# **Application for inclusion as a Schedule 2 Part A Listed Project**

Kohi Wind Farm

**New Zealand Windfarms Limited** 

Reference: P525694

Revision: B **2024-05-01** 



# Document control record

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Title	Senior Consultant, Environment and Planning	Title	Director, Environment and Planning			



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Appendix F – Preliminary Landscape and Visual Effects Assessment

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Appendix I – Detailed NPS & NES Policy Assessment

# 1 Project Location

# **Site Description and Location:**

Location description should be sufficient, for example, to identify whether or not the project would occur on public conservation land.

Site address or location

A cadastral map and/or aerial imagery to clearly show the project location will help.

Add the address or describe the location

Do you have a current copy of the relevant Record(s) of Title?

Who are the registered legal land owner(s)?

The Project Site under investigation for the proposed Kohi Wind Farm is located to the immediate north of Waverley township; 11.5km to the east of Pātea, 33km south-east of Hawera and 37km north-west of Whanganui. The Project Site comprises an area located in the Taranaki Region, New Zealand.

A Project Location Plan illustrating the Project Site boundary relative to key features and at a contextual regional level is included at **Appendix A**.

The Project Site is generally framed by the Waverley Domain greenbelt to the south (Fookes Street), with Medlicott Road, Kohi Road and a tributary of the Whenuakura River to the west, with Mangatangi Road and Braemore Road forming the eastern boundary. Property access (or 'feeder') roads are spread throughout the two plateaus split by the Kohi Stream, including multiple Paper Roads.

Turbines will be predominantly located within the plateaus and gully spurs that are actively pastoral farmed within the Project Site (subject to design and environmental investigations), and all infrastructure located entirely within the South Taranaki District territorial area and jurisdiction of Taranaki Regional Council.

Records of Title are included at **Appendix B** of this application.

Current legal landowners, property legal descriptions and registered addresses (where applicable) are summarised in the following table:

Owner	Legal Description	Record of Title	Property Address
A & Y Robertson	Section 443 Okotuku District	TNH2/1252	-
Trustees Limited, Aaron Blair Robertson, Ylva Birgitta Robertson	Section 444 Okotuku District	ct	819 Karahaki Road, Waverley
Pirgitta (1000)1001	Part Section 451 Okotuku District	WN495/119	-
	Part Section 450 Okotuku District	-	-
	Part Section 448 Okotuku District	WN495/115	-
	Part Section 448 Okotuku District	TN151/39	-
	Part Section 450 Okotuku District	TN151/40	-
	Part Section 451 Okotuku District		838 Karahaki Road, Waverley
	Part Section 452 Okotuku District		-
	Part Section 452 Okotuku District	TNB2/1296	-
	Part Section 447 Okotuku District	TN262/30	694 Karahaki Road, Waverley
	Part Section 447 Okotuku District	WNE3/1150	-
Alan Leslie Hone	Section 3 McLean SETT	WN607/18	921 Kohi Road, Waverley
	Section 2 McLean SETT		
	Part Section 454 Okotuku District	TNG2/139	-
	Part Section 429 Okotuku District	WN44C/554	-
	Section 430 Okotuku District		-



1

	Costian 429 Okatuku Diatriat		
	Section 428 Okotuku District		-
Andrea Many Durling	Section 427 Okotuku District	TND 4/4475	1400 Kahi Dand
Andrea Mary Burling, Malcolm Blair Burling	Part Section 440 Okotuku District Part Section 439 Okotuku District	TNB4/1175	1193 Kohi Road, Waverley
Andrew Campbell Cutler,	Section 283 Okotuku District	WN43A/272	59 Braemore Road.
Brian Alexander Train	Section 263 Okoluku District	WIN43AVZ1Z	Waverley 73 Braemore Road, Waverley
	Section 72 Okotuku District	WN339/60	-
Andrew Campbell Cutler, Brian Alexander Train, Joan Ellen Train	Lot 1 DP 4352	WN271/57	15 Kelley Road, Waverley
Andrew Campbell Cutler,	Section 135 Okotuku District	WN339/72	26 Kelley Road, Waverley
Trevor James Harrop, Brian Alexander Train	Section 134 Okotuku District	WN275/126	-
Brian Alexander Train	Lot 1 DP 24823	WNB2/924	-
Ann Marie Fahy	Section 2 SO 35563	WN39D/692	717 Kohi Road, Waverley
Chorus New Zealand Limited	Lot 1 DP 77539	WN44C/552	-
David Bruce Newland, James Kemp Newland, Young + Carrington Trustees Limited	Lot 1 DP 544566	922634	751 Karahaki Road, Waverley
Douglas John Hooper,	Section 192 Okotuku District	WN6B/1341	598 Kohi Road, Waverley
Gillian Margaret Hooper	Section 191 Okotuku District	WN6B/1342	-
	Section 193 Okotuku District		-
G & L Gulliver Nominees	Part Lot 1 DP 2586	WN242/45	-
Limited	Section 208 Okotuku District	WN26C/875	-
	Section 210 Okotuku District	WN26C/876	595 Kohi Road, Waverley
	Section 194 Okotuku District	WN345/74	648 Kohi Road, Waverley
	Lot 1 DP 9294	WN407/240	-
	Part Section 433 Okotuku District	WN486/158	122 Ngamotu Road, Waverley
	Section 212 Okotuku District	WNB2/579	-
Gresham Walkinton	Section 437 Okotuku District	WN384/74	994 Kohi Road, Waverley
Trustee Co Limited, Alison Margaret Ross	Section 436 Okotuku District		-
Guy Robert James	Lot 2 DP 544566	922635	-
Lennox, Natalie Jane	Lot 2 DP 414102	452861	-
Lennox, Sam Graham Lennox	Section 446 Okotuku District		-
His Majesty the King, Mark Geoffrey Hughson, Michelle Anne Smith, Richard Antony Watkins	Section 1 Block XV Opaku Survey District	577917 (Freehold, His Majesty the King) 868778 (Leasehold, Mark Geoffrey Hughson, Richard Antony Watkins and Michelle Anne Smith)	1215 Karahaki Road, Waverley

