard to offsetting and environmental compensation measures where there are more than minor residual adverse effects that cannot be avoided, remedied or mitigated.</i></li> </ul> <p><i>REG-P7 Enable solar electricity generation activities where adverse effects are appropriately managed, recognising that adverse effects from solar generation can generally be avoided or effectively mitigated through:</i></p>	



Objectives and Policies	Assessment
<p>a) <i>appropriate location and design; and</i> b) <i>screening and setbacks from sensitive activities.</i></p> <p><i>REG-P11 Manage renewable electricity generation activities to address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:</i></p> <p>a) <i>any locational, technical, functional, operational needs and constraints, including the need to be located where renewable resource is located and the need for infrastructure to connect the local electricity distribution network or the National Grid, or directly to high energy users;</i> b) <i>bulk, height and design of any associated buildings or structures;</i> c) <i>the extent of earthworks or indigenous vegetation removal;</i> d) <i>the degree to which the environment has already been modified;</i> e) <i>the nature, duration, timing and frequency of any adverse effects;</i> f) <i>any adverse effects on areas with cultural and heritage, natural environment values, coastal values or recreational values;</i> g) <i>proposed methods to avoid, minimise, and remedy adverse effects and any proposed measures to offset or compensate more than minor residual adverse effects;</i> h) <i>health, well-being and safety of people and communities, specifically any nuisance or adverse effects from noise, vibration, traffic and light spill;</i> i) <i>safe and efficient operation of other infrastructure;</i> j) <i>the local, regional or national benefits of the project, including the significant social, economic, and cultural benefits of regionally significant infrastructure; and</i> k) <i>any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.</i></p>	
<b>Ecosystems and Indigenous Biodiversity</b>	
<p><u>Objectives</u></p> <p><i>IB-O1 Areas of significant indigenous vegetation and significant habitats of indigenous fauna (Significant Natural Areas) are identified and protected for current and future generations.</i></p> <p><i>IB-O2 Indigenous biodiversity is managed to maintain its extent and diversity in a way that provides for the social,</i></p>	<p><u>Consistent</u></p> <p>The vegetation removal proposed will be the minimum extent necessary to construct and operate the facility, and there are opportunities for specific areas for removal, such as in front and below</p>



Objectives and Policies	Assessment
<p><i>economic and cultural well-being of people and communities.</i></p> <p><i>IB-O3 The relationship between tangata whenua and indigenous biodiversity, including taonga species and habitats, is recognised and provided for.</i></p> <p><i>IB-O4 The role of tangata whenua as kaitiaki and landowners as stewards in protecting and restoring significant natural areas and indigenous biodiversity is provided for.</i></p>	<p>the solar arrays, to naturally regenerate to low height species.</p> <p>The foregoing assessment of effects in Section 7.0 of this report above determined that ecological effects of the proposed vegetation removal will be appropriately mitigated to the extent that these effects will be less than minor and acceptable. No offsetting or compensation is considered necessary.</p>
<p><u>Policies</u></p> <p><i>IB-P3 Outside the coastal environment:</i></p> <ul style="list-style-type: none"> <li><i>a) avoid, remedy or mitigate adverse effects of land use and subdivision on Significant Natural Areas to ensure adverse effects are no more than minor; and</i></li> <li><i>b) avoid, remedy or mitigate adverse effects of land use and subdivision on areas of important and vulnerable indigenous vegetation, habitats and ecosystems to ensure there are no significant adverse effects.</i></li> </ul> <p><i>IB-P4 If adverse effects on indigenous species, habitats and ecosystems located outside of the coastal environment cannot be avoided, remedied or mitigated in accordance with IB-P3, consider whether it is appropriate to apply the following steps as an effects management hierarchy:</i></p> <ul style="list-style-type: none"> <li><i>a) biodiversity offsetting to address more than minor residual adverse effects to achieve a no net loss and preferably net gain in indigenous biodiversity; and</i></li> <li><i>b) environmental biodiversity compensation to address more than minor residual adverse effects where it is not practicable to achieve biodiversity offsetting.</i></li> </ul> <p><i>IB-P10 Manage land use and subdivision to address the effects of the activity requiring resource consent for indigenous vegetation clearance and associated land disturbance, including (but not limited to) consideration of the following matters where relevant to the application:</i></p> <ul style="list-style-type: none"> <li><i>a) the temporary or permanent nature of any adverse effects;</i></li> <li><i>b) cumulative effects of activities that may result in loss or degradation of habitats, species populations and ecosystems;</i></li> <li><i>c) the extent of any vegetation removal and associated land disturbance;</i></li> <li><i>d) the effects of fragmentation;</i></li> <li><i>e) linkages between indigenous ecosystems and habitats of indigenous species;</i></li> </ul>	<p>Furthermore, the vegetation removal represents a very small-scale loss of vegetation and habitat, which can be readily absorbed by the comparable and expansive habitat present within the immediate and wider Raetea Forest.</p> <p>Tait have contacted mana whenua to advise of the proposal and provide the opportunity for discussion around any cultural concerns they may have with the proposal.</p>



Objectives and Policies	Assessment
<p>f) <i>the potential for increased threats from pest plants and animals;</i></p> <p>g) <i>any downstream adverse effects on waterbodies and the coastal marine area;</i></p> <p>h) <i>where the area has been mapped or assessed as a Significant Natural Areas:</i></p> <p>i) <i>the extent to which the proposal will adversely affect the ecological significance, values and function of that area;</i></p> <p>j) <i>whether it is appropriate or practicable to use biodiversity offsets or environmental biodiversity compensation to address more than minor residual adverse effects;</i></p> <p>k) <i>the location, scale and design of any proposed development;</i></p> <p>l) <i>the extent of indigenous vegetation cover on the site and whether it is practicable to avoid or reduce the extent of indigenous vegetation clearance;</i></p> <p>m) <i>the functional or operational needs of regionally significant infrastructure;</i></p> <p>n) <i>any positive contribution any proposed biodiversity offsets or environmental biodiversity compensation will have on indigenous biodiversity; and</i></p> <p>o) <i>any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6.</i></p>	
<b>Natural Features and Landscapes</b>	
<p><u>Objectives</u></p> <p><i>NFL-O2 Land use and subdivision in ONL and ONF is consistent with and does not compromise the characteristics and qualities of that landscape or feature.</i></p> <p><i>NFL-O3 The ancestral relationships Tangata Whenua has with the land is recognised and provided for as a part of the characteristics and qualities of ONL and ONF.</i></p>	<p><u>Consistent</u></p> <p>The communications facility and ancillary activities are proposed within a Outstanding Natural Landscape Overlay which comprises of the Maungataniwha range and encompasses the Raetia Forest.</p>
<p><u>Policies</u></p> <p><i>NFL-P3 Avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of land use and subdivision on the characteristics and qualities of ONL and ONF outside the coastal environment.</i></p> <p><i>NFL-P7 Prohibit land use that would result in any loss of and/or destruction of the characteristics and qualities of ONL and ONF.</i></p> <p><i>NFL-P8 Manage land use and subdivision to protect ONL and ONF and address the effects of the activity requiring resource consent, including (but not limited to) consideration of the following matters where relevant to the application:</i></p>	<p>The proposal has an operational need to be located above-ground and in elevated locations such as that proposed to provide effective emergency services coverage to the immediate and wider surrounding area.</p> <p>The foregoing assessment of effects undertaken in Section 7.0 of this report above determined that the proposal will have less than minor adverse visual and landscape effects, and that no significant adverse effects will arise from the proposal.</p> <p>The proposed facility has been carefully designed to ensure that the bulk and</p>



Objectives and Policies	Assessment
<ul style="list-style-type: none"> <li>a) <i>the presence or absence of buildings, structures or infrastructure;</i></li> <li>b) <i>the temporary or permanent nature of any adverse effects;</i></li> <li>c) <i>the location, scale and design of any proposed development;</i></li> <li>d) <i>any means of integrating the building, structure or activity;</i></li> <li>e) <i>the ability of the environment to absorb change;</i></li> <li>f) <i>the need for and location of earthworks or vegetation clearance;</i></li> <li>g) <i>the operational or functional need of any regionally significant infrastructure to be sited in the particular location;</i></li> <li>h) <i>any viable alternative locations for the activity or development outside the landscape or feature;</i></li> <li>i) <i>any historical, spiritual or cultural association held by tangata whenua, with regard to the matters set out in Policy TW-P6;</i></li> <li>j) <i>the characteristics and qualities of the landscape or feature;</i></li> <li>k) <i>the physical and visual integrity of the landscape or feature;</i></li> <li>l) <i>the natural landform and processes of the location; and</i></li> <li>m) <i>any positive contribution the development has on the characteristics and qualities.</i></li> </ul>	<p>footprint of the proposed infrastructure is the minimum extent necessary to provide efficient emergency services coverage and the new infrastructure will be located near to existing infrastructure and a helicopter landing area to cluster infrastructure to a small-scale portion of the expansive Raetea Forest.</p> <p>Due to the isolated location of the proposed facility and undulating nature of the Raetea Forest, the proposed facility will not be visible from the wider surrounding environment, and views of the facility by trampers utilising the Mangamuka Tramping Track will be fleeting in nature and not detract from the overall sense of naturalness experienced along this hiking trail.</p> <p>The vegetation removal proposed to construct the facility will be the minimum extent necessary, and there are opportunities for specific areas for removal, such as in front and below the solar arrays, to naturally regenerate to low height species.</p> <p>The foregoing assessment of effects in Section 7.0 of this report above determined that ecological effects of the proposed vegetation removal will be appropriately mitigated to the extent that these effects will be less than minor and acceptable.</p> <p>Furthermore, the vegetation removal represents a very small-scale loss of vegetation and habitat, which can be readily absorbed by the comparable and expansive habitat present within the immediate and wider Raetea Forest.</p> <p>Tait have contacted mana whenua to advise of the proposal and provide the opportunity for discussion around any cultural concerns mana whenua may have in relation to the proposal.</p>

Overall, the proposal is consistent to be consistent with the relevant objectives and policies of the PDP.

### 8.3.7 Weighting

An assessment of weighting is only relevant if the outcomes under the operative and proposed provisions are different. In this case, as the outcomes are the same, no weighting is required.



### **8.3.8 Conclusion**

The above assessments demonstrate that the proposal is consistent with the relevant provisions of the relevant statutory documents.

### **8.4 Section 104(1)(c) (Other matters)**

In addition to the matters of regard covered under subsections (1)(a), (ab) and (b), subsection (1)(c) states that consideration must be given to "any other matters that the consent authority considers relevant and reasonably necessary to determine the application."

There are no other matters relevant to this application.

## **9.0 Other relevant sections of the Act**

### **9.1 Sections 107G and 108 (Proposed conditions of consent)**

As identified in the preceding assessments, several conditions of consent are proposed to avoid, remedy or mitigate the potential adverse effects of the proposed activity on the environment. It is anticipated that the consent authority will adopt conditions relating to the mitigation measures inherent in the application as described in Section 3.0 of this report above.

It is requested that draft conditions of consent are shared to SLR in advance of a decision being made on the application.

### **9.2 Section 125 (Lapsing of consent)**

Section 125 prescribes a standard consent period of five years in which all works must be undertaken, but this may be amended as deemed appropriate by the consent authority. It is requested that the standard five-year period be applied in this case.

### **9.3 Section 35 (Monitoring charges)**

Under section 35, the consent authority is required to monitor the exercise of resource consents. Given the limited scale of the proposed activity, and because all mitigation measures are inherent within the application, it is considered that only a limited need for monitoring exists. The Applicant accepts a reasonable monitoring fee in accordance with the consent authority's monitoring fee system and that the consent authority may carry out its monitoring functions by way of inspections of the site during development of the proposal.

## **10.0 Notification assessment**

### **10.1 Public notification assessment**

Section 95A of the Act requires the consent authority to follow specific steps to determine whether to publicly notify an application. An assessment of the application against these steps is provided below.

#### **10.1.1 Step 1: Mandatory public notification in certain circumstances**

An application must be publicly notified if it meets any of the criteria under section 95A(3):



- (3) (a) the applicant has requested that the application be publicly notified:
- (b) public notification is required under section 95C:
- (c) the application is made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977.

The Applicant does not request public notification and the application is not made jointly with an application to exchange recreation reserve land.

Therefore, Step 1 does not apply, and Step 2 must be considered.

### 10.1.2 Step 2: Public notification precluded in certain circumstances

An application must not be publicly notified if it meets any of the criteria under section 95A(5):

- (5) (a) the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes public notification:
- (b) the application is for a resource consent for 1 or more of the following, but no other, activities:
  - (i) a controlled activity:
  - (iii) a restricted discretionary, discretionary, or non-complying activity, but only if the activity is a boundary activity:

None of these criteria apply to the application.

Therefore, Step 2 does not apply, and Step 3 must be considered.

### 10.1.3 Step 3: Public notification required in certain circumstances

An application must be publicly notified if it meets any of the criteria under section 95A(8):

- (8) (a) the application is for a resource consent for 1 or more activities, and any of those activities is subject to a rule or national environmental standard that requires public notification:
- (b) the consent authority decides, in accordance with section 95D, that the activity will have or is likely to have adverse effects on the environment that are more than minor.

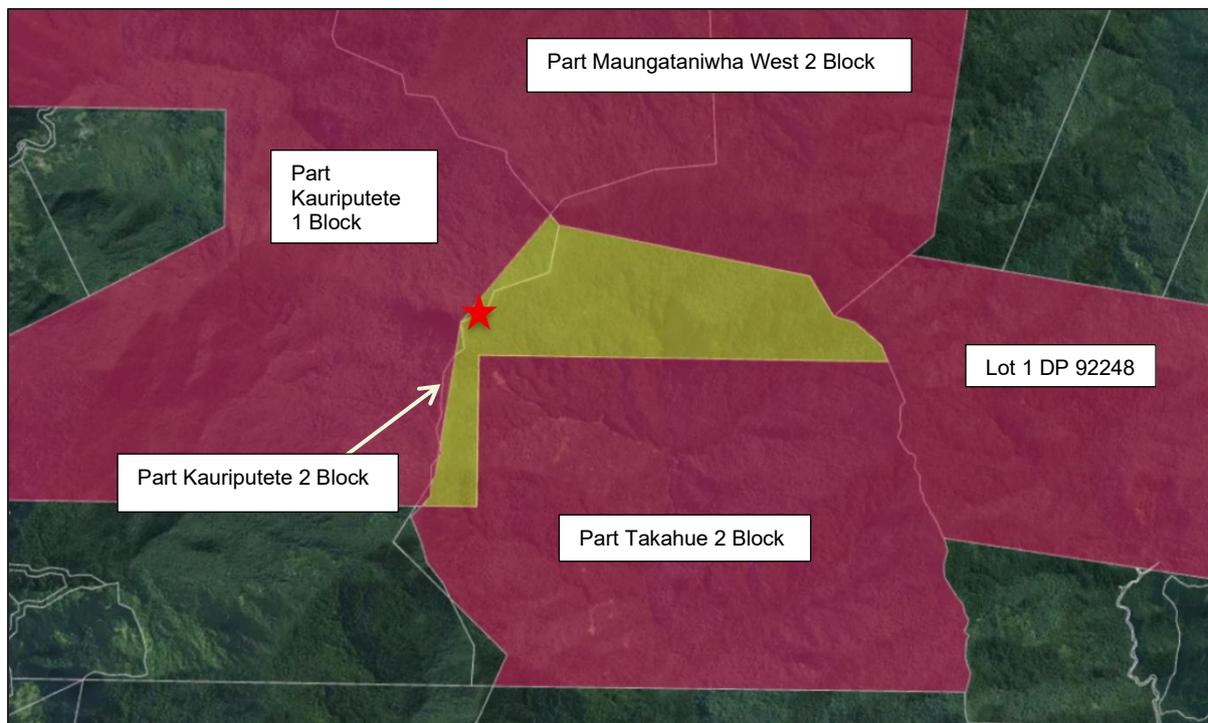
There is no rule or national environmental standard that requires public notification. However, an assessment of adverse effects on the environment is required.

#### 10.1.3.1 Adjacent land

With respect to section 95D(a), the land identified in pink in Figure 8 below is considered to be the land adjacent to the proposal and has been excluded for the purposes of the public notification assessment.



**Figure 8: Aerial image identifying subject site in yellow and adjacent land in pink. Red star identified proposed facility location (source: Grip)**



The assessment of environmental effects undertaken in Section 7.0 of this report concluded that the proposed activity will have less than minor effects on the environment as a whole. When excluding adjacent land and positive effects, the adverse effects of the proposed activity on the environment will be less than minor.

Therefore, Step 3 does not apply, and Step 4 must be considered.

#### **10.1.4 Step 4: Public notification in special circumstances**

Under section 95A(9), an application must be publicly notified if the consent authority determines that “special circumstances” exist, notwithstanding that Steps 1 to 3 do not require or preclude public notification.

Special circumstances are not defined by the Act. Case law has, however, identified special circumstances as being “outside the common run of things which is exceptional, abnormal or unusual, but less than extraordinary or unique. A special circumstance would be one which makes notification desirable despite the general provisions excluding the need for notification.”<sup>2</sup> The consent authority should also be satisfied that public notification may elicit additional information on those aspects of the proposal which require resource consent.

However, special circumstances must be more than:

- where the consent authority has had an indication that people want to make submissions;
- the fact that a large development is proposed; or

<sup>2</sup> *Far North District Council v Te Runanga-a-iwi o Ngati Kahu* [2013] NZCA 221 at [36] and [37].



- the fact that some persons have concerns about the proposal.

It is considered that no special circumstances exist that require the application being publicly notified, as the proposal is not considered to be controversial nor does it contain unique characteristics that warrant public notification of the application.

### 10.1.5 Public notification summary

From the assessment above it is considered that the application does not need to be publicly notified, but an assessment of limited notification is required.

## 10.2 Limited notification assessment

If the consent authority determines not to publicly notify an application, it must then follow the steps of section 95B of the Act to determine whether to give limited notification of the application. An assessment of the application against these steps is provided below.

### 10.2.1 Step 1: Certain affected groups and affected persons must be notified

An application must be limited notified to the relevant persons if it meets the criteria under sections 95B(2) to 95B(4):

- (2) (a) affected protected customary rights groups; or  
(b) affected customary marine title groups (in the case of an application for a resource consent for an accommodated activity).
- (3) (a) whether the proposed activity is on or adjacent to, or may affect, land that is the subject of a statutory acknowledgement made in accordance with an Act specified in Schedule 11; and  
(b) whether the person to whom the statutory acknowledgement is made is an affected person under section 95E.
- (4) Notify the application to each affected group identified under subsection (2) and each affected person identified under subsection (3).

There are no protected customary rights groups or customary marine title groups or statutory acknowledgement areas that are relevant to this application.

Therefore, Step 1 does not apply, and Step 2 must be considered.

### 10.2.2 Step 2: Limited notification precluded in certain circumstances

An application must not be limited notified to any persons if it meets any of the criteria under section 95B(6):

- (6) (a) the application is for a resource consent for 1 or more activities, and each activity is subject to a rule or national environmental standard that precludes limited notification:  
(b) the application is for a controlled activity (but no other activities) that requires a resource consent under a district plan (other than a subdivision of land).

None of these criteria apply to the application.

Therefore, Step 2 does not apply, and Step 3 must be considered.



### 10.2.3 Step 3: Certain other affected persons must be notified

Other affected persons must be notified in the following circumstances specified by section 95B(7) and (8):

- (7) In the case of a boundary activity, determine in accordance with section 95E whether an owner of an allotment with an infringed boundary is an affected person.
- (8) In the case of any other activity, determine whether a person is an affected person in accordance with section 95E.

The proposal is not for a boundary activity.

In deciding whether a person is an affected person under section 95E, the consent authority under section 95E(2):

- (2) (a) may disregard an adverse effect of an activity on a person if a rule or national environmental standard permits an activity with that effect;
- (b) must disregard an adverse effect that does not relate to a matter for which a rule or environmental standard reserves control or restricts discretion; and
- (c) must have regard to every relevant statutory acknowledgement made in accordance with a statute set out in Schedule 11 of the Act.

With respect to sections 95B(8) and 95E, the assessment of environmental effects undertaken in Section 7.0 of this report found that the potential adverse effects on the environment will be less than minor. For the reasons addressed in that assessment and given the remote location of the facility it is not considered there are any persons who may be potentially affected.

Therefore, no persons will be affected to a minor or more than minor degree.

#### 10.2.3.1 Statutory acknowledgements

With respect to section 95E(2)(c), when deciding who is an affected person, the consent authority must have regard to every relevant statutory acknowledgement made in accordance with an Act that is specified under Schedule 11. Those named in that schedule are affected if the adverse effects are minor or more than minor.

There are no statutory acknowledgements that are relevant to this application.

#### 10.2.3.2 Step 3 summary

Overall, there are no affected persons.

Therefore, Step 3 does not apply, and Step 4 must be considered.

### 10.2.4 Step 4: Further notification in special circumstances

As required by section 95B(10), the consent authority must determine the following:

- (10) Determine whether special circumstances exist in relation to the application that warrant notification of the application to any other persons not already determined to be eligible for limited notification under this section (excluding persons assessed under section 95E as not being affected persons).



The proposal is for a [briefly summarise the proposal] and a consideration of adverse effects on any person has been undertaken under Step 3 where it was concluded that these are less than minor.

Therefore, there are no other persons who should be limited notified.

### **10.2.5 Limited notification assessment summary**

Overall, from the assessment undertaken, Steps 1 to 4 do not apply and there are no affected persons.

### **10.3 Notification assessment conclusion**

Pursuant to sections 95A to 95G of the Act, it is recommended that the application is non-notified based on the following reasons:

- Step 1 of section 95A: Public notification is not mandatory.
- Step 2 of section 95A: Public notification is not precluded.
- Step 3 of section 95A: Public notification is not required as the specified circumstances do not apply, including that the adverse effects on the environment will not be more than minor.
- Step 4 of section 95A: No special circumstances exist that require public notification.
- Step 1 of section 95B: There are no certain affected groups or persons who must be limited notified.
- Step 2 of section 95B: Limited notification is not precluded.
- Step 3 of section 95B: There are no certain other affected persons who must be limited notified.
- Step 4 of section 95B: No special circumstances exist that require limited notification to any other persons.