		1	
	Section 2 Block V Carlyle Survey District	577917 (Freehold, His	-
	Section 6 Block V Carlyle Survey	Majesty the	-
	District	King)	
		868779	
		(Leasehold,	
		Mark Geoffrey Hughson,	
		Richard Antony	
		Watkins and Michelle Anne	
		Smith)	
Dylan Louis Amon, Peter	Section 7 Block V Carlyle SD	577917	-
John Amon, Gresham Walkinton Trustee Co		(Freehold, His Majesty the	
Limited, His Majesty the		King)	
King			
		812351	
		(Leasehold, Dylan Louis	
		Amon, Peter	
		John Amon, Gresham	
		Walkinton	
		Trustee Co Limited)	
Holly Navana Christie	Lot 1 DP 312053	47427	-
Johnston, Joel Steven			
Johnston Ian Alan Rosewarne,	Section 137 Okotuku District	WN591/249	-
Vivienne Iranui	Section 131 Okotuku District	WN39D/645	-
Rosewarne	Section 132 Okotuku District	WN591/250	-
	Part Section 133 Okotuku District	WNB4/175	-
Jake Shane Beckham, Victoria Renee Lewis	Lot 1 DP 573111	1042458	1247 Kohi Road, Waverley
James Arthur Coleman,	Section 73 Okotuku District	WN339/61	78 Braemore Road,
Gresham Walkinton Trustee Co Limited, David			Waverley
Charles Lawrence			
Kohi Amenities Charitable Trust Board	Section 1 SO 35563	WN39D/691	711 Kohi Road, Waverley
Kohi Farms 2023 Limited	Section 522 Okotuku District	WN986/33	-
	Section 204 Okotuku District	348821	-
	Section 206 Okotuku District	348822	461 Kohi Road, Waverley
	Lot 2 DP 312053	47428	433 Kohi Road, Waverley
	Part Section 455 Okotuku District	TNB1/166	94 Okahutiria Road, Waverley 1258 Kohi Road, Waverley
	Section 174 Okotuku District	WN16/116	-
	Lot 1 DP 2769	WN219/163	-
	Lot 2 DP 2769		-
	Section 184 Okotuku District		-
	Section 185 Okotuku District		-



	Lot 1 A 3347	WN22B/304	1076 Kohi Road,
	Lot 1 DP 3016	WN230/86	Waverley
	Section 207 Okotuku District	WN230/89	
	Section 209 Okotuku District	WIN230/09	161 Medlicott Road, Waverley
	Section 211 Okotuku District	WN230/90	125 Medlicott Road, Waverley
	Section 213 Okotuku District		-
	Section 203 Okotuku District	WN345/77	-
	Part Section 190 Okotuku District	WN35/278	26 Hughes Road, Waverley 40 Hughes Road, Waverley
	Part Section 189 Okotuku District	WN35/278	-
	Section 188 Okotuku District		-
	Section 187 Okotuku District		-
	Section 186 Okotuku District		-
	Part Section 435 Okotuku District	WN409/140	112 Hooper Road, Waverley
	Part Section 434 Block II Wairoa Survey District		-
	Part Section 130 Okotuku District	WN45B/647	-
	Section 201 Okotuku District	WN46B/544	174 Medlicott Road, Waverley
	Section 200 Okotuku District		-
Lupton Land Company Limited	Lot 2 DP 413960	456645	106 Okahutiria Road, Waverley
	Lot 1 A 958	WN99/294	-
Marinoto Dairies Limited	Section 282 Okotuku District	WN19A/1156	127 Braemore Road, Waverley
	Section 5 Block II Wairoa Survey District	WN19A/1157	-
	Section 74 Okotuku District	WN19A/1158	-
Mark Geoffrey Hughson, Michelle Anne Smith,	Section 441 Okotuku District	TNF1/1014	1173 Karahaki Road, Waverley
Richard Antony Watkins	Section 5 Block V Carlyle Survey District	TNA1/156	-
	Section 442 Okotuku District	TNG1/852	-
Nellie Eileen Hone, Sheldon Maxwell Hone, Holly Navana Christie Johnston	Part Section 196 Okotuku District	WN345/75	1 Ngamotu Road, Waverley
Paul Follett Carrington,	Part Section 125 Okotuku BLK	WN510/284	-
Maree Joy Gudopp, Phillip Bruce Gudopp	Part Section 124 Okotuku BLK		-
Public Trustee	Section 176 Okotuku District	WN94/129	-
	Section 178 Okotuku District		-
Robert Ernest Hone,	Section 431 Okotuku District	WN415/248	962 Kohi Road, Waverley
Elizabeth Margaret Mollard, Helen Vivienne Mortell	Section 432 Okotuku District		-
	Section 68 Okotuku District	WN36/255	-

Stephen James Barr,	Section 69 Okotuku District		-
Peter William Campbell, P & J Campbell Nominees Limited	Section 70 Okotuku District		7 Monk Road, Waverley 471 Upper Okotuku Road, Waverley
The Kohi Cattle Company	Lot 2 DP 2586	WN242/44	-
Limited	Lot 3 DP 2586		55 Hughes Road, Waverley
Theland Tahi Farm Group	Part Section 454 Okotuku District	TNF3/815	-
Limited	Part Section 454 Okotuku District		960 Karahaki Road, Waverley 978 Karahaki Road, Waverley
	Part Section 439 Okotuku District		-
	Lot 1 DP 3374	TN94/21	-
Train Farm Limited	Section 71 Okotuku District	WN339/54	-
Wayne Keith Neilson,	Section 1 SO 368814	577916	-
Wayne Neilson Trustee Limited	Lot 2 DP 573111	1042459	1253 Kohi Road, Waverley
	Part Section 196 Okotuku District	WN345/76	-
	Section 484 Okotuku District	WN39B/936	68 Ngamotu Road, Waverley
	Section 483 Okotuku District	WN40B/412	-
	Part Section 426 Okotuku District	WN44C/553	-
	Lot 1 DP 78935	WN45B/646	-
	Section 199 Okotuku District	WN56A/401	-
	Section 198 Okotuku District	WN56A/402	83 Ngamotu Road, Waverley 83A Ngamotu Road, Waverley
	Section 197 Okotuku District	WN56A/403	-
Woodleigh Limited	Part Tuke Tuke D2 Block	WN708/77	-

#### **Applicants Interests:**

Detail the nature of the applicant's legal interest (if any) in the land on which the project will occur.

Include a statement of how that affects the applicant's ability to undertake the work that is required for the project.

NZ Windfarms has established an early partnership with Kohi Farms 2023 Limited to investigate and thereafter design, consent and construct a wind farm at the Project Site – the Kohi Wind Farm project (the Project). Kohi Farms 2023 Limited is the majority landowner across the Project Site; owning approximately 30% of the underlying land within which an envelope for the Project is proposed to be established.

NZ Windfarms and Kohi Farms 2023 Limited have signed an exclusive contractual agreement, allowing NZ Windfarms to undertake all intrusive and non-intrusive environmental investigations to determine the feasibility of constructing a wind farm at the Project Site. In addition, contractual agreements are in the process of being developed for remaining landowners in the Project Site. The arrangement with Kohi Farms 2023 Limited supports physical access and legal access to the National Grid which runs through the Project Site and has the potential to host a new grid connection (with further design and geotechnical site investigations required).

Subject to the Project being scheduled in the Fast-track Approvals Bill, NZ Windfarms is in a position to progressively sign further contractual agreements (regarding final turbine / infrastructure royalties and lease matters) with the underlying landowners, enabling the physical development of the Project.

For NZ Windfarms, the Project represents a complementary addition to its expanding portfolio of wind farm developments in New Zealand and further cements the company's position as an eminent private generator of renewable electricity in the New Zealand wind generation industry.



The Project Site has an optimal position to host turbines at the indicative size as it is located in the Class 2 and 3¹ area within the Region (evidence by its proximity to Waipipi Wind Farm). It also benefits from its proximity to key National Grid transmission infrastructure, a supportive District and Regional level regulatory framework and a network of formed and paper roads that lead to the central ridgeline being the suitable location for turbines. While not integral to the ability to implement the Project, NZ Windfarms has engaged a project team with all necessary resource consent disciplines currently assigned to its Te Rere Hau projects which can be rapidly mobilised to advance detailed consent design, reporting and Management Plans should the Project be supported into the fast-track consenting and approvals pathway.

NZ Windfarms Board of Directors have provided a Funding Statement (confidential, and not available for public release) to further demonstrate the ability of the Applicant to undertake the works; attached at **Appendix C**.

<sup>&</sup>lt;sup>1</sup> Class 2 and 3 sites being conditions experienced at sites with average wind speeds between 7.5 and 8.5 m/s respectively.

# 2 Project Details

# **Summary of the Project:**

What is the project summary?

Please provide a brief summary (no more than 2-3 lines) of the proposed project.

The construction, operation, and maintenance of a new wind farm (Kohi Wind Farm), north of Waverley, comprising up to 61 wind turbines with a maximum blade tip height of approximately 220m, substations, internal transmission infrastructure (including pylons and/or pi-poles where required) and connection to the National Grid.

# **Project Details:**

What are the project details?

Please provide details of the proposed project, its purpose, objectives and the activities it involves, noting that Clause 14(2)(b) of the Bill specifies that the application requires only a general level of detail.

#### Purpose:

The purpose of the Project is to construct, operate and maintain a new wind farm (Kohi Wind Farm) by installing up to 61 new wind turbines; maximising the efficiency and productivity of the wind resource. The Project will contribute immediate and ongoing economic benefits and employment to the New Zealand economy, will contribute towards the further decarbonisation of the electricity generation industry and will assist with New Zealand's transition to a low emissions economy.

#### **Objectives:**

- To efficiently leverage the high value natural wind resource at the Project Site and the immediate proximity to the National Grid to significantly increase the supply of renewable energy from the wind farm to the National Grid:
- To utilise the Fast-Track Approvals Bill (and any subsequent Act) to accelerate the resource consenting process and enable the construction and release of Project investment and benefits faster than traditional Resource Management Act 1991 (RMA), Heritage New Zealand Pouhere Taonga Act 2014, Wildlife Act 1953, or other available two-stage processes;
- To generate employment and economic benefits and continue to drive investment within South Taranaki and the wider Taranaki Region; and
- To make a meaningful contribution to New Zealand's efforts to mitigate climate change and enable the transition towards a low-emissions economy in accordance with Central Government Policy.

#### Activities involved in the Project:

The Project will include, but is not limited to, the following:

- Works to construct and operate up to 61 new three bladed turbines (subject to selection of a final turbine model) with a blade tip height of approximately 220m.
- Works to construct, widen and/or upgrade existing site access roads, bypass roads (during blade and component-lift procedures) and to establish new onsite access roads including the placement of culverts.
- External public road improvements to facilitate access to the Project Site and the transport of overdimension turbine and substation components.
- Works to construct new turbine foundations and permanent pads, and temporary construction hardstands for blade-lift.
- Works to construct associated infrastructure including hardstand areas, underground electrical and telecommunication cabling, overhead internal transmission lines and installing substation plants to the Point of Connection (to the National Grid).



- Temporary component storage and laydown sites, temporary construction office / compound, crane and plant maintenance sites and a concrete batching compound.
- Bulk ancillary works including earthworks, vegetation clearance and forestry clearance, ecological habitat enhancement and temporary water takes.

In addition, the Project will include a micro-siting allowance of approximately 200m (as part of any later approvals process) being a limited radius in which to adjust a final turbine location. This radius will be established by the conclusions of the technical acoustic, ecological and landscape and visual effects assessments, external boundaries, ground conditions and ecological setbacks as necessary.

#### **Turbine Options**

The feasibility stage design of the Project has been developed on the basis of a maximum 61 turbine layout set by the spacing requirements for models with a blade height of approximately 220m. This forms an envelope within which the turbines must be sited and fit and will be subject to final approval.

The control for determining effects, in addition to the turbine sound power level, is set by the maximum height of the blade tip above ground level and the blade clearance above ground level, within which the hub height and blade length may be adjusted. This envelope will ultimately be specified in conditions of approval as part of the substantive application process.

Promoting a flexible envelope to turbine sizing at the approval stage enables competition between the available turbine suppliers and maximises potential generation capacity from the Project Site. This approach has been utilised at Te Rere Hau and is becoming commonplace within wind farm developments currently progressing under the RMA within New Zealand.

The envelope presented in this listing application ensures that where a particular aspect of the Project layout has an issue derived from turbine sound power level or size that cannot be resolved, an alternative type of turbine can be presented; all of which will be considered by the relevant environmental specialists advising NZ Windfarms.

#### **Grid Connection**

NZ Windfarms is exploring physical options for connection of the proposed substation from the Project into Transpower's Brunswick – Stratford (BRK-SFD) A and B (220 kV) high voltage transmission lines and will develop a fixed proposal through the Connection Investigation process managed by Transpower. The BRK-SFD A and B line consists of a minimum of four circuits, with options currently including a direct hard-tee injection from the substation, or an undercrossing before teeing into the line. The second option requires an independent pole or pylon and associated ground / structure clearances.

An envelope that provides flexibility for all connection options will be included in any later application and the actual and potential environmental effects addressed at that stage.

# Staging of the Project:

Describe the staging of the project, including the nature and timing of the staging

NZ Windfarms is not proposing any formal staging of the Project.

The construction of the Project is a standalone activity and can commence following a detailed engineering design and procurement process; subject to receiving favourable resource consents / approvals and associated conditions.

#### **Summary of Approvals Required:**

What are the details of the regime under which approval is being sought?

The following resource consents, permits and authorities are expected to be required (under the current statutory approval regime) and would be sought as a bundled application submitted to the Expert Consenting Panel should the Project be listed under Schedule 2A of the Fast-track Approvals Act.

#### Resource Management Act 1991 approvals:



#### Under the National Environmental Standards for Freshwater 2020

- Construction of Specified Infrastructure as a Discretionary Activity including but not limited to the following activities:
  - Vegetation clearance within, or within 10m from, a natural inland wetland;
  - Earthworks or land disturbance within, or within a 10m setback from, a natural inland wetland;
  - Earthworks or land disturbance outside a 10m, but within a 100m, setback from a natural inland wetland where the activity results, or is likely to result, in the complete or partial drainage of all or part of the natural inland wetland;
  - The taking, use, damming, or diversion of water within, or within a 100m setback from, a natural inland wetland; and
  - The placement, use, alteration, extension, or reconstruction of a culvert in, on, over, or under the bed of any river or connected area subject to conditions.

# <u>Under the National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect</u> <u>Human Health 2011</u>

 Soil disturbance of a Piece of Land potentially contaminated by agricultural activities in accordance with a Detailed Site Investigation and Draft Remedial Action Plan as a Controlled Activity.