## **11.0 Part 2 of the Act**

Section 5 identifies the purpose of the Act as being the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

Section 6 of the Act sets out several matters of national importance, including:

*(b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development; and*

*(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.*

The communications facility and ancillary activities are proposed within an Outstanding Landscape and involves the temporary and permanent clearance within a Significant Natural Area. The foregoing assessment of effects and statutory assessments contained in Sections 7.0 and 8.0 of this report determined that the actual and potential adverse effects of the proposal on the site's landscape, visual and ecological values will be appropriately mitigated



and that the proposal aligns with the relevant statutory documents. Accordingly, I proposal is considered to align with section 6 of the RMA.

Section 7 identifies a number of "other matters" to be given particular regard to in the consideration of any assessment for resource consent, including:

- (b) the efficient use and development of natural and physical resources:*
- (c) the maintenance and enhancement of amenity values:*
- (d) intrinsic values of ecosystems:*
- (f) maintenance and enhancement of the quality of the environment:*
- (g) any finite characteristics of natural and physical resources:*
- (j) the benefits to be derived from the use and development of renewable energy.*

The proposal is considered to align with the above section 7 matters as the proposed communications facility will have a small-scale footprint that will not impact on the underlying biodiversity, amenity or landscape values of the Raetia Forest nor affect the recreational use of hiking trails. On-site renewable electricity supply will be provided to the proposed facility due to the remote and isolated nature of the facility's location.

Section 8 requires the consent authority to take into account the principles of the Treaty of Waitangi, and this has also informed our assessment under section 104.

Overall, the application is considered to be consistent with the relevant provisions of Part 2, as expressed through the objectives, policies and rules that we reviewed in earlier sections of this application. Given this consistency, it is concluded that the proposal achieves the purposes of sustainable management set under section 5.

## 12.0 Conclusion

Tait Systems NZ Ltd seeks resource consent to establish, operate, and maintain a communication facility at Part Kauriputete 1 Block and Part Takahue 2 Block, and forming part of the Raetia Forest Conservation Park, Northland (coordinates: -35.21606, 173.41803).

In terms of section 104(1)(a) of the Act, the actual and potential effects of the proposed activity on the environment will be less than minor and acceptable as assessed discussed in sections 7.0 and 8.0 of this report.

The proposed activity will also generate positive effects, particularly improved resiliency in emergency situations such as disaster events by providing coverage for First Responders, which will contribute to the health and safety of people and communities.

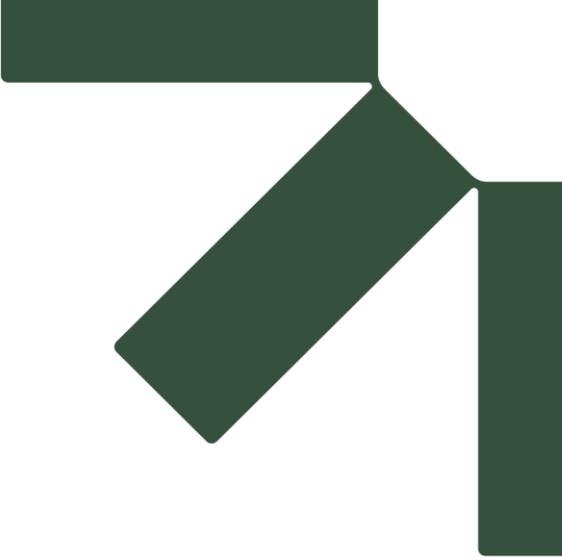
In terms of section 104(1)(b) of the Act, the proposal is considered to be consistent with the intent of the National Environmental Standards for Telecommunication Facilities, the relevant national direction documents relating to infrastructure, renewable electricity generation and indigenous biodiversity, and consistent with the relevant objective and policy frameworks of both the Far North Operative District Plan and Proposed District Plan – Notified Version.

It is also considered that the proposal will have less than minor adverse effects on the wider environment, no persons will be adversely affected by the proposal and no special circumstances exist. As such, the application does not need to publicly or limited notified.



Hence, in accordance with section 104B in relation to discretionary activities, it is considered appropriate for consent to be granted on a non-notified basis, subject to fair and reasonable conditions.





# Appendix A Application Plans

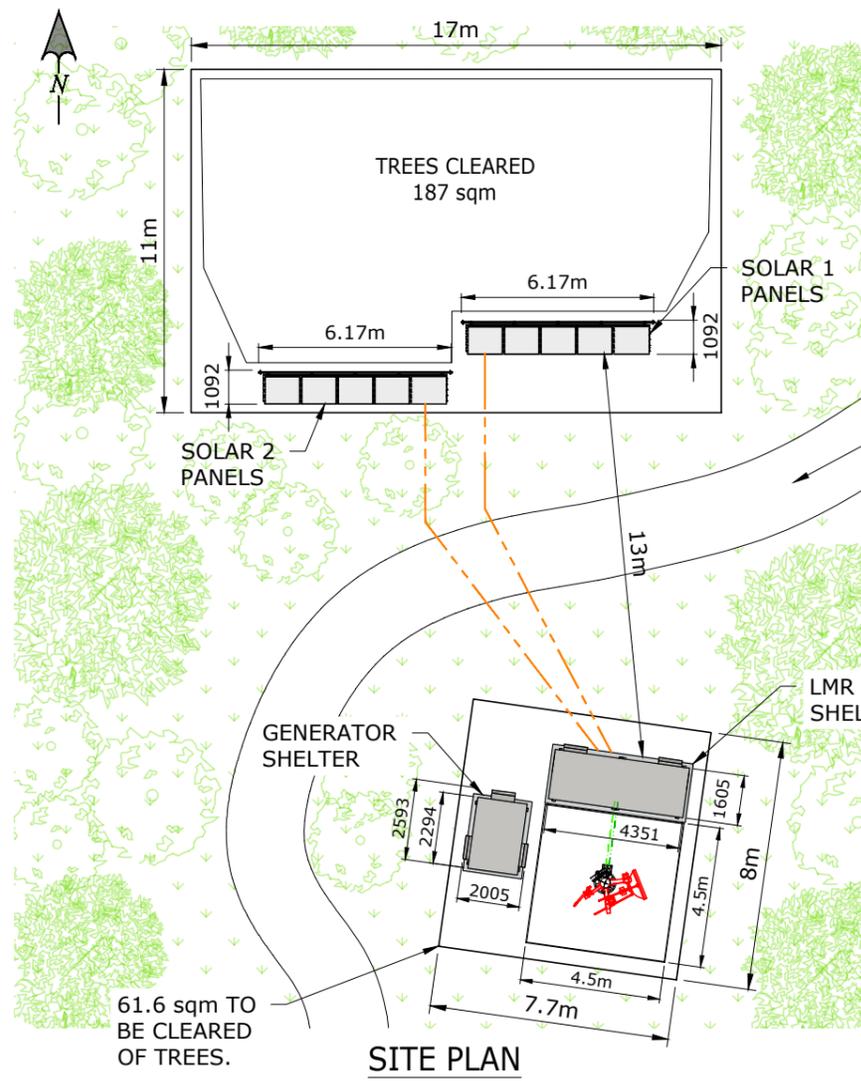
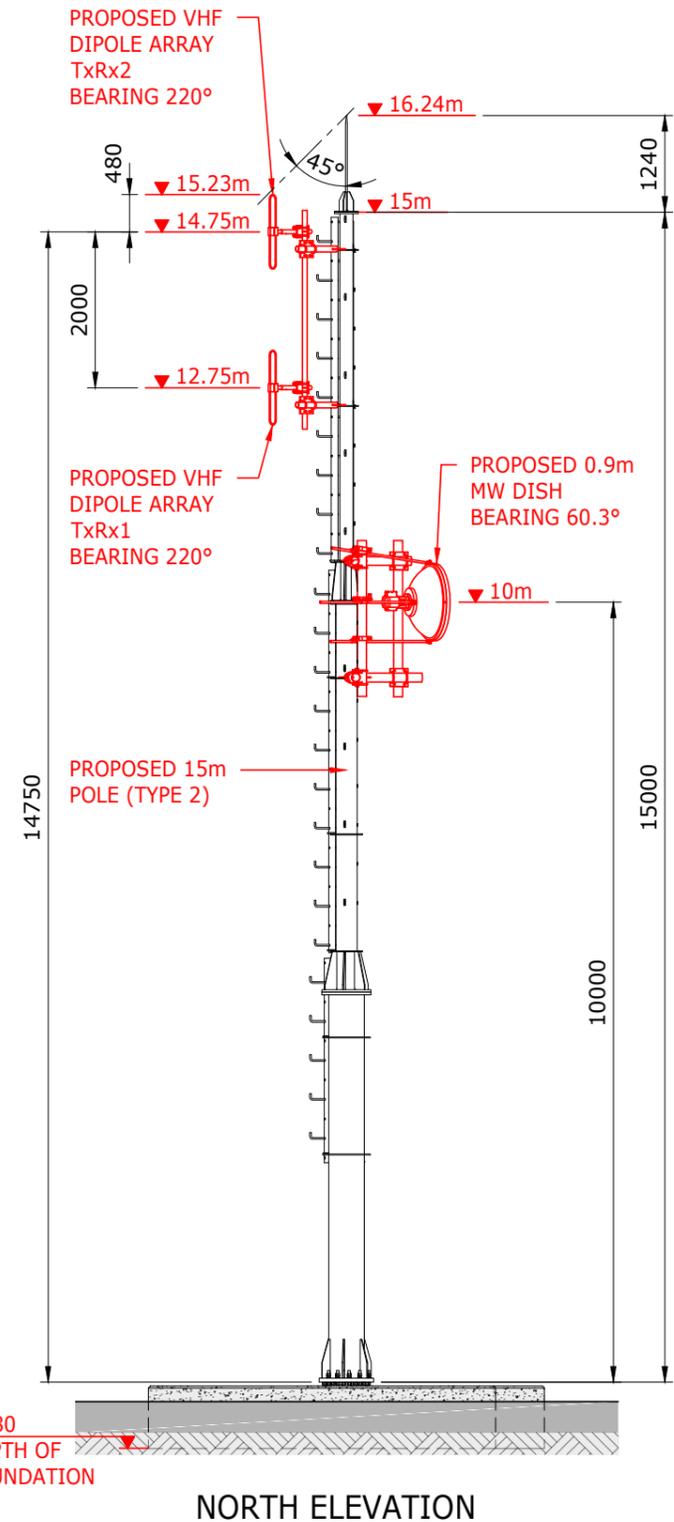
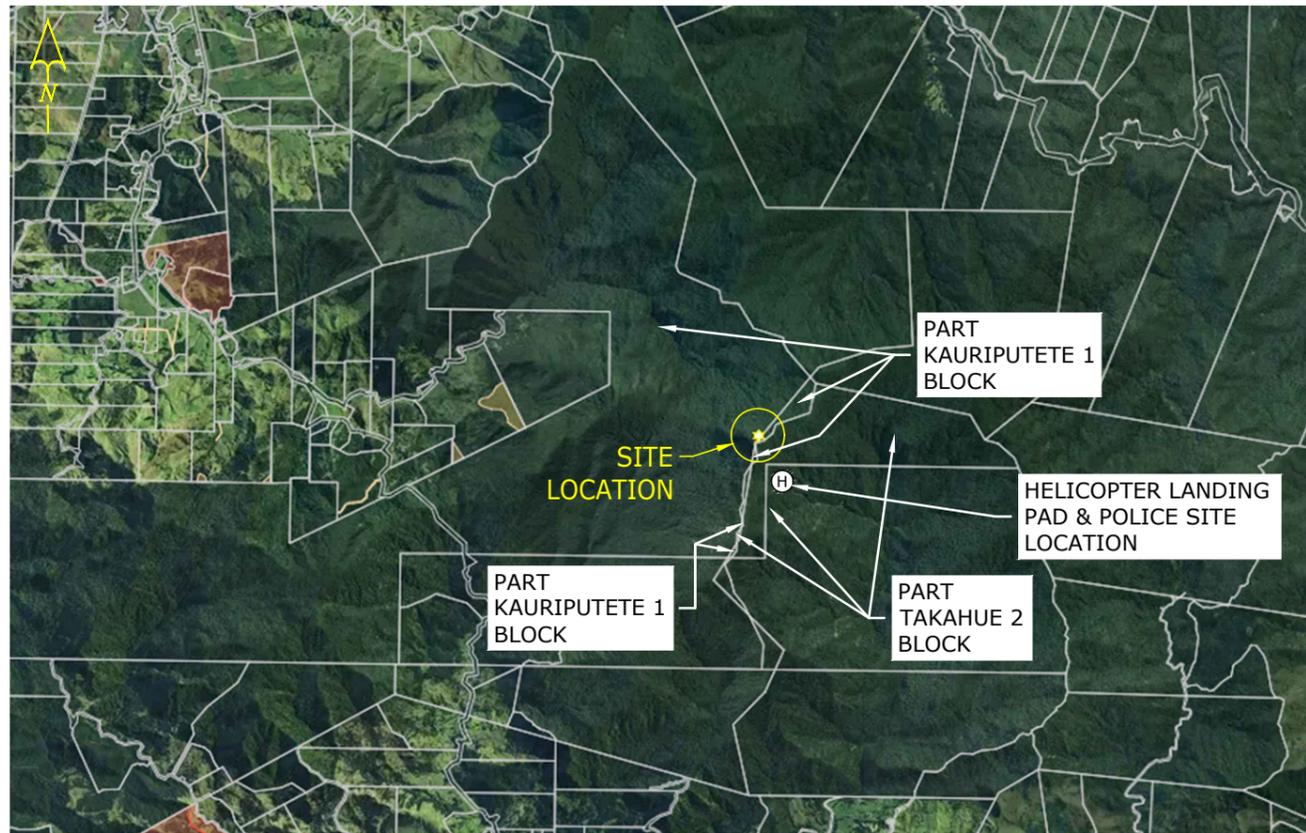
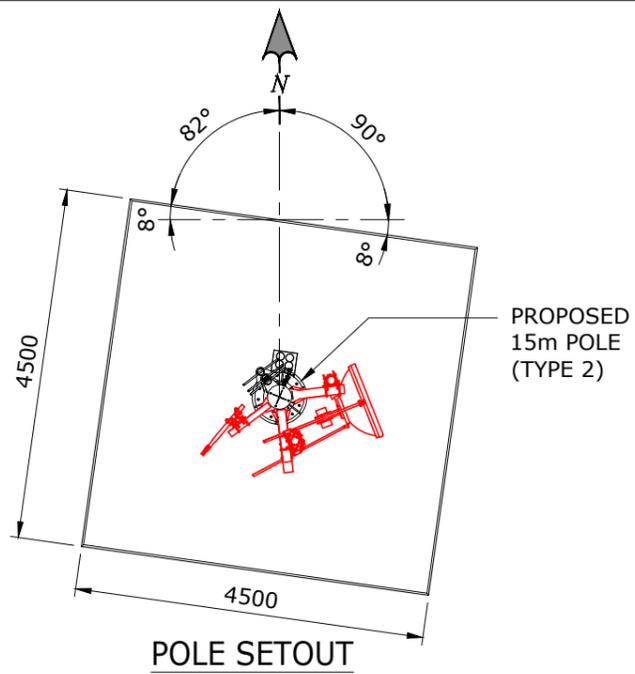
## Resource Consent Application

Installation of a new communications facility at Raetea Forest, Northland

Tait Systems NZ Limited

SLR Project No.: 810.V16122.00001

24 February 2026



NOTE:  
ALL SERVICES & BOUNDARIES SHOWN ARE TAKEN FROM INFORMATION PROVIDED. ACTUAL EXISTENCE OR LOCATIONS OF THESE HAVE NOT BEEN VERIFIED. DO NOT SCALE OFF DRAWINGS

- DESIGN NOTES:
- 50 YEARS DESIGN LIFE
  - IMPORTANCE FACTOR LEVEL 2
  - SITE DESIGN WIND SPEED 71 m/s AT 10m

DIPOLE ARRAY & LINKING DISH TYPE:  
P25 VHF RFI SMD21-36-P-VA1

LINKING INFO FROM REGISTER:  
NEW LINK (0.9mØ) NEW M-WAVE  
NEW LINK FAR END MAUNGATANIWHA  
BEARING TO FAR END 60.3°  
DISH CODE WTC09-127DAR-QON-320

SITE ACCESS VIA: HELICOPTER

LAT: -35.21606 LONG: 173.41803  
LEGAL: PART KAURIPUTETE 1 BLOCK AND PART TAKAHUE 2 BLOCK

MSL AT POLE BASE (m) = 742

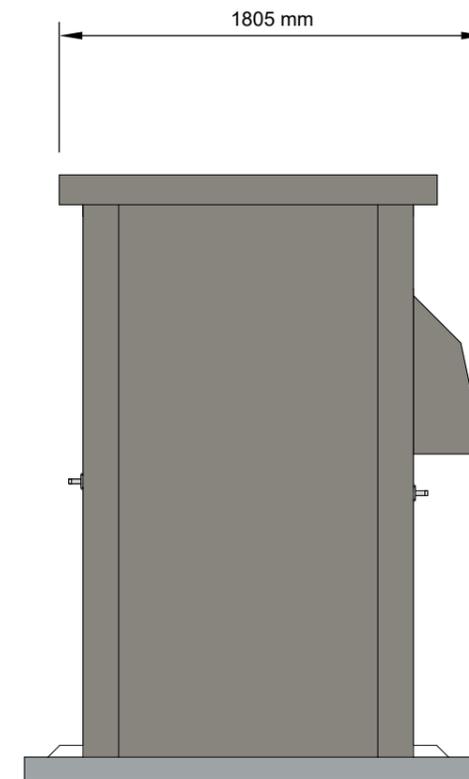
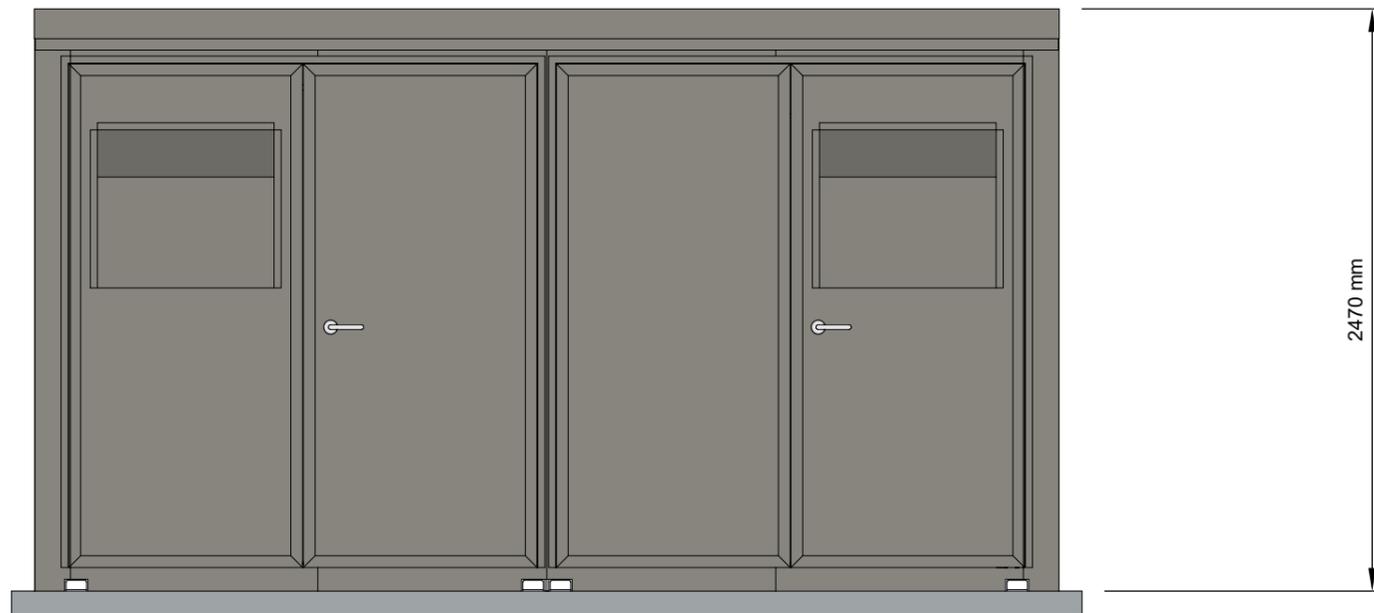
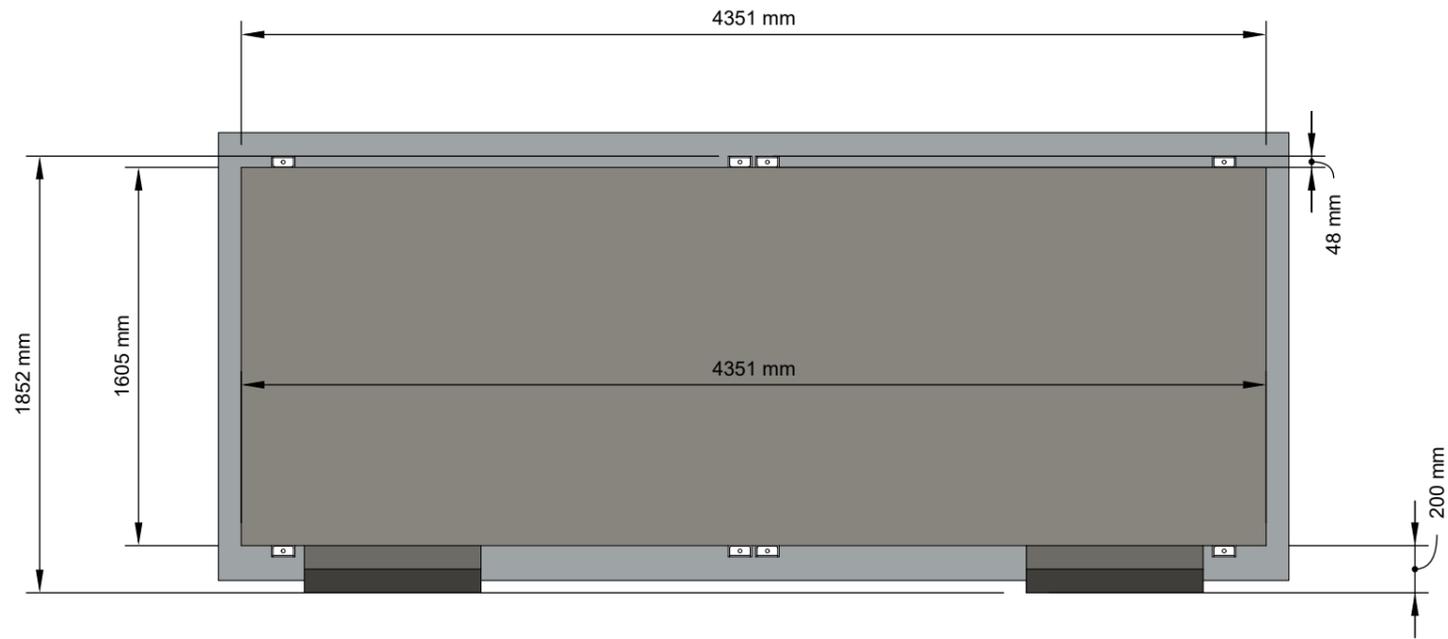
LEGEND

	PROPOSED FEEDER ROUTE
	PROPOSED POWER ROUTE
	PROPOSED MW ROUTE
	PROPOSED FIBRE ROUTE
	LICENSE/LEASE AREA
	BOUNDARY

**TAIT SYSTEMS - IN CONFIDENCE**

ISS	ORIGIN	BY	DATE	DESIGN CHK	DRG CHK	REVISION DETAILS	TITLE	ORIGIN:	DATE	SIZE	REG
P1	C.HEATH	ATL	29.01.26	---	---	ISSUED FOR INFORMATION - CREATED AS PER SITE VISIT	NORTHLAND-RAETEA-RATE	C.HEATH	28.01.26	A3	
P2	C.HEATH	ATL	05.02.26	---	---	ISSUED FOR INFORMATION - DRAWINGS REVISED		DRAWN:			
							SUB TITLE	DESIGN CHK:			ISSUE
							SITE LOCATION PLANS & PHOTO MONTAGE	DRG CHK:		DWG No	
								APPROVED FOR ISSUE:		30393/1	P2





ACTUAL SITE LAYOUT MAY CHANGE BASED ON THE SITES REQUIRMENTS



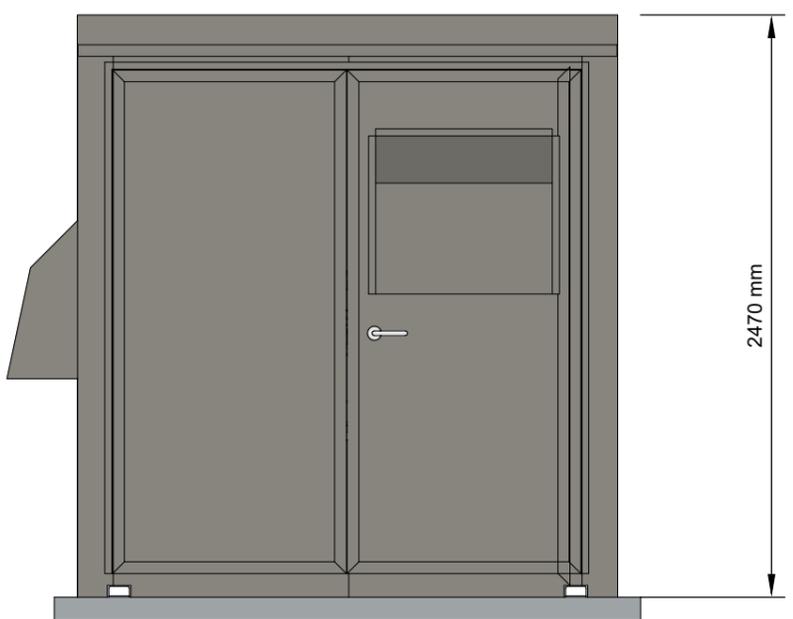
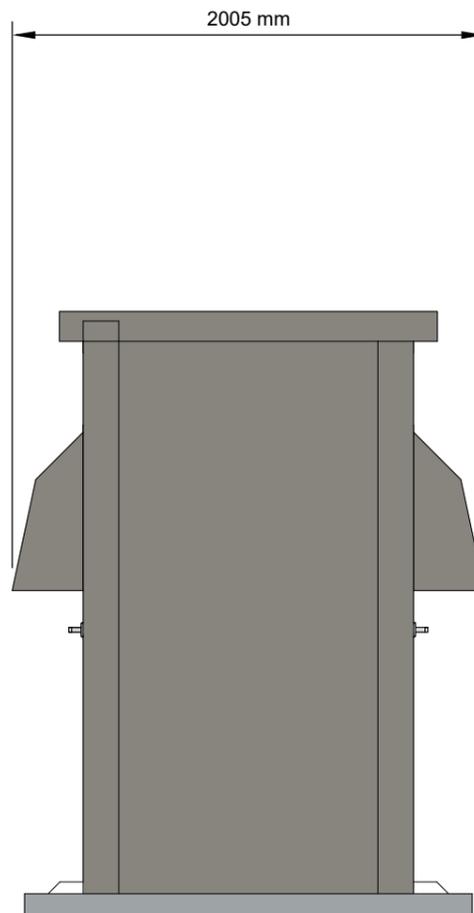
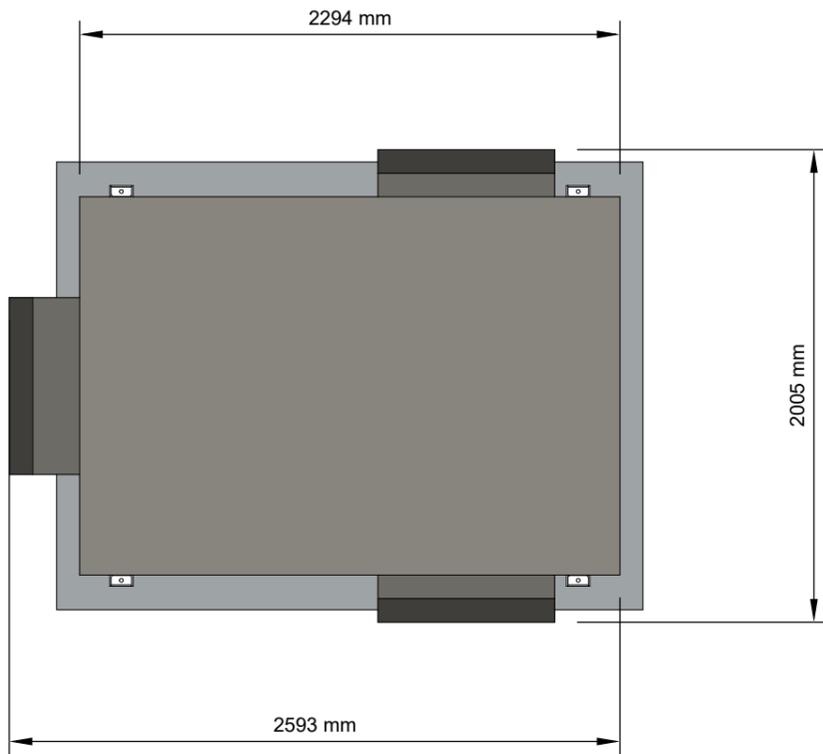
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 Tel: +61 1800 638 6287  
 E-mai: admin@nevmataustralia.com.au

REV.	DESCRIPTION	BY	APP'D	DATE
J-1	DRAWINGS FOR CLIENT APPROVAL	JW	AH	6/11/2025
J	DRAWINGS FOR CLIENT APPROVAL	JW	AH	23/07/2025

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CLIENT:	<b>R F I INDUSTRIES</b>	DRAWN:	JW	SH SIZE:	A3
SITE:	<b>MULTIPLE</b>	DATE:	6/11/2025	SHEET:	5
PROJECT TITLE:	<b>OFFGRID POWER STATIONS</b>	CHECKED:	DB	SCALE:	NTS
TITLE:	<b>NGCC SUBMISSION</b>	APPROVED:	AH	REV:	J-1
	<b>LMR AND POWER CABINET</b>	DRG No.	NEVAUS-634-23276-M010-J1-5-(J-1)		



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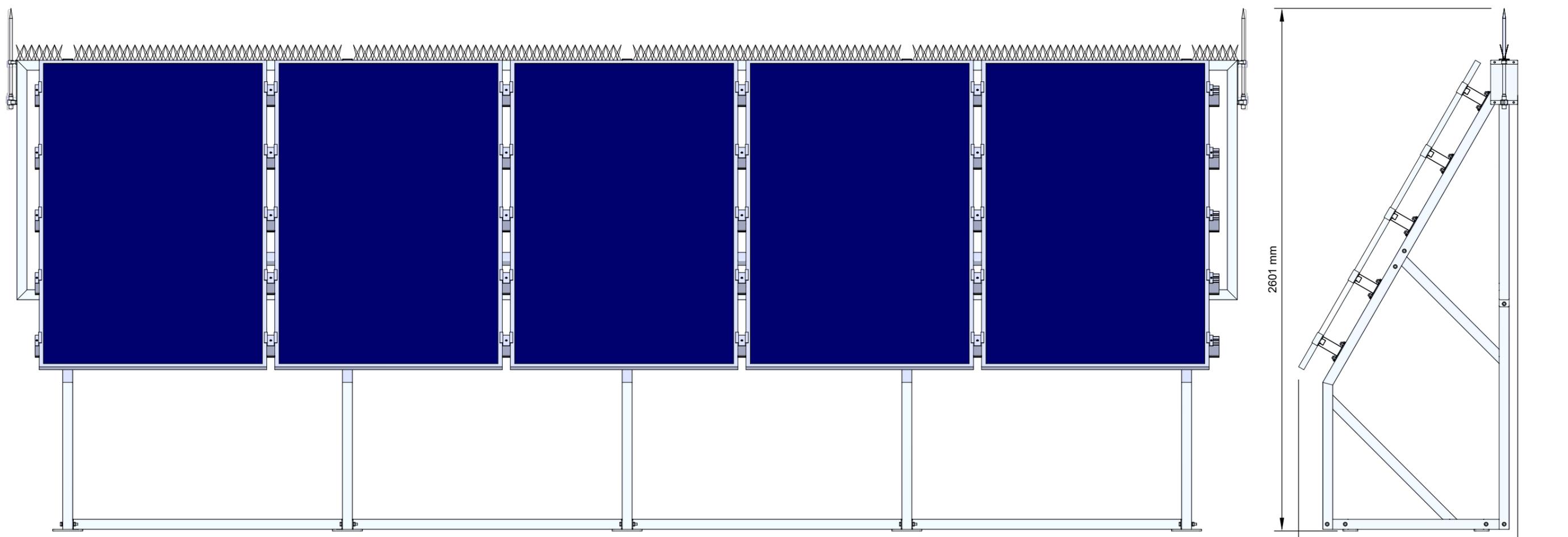
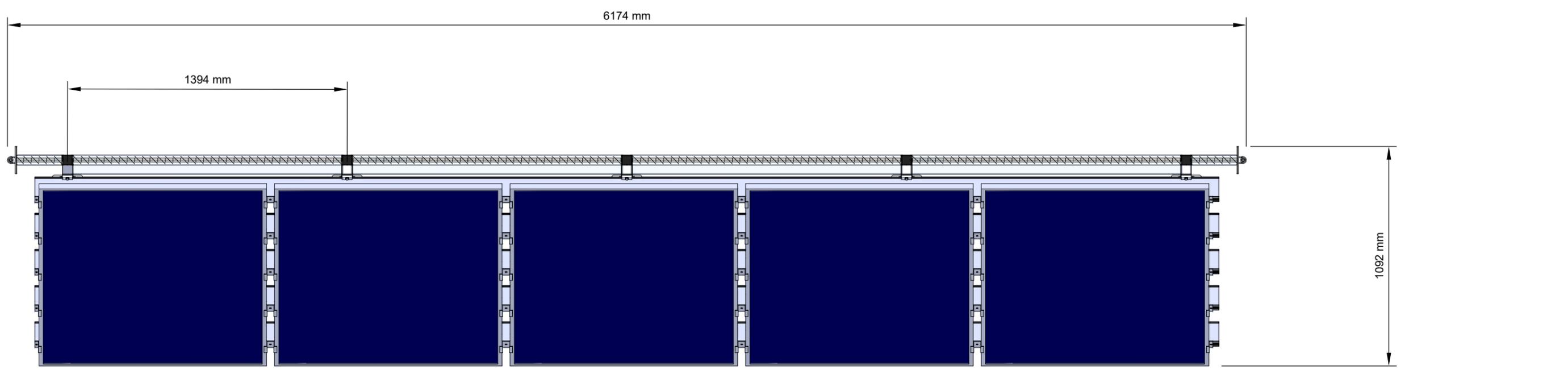
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J	DRAWINGS FOR CLIENT APPROVAL	JW	AH	23/07/2025

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SITE:	<b>MULTIPLE</b>	DATE:	6/11/2025	SHEET:	6
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TITLE:	<b>NGCC SUBMISSION</b>	APPROVED:	AH	REV:	J-1
	<b>GENERATOR CABINET</b>	DRG No.	NEVAUS-634-23276-M010-J1-6-(J-1)		



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REV.	DESCRIPTION	BY	APP'D	DATE
L				
J-1	DRAWINGS FOR CLIENT APPROVAL	JW	AH	6/11/2025
J	DRAWINGS FOR CLIENT APPROVAL	JW	AH	23/07/2025

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SITE:	MULTIPLE	DATE:	6/11/2025	SHEET:	7
PROJECT TITLE:	OFFGRID POWER STATIONS	CHECKED:	DB	SCALE:	NTS
TITLE:	NGCC SUBMISSION	APPROVED:	AH	REV:	J-1
	PV ARRAY	DRG No.	NEVAUS-634-23276-M010-J1-7-(J-1)		



# **Appendix B    District Plan Assessment**

## **Resource Consent Application**

**Installation of a new communications facility at Raetea Forest, Northland**

**Tait Systems NZ Limited**

SLR Project No.: 810.V16122.00001

24 February 2026

## B.1 Far North Operative District Plan Rules Assessment

The following assessment determines that the proposal is a **discretionary activity** under the Far North Operative District Plan provisions.

Rule/Standard	Assessment
<b>Chapter 3 - Definitions</b>	
<p><i>Building - Any structure or part of a structure, whether temporary or permanent, movable or immovable, which would require a building consent under the Building Act 2004, including additions to buildings. Notwithstanding the provisions of Schedule 1 of the Building Act 2004, buildings also include:...</i></p> <p style="padding-left: 40px;"><i>(c) any vehicle, caravan, shipping container or structure whether moveable or immovable, used as a place of residence or business or for assembly or storage purposes but excludes temporary buildings associated with the construction of a building provided they do not exceed a height of 3m or an area of 15m<sup>2</sup>;</i></p> <p style="padding-left: 40px;"><i>(e) any lighting pole, flagpole, mast, pole, aerial or telecommunications structure which exceeds 6m in height;..</i></p>	<p>The proposed facility (mast and antennas) and shelters meet the definition of a building. The solar arrays do not meet the definition of a building, as they are provided for as a renewable energy structure.</p>
<p><i>Energy generating structure - The generation device including any associated supporting structures.</i></p>	<p>The solar arrays fall within the definition of an energy generating structure and device.</p>
<p><i>Energy generation device - The device which converts the natural resource into an energy form suitable for application (e.g. a wind turbine producing electricity or a solar panel producing hot water).</i></p>	
<p><i>Radiocommunication or telecommunication facilities - Includes any line, mast, pole, aerial, tower, antenna dish, fixed radio station, radio apparatus or other structure, facility or apparatus intended for, associated with, or ancillary to, effecting radiocommunication or telecommunication.</i></p>	<p>The proposed mast, antennas and ancillary equipment meet the definition of a radiocommunication or telecommunication facility.</p>
<p><i>Radiocommunication, telecommunication and ancillary purposes and land uses - Includes installing, operating, maintaining, upgrading, removing and replacing radiocommunication or telecommunication facilities and ancillary land uses.</i></p>	
<p><i>Utility services - Utility Services include: ...</i></p> <p style="padding-left: 20px;"><i>(b) the operation of a network for the purpose of telecommunication and radio communication as defined in s2(1) of the Telecommunications Act 1987 (including amateur radio networks); ...</i></p>	<p>The proposed communication facility falls within the definition of a utility service.</p>

Rule/Standard	Assessment
<b>Chapter 12 – Natural and Physical Resources</b>	
<p><b>12.1 Landscapes and Natural Features</b></p> <p><i>Activities affected by this section of the Plan must comply not only with the rules in this section, but also with the relevant standards applying to the zone in which the activity is located (refer to Part 2 Environment Provisions), and with other relevant standards in Part 3 – District Wide Provisions.</i></p> <p><i>Particular attention is drawn to:</i></p> <ul style="list-style-type: none"> <li><i>(a) Chapters 8-10 in Part 2;</i></li> <li><i>(b) Other sections within Chapter 12 Natural and Physical Resources (and the District Plan Maps); (c) Chapter 13 Subdivision;</i></li> <li><i>(d) Chapter 14 Financial Contributions;</i></li> <li><i>(e) Section 17.2 Utility Services.</i></li> </ul> <p><i>Where relevant, refer to other sections of the plan such as Part 2 – Environmental Provisions and other parts of Part 3 – District Wide Provisions as there may be other provisions that need to be considered.</i></p>	
<b>12.1.6.1 Permitted activities</b>	
<p><i>An activity is a permitted activity if:</i></p> <ul style="list-style-type: none"> <li><i>(a) it complies with the standards for permitted activities set out in Rules 12.1.6.1.1 to 12.1.6.1.6 below; and</i></li> <li><i>(b) it complies with the relevant standards for permitted activities in the zone in which it is located, set out in Part 2 of the Plan - Environment Provisions; and</i></li> <li><i>(c) it complies with the other relevant standards for permitted activities set out in Part 3 of the Plan - District Wide Provisions.</i></li> </ul>	<p>Refer to below assessment.</p>
<p><b><u>12.1.6.1.2 Indigenous vegetation clearance in outstanding landscapes</u></b></p> <p><i>Notwithstanding any rule in the Plan to the contrary but subject to Rules 12.5.6.1.1, 12.5.6.1.3 and 12.5.6.2.2 in the Heritage section of this Plan, indigenous vegetation clearance is a permitted activity in an Outstanding Landscape, as shown on the Resource Maps, where the clearance is for any of the following purposes:</i></p> <p>....</p>	<p><b>Does not comply.</b> The vegetation removal in the Outstanding Landscape is not provided for as a permitted activity under (a) – (q).</p>
<p><b><u>12.1.6.1.4 Excavation and/or fill within an Outstanding Landscape</u></b></p> <p><i>Excavation and/or filling on any site within an Outstanding Landscape as shown on the Resource Maps, is permitted provided that:</i></p> <ul style="list-style-type: none"> <li><i>(a) it does not exceed 300m<sup>3</sup> in any 12 month period per site; and</i></li> <li><i>(b) it does not involve a cut and/or filled face exceeding 1.5m in height i.e. the maximum permitted cut and/or fill height may be 3m; and</i></li> </ul>	<p><b>Permitted activity for the proposed earthworks in the Outstanding Landscape</b> – as the permitted activity standards are met, as assessed below.</p> <p><b>Complies.</b> The estimated area of earthworks is 250m<sup>2</sup>.</p> <p><b>Will comply.</b> It is anticipated that any cut or fill will be no greater than 1.5m.</p>

Rule/Standard	Assessment
<p><i>(c) any cut or fill areas that will be visible from a viewing point on a public road, public reserve, coastal marine area or the foreshore shall be stabilised using mulch, hydroseeding, or other rapid effective stabilisation technique. All other cut and fill areas will be revegetated as soon as practicable in the spring or autumn immediately following construction.</i></p>	<p>N/A – areas of cut and fill will not be viewable from these publicly available areas.</p>
<p><u>12.1.6.1.5 Buildings in the Outstanding Landscape</u>  <i>The following are permitted activities in an Outstanding Landscape, as shown on the Resource Maps:</i></p> <p><i>(a) where the zoning of the building platform is General Coastal any new building(s) not for human habitation provided that the gross floor area of any new building or buildings permitted under this rule, does not exceed 25m<sup>2</sup>; and;</i></p> <p><i>(b) where that building will be visible from a viewing point on a public road, public reserve, coastal marine area or the foreshore that is within 500m of that building, the exterior is coloured within the BS5252 standard colour palette range with a reflectance value of 30% or less or is constructed of natural materials which fall within this range; or</i></p> <p><i>(c) any alteration/addition to an existing building where:</i></p> <p style="padding-left: 40px;"><i>i. N/A</i></p> <p style="padding-left: 40px;"><i>ii. N/A</i></p> <p><i>(d) where the building site is not in the General Coastal Zone construction of one residential dwelling per site, provided that the building is not visible from a public viewing point on a public road, public reserve, or the foreshore that is within 2km of the site;</i></p> <p><i>(e) where the building site is not in the General Coastal Zone any new building, including relocated buildings, with a gross floor area of less than 25m<sup>2</sup>.</i></p>	<p>Relevant – for the proposed generator and equipment shelters.</p> <p>N/A – the site is not zoned General Coastal.</p> <p>N/A – the shelters will not be visible from any public roads, public reserve, coastal marine area or foreshore.</p> <p>N/A – as new buildings are proposed.</p> <p><b>Complies.</b> The shelters will not be visible from a public viewing point on a public road, public reserve, or the foreshore that is within 2km of the site.</p> <p><b>Complies.</b> Each building will have a gross floor area substantially less than 25m<sup>2</sup>.</p>
<p><u>12.1.6.1.6 Utility services in the Outstanding Landscape</u>  <i>The installation of utility services is permitted in Outstanding Landscapes as shown on the Resource Maps, provided that these services are underground.</i></p>	<p><b><u>Permitted activity for the underground electricity cabling</u></b></p> <p>Note: the proposed facility (mast and antennas), generator shelter and equipment shelter are not provided for as a permitted activity as these utility services will be located above-ground.</p>