#### Under the Regional Fresh Water Plan for Taranaki

- Take and Use of Surface water which does not comply with the permitted activity standards;
- Discharge of stormwater and sediment into surface water or onto or into land from soil disturbance activities which does not comply with the permitted activity conditions as a Controlled Activity
- Discharge of contaminants or water into surface water which does not comply with the permitted activity conditions as a Discretionary Activity;
- Drilling and/or construction of a well or bore into or onto land that does not meet the permitted activity conditions as a Discretionary Activity;
- Take and Use of water from a well or bore that does not meet the permitted (or controlled) activity conditions as a Discretionary Activity; and
- Construction, placement and use of a culvert or bridge in, on or over the bed of a river as a Discretionary Activity;

#### Under the South Taranaki District Plan

- Construction, Maintenance and Operation of a large-scale renewable electricity generation activity not located within the Outstanding Natural Character or Outstanding Natural Features and Landscapes as a Discretionary Activity; and
- Activities which do not comply with the relevant noise standards as a Restricted Discretionary Activity.

# Heritage New Zealand Pouhere Taonga Act 2014 authorities:

Authority to undertake an activity that will or may modify or destroy the whole or any part of any archaeological site or sites within a specified area of land, and application for a specified person to undertake the works subject to that authority.

#### Wildlife Act 1953 authorities:

Authority (General) to disturb, catch, handle and / or release protected wildlife at one site, catch and / or hold protected wildlife for rehabilitation, or catch, handle and / or hold and release protected wildlife in accordance with translocation activities.

### **Authorities relevant to Approvals Required:**

If you seeking approval under the Resource Management Act, who are the relevant local authorities?



Resource consents including indicative approvals to be sought (as listed above) under the RMA are relevant to the following Regional and Territorial authorities;

- Taranaki Regional Council;
- South Taranaki District Council.

# **Concurrent Applications:**

What applications have you already made for approvals on the same or a similar project?

Please provide details and any decisions made of:

- applications
- notices

Schedule 4 clause 31(3) of the Bill details that a person who has lodged an application for a resource consent or a notice of requirement under the Resource Management Act 1991, in relation to a listed project or a referred project, must withdraw that application or notice of requirement before lodging a consent application or notice of requirement with an expert consenting panel under this Bill for the same, or substantially the same, activity.

NZ Windfarms has been granted a land use resource consent for the establishment of up to two meteorological masts, for a maximum operational term of five years per mast with one mast exceeding the permitted height limit by 20m. This consent does not permit or otherwise enable any of the Project works specified in this listing application but will inform the Project design as it advances.

No other applications have been made by NZ Windfarms in relation to this Project.

# **Third-Party Approvals Required:**

Is approval required for the project by someone other than the applicant?

Building consents under the Building Act 2004 will be sought from South Taranaki District Council for ancillary structures at any temporary site compound, permanent operations and maintenance compound and the substation. Wind turbines do not require building consent subject to design, installation, and certification by a Chartered Professional Engineer.

During construction, temporary road closures or prohibition of access will be required to parts of the local road and paper road network that traverses the Project Site. Formal processes to either formally stop a road or paper road, or to temporarily close a road under the requirements of a Construction Traffic Management Plan, will be subject to South Taranaki District Council resolutions under the Local Government Act 1974 (Schedule 10).

The Civil Aviation Rules (Part 77) require an application for proposals with a height of 60m or greater to be lodged with the Civil Aviation Authority no less than 90 days prior to the commencement of construction for the purpose of setting conditions on the design and operation of structures that may be a hazard within navigable airspace. That application, and additional consultation with Airways, will be completed prior to the lodgement of any approval application package consent for the Project.

Over-dimension permits will be sought from New Zealand Transport Agency Waka Kotahi to convey turbine blades, tower sections, nacelles, and transformers from the Port of Entry (Port Taranaki) to the Project Site. Permits will be secured and provided in conjunction with the Project's Construction Traffic Management Plan subject to any resource consent and final approved conditions.

Physical connection between any substation and Transpower's Brunswick – Stratford (BRK-SFD) A and B (220 kV) national grid transmission infrastructure will be required to be consented separately by Transpower under the National Environmental Standards for Electricity Transmission Activities 2008. This process is facilitated by contracting Transpower to commence detailed investigation and procurement processes which is normally undertaken when the resource consent process has largely been completed.

### **Programme of Works:**

If the approval(s) are granted, when do you anticipate construction activities will begin, and be completed?



- detailed design
- procurement
- funding
- site works commencement
- completion.

NZ Windfarms holds sufficient cash resources and funding capability to resource all aspects of the approvals phase design and consenting activities as well as the following site preparation phases of works for the Project. Preliminary effects assessments and technical due diligence have been completed and can be readily expanded to inform the necessary consent and approval applications.

Should the Project be listed in the preferred Schedule 2 – Part A, it is expected that the application process (from start through to the decision by the Joint Ministers) can be completed by June 2026. The following dates indicate a prospective programme following that process:

- Detailed engineering design, certification, and completion of Transpower design process:
  - Start June 2026, Completion June 2028;
- Final Investment Decision: December 2027
- Turbine procurement: June 2027
- Construction Works:
  - Preparatory Works commence: August 2028
  - Bulk earthworks commence: October 2028
  - Completion of construction and commissioning: October 2030

It is expected that the conditions will allow certain enabling works activities to be commenced in preparation for bulk earthworks and foundation laying works. Some ecological survey and any capture and relocation activities have the potential to occur concurrent to detailed design.



# 3 Consultation

# Who are the persons affected by the project?

Please provide a list of persons likely to be affected by the project, including:

- relevant local authorities
- relevant iwi authorities
- relevant Treaty settlement entities
- protected customary rights groups
- customary marine title groups
- applicant groups under the Marine and Coastal (Takutai Moana) Act 2011
- ngā hapū o Ngāti Porou
- any person with a registered interest in land that may need to be acquired under the Public Works Act 1981.

Persons and/or organizations directly affected by the Project are limited to the following:

#### **Local Authorities:**

- Taranaki Regional Council;
- South Taranaki District Council.

#### Iwi Authorities and Treaty Settlement Entities:

- Ngaa Rauru Kiitahi;
- Ngāti Ruanui;
- Ngāti Hinewaiata;
- Ngāti Hine;
- Ngāti Tai;
- Ngā Ariki (Waitōtara);
- Whanganui Land Settlement Negotiation Trust (Lower Whanganui).

### **Underlying Landowners:**

Owner	Legal Description	Record of Title	Property Address
A & Y Robertson Trustees	Section 443 Okotuku District	TNH2/1252	-
Limited, <mark>Aaron Blair</mark> Robertson, Ylva Birgitta Robertson	Section 444 Okotuku District		819 Karahaki Road, Waverley
1 CODOTICOT	Part Section 451 Okotuku District	WN495/119	-
	Part Section 450 Okotuku District		-
	Part Section 448 Okotuku District	WN495/115	-
	Part Section 448 Okotuku District	TN151/39	-
	Part Section 450 Okotuku District	TN151/40	-
	Part Section 451 Okotuku District		838 Karahaki Road, Waverley
	Part Section 452 Okotuku District		-
	Part Section 452 Okotuku District	TNB2/1296	-
	Part Section 447 Okotuku District	TN262/30	694 Karahaki Road, Waverley
	Part Section 447 Okotuku District	WNE3/1150	-