Rule/Standard	Assessment
12.1.6.3 Discretionary activities	
<p>12.1.6.3 An activity is a discretionary activity if:</p> <p>(a) it does not comply with one or more of the rules stated in Sections 12.1.6.1 and 12.1.6.2 above; and/or</p> <p>(b) it complies with Rules 12.1.6.3.1 Development Bonus, 12.1.6.3.2 Buildings Within Outstanding Landscapes or 12.1.6.3.3 Development in an Outstanding Natural Feature below; and</p> <p>(c) it complies with the relevant standards for permitted, controlled, restricted discretionary, or discretionary activities in the zone in which it is located, set out in Part 2 of the Plan - Environment Provisions; and</p> <p>(d) it complies with the other relevant standards for permitted, controlled, restricted discretionary or discretionary activities set out in Part 3 of the Plan - District Wide Provisions.</p> <p>If an activity does not comply with the standards for a discretionary activity, it will be a noncomplying activity.</p>	<p><b><u>Discretionary activity for the proposed indigenous vegetation removal in the Outstanding Landscape</u></b> – as the indigenous vegetation removal is not provided for within the permitted standards in Rule 12.1.6.1.2.</p> <p><b><u>Discretionary activity for the proposed facility (mast and antennas), generator shelter and equipment shelter in the Outstanding Landscape</u></b> – as these buildings are not provided for as a permitted, controlled or restricted discretionary activity.</p> <p><i>Note: The environment provisions are not applicable to the proposal as the activities are provided for in the district-wide provisions.</i></p>
<p><b>12.9 Renewable Energy and Energy Efficiency</b></p> <p><i>Note: Activities affected by this section of the Plan must comply with the rules in this section, and where this section requires it, the relevant standards applying to the zone in which the activity is located (refer to Part 2 Environment Provisions) and, where this section requires it, with other relevant standards in Part 3 – District Wide Provisions. The rules in this Chapter take precedence over the rules in Part 2 Environment Provisions and Part 3 – District Wide Provisions.</i></p>	
12.9.6.1 Permitted activities	
<p>An activity is a permitted activity if it complies with the permitted activity standards set out in Part 2 and Part 3 of the Plan or set out in the rules for permitted activities provided for in Rules 12.9.6.1.1 to 12.9.6.1.5 below. The applicant will also need to ensure that the proposed activity complies with all permitted activity standards in the Regional Water and Soil Plan for Northland and/or the Regional Coastal Plan for Northland, if not a resource consent will be required from the Northland Regional Council.</p>	Refer to below assessment.
<p><b><u>12.9.6.1.4 Installation, maintenance, operation and upgrade of free standing renewable energy devices and associated structures excluding those associated with in-stream hydro or ocean investigation or electricity generation</u></b></p> <p>The installation, maintenance, operation and upgrade of free standing renewable energy</p>	Relevant – to the proposed solar arrays.

Rule/Standard	Assessment
<p>devices supplying at least 50% of the energy produced to activities occurring within the site on which it is located, and including access and transmission, is a permitted activity if:</p> <p>(a) it is in the Rural Production, Rural Living, General Coastal or Coastal Living Zone; and</p> <p>(b) no structure, including any attachments or turbine blades, exceeds the permitted building height for the underlying zone plus 3m; and</p> <p>(c) all structures occupy no more than a total of 50m<sup>2</sup> where the lot size is 3000m<sup>2</sup> or less, or 100m<sup>2</sup> where the lot size is greater than 3000m<sup>2</sup>; and</p> <p>(d) any structure is setback at least three times the height of the generating structure from the boundary of any other site and is not within the notional boundary of any other site; and</p> <p>(e) the setback from a public road or above ground communication or electrical lines is at least three times the height of the generating structure or 20m, whichever is the greater distance; and</p> <p>(f) the activity is not within an Outstanding Natural Feature or Outstanding Landscape Feature or an Outstanding Landscape listed in Appendices 1A and 1B and identified on the Resource Maps; and</p> <p>(g) the activity is not within a Heritage Precinct, an Archaeological Site, Historic Building, Site or Object, Site of Cultural Significance to Maori listed in Appendices 1E, 1F and 1G or shown on the Plan Maps; and</p> <p>(h) construction noise complies with the limits recommended in NZS 6803:1999 Acoustics – Construction Noise or any subsequent similar standard; and (i) operational noise of any structure complies with the relevant noise standard for the zone in which it is located, set out in Part 2 of the Plan - Environment Provisions; and</p> <p>(j) the activity complies with all other relevant rules for a permitted activity in Chapter 12, - Natural and Physical Resources; and</p> <p>(k) for monitoring purposes the Council is to be notified at least 10 working days prior to the installation of the structure, or</p>	<p><b>Does not comply.</b> The solar arrays are proposed in the Conservation Zone.</p> <p><b>Complies.</b> The solar arrays will have a height no greater than 11m.</p> <p><b>Complies.</b> The solar arrays will have a footprint less than 100m<sup>2</sup>.</p> <p><b>Unlikely to comply.</b> As the solar arrays will likely be sited within 7.8m of the boundary of the two conservation lots.</p> <p><b>Will comply.</b> As there are no nearby public roads.</p> <p><b>Does not comply.</b> The solar arrays are located within an Outstanding Landscape.</p> <p><b>Complies.</b> The solar arrays are not proposed within this areas.</p> <p><b>Will comply.</b> Construction noise is anticipated to comply with this standard.</p> <p><b>Does not comply.</b> The vegetation removal to establish the solar arrays is not a permitted activity under Chapter 12.1.</p> <p><b>Will comply.</b> The applicant will provide prior notice of commencement of works to the Council.</p>

Rule/Standard	Assessment
<p><i>the upgrade of an existing structure setting out the nature and location of the activity.</i></p> <p><i>Any activity which does not comply with one or more standards in Rule 12.9.6.1(4)(b) – (e) or (h) – (j) is a restricted discretionary activity.</i></p> <p><i>Any activity which does not comply with any other standards in 12.9.6.1.4 or which exceeds 12.9.6.1.4(b) or (c) by more than 50% is a discretionary activity.</i></p>	<p>N/A.</p> <p>Relevant – as assessed below.</p>
<p>12.9.6.3 Discretionary activities</p>	
<p><u>12.9.6.3.2 – Any other renewable electricity generation or renewable energy development and use activity</u></p> <p><i>The construction, operation and maintenance of any other renewable electricity generation or renewable energy use and development activity not meeting the standards for permitted or restricted discretionary activities as set out under Rules 12.9.6.1 and 12.9.6.2 or any activity not otherwise provided for elsewhere in the plan is a discretionary activity.</i></p>	<p><b><u>Discretionary activity for the proposed solar arrays</u></b> - as they do not comply with the permitted or restricted discretionary standards as assessed above.</p>
<p><b>Chapter 17 – Designations and Utility Services</b></p>	
<p><b>17.2 Utility Services</b></p> <p><i>Note: The rules contained in this section shall take precedence over the rules in Part 2 - Environment Provisions if there is overlap between the rules in this section and those contained in Part 2. Where there is no overlap the rules in Part 2 shall apply as well as the rules in this section, unless specifically stated to the contrary. Activities affected by this section of the Plan (Chapter 17.2) must, however, comply with other relevant standards in Part 3 – District Wide Provisions.</i></p>	
<p>17.2.6.1 Permitted activities</p>	
<p><i>An activity is a permitted activity if:</i></p> <p><i>(a) it complies with the standards set out in Rules 17.2.6.1.1 to 17.2.6.1.7; and</i></p> <p><i>(b) it complies with the relevant standards for permitted activities in the zone in which it is located, set out in Part 2 of the Plan - Environment Provisions, except where these standards overlap (refer 17.2.6 above); and</i></p> <p><i>(c) it complies with the relevant standards for permitted activities set out in Part 3 of the Plan - District Wide Provisions or the relevant National Environmental Standards except where any such provision allows for the activity affected by this section to be a “permitted activity” or where in any case the maintenance, replacement and upgrading of an existing use is</i></p>	<p>Refer to below assessment.</p>

Rule/Standard	Assessment
<p><i>specifically excluded from the operation of any rule.</i></p> <p><i>Note 1: Activities which comply with the provisions of 17.2.6.1.3 and 17.2.6.1.7 are not required to comply with the zone standards in Part 2 – Environmental Provisions.</i></p>	
<p><u>17.2.6.1.1 Utility services situated below ground level in all zones</u></p> <p><i>All underground or in ground utility services with the exception of high pressure gas lines with a gauge pressure of more than 2,000 kilopascals; provided that:</i></p> <p><i>(a) closed system structures for the conveyance of water or sewage, and incidental equipment including connections; and/or</i></p> <p><i>9b) closed system pipes and fittings for the distribution or transmission of water, whether treated or untreated, for supply, including irrigation may be located above ground level where necessary for stream crossings and areas where gravity flow requires otherwise.</i></p>	<p><b><u>Permitted activity for below ground electricity lines</u></b> – as assessed below.</p> <p>N/A – no underground water or sewage conveyance is proposed.</p> <p>N/A – no water conveyance is proposed.</p>
<p><u>17.2.6.1.4 Telecommunications and radiocommunications facilities except in the Russell Township Zone</u></p> <p><i>Provided that:</i></p> <p><i>(a) the maximum height of any support structure including antennae, shall be 20m unless the antenna is attached to a building in which case the height of the support structure and the associated antennae or microwave dishes shall not exceed 25m or the maximum height for the particular zone plus 7m, whichever is the greater; and</i></p> <p><i>(b) the maximum diameter of microwave dishes shall be 2m; and</i></p> <p><i>(c) if the facility is accessible to the public, it is designed and operated in accordance with NZS 2722 1:1999 “Radiofrequency Fields: Part 1: Maximum Exposure Levels: 3 kHz – 300 GHz” and with NZS 6609.2:1990 “Radiofrequency Radiation: Part 2: Principles and Methods of Measurement: 300 kHz – 100 GHz”.</i></p> <p><i>(d) telecommunication facilities located in road reserve comply with the National Environmental Standard for Telecommunication Facilities.</i></p>	<p>Relevant – to the proposed communications facility.</p> <p><b>Complies.</b> For proposed facility (mast and antennas).</p> <p><b>Complies.</b> The mast and antennas will have a maximum height of 15m.</p> <p><b>Complies.</b> The MW dish will be 0.9m in diameter.</p> <p><b>Complies.</b> Refer to the Radiofrequency Report in Appendix E.</p> <p>N/A – the facility is not proposed in the road reserve.</p>

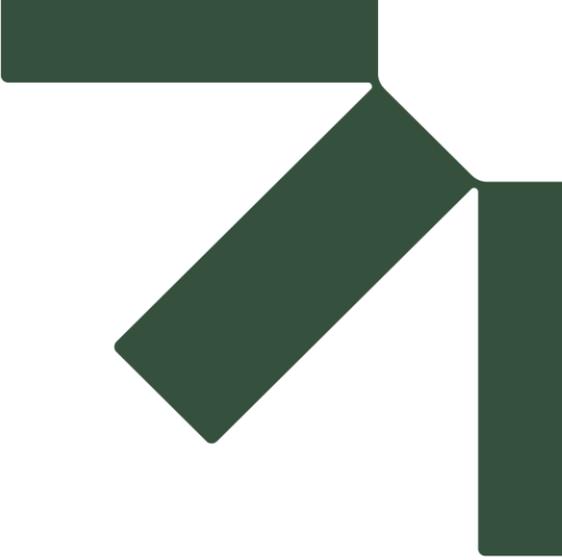
Rule/Standard	Assessment
<p><u>17.2.6.1.6 Any other utility services situated above ground, not within the urban environment</u></p> <p><i>Any other above ground utility service not within an urban environment zone or the Coastal Residential or Russell Township Zones, or in any road reserve within or adjoining an urban environment zone, except for those provided for in Rule 17.2.6.1.3, Rule 17.2.6.2 and Rule 17.2.6.3 in relation to 'New lines or additions to lines for conveying electricity at a voltage up to and including 110 kV' is a permitted activity, provided that the structures:</i></p> <ul style="list-style-type: none"> <li><i>(a) have a ground coverage of less than 50m<sup>2</sup>; and</i></li> <li><i>(b) have a height not exceeding 12m; and</i></li> <li><i>(c) are on a site of less than 200m<sup>2</sup> in area; and</i></li> <li><i>(d) are attached to existing buildings or support structures such as bridges.</i></li> </ul>	<p>Relevant – as the proposed equipment and generator shelters are above-ground utility structures.</p> <p><b>Complies.</b> The shelters will have a floor area less than 50m<sup>2</sup>.</p> <p><b>Complies.</b> The shelters will be less than 12m in height.</p> <p><b>Does not comply.</b> The shelters are on a site greater than 200m<sup>2</sup>.</p> <p>N/A</p>
<b>17.2.6.4 Discretionary activities</b>	
<p><i>An activity is a discretionary activity if:</i></p> <ul style="list-style-type: none"> <li><i>(a) it does not comply with one or more of the standards for permitted activities set out in Rules 17.2.6.1.1 to 17.2.6.1.7; or</i></li> <li><i>(b) it is the formation, maintenance and upgrading of roads; or</i></li> <li><i>(c) it is an above ground utility service not specifically provided for in Rules 17.2.6.1.2 or Rule 17.2.6.1.6;</i></li> <li><i>(d) in all zones other than the rural or coastal environment zones, or the Waimate North Zone, or in areas identified as an Outstanding Landscape, Outstanding Landscape Feature or Outstanding Natural Feature (as shown on the Resource Maps) it is a new line or addition to lines for conveying electricity at a voltage up to and including 110 kV, including all support structures for those lines; or</i></li> <li><i>(e) in the Russell Township Zone, it is a telecommunications line, a telecommunication link and a radio communication facility; or</i></li> <li><i>(f) in all zones other than rural environment zones, or the Waimate North Zone, and on road reserves, it is a substation; or</i></li> <li><i>(g) it complies with the relevant standards for permitted, controlled,</i></li> </ul>	<p><b>Discretionary activity</b> - as the proposed facility (mast and antennas), generator shelter and equipment shelter are a discretionary activity under the Section 12.1 of the ODP due to their location within an Outstanding Landscape.</p>

Rule/Standard	Assessment
<p><i>restricted discretionary or discretionary activities in the zone in which it is located, set out in Part 2 of the Plan - Environment Provisions; and</i></p> <p><i>(h) it complies with the relevant standards for permitted, controlled, restricted discretionary or discretionary activities set out in Part 3 of the Plan - District Wide Provisions.</i></p> <p><i>If an activity does not comply with the standards for a discretionary activity, it will be a noncomplying activity.</i></p>	

## B.2 Far North Proposed District Plan – Notified Version Rules Assessment

There are relevant provisions of the Far North Proposed District Plan which have legal effect at the time of public notification. An assessment of these relevant provisions is provided below, and determines that the proposal is a **discretionary activity**.

Rules/Standard	Assessment
<b>Part 2 – District Wide Matters</b>	
<b>Ecosystems and indigenous biodiversity</b>	
<p><u>Rule IB-R3 - Indigenous vegetation clearance and any associated land disturbance within a Significant Natural Area</u></p> <p>Permitted activity in all zones where:</p> <ul style="list-style-type: none"> <li>• <i>PER-1: It does not exceed 100m<sup>2</sup> per site in any calendar year.</i></li> </ul> <p>Activity status where compliance not achieved with PER-1: Discretionary</p>	<p><b>Discretionary activity</b> – to undertake vegetation clearance over an area exceeding 100m<sup>2</sup> per calendar year to enable the establishment of the proposed facility.</p>
<b>Earthworks</b>	
<p><u>Rule EW-R12 Earthworks and the discovery of suspected sensitive material</u></p> <p>Permitted in all zones where:</p> <ul style="list-style-type: none"> <li>• <i>PER-1: The earthworks complies with standard EW-S3 - Accidental Discovery Protocol.</i></li> </ul>	<p><b>Permitted activity</b> – should any suspected sensitive materials be discovered during the proposed earthworks, the Accidental Discover Protocols in Standard EW-S3 will be adhered to.</p>
<p><u>Rule EW-R13 Earthworks and erosion and sediment control</u></p> <p>Permitted in all zones where:</p> <ul style="list-style-type: none"> <li>• <i>PER-1: The earthworks complies with standard EW-S5 Erosion and sediment control.</i></li> </ul>	<p><b>Permitted activity</b> – sediment and erosion controls in accordance with Standard EW-S5 will be implemented during the proposed earthworks.</p>
<p><i>Note: The rules in the following PDP District-Wide chapters do not have legal effect at the time of lodgement of this application:</i></p> <ul style="list-style-type: none"> <li>• <i>Energy, Infrastructure, and Transport</i></li> <li>• <i>Natural Features and Landscapes</i></li> <li>• <i>Noise</i></li> <li>• <i>Treaty Settlement Land Overlay</i></li> </ul>	



# **Appendix C   NESTF Rules Assessment**

## **Resource Consent Application**

**Installation of a new communications facility at Raetea Forest, Northland**

**Tait Systems NZ Limited**

SLR Project No.: 810.V16122.00001

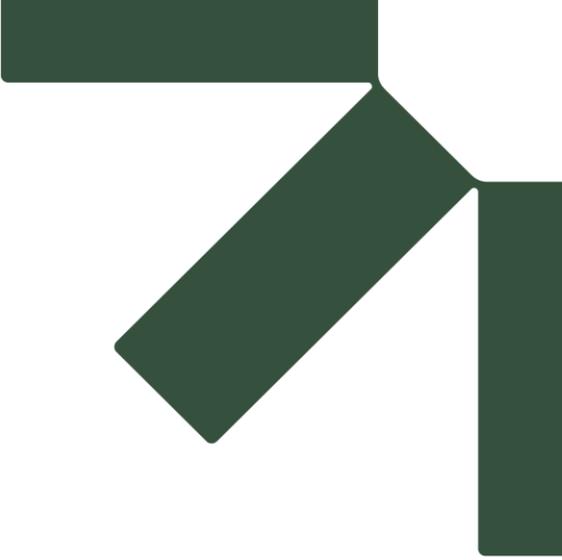
24 February 2026

## C.1 NESTF Rules assessment

The following rules assessment has determined that the proposed radiofrequency field emissions of the proposed facility are a **permitted activity** under the NESTF. Note that only those rules and standards which are relevant to this application have been addressed.

Regulation	Compliance	Non-compliance
<b>Part 2 - Carrying out of regulated activities</b>		
<p><i>Regulation 11 – Activity complying with standard is permitted activity</i></p> <p><i>A regulated activity is a permitted activity if it is carried out in accordance with the standard.</i></p>		<p><b>Permitted Activity.</b> For radiofrequency field emissions from proposed facility which comply with Regulation 55 as assessed below.</p>
<b>Subpart 7 – Radiofrequency fields</b>		
<p><i>Regulation 55 – Radiofrequency fields</i></p> <p>(1) <i>This regulation applies to an RFG facility.</i></p> <p>(2) <i>This regulation is complied with if-</i></p> <p style="margin-left: 20px;">(a) <i>the facility is installed and operated in accordance with NZS 2772.1; and</i></p> <p style="margin-left: 20px;">(b) <i>before the facility becomes operational, the facility operator gives the local authority—</i></p> <p style="margin-left: 40px;">(i) <i>written or electronic notice of the facility’s location; and</i></p> <p style="margin-left: 40px;">(ii) <i>a pre-commencement report that complies with subclause (3); and</i></p> <p style="margin-left: 20px;">(c) <i>either—</i></p> <p style="margin-left: 40px;">(i) <i>the facility operator gives the local authority a post-commencement report that complies with subclause (4) within 3 months after the facility becomes operational; or</i></p> <p style="margin-left: 40px;">(ii) <i>under subclause (5), the facility operator is not required to give a post-commencement report</i></p> <p>(3) <i>A pre-commencement report must-</i></p> <p style="margin-left: 20px;">(a) <i>be prepared in accordance with AS/NZS 2772.2; and</i></p> <p style="margin-left: 20px;">(b) <i>take into account exposures arising from other</i></p>	<p>Applies – the proposed facility is an RFG facility.</p> <p><b>Met.</b> As stated in the radiofrequency report in Appendix E the proposal is compliant with NZS2772.1</p>	

Regulation	Compliance	Non-compliance
<p><i>telecommunication facilities in the vicinity of the facility; and</i></p> <p>(c) <i>predict whether the radiofrequency field levels at places in the vicinity of the facility that are reasonably accessible to the general public will comply with NZS 2772.1</i></p> <p>(4) <i>A post-commencement report must—</i></p> <p>(a) <i>be prepared in accordance with AS/NZS 2772.2; and</i></p> <p>(b) <i>provide evidence that the actual radiofrequency field levels at places in the vicinity of the facility that are reasonably accessible to the general public comply with NZS 2772.1</i></p> <p>(5) <i>The facility operator is not required to give a post-commencement report if the prediction referred to in subclause (3)(c) was that the radiofrequency field levels will not reach 25% of the maximum level authorised by NZS 2772.1 for exposure of the general public</i></p>	<p>N/A – a post-commencement report is not required as assessed below.</p> <p><b>Met.</b> The area where the radio frequency plume will exceed 100% and 25% of the standard is not an area where the public could reasonably be exposed given the position of the antennae at 5m above ground level on an existing in the road reserve. As such there is no non-compliance with the standard and no need for further monitoring.</p>	



# **Appendix D   Ecological Impact Assessment**

## **Resource Consent Application**

**Installation of a new communications facility at Raetea Forest, Northland**

**Tait Systems NZ Limited**

SLR Project No.: 810.V16122.00001

24 February 2026



# Ecological Impact Assessment

## Raetea Communications Tower

### Tait Systems New Zealand Ltd

245 Woodridge Road, Christchurch.

Prepared by:

**SLR Consulting New Zealand**

SLR Project No.: 1810.V16122.00001

Client Reference No.: Raetea

16 February 2026

Revision: 1

## Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
0	28 January 2026	Kelly Hayhurst	Hamish Dean	Hamish Dean
1	16 February 2026	Kelly Hayhurst	Hamish Dean	Hamish Dean

## Basis of Report

This report has been prepared by SLR Consulting New Zealand (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Tait Systems New Zealand Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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## Appendices

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## Acronyms and Abbreviations

DOC	Department of Conservation
EclA	Ecological Impact Assessment
IUCN	International Union for Conservation of Nature
NPS-IB	National Policy Statement for Indigenous Biodiversity
RMA	Resource Management Act 1991



## 1.0 Introduction

### 1.1 Ecological Context and Project Site

The project site is located within the Maungataniwha Ecological District and the wider Northland Ecological Region (Brook, 1996). The Maungataniwha Ecological District (ED) covers approximately 101,900 ha and comprises a high number of fragmented remnants of indigenous forest and shrubland. The ED also contains a large tract of lowland forest on steep hill country that has strong connectivity between areas of indigenous vegetation. The Maungataniwha ED is considered to have significant remnants of kauri (*Agathis australis*, At Risk - Declining) (de Lange et al., 2003) forest, although these are now being affected by the pathogen *Phytophthora agathidicida* (kauri dieback disease).