	I	T	
Alan Leslie Hone	Section 3 McLean SETT	WN607/18	921 Kohi Road,
	Section 2 McLean SETT		Waverley
	Part Section 454 Okotuku District	TNG2/139	-
	Part Section 429 Okotuku District	WN44C/554	-
	Section 430 Okotuku District		-
	Section 428 Okotuku District	-	-
	Section 427 Okotuku District	-	-
Andrea Mary Burling, Malcolm	Part Section 440 Okotuku District	TNB4/1175	1193 Kohi Road,
Blair Burling	Part Section 439 Okotuku District	-	Waverley
Andrew Campbell Cutler, Brian Alexander Train	Section 283 Okotuku District	WN43A/272	59 Braemore Road, Waverley (73 Braemore Road, Waverley)
	Section 72 Okotuku District	WN339/60	-
Andrew Campbell Cutler, Brian Alexander Train, Joan Ellen Train	Lot 1 DP 4352	WN271/57	15 Kelley Road, Waverley
Andrew Campbell Cutler, Trevor James Harrop, Brian	Section 135 Okotuku District	WN339/72	26 Kelley Road, Waverley
Alexander Train	Section 134 Okotuku District	WN275/126	-
	Lot 1 DP 24823	WNB2/924	-
Ann Marie Fahy	Section 2 SO 35563	WN39D/692	717 Kohi Road, Waverley
Chorus New Zealand Limited	Lot 1 DP 77539	WN44C/552	-
David Bruce Newland, James Kemp Newland, Young + Carrington Trustees Limited	Lot 1 DP 544566	922634	751 Karahaki Road, Waverley
Douglas John Hooper, Gillian Margaret Hooper	Section 192 Okotuku District	WN6B/1341	598 Kohi Road, Waverley
	Section 191 Okotuku District	WN6B/1342	-
	Section 193 Okotuku District		-
Dylan Louis Amon, Peter John Amon, Gresham Walkinton Trustee Co Limited, His Majesty the King	Section 7 Block V Carlyle SD	577917 (Freehold, His Majesty the King)  812351 (Leasehold, Dylan Louis Amon, Peter John Amon, Gresham Walkinton Trustee Co Limited)	-
G & L Gulliver Nominees	Part Lot 1 DP 2586	WN242/45	-
Limited	Section 208 Okotuku District	WN26C/875	-
	Section 210 Okotuku District	WN26C/876	595 Kohi Road, Waverley
	Section 194 Okotuku District	WN345/74	648 Kohi Road, Waverley
	Lot 1 DP 9294	WN407/240	-
	Part Section 433 Okotuku District	WN486/158	122 Ngamotu Road, Waverley
	Section 212 Okotuku District	WNB2/579	-
Gresham Walkinton Trustee Co Limited, Alison Margaret Ross	Section 437 Okotuku District	WN384/74	994 Kohi Road, Waverley
1000	Section 436 Okotuku District		-

Guy Robert James Lennox,	Lot 2 DP 544566	922635	-
Natalie Jane Lennox, Sam	Lot 2 DP 414102	452861	-
Graham Lennox	Section 446 Okotuku District	102001	_
His Majesty the King, Mark Geoffrey Hughson, Michelle Anne Smith, Richard Antony Watkins	Section 1 Block XV Opaku Survey District	577917 (Freehold, His Majesty the King) 868778 (Leasehold, Mark Geoffrey Hughson, Richard Antony Watkins and Michelle Anne Smith)	1215 Karahaki Road, Waverley
	Section 2 Block V Carlyle Survey District	577917 (Freehold, His Majesty the King)	-
	Section 6 Block V Carlyle Survey District	868779 (Leasehold, Mark Geoffrey Hughson, Richard Antony Watkins and Michelle Anne Smith)	-
Holly Navana Christie Johnston, Joel Steven Johnston	Lot 1 DP 312053	47427	-
lan Alan Rosewarne, Vivienne	Section 137 Okotuku District	WN591/249	-
Iranui Rosewarne	Section 131 Okotuku District	WN39D/645	-
	Section 132 Okotuku District	WN591/250	-
	Part Section 133 Okotuku District	WNB4/175	-
Jake Shane Beckham, Victoria Renee Lewis	Lot 1 DP 573111	1042458	1247 Kohi Road, Waverley
James Arthur Coleman, Gresham Walkinton Trustee Co Limited, David Charles Lawrence	Section 73 Okotuku District	WN339/61	78 Braemore Road, Waverley
Kohi Amenities Charitable Trust Board	Section 1 SO 35563	WN39D/691	711 Kohi Road, Waverley
Kohi Farms 2023 Limited	Section 522 Okotuku District	WN986/33	-
	Section 204 Okotuku District	348821	-
	Section 206 Okotuku District	348822	461 Kohi Road, Waverley
	Lot 2 DP 312053	47428	433 Kohi Road, Waverley
	Part Section 455 Okotuku District	TNB1/166	94 Okahutiria Road, Waverley (1258 Kohi Road, Waverley)
	Section 174 Okotuku District	WN16/116	-
	Lot 1 DP 2769	WN219/163	-
	Lot 2 DP 2769		-
	Section 184 Okotuku District		-
	Section 185 Okotuku District		-
	Lot 1 A 3347	WN22B/304	1076 Kohi Road, Waverley
	Lot 1 DP 3016	WN230/86	-
	Section 207 Okotuku District	WN230/89	-
	Section 209 Okotuku District		161 Medlicott Road, Waverley



	Section 211 Okotuku District	WN230/90	125 Medlicott Road, Waverley
	Section 213 Okotuku District		-
	Section 203 Okotuku District	WN345/77	-
	Part Section 190 Okotuku District	WN35/278	26 Hughes Road, Waverley (40 Hughes Road, Waverley)
	Part Section 189 Okotuku District	WN35/278	-
	Section 188 Okotuku District		-
	Section 187 Okotuku District		-
	Section 186 Okotuku District		-
	Part Section 435 Okotuku District	WN409/140	112 Hooper Road, Waverley
	Part Section 434 Block II Wairoa Survey District		-
	Part Section 130 Okotuku District	WN45B/647	-
	Section 201 Okotuku District	WN46B/544	174 Medlicott Road, Waverley
	Section 200 Okotuku District		-
Lupton Land Company Limited	Lot 2 DP 413960	456645	106 Okahutiria Road, Waverley
	Lot 1 A 958	WN99/294	-
Marinoto Dairies Limited	Section 282 Okotuku District	WN19A/1156	127 Braemore Road, Waverley
	Section 5 Block II Wairoa Survey District	WN19A/1157	-
	Section 74 Okotuku District	WN19A/1158	-
Mark Geoffrey Hughson, Michelle Anne Smith, Richard	Section 441 Okotuku District	TNF1/1014	1173 Karahaki Road, Waverley
Antony Watkins	Section 5 Block V Carlyle Survey District	TNA1/156	-
	Section 442 Okotuku District	TNG1/852	-
Nellie Eileen Hone, Sheldon Maxwell Hone, Holly Navana Christie Johnston	Part Section 196 Okotuku District	WN345/75	1 Ngamotu Road, Waverley
Paul Follett Carrington, Maree	Part Section 125 Okotuku BLK	WN510/284	-
Joy Gudopp, Phillip Bruce Gudopp	Part Section 124 Okotuku BLK		-
Public Trustee	Section 176 Okotuku District	WN94/129	-
	Section 178 Okotuku District		-
Robert Ernest Hone, Elizabeth Margaret Mollard, Helen	Section 431 Okotuku District	WN415/248	962 Kohi Road, Waverley
Vivienne Mortel	Section 432 Okotuku District		-
Stephen James Barr, Peter	Section 68 Okotuku District	WN36/255	-
William Campbell, P & J Campbell Nominees Limited	Section 69 Okotuku District		-
Campbell Norminees Emilieu	Section 70 Okotuku District		7 Monk Road, Waverley (471 Upper Okotuku Road, Waverley)
The Kohi Cattle Company	Lot 2 DP 2586	WN242/44	-
Limited	Lot 3 DP 2586		55 Hughes Road, Waverley

Theland Tahi Farm Group Limited	Part Section 454 Okotuku District	TNF3/815	
	Part Section 454 Okotuku District		960 Karahaki Road, Waverley (978 Karahaki Road, Waverley)
	Part Section 439 Okotuku District		-
	Lot 1 DP 3374	TN94/21	-
Train Farm Limited	Section 71 Okotuku District	WN339/54	-
Wayne Keith Neilson, Wayne Neilson Trustee Limited	Section 1 SO 368814	577916	-
	Lot 2 DP 573111	1042459	1253 Kohi Road, Waverley
	Part Section 196 Okotuku District	WN345/76	-
	Section 484 Okotuku District	WN39B/936	68 Ngamotu Road, Waverley
	Section 483 Okotuku District	WN40B/412	-
	Part Section 426 Okotuku District	WN44C/553	-
	Lot 1 DP 78935	WN45B/646	-
	Section 199 Okotuku District	WN56A/401	-
	Section 198 Okotuku District	WN56A/402	83 Ngamotu Road, Waverley (83A Ngamotu Road, Waverley)
	Section 197 Okotuku District	WN56A/403	-
Woodleigh Limited	Part Tuke Tuke D2 Block	WN708/77	-
The Proprietors of Parininihi Ki Waitōtara Block	Lot 4 DP 3135	WN16B/194	-
		537922 (Leasehold:	
		Guy Robert James Lennox, Natalie Jane	
		Lennox, Sam Graham	
		Lennox)	

Detail all consultation undertaken with the persons referred to above. Include a statement explaining how engagement has informed the project.

#### **Local Authorities:**

NZ Windfarms and its advisors held a joint meeting with the Regulatory Manager(s) and Senior Consents Team representatives of Taranaki Regional Council and South Taranaki District Council (via Teams) on 15 April 2024. This meeting consisted of NZ Windfarms providing:

- An introduction to its team and background to its involvement in consenting and operating wind farms within New Zealand including under a fast-track process to date;
- An overview of the Kohi Wind Farm Project and concept design via its GIS platform;
- A briefing on the purpose of the Fast-Track Approvals Bill and the requirements of the listing application process in the Bill relevant to the Project; and
- A summary of the reasons for pursuing the listing process.

The response from the joint councils has been supportive in principle. The Council representatives acknowledged their commitment to working with NZ Windfarms on the review of any documents that could be shared at the time and suggested third-party relationships in the regional development space (such as Venture Taranaki) for NZ Windfarms to explore opportunities. The Councils further reiterated the supportive frameworks of their District and Regional policies for energy projects and confirmed this position at the executive level.



NZ Windfarms will look to establish a working group arrangement (as used on Te Rere Hau Wind Farm projects) with the councils and its specialist technical experts in the review of any application documents, including the development of draft conditions for consideration should the Project be listed.

#### Iwi Authorities and Treaty Settlement Entities:

#### Ngaa Rauru Kiitahi

Ngaa Rauru Kiitahi are the mandated lwi Authority that represents the interests of the lwi and a number of hapū including Ngāti Hinewaiata, Ngāti Hine, Ngāti Tai and Ngā Ariki (Waitōtara).

NZ Windfarm contacted Ngaa Rauru Kiitahi on 12 April 2024 via email, providing a brief description of the Project, that NZ Windfarms was considering lodging an application for listing in the Fast-track Approvals Bill 2024, a description of what having a project listed within the Bill would enable and providing an opportunity to meet to discuss the Project and process. NZ Windfarms also sought advice from Ngaa Rauru Kiitahi on how to engage appropriately with their hapū. Ngaa Rauru Kiitahi responded to NZ Windfarms via email later that day confirming their availability and desire to hold an early hui to discuss the Project.

NZ Windfarms subsequently met with Ngaa Rauru Kiitahi on 18 April 2024. At this stage, responses from Ngaa Rauru Kiitahi are generally neutral to the Project and further engagement to share information on the Project as the concept design develops will be undertaken. In summary, Ngaa Rauru Kiitahi shared that they are focused on building the skills and capacity of current and future generations so that they are represented across all levels and roles in the renewable energy sector. This includes bringing and retaining indigenous intellectual property that supports a holistic approach to the sector, establishment of a technical and innovation hub and seeking opportunities for scholarships and training in the sector.

NZ Windfarms remains committed to establishing a strong relationship with Ngaa Rauru Kiitahi and to growing opportunities for Ngaa Rauru Kiitahi to be involved in the process. NZ Windfarms will ensure that Ngaa Rauru Kiitahi is kept informed of the fast-track process as this listing application is considered by the Fast-track Advisory Group and Ministers.

A copy of the correspondence sent to Ngaa Rauru Kiitahi is included at Appendix D.

#### Ngāti Ruanui

NZ Windfarms contacted Ngāti Ruanui on 18 April 2024 via email, providing a brief description of the Project, indicating that NZ Windfarms was considering lodging an application for listing in the Fast-track Approvals Bill 2024, a description of what having a project listed within the Bill will enable and providing an opportunity to meet to discuss the Project and process. At the time of drafting this application Ngāti Ruanui are yet to respond.

Correspondence related to this Project between NZ Windfarms and Ngāti Ruanui is included at **Appendix D** of this application.

#### Whanganui Land Settlement Negotiation Trust (Lower Whanganui)

NZ Windfarms contacted Whanganui Land Settlement Negotiation Trust (Lower Whanganui) on 18 April 2024 via email, providing a brief description of the Project, indicating that NZ Windfarms was considering lodging an application for listing in the Fast-track Approvals Bill 2024, a description of what having a project listed within the Bill will enable and providing an opportunity to meet to discuss the Project and process. At the time of drafting this application Whanganui Land Settlement Negotiation Trust are yet to respond.

A copy of the correspondence sent by NZ Windfarms to the Whanganui Land Settlement Negotiation Trust is included at **Appendix D**.

#### **Underlying Landowners:**

NZ Windfarms has actively engaged with landowners that are either potential turbine hosts or are covered within the broader preliminary envelope of the Project Site since commencing early investigations in August 2023. This has included multiple in-person, phone calls and Teams meetings prior to lodgement of this application. All meetings have included subsequent email correspondence confirming the meeting and comments provided.

No less than 28 landowners are noted as active promotors of the Project (being in support) and remaining landowners (12) consulted prior to lodgement are neutral to the Project (i.e., not opposed and are wanting to continue active engagement and sharing of Project information when available).