The project site is located on a ridgeline within Raetea Forest, a Department of Conservation managed forest tract encompassing approximately 7,793 ha of indigenous vegetation. The forest is characterised by predominantly hardwood communities, with minor kauri components, and is adjoined by reserves supporting kahikatea - rimu lowland forest. The project site proposed is located at approximately -35.2167°S, 173.4180°E (WGS 84) approximately 700 metres above sea level. The site is located along the existing Mangamuka Summit walking track which forms a part of the Te Araroa Trail, a long-distance trail that spans the length of New Zealand<sup>1</sup>.

### 1.2 Proposed Work

Tait Systems proposes to build a new 15 m tower on a 4.5 m<sup>2</sup> tower pad. Other infrastructure includes a radio equipment cabinet (c. 4.5m x 1.6m), and a generator cabinet (c. 2.5 m x 2 m). This assessment also considers a 1m setback from the equipment to be permanent, as a maintenance setback.

The total clearance activity for the construction of the tower pad and cabinets is expected to be 70 m<sup>2</sup>. For this equipment, it is expected that this will not revegetate, as it will either contain the equipment itself or be required to be kept low for maintenance.

In a separate location approximately 13 m from the areas described above, Tait Systems proposes two solar panel arrays which are expected to be c. 6 m in length (and 1.1 m wide). The total clearance activity associated with these includes an area directly in front of the panels, that is required for the line-of-sight radio communication path to the adjacent summit of Maungataniwha. The line-of-sight pathway can contain vegetation; however, it will be maintained at a maximum height of 1m for the life of the panels (c 50 year). This assessment also considers a 1m setback from the solar panels (for the east, south and west sides) to be permanent, as a maintenance setback.

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<sup>1</sup> <https://www.teararoa.org.nz/about-te-araroa/>



The total expected clearance for this area and the panels is 187 m<sup>2</sup>. Of this, 53.80 m<sup>2</sup> is permanent, and 133.20 m<sup>2</sup> is temporary for construction.

Figure 1 indicates a draft concept of locations and infrastructure required (not to scale). Table 1 indicates each infrastructure item, the expected permanent clearance for the item, and then additional clearance associated with an expected maintenance buffer of 1.0 m clearance from the item.

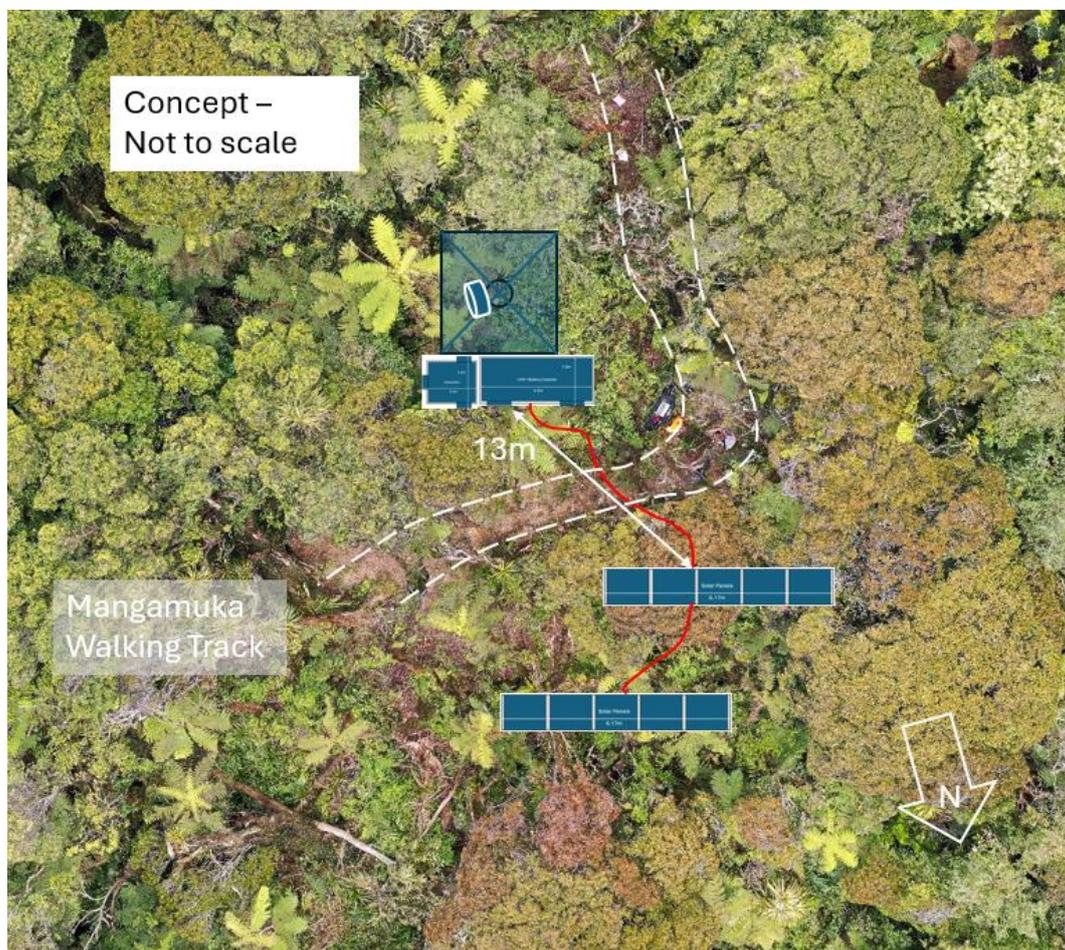


Figure 1: Site Location Mock up / Draft concept (Tait Systems, 2025).

Table 1: expected clearances for the infrastructure (estimates only)

Infrastructure	Area cleared (Temporary)	Area cleared (permanent) with a 1m maintenance buffer
Solar Panels and the area in front of the panels to maintain clearance	133.20 m <sup>2</sup>	53.80 m <sup>2</sup>
<b>Note:</b> The area in front can be allowed to regrow to 1m = 133.20 m <sup>2</sup> .		



Infrastructure	Area cleared (Temporary)	Area cleared (permanent) with a 1m maintenance buffer
Radio Equipment Cabinet, Generator Cabinet and tower pad	0	70 m <sup>2</sup>
<b>Total Permanent Clearance</b>		123.80 m <sup>2</sup>

## 2.0 Methodology

### 2.1 Desktop Assessment

To inform the site assessment, national and regional ecosystem databases were searched to compile existing information on ecosystems and threatened flora and fauna. Databases and reference documents utilised included:

- Department of Conservation Bat Database 2025
- Department of Conservation Lizard Database 2025
- iNaturalist New Zealand
- eBird online bird observation database
- Northland Conservancy ecological districts survey reports
- Department of Conservation NZ Threat Classification Systems
- NZ Plant Conservation Network plant lists
- Published and unpublished reports and accounts.

### 2.2 Site Assessment

One SLR project ecologist undertook a site assessment on the 16<sup>th</sup> of December 2025. Rapid vegetation inventory assessments were undertaken ((Rose, 2012), and tiers classified based on RECCE plot methodology (Hurst and Allen, 2007). Throughout the project site habitat for indigenous fauna was identified. Specifically for lizards and invertebrates, visual encounters and non-destructive manual searches (Anderson et al., 2012; Hare, 2012) were carried out; however, no handling occurred during the site assessment. Potential bat habitat was identified at a high level<sup>2</sup> using industry-standard criteria, where any tree with a diameter at breast height (DBH) >15 cm and at least one identified roosting feature (e.g., knots, cavities, loose bark, cracks, hollows, epiphytes) should be considered a potential bat roost tree (Bat Recovery Group, 2024).

<sup>2</sup> Trees were not individually risk rated.



## 2.3 Ecological Impact Assessment

The assessment of ecological effects was informed by the Ecological Impact Assessment (EclA) guidelines of the Environment Institute of Australia and New Zealand (Roper-Lindsay *et al.* 2018).

The following steps were used for this assessment:

- Ecological values are assigned a level on a scale of Low, Moderate, High or Very High based on assessing the values of species, communities and habitats identified against criteria set out in the EclA guidelines.
- The magnitude of effect of the site works on ecological values is evaluated as either No Effect, Negligible, Low, Moderate, High, or Very High (Table 2). The 'Magnitude of Effect' is based on:
  - The scale of the unmitigated effect
  - The proportion of habitat loss versus local availability.
  - The expected duration of effect (e.g. permanent versus temporary); and
  - The intensity of the effect (i.e. the extent to which habitat loss within the site is complete or partial).
- The overall level of effect in the absence of mitigation is determined using a matrix (Table 3) that is based on the ecological values and the magnitude of effects on these values in the absence of any efforts to avoid, remedy or mitigate for potential effects.

The overall level of effect is used to determine if mitigation is required. Effects assessed as 'Moderate' or greater warrant efforts to avoid, remedy and/or mitigate them.

**Table 2: Criteria for Describing Magnitude of Effect (from Roper-Lindsay *et al.* 2018).**

Magnitude	Description
High	Major loss or major alteration to key elements/features of the existing baseline conditions such that the post-development character, composition and/or attributes will be fundamentally changed; AND/OR  Loss of a high proportion of the known population or range of the element/feature
Moderate	Loss or alteration to one or more key elements/features of the existing baseline conditions, such that the post-development character, composition and/or attributes will be partially changed; AND/OR  Loss of a moderate proportion of the known population or range of the element/feature
Low	Minor shift away from existing baseline conditions. Change arising from the loss/alteration will be discernible, but underlying character, composition and/or



Magnitude	Description
	attributes of the existing baseline condition will be similar to pre-development circumstances or patterns; AND/OR  Having a minor effect on the known population or range of the element/feature
Negligible	Very slight change from the existing baseline condition. Change barely distinguishable, approximating to the 'no change' situation; AND/OR  Having negligible effect on the known population or range of the element/feature

**Table 3: Assigning Level of effect (from Roper-Lindsay et al. 2018).**

		Ecological value				
		Very High	High	Moderate	Low	Negligible
Magnitude of effect	Very High	Very High	Very High	High	Moderate	Low
	High	Very High	Very High	Moderate	Low	Very Low
	Moderate	High	High	Moderate	Low	Very Low
	Low	Moderate	Low	Low	Very Low	Very Low
	Negligible	Low	Very Low	Very Low	Very Low	Very Low
	Positive	Net Gain	Net Gain	Net Gain	Net Gain	Net Gain

## 3.0 Ecological Values

### 3.1 Site Description

#### 3.1.1 Solar Panels

The site proposed for the solar arrays is heavily vegetated and located on a north facing slope. Tōwai (*Pterophylla sylvicola* – Not Threatened) dominates the canopy at c. 12-15 m, with interspersed toro underneath (*Myrsine salicina* – Not Threatened) (c.10-12m). *Alsophila smithii* (Smiths tree fern – Not Threatened) was common in the understorey and subcanopy, however many specimens were in advanced senescence, with canopy dieback and a number of standing dead trunks were present. The understorey was dominated by kanono (*Coprosma grandifolia* – Not Threatened), which was present at seedling, sapling, and understorey tiers. Kiekie (*Freycinetia banksia* – Not Threatened) was common growing across the ground and up trees, and other ground covers included bush rice grass (*Microlaena avenacea* – Not Threatened), sedges *Carex dissita* and *Carex uncinata* (both Not Threatened) and the non-threatened ferns *Lomaria discolor* and *Diploblechnum fraseri*. The ground at the solar site had a thick layer of leaf litter, mosses, seedlings of various species already mentioned and woody debris. Predator presence was noted, through the prevalence of pig rooting in muddy areas of the track, and possum scat.





**Figure 2: Overview of solar panel site composition.**

### **3.1.2 Cabinets and Tower**

Vegetation cover within the proposed cabinet and tower site is reduced, with tree fall having created open spaces and discontinuities in the canopy. Here the dominant vegetation was kanono at sub canopy with a few specimens of Smiths tree fern in advanced senescence. Kanono was again the most abundant species at the understorey with tōwai seedlings, kiekie and bush rice grass. Both areas did not contain emergent specimens, and vegetation tiers were limited to upper canopy (12 – 25 m in height) and below (Hurst and Allen, 2007). The ground layer was a lot drier in composition, with leaf litter finer and there were less moss-covered spaces than the northern solar panel site.





**Figure 3: Open clearing area where the tower is proposed.**



**Figure 4: Open area where the cabinets are proposed.**



## 3.2 Flora

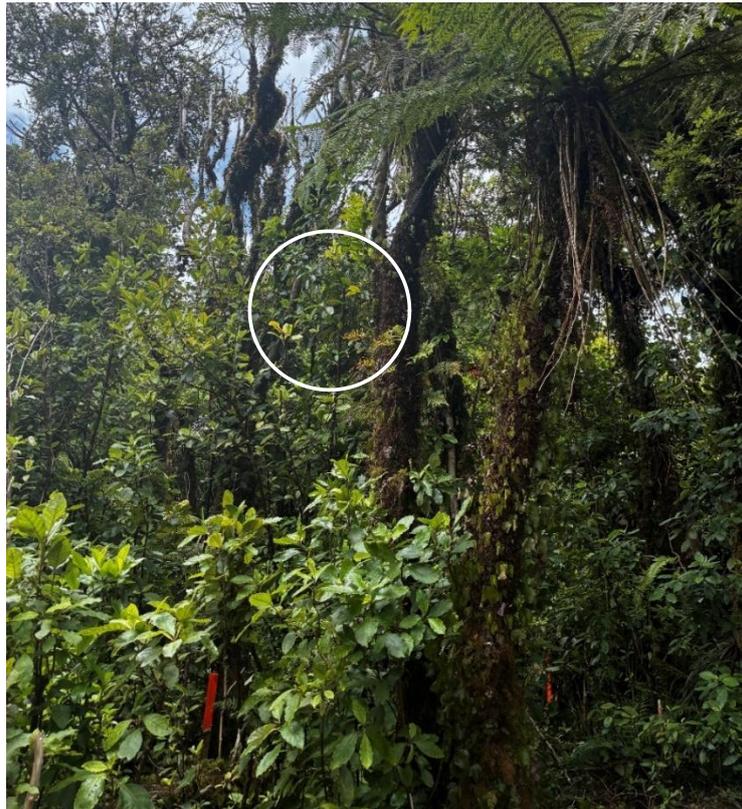
There were thirty-six plant species identified across the project's footprint during the site assessment (Table 4). Threatened flora of note was one specimen of the At Risk - Declining Raukawa (*Raukawa edgerleyi*) that had grown as an epiphyte on a trunk of a Smith's tree fern (Figure 5 and Figure 6). The location was on the edge of the footprint expected to be cleared for the battery cabinet. The species threat status change was considered in the 2023 classification to be worse than previous years, and it was categorised as a species that is conservation dependant, has a data poor size, data poor trend and suffers from population fragmentation (de Lange et al., 2024). This species is also considered to have a high palatability to mammalian browsers, further impacting its survival.

Raukawa is also listed as chronically threatened, under gradual decline in the Northland Regional threatened plant lists (Forester & Townsend, 2004). The reason behind this status in Northland is cited as recruitment failure, where the current population may appear stable, but the age structure is such that serious decline is likely to occur in the future (Forester & Townsend, 2004). The species is distinguished from the more common, similar *Raukawa simplex* by its aromatic smell when crushed.

### 3.2.1 Overall flora value

Because of the presence of one specimen of an At Risk – Declining plant, while balanced with the lower stature and majority of the canopy trees displaying poor vitality and ongoing senescence, the overall ecological value of the site for flora is **moderate-high**.





**Figure 5: Location of the identified Raukawa.**



**Figure 6: Close image of the identified Raukawa.**



**Table 4: Plant species recorded within or immediately adjacent to the project footprint.**

Scientific name	Common name(s)	Structural class	Conservation status
<i>Alsophila smithii</i>	kātote, Smith's tree fern, soft tree fern	Ferns	Not Threatened
<i>Asplenium bulbiferum</i>	hen and chick's fern	Ferns	Not Threatened
<i>Asplenium lamprophyllum</i>	-	Ferns	Not Threatened
<i>Cranfillia nigra</i>	black hard fern	Ferns	Not Threatened
<i>Diploblechnum fraseri</i>	-	Ferns	Not Threatened
<i>Hymenophyllum flabellatum</i>	filmy fern	Ferns	Not Threatened
<i>Hymenophyllum nephrophyllum</i>	kidney fern, konehu, kopakopa, raurenga	Ferns	Not Threatened
<i>Lomaria discolor</i>	crown fern, petipeti, piupiu	Ferns	Not Threatened
<i>Paesia scaberula</i>	hard fern, matata, lace fern, ring fern, scented fern, pig fern	Ferns	Not Threatened
<i>Parablechnum novae-zealandiae</i>	kiokio, horokio, palm leaf fern	Ferns	Not Threatened
<i>Rumohra adiantiformis</i>	leathery shield fern, florist's fern	Ferns	Not Threatened
<i>Tmesipteris elongata</i>	fork fern	Ferns	Not Threatened
<i>Zealandia pustulata</i> subsp. <i>Pustulat</i>	hounds tounge	Ferns	Not Threatened
<i>Microlaena avenacea</i>	bush rice grass	Grasses	Not Threatened
<i>Astelia solandri</i>	perching lily, kōwharawhara	Herbs Monocots	- Not Threatened
<i>Freycinetia banksii</i>	kiekie	Lianes Monocots	- Not Threatened
<i>Ripogonum scandens</i>	supplejack, kareao, pirita	Lianes Monocots	- Not Threatened
<i>Clematis paniculata</i>	clematis, puawhananga	Lianes & Related Trailing Plants Dicotyledons	- Not Threatened



Scientific name	Common name(s)	Structural class	Conservation status
<i>Metrosideros fulgens</i>	climbing rātā	Lianes & Related Trailing Plants - Dicotyledons	Not Threatened
<i>Metrosideros perforata</i>	akatea	Lianes & Related Trailing Plants - Dicotyledons	Not Threatened
<i>Carex dissita</i>	forest sedge	Sedges	Not Threatened
<i>Carex uncinata</i>	hook sedge, kamu, matau-a-maui	Sedges	Not Threatened
<i>Ackama rosifolia</i>	makamaka	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Beilschmiedia tawa</i>	tawa	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Coprosma grandifolia</i>	kanano	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Didymocheton spectabilis</i>	kohekohe	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Geniostoma ligustrifolium</i> <i>var. ligustrifolium</i>	hangehange	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Hedycarya arborea</i>	pigeonwood	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Knightia excelsa</i>	rewarewa, NZ honeysuckle	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Melicytus macrophyllus</i>	Large leaved māhoe	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Melicytus ramiflorus</i> <i>subsp. Ramiflorus</i>	māhoe	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Myrsine salicina</i>	toro	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Pseudopanax arboreus</i>	Five finger, whauwhaupaku	Trees & Shrubs - Dicotyledons	Not Threatened



Scientific name	Common name(s)	Structural class	Conservation status
<i>Pterophylla sylvicola</i>	towai	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Raukaua edgerleyi</i>	raukawa	Trees & Shrubs - Dicotyledons	At Risk – Declining
<i>Rubus australis</i>	tātārāmoa, lawyer, swamp lawyer	bush Trees & Shrubs - Dicotyledons	Not Threatened
<i>Shawia rani</i>	heketara	Trees & Shrubs - Dicotyledons	Not Threatened
<i>Pectinopitys ferruginea</i>	miro, brown pine	Trees & Shrubs - Gymnosperms	Not Threatened
<i>Prumnopitys taxifolia</i>	mataī, black pine	Trees & Shrubs - Gymnosperms	Not Threatened

### 3.3 Ecosystems

No nationally naturally uncommon or threatened ecosystems were identified within the project site. At a regional scale, however, Conning (2002) identified the Maungataniwha Forest Range as an ecologically significant area, and it is mapped by Northland Regional Council as a Protected Natural Area (Maungataniwha Forest, O05/009). The project site, together with the adjoining Raetea Forest, forms part of this wider ecological complex.

The ecological significance of the Maungataniwha Forest Range derives from its large, contiguous forest extent and the presence of rare and uncommon ecological units and vegetation types that support a range of Threatened and At - Risk flora and fauna (Conning, 2002).

At the project site scale, one of the ecological units considered representative and significant by Conning (2002) occurs: Type “h” – towai - tawa forest which is described as forest that is characterised by canopy species such as tōwai and rewarewa, with a sub-canopy of Smith’s tree fern abundant alongside large-leaved māhoe (*Melicytus macrophyllus*, Not Threatened), five-finger (*Pseudopanax arboreus*, Not Threatened), kohekohe (*Didymocheton spectabilis*, Not Threatened), and pigeonwood (*Hedycarya arborea*, Not Threatened). The shrub layer commonly includes hangehange (*Geniostoma ligustrifolium* var. *ligustrifolium*, Not Threatened), kanono, and Kirk’s tree daisy (*Brachyglottis kirkii* var. *angustior*, Not Threatened), while the ground layer supports crown fern (*Lomaria discolor*, Not Threatened), *Diploblechnum fraseri* (Not Threatened), bush rice grass, and hook sedge (*Carex uncinata*, Not Threatened). Mosses, filmy ferns, and epiphytes are abundant throughout the type. Accordingly, the ecological value of ecosystems associated with the site is assessed as **High**.



### 3.4 Fauna

#### 3.4.1 Lizards

Records for lizards in the vicinity are limited, with the closest record being c. 13 km from the project site, within the contiguous forest tract (Figure 7). Habitat for lizards was abundant, predominantly in the form of woody debris and leaf litter (Figure 8). No lizards were found or observed in or adjacent to the site footprint during site investigations. Potential lizard species that are found in the wider area and could be present at the site include terrestrial geckos, arboreal geckos and terrestrial skinks (Table 5). At a landscape scale - the site is located within a large, contiguous area of indigenous forest that provides extensive and connected habitat suitable for indigenous lizard species. Lizards have limited dispersal ability however, and the project footprint comprises a small area of habitat that is typical of the surrounding forest. Although it does not contain unique or discrete features that would elevate its importance at a footprint scale, considering dispersal, the overall ecological significance of the site for lizards is assessed as **high**.

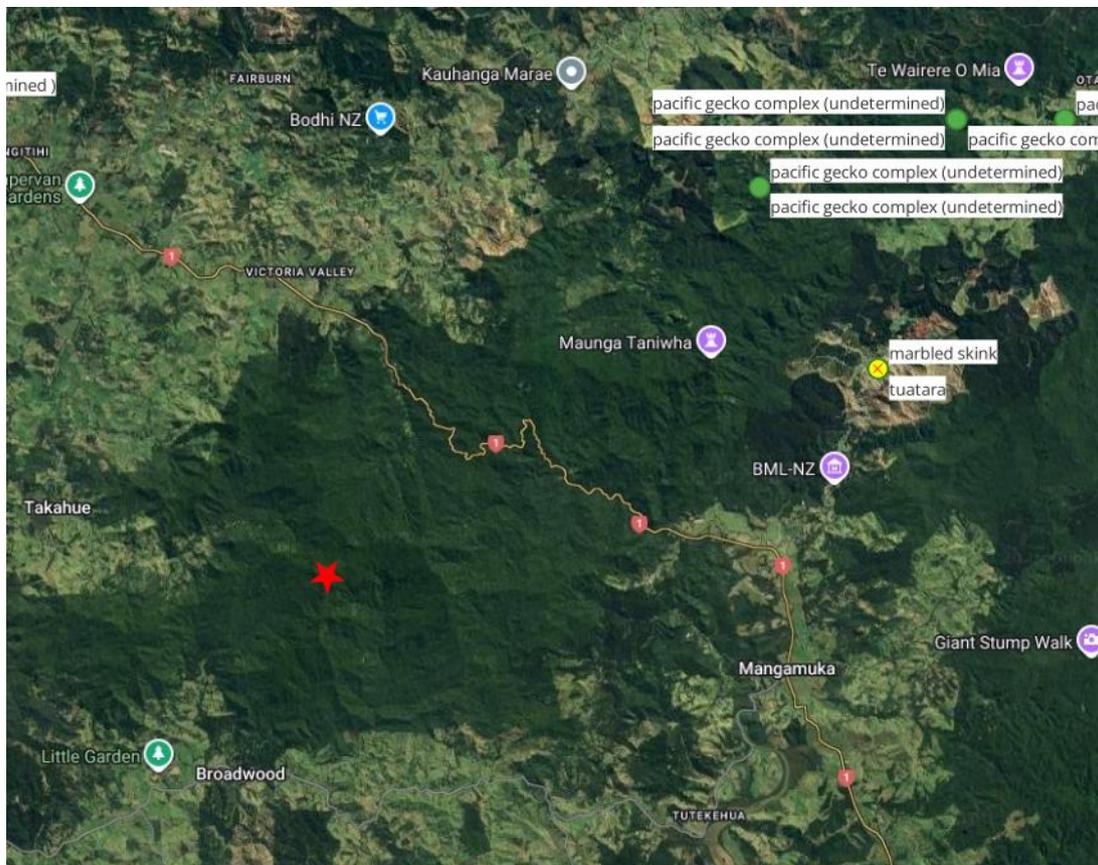


Figure 7: Lizard records in the vicinity of the site. the records in yellow are subfossils.





**Figure 8: An example of woody debris and leaf litter at the project site.**

**Table 5: Indigenous lizard species that are potentially using the project site.**

Common name(s)	Scientific name	Conservation status	Habitat on site
Copper skink	<i>Oligosoma aeneum</i>	At Risk – Declining	Terrestrial. Woody debris, leaf litter (on the edges where sunshine hits)
Ornate skink	<i>Oligosoma ornatum</i>	At Risk – Declining	Terrestrial. Woody debris, most fern cover, leaf litter
Forest gecko (Moko-piri-rakau)	<i>Mokopirirakau granulatus</i>	At Risk – Declining	Arboreal (in non-alpine habitats). Larger trees that provide multiple forks and leaf cover.
Northland green gecko (Kawariki)	<i>Naultinus grayii</i>	At Risk – Declining	Arboreal, occasionally terrestrial. Shrubs and larger trees that provide multiple forks and leaf cover



Common name(s)	Scientific name	Conservation status	Habitat on site
Pacific gecko	<i>Dactylocnemis pacificus</i>	Not Threatened	Arboreal and terrestrial.  Cliff banks where there are crevices in the ground, under loose bark, dense leaf litter, in epiphytes, and larger trees that provide multiple forks and leaf cover

### 3.4.2 Birds

There were no eBird records for the Raetea Forest (Pt Northland Conservation Park) and iNaturalist has a very low (c.5) number of records, from around the edges. During the site assessment, only common forest birds were observed, including tomtit (*Petroica macrocephala toitoi* - Not Threatened) and kükupa (the reo name for kererū in Northland) (*Hemiphaga novaeseelandiae* – Not Threatened).

Habitat at the site was suitable for common forest birds, and it is likely that the area is being utilised for foraging and resource. There were several old rotting trees and rotting tree fern stumps that could be used for roosts by the native owl, ruru (*Ninox novaeseelandiae* - Not Threatened). A list is provided below of bird species that could potentially be using the habitat at site and be affected by the project. While the wider forest environment as habitat for birds is of high ecological value due to its size and continuity, the project footprint is very small and represents only a low proportion of the available bird habitat. The habitats present within the site are typical of the surrounding forest and do not comprise unique or discrete features that would elevate their importance for birds at a site-specific scale. Accordingly, the ecological value of bird habitat within the project footprint is assessed as **moderate**.

**Table 6: Birds potentially using the site.**

Common name(s)	Scientific name	Conservation status
North Island brown kiwi	<i>Apteryx mantelli</i>	Endemic – Not Threatened
Grey warbler, riroriro	<i>Gerygone igata</i>	Endemic – Not Threatened
Kererū, kükupa	<i>Hemiphaga novaeseelandiae</i>	Endemic – Not Threatened
Tomtit, miromiro	<i>Petroica macrocephala toitoi</i>	Endemic – Not Threatened
Tūī	<i>Prosthemadera novaeseelandiae</i>	Endemic – Not Threatened
Pīwakawaka, fantail	<i>Rhipidura fuliginosa</i>	Endemic – Not Threatened



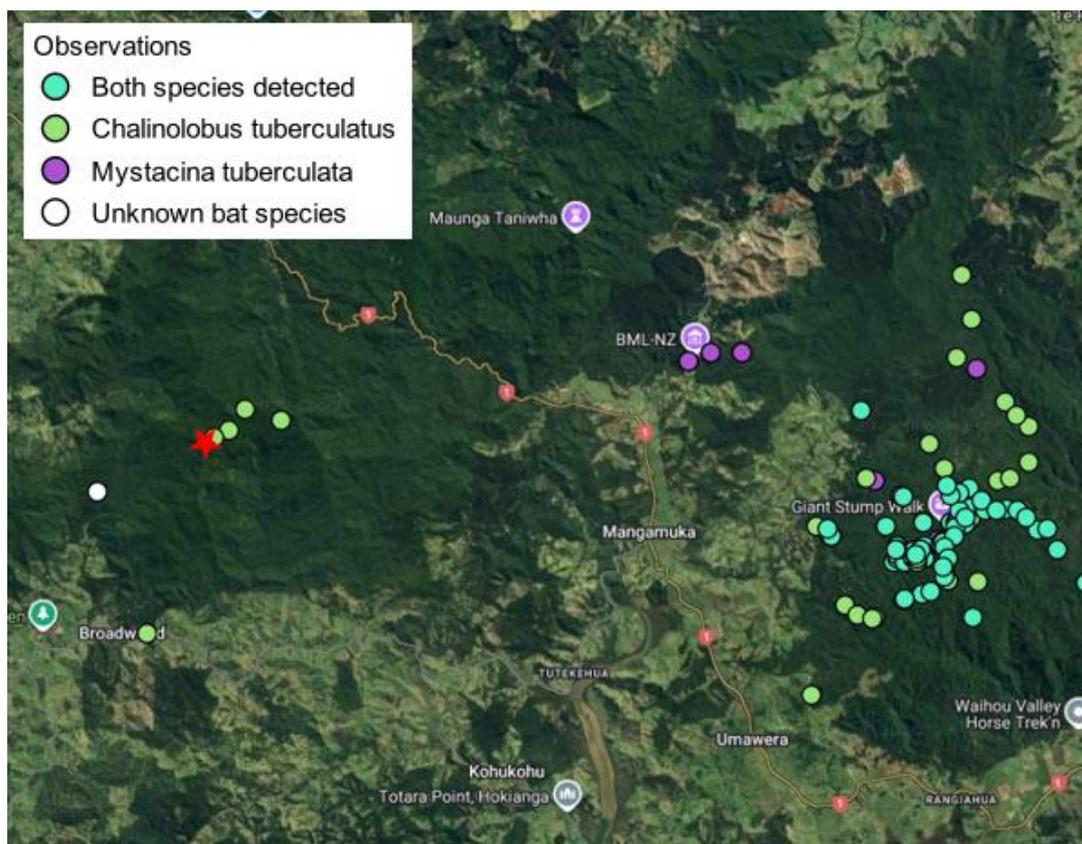
Common name(s)	Scientific name	Conservation status
Common myna	<i>Acridotheres tristis</i>	Introduced and Naturalised
Goldfinch	<i>Carduelis carduelis</i>	Introduced and Naturalised
Chaffinch	<i>Fringilla coelebs</i>	Introduced and Naturalised
Eastern rosella	<i>Platycercus eximius</i>	Introduced and Naturalised
Shining cuckoo, pīpīwharauoa	<i>Chrysococcyx lucidus</i>	Native – Not Threatened
Morepork, ruru	<i>Ninox novaeseelandiae</i>	Native – Not Threatened
Kōtare, kingfisher	<i>Todiramphus sanctus</i>	Native – Not Threatened

### 3.4.3 Bats

A review of the Department of Conservation’s Bat Distribution Database indicates that both endemic mainland bat species, the long-tailed bat (pekapeka-tou-roa, *Chalinolobus tuberculatus* - Threatened – Nationally Critical) (O’Donnell et al., 2022) and northern lesser short-tailed bat (kapeka-tou-poto, *Mystacina tuberculata* - Threatened – Nationally vulnerable) (O’Donnell et al., 2022) have been recorded within Raetea Forest, as well as within the wider contiguous forest tracts of Mangamuka Gorge Scenic Reserve, Ōmahuta Forest, and Puketī Forests. Of particular importance are records located within 200 m of the project site of long tailed bats (Figure 9).

Habitat at the project site was available for bats, in the form of trees that were greater than 15 cm diameter at breast height and contained roost features such as cavities, fractured and broken limbs, flaking bark, epiphytes and crevices. While the wider forest environment is of high ecological value as habitat for bats due to its size and continuity, the project footprint is very small and represents only a low proportion of the available bat habitat. The habitats present within the site are typical of the surrounding forest however there are several trees that feature discrete features that elevates their potential importance for bats (roosting) at a site-specific scale. Accordingly, the ecological value of bat habitat within the project footprint is assessed as **High**.





**Figure 9: Department of Conservation bat records in the vicinity of the site indicated by a red star.**

### 3.4.4 Invertebrates

The project site and the wider bush extent contain habitat that supports threatened indigenous invertebrate fauna, including the kauri snail (*Paryphanta busbyi*, At Risk - Declining<sup>3</sup>) and the Northland tusked wētā (*Anisoura nicobarica*, At Risk - Relict<sup>4</sup>). These species are protected by the Wildlife Act (1953). Records of kauri snails are held on iNaturalist around the Mangamuka Gorge Scenic Reserve and the surrounding contiguous forest tracts of Raetea Forest, Ōmahuta Forest and Puketī Forests. During repairs on State Highway One at Mangamuka, two Northern tusked wētā were relocated, approximately 4.7 km from the

<sup>3</sup> Walker, K., Walton, K., Edwards, E., Hitchmough, R., Payton, I., Barker, G. M., & Michel, P. (2022). Conservation status of New Zealand indigenous terrestrial Gastropoda (slugs and snails): Part 3. Rhytididae (carnivorous snails) (New Zealand Threat Classification Series). Department of Conservation, Wellington. 32 p.

<sup>4</sup> Trewick, S.; Johns, P.; Hitchmough, R.; Rolfe, J.; Stringer, I. 2016: Conservation status of New Zealand Orthoptera, 2014. New Zealand Threat Classification Series 16. Department of Conservation, Wellington. 15 p



proposed site and in contiguous forest cover<sup>5</sup>, and over 100 kauri snails were relocated over the project lifespan<sup>5</sup>.

While the wider forest environment is of high ecological value due to its size and continuity, the project footprint is very small and represents only a low proportion of the available invertebrate habitat. The habitats present within the site are typical of the surrounding forest and do not comprise unique or discrete features that would elevate their importance for threatened invertebrates at a site-specific scale. Accordingly, the ecological value of invertebrate habitat within the project footprint is assessed as **moderate**.

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<sup>5</sup> Pers comms K Hayhurst - The author found and relocated one Northern tusked wētā as a part of the Mangamuka Gorge repairs project, and the other was found by another colleague, in 2025. Kauri snails were relocated daily during the project by NZ Environmental Ecologists, including the author.



### 3.5 Ecological Significance Assessment

The following table summarises the ecological features and values associated with the project site against the relevant determining attributes: representativeness, rarity/distinctiveness/diversity, pattern, and ecological context. These criteria follow the framework outlined by Roper et al. (2018) and Appendix 5 of the Northland Regional Policy Statement (2016) (Table 7).

The assessment has been undertaken using a tiered approach, with ecological values first considered at a landscape scale to reflect the broader ecological setting and then refined at project-footprint scale where appropriate to accurately characterise the significance of ecological values and the relevance of potential effects.

**Table 7: Ecological values at the site.**

Ecological Feature	Ecological Value Assessment	Overall Value
Vegetation / Threatened plants and Threatened Ecosystems  <b>Note:</b> Vegetation as habitat is considered under each fauna group below.	<ul style="list-style-type: none"> <li>• <b>Representativeness:</b> Indigenous forest (at both site and landscape scales) that incorporates a range of ecological units. At the site scale, the flora is representative of natural diversity of the wider forest tract, however, is subject to disturbance and ongoing senescence of mature canopy trees. <b>Moderate.</b></li> <li>• <b>Rarity/Distinctiveness:</b> The wider forest range is a representative site for several ecological units, including type (h) Towai-tawa forest which is the ecosystem present at the project site as well, although at the site of the proposed infrastructure the vegetation is in advanced senescence. <b>Moderate.</b></li> <li>• <b>Diversity and Pattern:</b> Very high level of natural diversity and pattern. <b>High.</b></li> <li>• <b>Ecological Context:</b> The vegetation at the project site contributes to the wider contiguous forest tract of the Maungataniwha Ranges. <b>High.</b></li> </ul>	<b>High</b>
Lizards	<ul style="list-style-type: none"> <li>• <b>Representativeness:</b> Suitable habitat for a range of lizard species, with habitat available for ground-dwelling and semi-arboreal species, that is abundant in the wider contiguous forest. <b>Moderate.</b></li> </ul>	<b>High</b>



Ecological Feature	Ecological Value Assessment	Overall Value
	<ul style="list-style-type: none"> <li>• <b>Rarity/Distinctiveness:</b> Potential for At-Risk declining species to be found in the ZOI. <b>High if lizards are present.</b></li> <li>• <b>Diversity and Pattern:</b> The habitat can likely support multiple species and individuals in low numbers at site scale and in the wider landscape scale support larger numbers. <b>Moderate</b></li> <li>• <b>Ecological Context:</b> Likely to have a limited role in the ecosystem functioning at the ZOI - <b>Low</b></li> </ul>	
Birds	<ul style="list-style-type: none"> <li>• <b>Representativeness:</b> Suitable habitat for a range of forest bird species is abundant in the wider contiguous forest as well as at the site. <b>Moderate.</b></li> <li>• <b>Rarity/Distinctiveness:</b> Common species expected to utilise the site. <b>Moderate.</b></li> <li>• <b>Diversity and Pattern:</b> The habitat can likely support multiple species and individuals in moderate numbers. <b>High</b></li> <li>• <b>Ecological Context:</b> Likely to have a limited role in the ecosystem functioning at the ZOI - <b>Low</b></li> </ul>	<b>Moderate</b>
Bats	<ul style="list-style-type: none"> <li>• <b>Representativeness:</b> Suitable habitat for bats for foraging, minor components of potential roost habitat, that is abundant in the wider contiguous forest. <b>Moderate.</b></li> <li>• <b>Rarity/Distinctiveness:</b> Potential for Nationally Critical species to be found in the ZOI. <b>High</b></li> <li>• <b>Diversity and Pattern:</b> The habitat can likely support at least one species of bat within the wider landscape could support both the long and short tailed bats. <b>High if bats are present.</b></li> <li>• <b>Ecological Context:</b> Potential to be important habitat for <u>roosting</u> at the footprint scale – <b>High.</b></li> </ul>	<b>Very High</b>



Ecological Feature	Ecological Value Assessment	Overall Value
Invertebrates	<ul style="list-style-type: none"> <li>• <b>Representativeness:</b> Suitable habitat for a range of invertebrates including threatened snails and wētā is abundant in the wider contiguous forest as well as at the site. <b>Moderate.</b></li> <li>• <b>Rarity/Distinctiveness:</b> Potential for At Risk – Relict species only found in Northland to be present. <b>High.</b></li> <li>• <b>Diversity and Pattern:</b> The habitat can likely support two at risk species in moderate numbers. <b>High</b></li> <li>• <b>Ecological Context:</b> Likely to have a limited role in the ecosystem functioning at the ZOI – <b>Low.</b></li> </ul>	<b>High</b>



### 3.6 Ecological Significance Summary

The vegetation types and their faunal habitat provisions were assessed as significant, using the criteria in Appendix 5 of the Regional Policy Statement for Northland (2016). Overall, the project site and the wider landscape considerations meet the criterion of representativeness, diversity and pattern, rarity and distinctiveness and ecological context.

## 4.0 Ecological Effects Assessment

### 4.1 Effects-pre-management

#### 4.1.1 5.2.1 Adherence to the effects management hierarchy

It is considered that the project has demonstrated compliance with the effects management hierarchy by its intention to:

- Avoid the identified threatened plant and the tree fern it is growing on
- Minimise vegetation clearance activities to reduce overall temporary and permanent effects from this.

### 4.2 Vegetation and Ecosystem Disturbances

#### 4.2.1 Habitat and Ecosystem Loss

##### Temporary

Temporary clearance for the infrastructure is expected to be controlled and reduced as far as practicable. The temporary clearance is associated with the construction of the equipment and the trenching of the cables between the infrastructure. Given the significant seed source in the surrounding forest, and the disturbance that has already occurred at the project site from both natural treefall and the adjacent Mangamuka summit walking track users, it is expected that areas of vegetation clearance will regenerate.

Temporary clearance also includes the area immediately in front of the solar panels. While this area will not be permanently cleared, it is acknowledged and assessed within this effects assessment that the vegetation composition will be altered from its current state, as it will be maintained at a maximum height of 1m on an ongoing basis. Within this area there are currently several mature (>10) (but in a late stage of senescing) trees in the area to be cleared in front of the solar panels. One tree (a mature tōwai) in the middle of the existing pathway may be impacted as the trenching for the cables will be in its root zones. The loss of these in senesce trees and one mature tree in the pathway when considering the site and landscape scale, combined with the density of tōwai seedling and saplings at the site and beyond the



footprint, means that this is expected to be a moderate magnitude of effect, leading to High overall level of effect.

### **Permanent**

In combination with the permanent clearance required for the structures, there is expected to be additional and permanent vegetation removal required to ensure the tower and cabinets can be maintained, and the solar panels are clear of debris and shade. This assessment considers that there will be 123.80 m<sup>2</sup> of permanent clearance for the structures which includes a general 1m (worst case) setback from these to estimate effects.