Engagement with landowners (including two persons uncontactable prior to lodgement of this listing application) will continue throughout the process in order to support any later approval application and to enable community responses to be considered throughout the concept design and layout / final turbine and infrastructure siting.

A Schedule of Landowner Consultation has been developed for the Project and will be maintained for any further engagement as the Project proceeds into an approval phase. A copy of this schedule summarising the number, type, and responses of landowner interactions to date is attached at **Appendix D**. Council and lwi / Hapū engagement are also listed in the Schedule for completeness.

NZ Windfarms has engaged with LINZ, who are the responsible authority for the parcels owned by the Taranaki Scholarships Trust Board, administered by the Crown. LINZ has advised that a sublease will be required to establish any potential turbines and/or associated infrastructure subject to the application of the lessees. This sublease process will be undertaken concurrent to the later detailed approvals process.

Describe any processes already undertaken under the Public Works Act 1981 in relation to the land or any part of the land on which the project will occur:

No processes under the Public Works Act 1981 are required to facilitate the Project.



# 4 Iwi Authorities and Treaty Settlements

# What treaty settlements apply to the geographical location of the project?

Include a summary of the relevant principles and provisions in those settlements and any statutory acknowledgement areas.

The following Te Tiriti o Waitangi Settlements apply to the Project Site:

- Ngaa Rauru Kiitahi Claims Settlement Act 2005;
- Ngāti Ruanui Claims Settlement Act 2003; and
- Ngāti Rangi Claims Settlement Act 2019

An outline of each Settlement and assessment of the Project against the principles and provisions of those Settlements (including Statutory Acknowledgement Areas) follows:

#### Ngaa Rauru Kiitahi Claims Settlement Act 2005

The Crown and Ngaa Rauru Kiitahi (including hapū Ngāti Hinewaiata, Ngāti Hine, Ngāti Tai, Ngaa Ariki (Waitōtara)) signed a Deed of Settlement on 27 November 2003. The Deed of Settlement is the final settlement of all Ngaa Rauru Kiitahi historical claims resulting from acts or omissions by the Crown prior to 21 September 1992 and is made up of a package that includes:

- An agreed historical account and Crown acknowledgements, which form the basis for a Crown Apology to Ngaa Rauru Kiitahi;
- Cultural redress; and
- Financial and Commercial redress.

No private land was involved in the redress, only Crown assets.

The Claims Settlement Act includes Statutory Acknowledgements and Deeds of Recognition. The area of interest recognised in the Deed of Settlement includes the Project Site. The closest statutory acknowledgement area is the Whenuakura River. The Whenuakura River is located adjacent to, but not within the Project Site (which is serviced by a number of tributaries).

No redress in the Claims Settlement Act (2005) or Deed of Recognition affects natural and physical resources relevant to the Project or the Project Site.

#### Ngāti Ruanui Claims Settlement Act 2003

The Crown and Ngāti Ruanui signed a Deed of Settlement on 12 May 2001. The Deed of Settlement is the final settlement of all Ngati Ruanui's historical claims resulting from acts or omissions by the Crown prior to 21 September 1992 and is made up of a package that includes;

- An apology from the Crown;
- Cultural redress; and
- Commercial redress.

No private land was involved in the redress, only Crown assets.

The Claims Settlement Act includes Statutory Acknowledgements and Deeds of Recognition. The area of interest recognised in the Deed of Settlement does not include the Project Site. The closest statutory acknowledgement area is the Whenuakura River. The Whenuakura River is located adjacent to, but not within the Project Site.

No redress in the Claims Settlement Act (2003) or Deed of Recognition affects natural and physical resources relevant to the Project or the Project Site.

#### Ngāti Rangi Claims Settlement Act 2019

The Crown and the Whanganui Land Settlement Negotiation Trust signed an Agreement in Principle on 30 August 2019. This is now reflected in the enacted Ngāti Rangi Claims Settlement Act 2019. The Ngāti Rangi



Deed of Settlement is the final settlement of all historical Treaty of Waitangi claims of Ngāti Rangi resulting from acts or omissions by the Crown prior to 21 September 1992, and is made up of a package that includes:

- An agreed historical account, Crown acknowledgements and apology.
- Cultural redress, including:
  - Te Waiū-o-Te-Ika Framework (Whangaehu River) redress,
  - Conservation redress,
  - Crown minerals redress,
  - A cultural fund, and
  - Relationship redress.
- Financial and commercial redress.

No private land was involved in the redress, only Crown assets.

The Claims Settlement Act includes Statutory Acknowledgements and Deeds of Recognition. The area of interest recognised in the Deed of Settlement does not include the Project Site. There are no statutory acknowledgements within the Project Site.

No redress in the Claims Settlement Act (2019) or Deed of Recognition affects natural and physical resources relevant to the Project or the Project Site.

Are there any Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 principles or provisions that are relevant to the project?

No Ngā Rohe Moana o Ngā Hapū o Ngāti Porou Act 2019 principles or provisions apply to the Project.

Are there any identified parcels of Māori land within the project area, marae, and identified wāhi tapu?

Lot 4 DP 3135 (WN16B/194) owned by The Proprietors of Parininihi Ki Waitōtara Block lies within the scope of the broader Project effects envelope and has therefore been included in the general description of the Project Site; however, physical works or the siting of any wind farm infrastructure is not required or proposed in relation to this parcel. This parcel is subject to Schedule 1 of the Māori Reserved Land Amendment Act 1997, but is a Freehold Title.

No marae or identified wāhi tapu sites or areas are contained within the Project Site.

Is the project proposed on any land returned under a Treaty settlement or any identified Māori land described in the ineligibility criteria?

No, the Project is not proposed to be undertaken on any land returned under a relevant Treaty Settlement or Māori land described in the criteria.

### Has the applicant secured the relevant landowners' consent?

No, the Project is not proposed to be undertaken on Māori land or land returned under a Treaty Settlement. NZ Windfarms has engaged with Parininihi ki Waitōtara (on behalf of the Shareholders) as Lot 4 DP 3135 lies within the scope of the broader Project effects envelope; however, physical works or the siting of any wind farm infrastructure is neither required nor proposed in relation to this parcel.



Is the project proposed in any customary marine title area, protected customary rights area, or aquaculture settlement area declared under s 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 or identified within an individual iwi settlement?

No, the Project is not located within any of the listed areas.

Has there been an assessment of any effects of the activity on the exercise of a protected customary right?

No, the Project is not proposed to be undertaken within any area identified as a protected customary rights area.



# 5 Adverse Effects

What are the anticipated and known adverse effects of the project on the environment?

A number of preliminary technical assessments have been undertaken by independent consultants engaged by NZ Windfarms to inform this application as to whether there is potential for the Project to have significant adverse environmental effects. Regard has also been given to how the Project meets the purpose of the Bill.

The following provides a general description of the potential adverse environmental effects of tFast-track Advisory Group's recommendations to the Joint Ministers. For the purpose of this assessment, a baseline turbine layout was developed consisting of 61 turbines with a tip height of approximately 220m in an optimal configuration to avoid wake or curtailment between turbines. All technical assessments provided are based on this preliminary layout, however these sites are subject to a further detailed evaluation / optimisation process and the layout will be refined prior to any subsequent approvals process.