Overall, this permanent clearance would account for a total of 0.00017% of the wider Raetea Forest vegetation. It is also considered that the vegetation beneath the solar panels would continue to persist, likely to be low stature species such as ferns and grasses due to the microclimatic changes that will occur (e.g. Dhlamini & Brent, 2025; Bennun et al., 2021). This reduces the vegetation permanent clearance by 49.6m<sup>2</sup>. The expected magnitude of this vegetation loss is expected to be a minor shift from baseline conditions, resulting in a low magnitude of effect. The overall level of effect of the permanent clearance as vegetative and habitat loss is therefore expected to be low.

## **4.2.2 Biosecurity**

The forest is at risk of kauri dieback through the movement of contaminated soil, which can result in canopy decline and mortality of kauri trees. There is already kauri dieback present within the forest, and there was no kauri noted at the project site. Overall, it is expected that the project will have a negligible magnitude of effect from biosecurity considerations, resulting in an overall very low level of effect. However, care should still be undertaken by the construction team when moving machinery in and out and around the site from the helicopter pad.

## **4.3 Fauna Disturbance**

### **4.3.1 Lizards**

Construction activities associated with the infrastructure have the potential to affect indigenous lizards primarily through vegetation clearance, ground disturbance, and the removal of sheltering features such as leaf litter, logs, and rock material. As lizards rely on localised cover for refuge and thermoregulation, there is a risk of injury or mortality during works. The inadvertent death or injury to an indigenous lizard can result in a disproportionate effect at a local scale given the threatened classification of lizards in New Zealand.

Construction activities may also result in short-term disturbance and temporary displacement from habitat within the works area. However, any potential effects are expected to be localised, given the small scale of the construction footprint and the availability of adjacent habitat., with



any potential effects expected to be localised and readily absorbed by the availability of extensive adjacent habitat.

Overall, given the potential for injury or death to individuals, the magnitude of effects is considered to be moderate, with a high level of effect without management.

#### 4.3.2 Birds

The loss of approximately 131.45m<sup>2</sup> of habitat is not considered to represent a large reduction in habitat availability for indigenous birds, given the abundance of similar habitat within the wider area. However, vegetation clearance undertaken during the breeding season may pose a risk to nesting birds that are unable to relocate, increasing the potential for injury or mortality. While only common indigenous bird species are expected to utilise the site, these species are nevertheless protected under the Wildlife Act 1953.

Bird strike on buildings and tall communications towers is well documented; however, high collision mortality is largely confined to very tall (generally >100 m) and continuously lit towers (Crawford & Engstrom, 2001; Gehring et al., 2011). In contrast, there is little evidence of significant bird strike associated with short, unlit towers. A three-year study of two comparable cell phone towers<sup>6</sup> in Rock Creek Park, Washington D.C., recorded only 11 bird carcasses, none of which were statistically attributable to the towers, with most deaths attributed to predation rather than collision (Dickey & Gates, 2009).

Bird collision risk at solar farms is a recognised concern in international ecological literature, with evidence that birds can strike reflective surfaces and be attracted to solar arrays due to visual cues and associated insect abundance. However fatality monitoring data is limited for New Zealand, and the literature consulted considers solar farms not individual panels. The project solar panels will be set within existing bush on a north-facing hillslope and will not protrude above the surrounding vegetation or be located in open terrain.

As a result, while it is acknowledged that there is always potential for bird strike to occur, this effect is considered highly unlikely and of negligible magnitude, and a low magnitude with the potential for injury or mortality during clearance activities, resulting in a low level of effect.

#### 4.3.3 Bats

Collision of foraging and traversing bats with the infrastructure as discussed for birds in section 4.3.2 above, is again considered to be of low likelihood. The key pathway for potential effects on bats from the proposal is associated with vegetation clearance, as long-tailed bats are tree-roosting and may occupy suitable roost features (e.g. cavities, cracks, loose bark) within trees to be removed. The project is located on a ridgeline within a large, contiguous native forest, which provides extensive habitat and connectivity; however, roost loss or the inadvertent

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<sup>6</sup> Of comparable size.



felling of an occupied roost tree can result in a disproportionate effect at a local scale given the threatened classification of bats in New Zealand. Accordingly, the ecological risk for bats is primarily linked to tree removal rather than the presence of solar panels. During the site visit it was estimated that c.6 trees that demonstrated suitable roost features were required to be removed. This assessment is likely to change over time and would need to be re-assessed prior to clearance. Therefore, it is considered that without any management of bats, the magnitude of effect could be moderate-high, resulting in a high overall level of effect, if bats were present at the time of vegetation clearance.

#### 4.3.4 Invertebrates

The loss of approximately 131.45m<sup>2</sup> of habitat is not considered to represent a large reduction in habitat availability for indigenous invertebrates, given the abundance of similar habitat within the immediately adjacent and wider area. However, vegetation clearance may result in individual injury or mortality. Two threatened species are expected to be present at the site, and the loss of a small number of individuals, that are protected under the Wildlife Act 1953 could be a moderate magnitude of effect resulting in an overall moderate level of effect prior to any management.

### 4.4 Effects Summary

The following table (Table 8) outlines the effects assessment as per section 4.3 and summarises key management options to reduce levels of effect where required. These management actions are then detailed in section 4.5 below.

**Table 8: Summary of effects.**

Impact	Ecological effect	Pre-effects management level of effect	Effects Management Measures	Post-management level of effect
Vegetation values and vegetation as habitat loss	Reduction in available habitat for flora and fauna, loss of native ecosystem.	High	<ul style="list-style-type: none"> <li>Avoid sensitive areas</li> <li>Transplant plants that cannot be avoided</li> <li>Management of the regenerating areas to ensure that the vegetation that regenerates is native and healthy (i.e. thick cover).</li> </ul>	Low



Impact	Ecological effect	Pre-effects management level of effect	Effects Management Measures	Post-management level of effect
Pest plants and disease	Spread of kauri dieback further. Alteration of the composition and structure of the ecosystem.	Low	<ul style="list-style-type: none"> <li>Clean and disinfect all machinery and equipment including personal PPE</li> </ul>	Low
Construction works	Fauna injury/deaths	Moderate – Very High	<p>Invertebrates and lizards:</p> <ul style="list-style-type: none"> <li>Management plan and appropriate DOC permit to manage these</li> </ul> <p>Birds:</p> <ul style="list-style-type: none"> <li>Nesting checks immediately prior to vegetation clearance</li> </ul> <p>Bats</p> <ul style="list-style-type: none"> <li>Vegetation clearance protocols (VRPs) under a suitably qualified bat ecologist.</li> </ul>	Low
Tower structure and solar panels	Bird / bat strike causing deaths	Low	None required	Low

## 4.5 Effects Management Recommendations

### 4.5.1 Vegetation and Ecosystems

One threatened species is present at the site, outside the project footprint. The tree it is located on will be flagged, and all contractors briefed on its occurrence, to ensure the specimen is not damaged or destroyed during work.

It is expected that natural regeneration from the temporary clearance will occur, given the seed source in the area. Therefore, no specific planting is expected to be required. However, given the level of clearance that will be required initially, management of the regeneration of



disturbed areas is required. This management should include ensuring that vegetation cover increases, is healthy, and is native dominated. Alternatively, the area will be replanted using vegetation removed from the area, as there are a lot of species that will transplant easily.

#### **4.5.2 Biosecurity**

All machinery and equipment shall be cleaned of soil and plant material prior to entering, moving within, or leaving the site, to minimise the risk of kauri dieback spread, and soil disturbance shall be minimised as far as practicable.

#### **4.5.3 Fauna**

##### **4.5.3.1 Lizards**

All indigenous lizard species are absolutely protected under the Wildlife Act 1953 (s63(1)(c)), and lizard habitats are often safeguarded through the Resource Management Act 1991. Lizard management during construction will be limited in scope and proportionate to the low likelihood of population presence, while still recognising that individual lizards may potentially occur within the works area.

Given the remote location of the site, typical management of pre-clearance surveys (i.e. pitfalls or similar) and spotlighting for lizards prior to works is not considered practical. Instead, it is recommended that an ecologist is present during the clearance, to assist with checking vegetation for native lizards as the vegetation is cleared. This includes trees, shrubs, epiphytes, ground covers, leaf litter and woody debris. All cut vegetation should be carefully placed to the side of the project footprint and not removed from site.

Where possible small habitat stacks will be created out of cut stems, to provide habitat for lizards in the vicinity of the cut pathway. This work should be supervised by an experienced herpetologist, and the Department of Conservation Wildlife Authority will be required to undertake any salvage and relocation work.

##### **4.5.3.2 Birds**

Although the level of effect on birds from the project is expected to be low, most native birds and their nests are protected by the Wildlife Act (1953). It is proposed that to manage effects on nesting indigenous birds, if the vegetation clearance is to be undertaken within the key native bird breeding season (1 August through to the end of February inclusive), then the area should be checked for nesting birds prior to the clearance. It is noted that moving of an active nest is not permitted, so if a native nest is found to be occupied, then the project ecologist will establish a suitable no-work buffer zone, clearly demarcate the zone with flagging tape and brief relevant contractors. The required buffer of vegetation shall be required to remain around the nest site until an approved and experienced ecologist or ornithologist has confirmed that the chicks have hatched and naturally left the natal site. The implementing ecologist will



choose this buffer size as appropriate to the species, based on best practice available at the time.

#### 4.5.3.3 Bats

To minimise the likelihood of bats being harmed or killed during vegetation clearance activities the bat roost protocol (Bat Recovery Group - Department of Conservation, 2021) will be implemented to assess whether trees are current bat roosts. This will need to be overseen by an ecologist with the appropriate Department of Conservation competencies to carry out the work. Where potential roost features are present, vegetation removal protocols<sup>7</sup> (VRP) will be implemented. This management includes the use of acoustic detectors and/or endoscopes to determine whether bats are present prior to felling. These vegetation removal protocols will also include seasonal clearance constraints, which will avoid impacts to potentially roosting bats, as per best practise.

#### 4.5.3.4 Invertebrates

The species of note that could be at the site are both protected under the Wildlife Act 1953. Kauri snail and tusked wētā management during construction will be aligned in scope with the lizard management, as there is habitat overlap. Therefore, it is recommended that an ecologist is present during the clearance, to assist with checking vegetation for wētā and kauri snail as the vegetation is cleared. This includes trees, shrubs, epiphytes (for tusked wētā) with focus on any limbs that have holes in them as this is where tusked wētā reside, and ground covers, leaf litter and woody debris. All cut vegetation should be carefully placed to the side of the project footprint and not removed from site. This work should be supervised by an experienced ecologist, and a Department of Conservation Wildlife Authority will be required to undertake any salvage and relocation work for these species.

## 4.6 Residual Effects

If the proposed management actions in the previous sections are implemented, it is not expected that this proposal will have residual effects.

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<sup>7</sup> <https://www.doc.govt.nz/globalassets/documents/conservation/native-animals/bats/bat-recovery/protocols-minimising-risk-felling-occupied-bat-roosts.pdf>

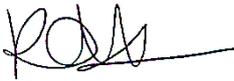


## 5.0 Closure

It is considered that the assessment includes sufficient detail to address the potential ecological effects of the proposal.

Sincerely,

**SLR Consulting New Zealand**



**Kelly Hayhurst**

Associate Ecologist



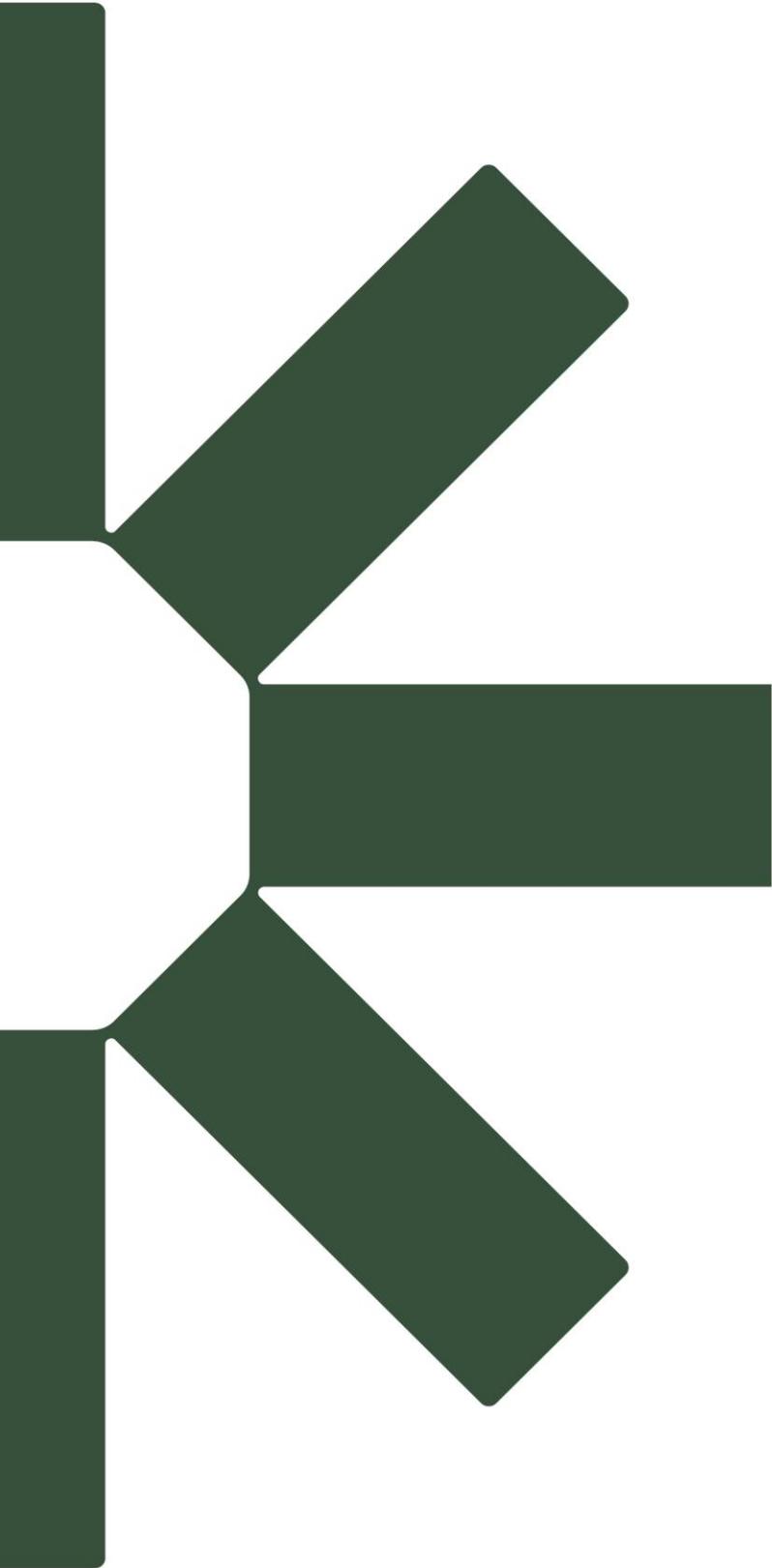
## 6.0 References

- Anderson, P., Bell, T., Chapman, S., & Corbett, K. (2012). *New Zealand Lizards Conservation Toolkit: A resource for conservation management of the lizards of New Zealand*. Society for Research on Amphibians and Reptiles of New Zealand (SRARNZ). <http://www.srarnz.org.nz>.
- Atkinson IAE 1985. Derivation of vegetation mapping units for an ecological survey of Tongariro National Park, North Island, New Zealand. *New Zealand Journal of Botany* 23: 361-378.
- Bat Recovery Group, 2024. Protocols for minimising the risk of felling occupied bat roosts (Bat Roost Protocols). Version 4: October 2024. New Zealand Department of Conservation.
- Bennun, L., van Bochove, J., Ng, C., Fletcher, C., Wilson, D., Phair, N., Carbone, G. (2021). *Mitigating biodiversity impacts associated with solar and wind energy development. Guidelines for project developers*. Gland, Switzerland: IUCN and Cambridge, UK: The Biodiversity Consultancy.
- Brook, F.J. 1996: Classification of the ecological districts of Northland. Unpublished report prepared for Northland Conservancy, Department of Conservation, Whangarei.
- Crawford, R. L., and R. T. Engstrom 2001. Characteristics of avian mortalities at a north Florida telecommunication tower: a 29-year study. *Journal of Field Ornithology* 72:380–388.
- de Lange PJ, Gosden J, Courtney SP, Fergus AJ, Barkla JW, Beadel SM, Champion PD, Hindmarsh-Walls R, Makan T, Michel P 2024: Conservation status of New Zealand indigenous vascular plants, 2023. *New Zealand Threat Classification Series* 43. Department of Conservation, Wellington. 105 p.
- Dhlamini, M., & Brent, A. (2025). Assessing the impact of solar PV on vegetation growth through ground sunlight distribution at a solar farm in Aotearoa New Zealand. *Archives of Sustainable Energy Systems*, 1. <https://doi.org/10.26686/ases.v1.9912>
- Dickey SD, Gates JE 2009. The effect of cell towers on birds and bats at Rock Creek Park, Washinton, D.C. University of Maryland Center for Environmental Science contract report prepared for the National Park Service. 57p.
- eBird 2025. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: <http://www.ebird.org>.
- Forester, L., & Townsend, A. (2004). *Threatened plants of Northland Conservancy*. Department of Conservation. <https://www.doc.govt.nz/documents/science-and-technical/thrplantsnorthlandentire.pdf>
- Gehring J, Kerlinger P, Manville AL II 2011. The role of tower height and guy wires on avian collisions with communications towers. *The Journal of Wildlife Management* 75(6): 848-855.

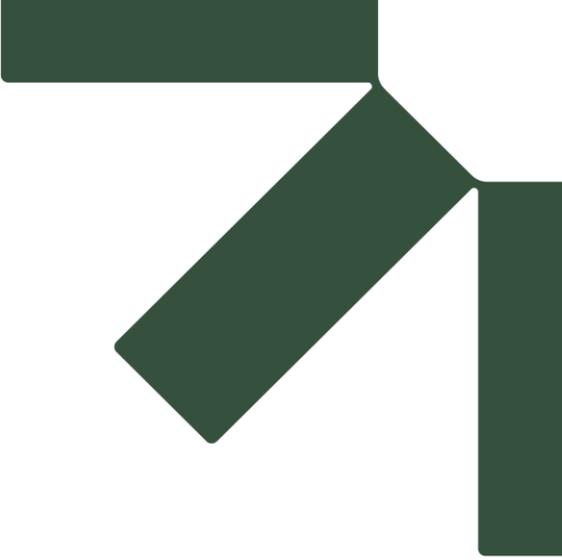


- Hare, K. (2012). Herpetofauna: Systematic searches v1.0 (DOCDM-725787). Department of Conservation. <https://www.doc.govt.nz/globalassets/documents/science-and-technical/inventory-monitoring/im-toolbox-herpetofauna-sytematic-searches.pdf>.
- Hitchmough, R.A.; Barr, B.; Knox, C.; Lettink, M.; Monks, J.M.; Patterson, G.B.; Reardon, J.T.; van Winkel, D.; Rolfe, J.; Michel, P. 2021: Conservation status of New Zealand reptiles, 2021. *New Zealand Threat Classification Series 35*. Department of Conservation, Wellington. 15 p.
- Holdaway RJ, Wiser SK, Williams PA 2012. Status Assessment of New Zealand's Naturally Uncommon Ecosystems. *Conservation Biology* 26: 619-629.
- Hurst, J. M., & Allen, R. B. 2007. The RECCE method for describing New Zealand vegetation: Field protocols. Manaaki Whenua – Landcare Research.
- iNaturalist. Available from <https://www.inaturalist.org>. Accessed 21 October 2025.
- McEwen, W.M. 1987. Ecological Regions and Districts of New Zealand. Third revised edition in four 1:500,000 maps. Department of Conservation, Wellington, New Zealand. June 1987.
- Ministry for the Environment 2024. National Policy Statement for Indigenous Biodiversity 2023. New Zealand Government, October 2024. 48p.
- New Zealand Plant Conservation Network 2025. Online plant list APD 205 PCN666. <https://www.nzpcn.org.nz/publications/plant-lists/>. Accessed November 2025.
- New Zealand Department of Conservation's Bat Recovery Group (2024). Protocols for minimising the risk of felling occupied bat roosts (Bat Roost Protocols). Retrieved from <https://www.doc.govt.nz/globalassets/documents/conservation/native-animals/bats/bat-recovery/protocols-minimising-risk-felling-occupied-bat-roosts.pdf>
- Robertson HA, Baird KA, Elliott GP, Hitchmough RA, McArthur NJ, Makan TD, Miskelly CM, O'Donnell CFJ, Sagar PM, Scofield RP, Taylor GA, Michel P. 2021: Conservation status of birds in Aotearoa New Zealand, 2021. *New Zealand Threat Classification Series 36*. Department of Conservation, Wellington. 43 p.
- Roper-Lindsay, J., Fuller S.A., Hooson, S., Sanders, M.D., Ussher, G.T. 2018. Ecological impact assessment. EIANZ guidelines for use in New Zealand: terrestrial and freshwater ecosystems. 2nd edition.
- Rose, A. B. (2012). Introduction to vegetation monitoring (Inventory and Monitoring Toolbox. DOC-DM-400531). Department of Conservation.
- Trewick, S. A., & Morgan-Richards, M. (2004). Phylogenetics of New Zealand's tree, giant and tusked weta (Orthoptera: Anostomatidae): evidence from mitochondrial DNA. *Journal of Orthoptera Research*, 13(2), 185-196.
- Walker K, Walton K, Edwards E, Hitchmough R, Payton I, Barker G, Pascale M. 2022. Conservation status of New Zealand indigenous terrestrial Gastropoda (slugs and snails). Part 3. Rytididae (carnivorous snails), 2022. *New Zealand Threat Classification Series 42*. Department of Conservation, Wellington. 32 p.





Making Sustainability Happen



# Appendix E    Radiofrequency Report

## Resource Consent Application

Installation of a new communications facility at Raetea Forest, Northland

Tait Systems NZ Limited

SLR Project No.: 810.V16122.00001

24 February 2026

## Generic Radiofrequency Field Certificate for Emergency Services VHF and UHF LMR Services

### Introduction

This radiofrequency (RF) field certificate is a generic certificate that demonstrates compliance with RF hazard safety Regulations for a Emergency Services VHF and UHF Land Mobile Radio (LMR) site.

### Applicable Emergency Services VHF and UHF LMR Configurations

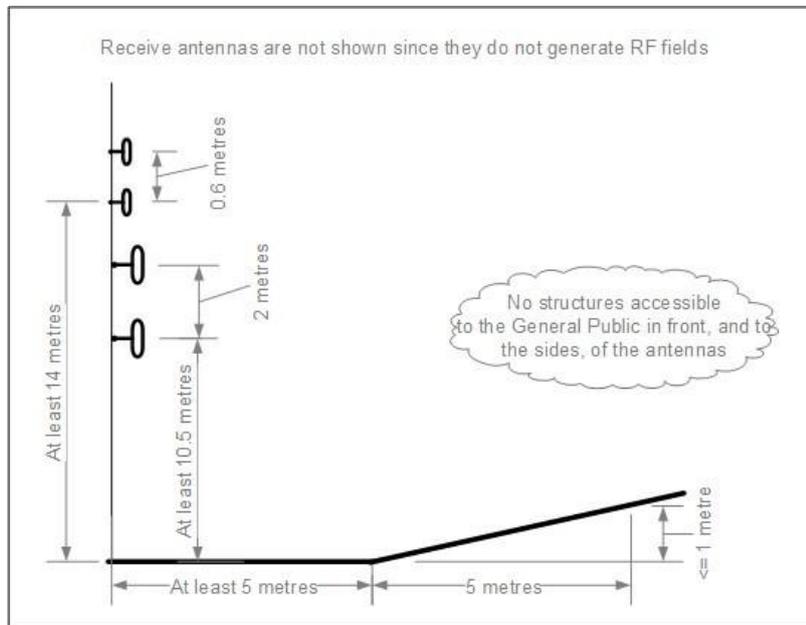
Emergency Services VHF and UHF LMR services that meet all of the following criteria are covered by this generic RF field certificate (refer also to the explanatory drawing below):

Service	VHF	UHF
Frequency	138 to 156 MHz	478 to 502 MHz
Number of transmitters	Up to 6	Up to 8
Transmit power	Up to 50 W per transmitter (adjusted to meet EIRP limit)	
System loss	Varies depending on the site	
Antenna	Two separate pole-mounted half-wave dipoles operating independently with up to 3 transmitters per dipole (receive antennas are not considered since they do not generate RF fields)	Two separate pole-mounted half-wave dipoles operating independently with up to 4 transmitters per dipole (receive antennas are not considered since they do not generate RF fields)
EIRP	Maximum of 14 dBW EIRP per transmitter (RF channel)	Maximum of 17 dBW EIRP per transmitter (RF channel)
Height	Centre of lower and upper transmit dipoles at least 10.5 and 12.5 metres above areas (typically ground level) reasonably accessible to general public	Centre of lower and upper transmit dipoles at least 14.0 and 14.6 metres above areas (typically ground level) reasonably accessible to general public
Foreground clearance	The immediate foreground in front, and to the sides, of the antennas shall be clear of any structures reasonably accessible to the General Public (e.g. building roofs or buildings of more than one storey, streetlights, large trees).	
Foreground terrain	The foreground in front, and to the sides, of the antennas reasonably accessible to the General Public shall be flat for at least the first 5 metres and may then rise at a gradient of 1 in 5 beyond that (one metre of height for every 5 metres of distance). Alternatively, the foreground can be flat or falling away.	



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## Relevant Regulations

The Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016 (NES) prescribe the Standards that must be complied with for the purposes of the Resource Management Act 1991.

Regulation 13 states that a telecommunication facility is a permitted activity as far as radiofrequency field hazards are concerned if it is operated in accordance with Regulation 55. Regulation 55 requires that telecommunications facilities are installed and operated in accordance with NZS 2772: Part 1:1999 “Radiofrequency Part 1 – Maximum Exposure Levels – 3kHz to 300GHz”. In particular, this Regulation relates to the maximum levels the General Public may be exposed to in reasonably accessible areas.

Regulation 55 also requires that a pre-commencement report is prepared predicting whether the fields at places in the vicinity of the facility that are reasonably accessible to the General Public will comply with NZS 2772:1:1999. This report must be prepared in accordance with AS/NZS 2772:2:2016 “Radiofrequency fields, Part 2: Principles and methods of measurement and computation — 3 kHz to 300 GHz”. Additionally, if the radiofrequency fields are predicted to reach or exceed 25 % of the General Public exposure limits in NZS 2772:1:1999, the operator must submit a post-commencement report providing evidence that the actual radiofrequency field levels comply with NZS 2772:1:1999.

The exposure limits in NZS 2772:1:1999 vary with frequency. For the frequencies applicable to this RF Field Certificate the General Public exposure limit is 2.0 and 2.4 W/m<sup>2</sup>.

## RF Fields from the Proposed Emergency Services LMR Service

VHF and UHF LMR dipoles provide broad communications coverage from the site, with reduced coverage behind the antenna.

Predictions of RF fields from the LMR antennas have been undertaken using a worst-case combination of the criteria stated above. RF fields up to 2 metres above ground level in any publicly accessible area around the antennas will be a maximum of 4 % of



the maximum General Public exposure level. However, this maximum RF field level only occurs in a localised area in front of the antenna and when all transmitters are operating, which will occur only very rarely. The highest timeaveraged exposure level during the busy hour (the busiest hour of radio traffic in a day) in this location, is 2.0 % of the General Public exposure limit. For the rest of the time, and in the majority of locations around the site, the RF Field levels will be less.

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These calculations have been undertaken in accordance with AS/NZS 2772:2:2016<sup>1</sup>.

### Existing RF Fields & Cumulative Effects

In general, assessment of RF fields from a proposed service must also consider the cumulative effect of fields from existing RF services on the site or nearby. However, in the specific case of the LMR services described by the criteria above, the RF fields predicted in publicly accessible areas are small in comparison with the exposure limit, and will have minimal impact on compliance when considering any existing RF fields.

### Conclusion

The RF fields in any publicly accessible area from the Emergency Services LMR service that meets the above criteria will be a maximum of 4 % of the General Public exposure limit. However, this will occur only very rarely and the time-averaged exposure level during the busy hour is 2.0 % of the limit. For the rest of the time the RF Field levels will be less.

Whilst the cumulative RF fields from any existing RF services on the site or nearby have not been specifically considered, the RF field from the proposed Emergency Services LMR service is small in comparison with the exposure limit and therefore will have minimal impact on compliance when considering any existing RF fields in publicly accessible areas.

A post-commencement report is not required.



Adam Tommy

Broadcast Network Architect, Kordia Limited

21 June 2023

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<sup>1</sup> Uncertainty has been determined for the RF field calculations undertaken here, as required by AS/NZS 2772:2:2016. The upper bound uncertainty is +1.6 dB, and is within the 3 dB allowance suggested in AS/NZS 2772:2:2016 for Reference Levels (Table 6.1). The lower bound uncertainty is not relevant in a safety assessment since it only describes how small the RF field could be.



Issue 1

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## Generic Radiofrequency Field Certificate for Microwave Link Services

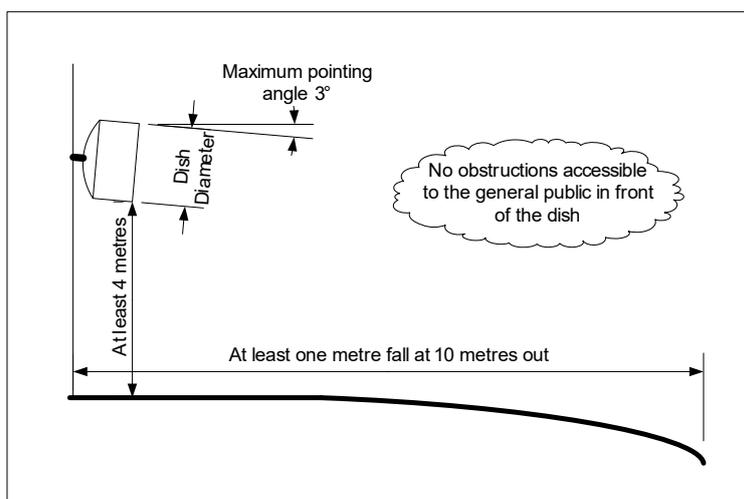
### Introduction

This radiofrequency (RF) field certificate is a generic certificate that demonstrates compliance with human safety Regulations for a variety of microwave link services that employ highly directional antennas.

### Applicable Microwave Link Configurations

Microwave link services that meet all of the following criteria are covered by this generic RF field certificate (refer also to the explanatory drawing below):

Frequency	5 to 10 GHz
Antenna size	At least 0.6 metre diameter parabolic antenna (“dish”)
Transmit power	Total power into antenna input(s) less than 2 Watts (33 dBm) considering both polarisations
Pointing angle (vertical plane)	No more than $-3^\circ$ elevation with respect to the horizon
Height	Bottom edge of antenna at least 4 metres above areas reasonably accessible to general public
Foreground clearance	The foreground directly in front of the antenna shall be clear of any obstructions that may be accessible to the general public (e.g. buildings, signs, streetlights, trees, masts).
Foreground terrain	The foreground terrain in front of the antenna (e.g. ground, building roof) where the public can access shall fall away by at least one metre after the first 10 metres, or the antenna shall be installed at least one metre higher than specified above. There shall be some continuing fall in terrain thereafter.



## **Relevant Regulations**

The *Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016* (NES) prescribe the standards that must be complied with for the purposes of the Resource Management Act 1991.

Regulation 13 states that a telecommunication facility is a permitted activity as far as radiofrequency field hazards are concerned if it is operated in accordance with Regulation 55. Regulation 55 requires that telecommunications facilities are installed and operated in accordance with *NZS 2772: Part 1:1999 "Radiofrequency Part 1 – Maximum Exposure Levels – 3kHz to 300GHz"*. In particular, this Regulation relates to the maximum levels the general public may be exposed to.

Regulation 55 also requires that a pre-commencement report is prepared predicting whether the fields at places in the vicinity of the facility that are reasonably accessible to the General Public will comply with *NZS 2772:1:1999*. This report must be prepared in accordance with *AS/NZS 2772:2:2016 "Radiofrequency fields, Part 2: Principles and methods of measurement and computation — 3 kHz to 300 GHz"*. Additionally, if the radiofrequency fields are predicted to reach or exceed 25% of the maximum general public exposure levels in *NZS 2772:1:1999*, the operator must submit a post-commencement report providing evidence that the actual radiofrequency field levels comply with *NZS 2772:1:1999*. The intent of this requirement is mitigate the possibility that the fields will exceed the maximum exposure level as a result of prediction inaccuracies.

The maximum exposure levels in *NZS 2772:1:1999* vary with frequency, however for all microwave link frequencies above 2 GHz, the general public maximum exposure level is 10 W/m<sup>2</sup>.

## **RF Fields from the Proposed Microwave Link Service**

Microwave links are often intended for point to point communication only. Consequently, microwave antennas are designed to focus RF energy into a very narrow beam to maximise the power transmitted toward the other end of the link and to minimise the power transmitted elsewhere.

Predictions of RF fields from a microwave dish antenna have been undertaken using a worst case combination of the criteria stated above. RF fields at 2 metres above ground/floor level in any publicly accessible area around the proposed microwave dish will be a maximum of 0.01 W/m<sup>2</sup> (0.1% of the maximum general public exposure level) – in most areas the levels will be significantly lower than this.

These calculations have been undertaken in accordance with *AS/NZS 2772:2:2016*<sup>1</sup>.

## **Existing RF Fields & Cumulative Effects**

In general, assessment of RF fields from a proposed service must also consider the cumulative effect of fields from existing RF services on the site or nearby. However, in the specific case of the microwave link services described by the criteria above, the RF fields predicted in publicly accessible areas are so small in comparison the maximum exposure level, that they will effectively have no impact on compliance when considering existing RF fields. The measurement accuracy of professional broadband RF radiation meters is typically 0.001 W/m<sup>2</sup> (0.01% of the maximum exposure level), and in almost all cases the RF fields from the proposed microwave link service will not be detectable on such a meter.

This RF field certificate is also valid for multiple microwave link services at a site, provided each service individually meets the criteria above. The RF radiation beyond the edge of the microwave antenna is so small that there is no significant aggregation of RF fields from multiple microwave dishes when mounted at different heights or pointing directions.

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<sup>1</sup> Uncertainty has been determined for the RF field calculations undertaken here, as required by *AS/NZS 2772:2:2016*. The upper bound uncertainty is +1.6 dB, and is within the 3 dB allowance suggested in *AS/NZS 2772:2:2016* for Reference Levels (Table 6.1). The lower bound uncertainty is not relevant in a safety assessment since it only describes how small the RF field could be.



## **Conclusion**

The RF field in any publicly accessible area from a single microwave link service that meets the above criteria will be a maximum of 0.1% of the maximum general public exposure level.

Whilst the cumulative RF fields from any existing RF services on the site or nearby have not been specifically considered, the RF field from the proposed microwave link service is so small that it will effectively have no impact on compliance considering existing RF fields in publicly accessible areas.

A post-commencement report is not required.



Adam Tommy

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7 January 2020

Issue 4

Reviewed: Peter Curtis, 7 January 2020

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# **Appendix F    Mana Whenua Consultation**

## **Resource Consent Application**

**Installation of a new communications facility at Raetea Forest, Northland**

**Tait Systems NZ Limited**

SLR Project No.: 810.V16122.00001

24 February 2026

## Jessica Andrews

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**From:** Gill Evans <gill.evans@taitsystems.nz>  
**Sent:** Saturday, 14 February 2026 8:55 am  
**To:** admin@terarawa.co.nz  
**Subject:** Raetea - Tait Systems New Zealand - delivering the brand new emergency services radio network  
**Attachments:** Raetea\_draft\_siteandlandplans\_LMR network.pdf; TSNZ\_LMR Fact Sheet\_v9.pdf; About the Public Safety Network Land Mobile Radio network August 2024.pdf

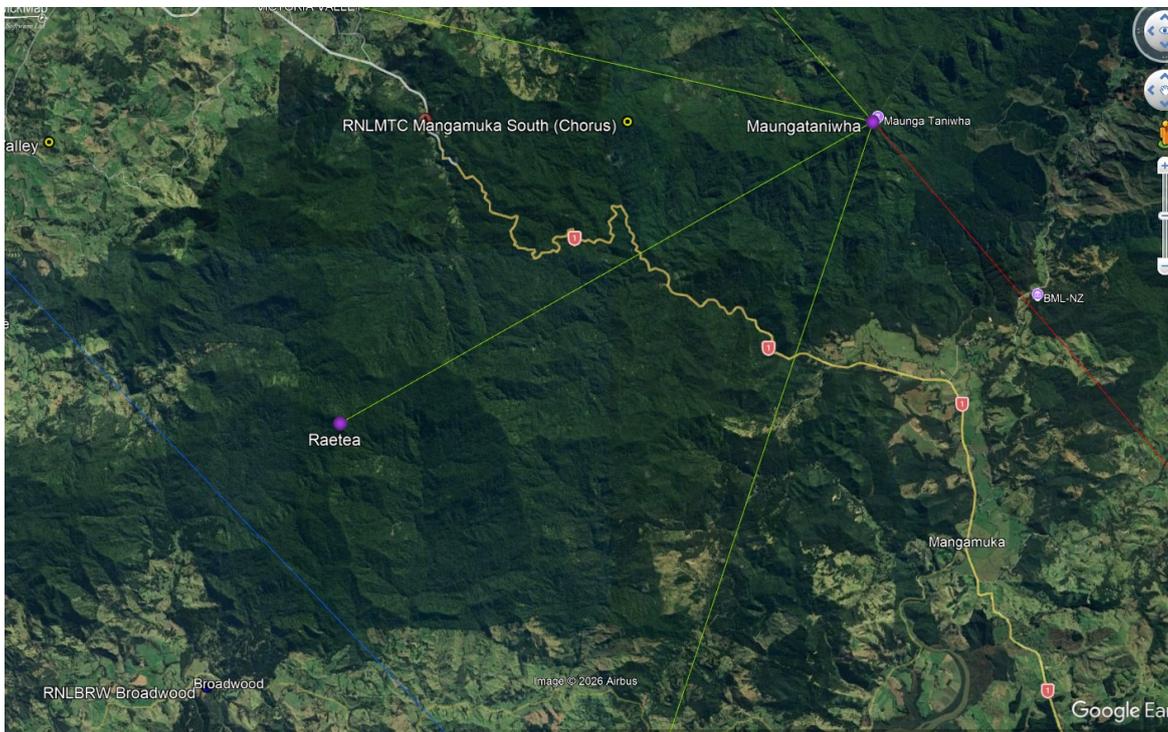
Good morning,

My name is Gill Evans, and I work for Tait Systems New Zealand (TSNZ), the team tasked with delivering a brand-new digital radio network for New Zealand emergency service teams (Fire and Emergency, Hato Hone St John, Police and Wellington Free Ambulance).

Across New Zealand we will build over 500 sites to provide an encrypted, secure, and resilient network that can be used by emergency services as they undertake work in their communities.

Many of the sites that TSNZ will 'build' are what are called co-locations, where we will use another organisations infrastructure to house our equipment.

TSNZ is proposing to co-locate with an existing New Zealand Police site at a location we call Raetea. The site is located as below, the purple dot marked on the map:



I have attached the planning drawings for the proposed upgrades and also two factsheets that outline who we are and how the program of work will assist our frontline emergency services staff.

And finally, our website link is here [Tait Systems NZ](https://www.taitsystems.nz) – this has additional information about the work we're undertaking.

Please let me know if you have any questions.

Warm regards

Gill

Gill Evans

**Head of Acquisition and Stakeholder Engagement**

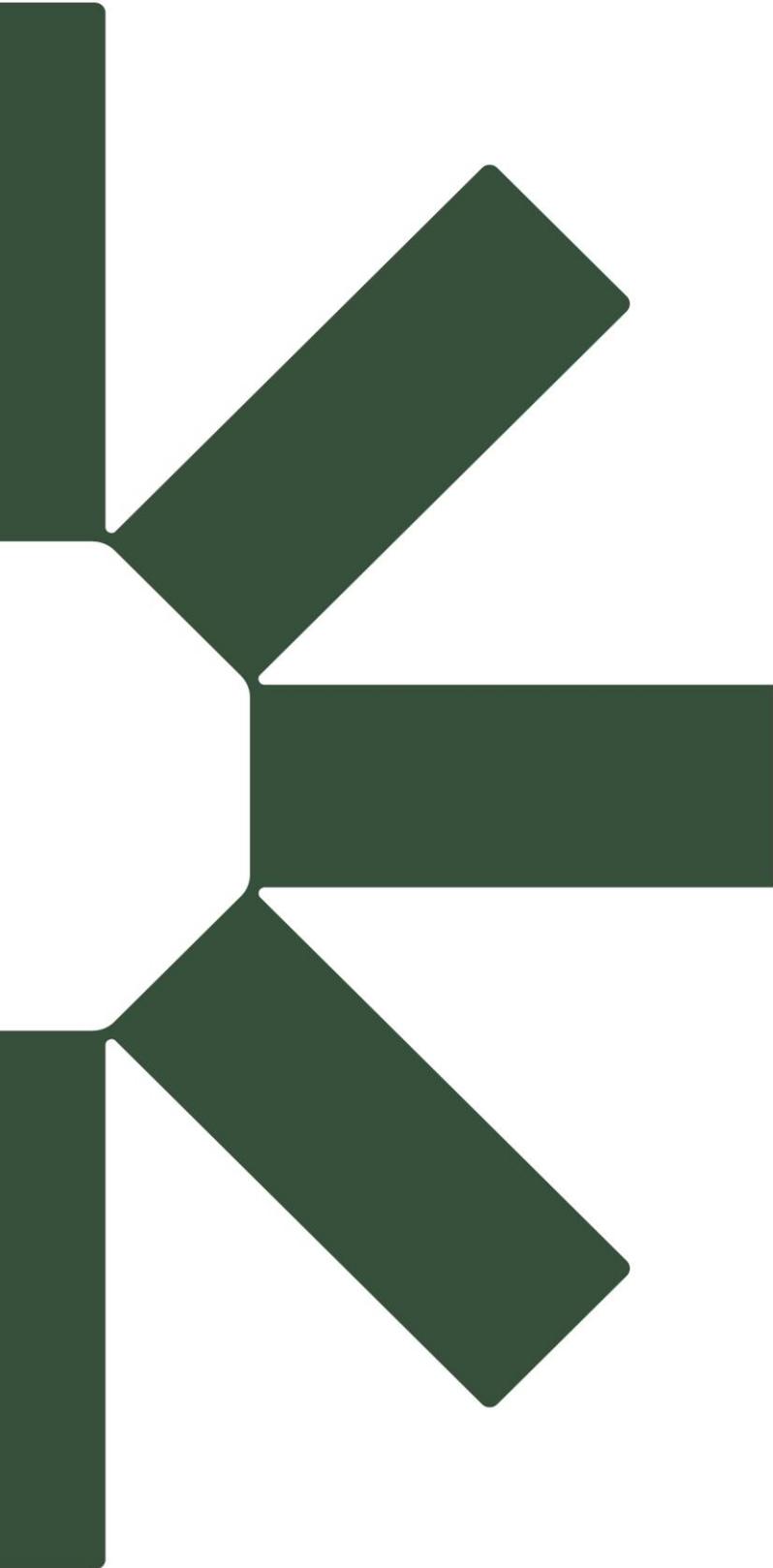
M: 021 240 6507

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