#### **Economic Effects**

Economic impacts of the Project have been assessed by MartinJenkins<sup>2</sup>. The Project will result in significant regional and national benefits in terms of both jobs and contributions to Gross Domestic Product (GDP). A summary of these benefits is set out in response to the eligibility criteria in Section 7 of this application and therefore not repeated here. The full impact assessment is attached for reference at **Appendix E**.

# **Landscape and Visual Effects**

A preliminary landscape and visual effects assessment has been prepared by Stephen Brown of Brown NZ Limited to support the feasibility works for the Project Site and this listing application. While the assessment was completed on the basis of a 205m tip height, the assessment notes that the heights are indicative and could vary by between 5-10%. The overall tip height sought in this application is 220m (which sits comfortably in the middle of this indicative range). This assessment is included in **Appendix F**.

The Project Site is located directly north of Waverley, straddling Kohi Road, which runs in a north-south direction through the wind farm site. Two other roads, also generally aligned from north to south, run through the site: Karahaki Road near the Whenuakura River, which bounds the western side of the site, and Mangatangi Road becoming Braemore Road closer to its eastern edge. The Project Site climbs through a series of alluvial terraces that are flanked by steeply down-cut stream corridors and, to the north-east, Lake Moumahaki. These terraces climb steadily towards the outer foothills of the Matemateonga Range that, north of the junction of Kohi Road with Okahutiria Road, becoming increasingly steep and bush covered. As such, the Project Site progressively traverses four major terraces, with the transition from each 'step' to the next marked by a series of steep escarpments and slopes.

Proposed turbines near Waverley township sit on gently rolling terrain that mainly comprises open pasture used for dairy and beef farming, while land to the north comprises small hilltops surrounded by steep-sided ridges and valley systems that transition from paddocks employed for sheep and beef farming into pockets of pine forest and large swathes of scrub and native forest.

Throughout the Project Site there is residential development, comprising farmhouses as well as small clusters of houses. In the wider landscape, there is also the Waipipi Wind Farm, which is approximately 8km southwest of Waverley. Waipipi comprises 48 turbines with tip heights of approximately 150m, which sit on the coastal plain between State Highway 3 and the edge of the Taranaki Bight. The landscape climbs gradually and does not form a distinctive skyline. Unlike Waipipi, the Project's turbines would not be etched against the flat grey plane of the Taranaki Bight. Instead, they would be interspersed through, intermixed with farmland, shelterbelts and gradually rising terrain that is devoid of any obvious features or distinction in its own right.

The Landscape and Visual Assessment considered the Project from various viewpoints. To summarise, it is considered that the Project would have no appreciable impact on that landscape's biophysical values and

<sup>&</sup>lt;sup>2</sup> NZ Windfarms has recently appointed a new CEO. This party is also a director of MartinJenkins. He has not been involved in the engagement of MartinJenkins, as the relationship preceded his role at NZ Windfarms by some years. Nor has he been involved in the subsequent economic assessment carried out by MartinJenkins.



would have a typically low to moderate level of impact on its perceived character, values, and associative / amenity values – with a maximum moderate-high level for a few specific locations.

It is anticipated that the Project would become part of the rural production landscape spread across the broad mantle of Waverley's coastal plain and the terraces north of the township. Any changes to the landscape and amenity values of the wider landscape around the Project Site would be limited, including those in relation to the township of Waverley. As such, the Project is considered to be generally acceptable and appropriate from a landscape standpoint.

It is recognised that there are three residential properties and five dwellings within the Project Site, where the potential amenity effects are predicted to be High. While this translates to a Significant level of RMA effect, this will be actively mitigated through turbine micro-siting. NZ Windfarms is actively engaging with these landowners and to date they are generally supportive of the Project and this engagement will continue through detailed design.

The potential effects of the wind farm on these residential properties will be examined in more detail as part of any approvals process.

# **Ecological Effects**

NZ Windfarms has engaged Wildland Consultants to review the Project and prepare a preliminary desktop assessment of the ecological constraints of the Project Site. A copy of that assessment is included as **Appendix G**.

There are seven vegetation and habitats identified on site. The majority of the Project Site has been assessed as exotic pasture used for grazing and accordingly is of low ecological value. Three vegetation types are of potentially moderate to high ecological value and have the potential to be impacted or cleared during construction: being indigenous forest and scrub, mixed indigenous-exotic scrub, and potential wetlands.

Although there are few indigenous fauna records located across the Project Site, it is likely that indigenous fauna utilise habitats within the Project Site. Site visits are required to survey for Threatened and/or At-Risk plants, avifauna, bats, and lizards. 19 of the 26 species which are moderately or highly likely to be present in the vicinity of the proposed wind farm are Not Threatened species, with seven species identified to be Threatened or At Risk.

The construction phase and the post-construction operation of the Project are likely to have adverse effects on indigenous vegetation and habitat types, avifauna, bats, lizards, and freshwater fish and invertebrates. However, the baseline turbine layout will be subject to further detailed evaluation / optimisation and will be refined prior to any subsequent approvals process. Consequently, repositioning within the Project Site of some wind turbines, roads, laydown areas, and other works to directly avoid the clearance of vegetation that provides important fauna habitat (indigenous forest and scrub and mixed indigenous-exotic scrub) would suitably avoid or reduce adverse effects on indigenous fauna.

Wetland delineation is also required for wetlands that meet the definition of 'natural inland wetland' as per the National Policy Statement for Freshwater Management 2020 (NPS-FM 2020) that are within 100m of the proposed development footprint. After completing ground-truthing for natural inland wetlands, and where partial clearance of these features cannot be avoided, any effects can be managed through a suitable offset or compensation mechanism. A robust sediment management plan will be employed for all disturbance activities which will effectively avoid discharges to these features.

Avifauna field surveys will be undertaken to confirm which bird species utilise the Project Site augmenting existing databases. Impacts on bird species can be mitigated by avoiding vegetation clearance and construction during the breeding season (September–March) and checking for nests prior to any clearance. Based on the current knowledge of the avifauna present, and the proximity to other wind farm sites, development and use of the Project is unlikely to result in significant adverse effects on avifauna.

Overall, the Preliminary Ecological Assessment considers that there are relatively few ecological constraints to the establishment and operation of a wind farm at the Project Site

Subject to further ground-based survey work and detailed design progression, any adverse ecological effects arising from the Project will be able to be appropriately managed with the implementation of an Ecological Management Plan which also addresses biosecurity management.



Overall, it is considered that any potential adverse ecological effects arising from the Project will be able to appropriately managed.

#### **Acoustic Effects**

NZ Windfarms has engaged Marshall Day Acoustics to review the concept design for the Project as described above. A generic turbine model with un-serrated blades and a sound power level of 107 dBA and a conservative additional 2 dB was applied in the assessment. Other turbines are available with sound power levels 3 to 5 dB quieter, so this is a conservative assessment which would allow a relatively broad scope for turbine selection.

The preliminary acoustic assessment and modelling results for the purposes of determining likely windfarm noise contours and identifying potentially affected noise sensitive receivers are attached (**Appendix H**). Having regard to the noise limits under NZS 6808:2010 Acoustics - Wind Farm Noise, the following limits were set: 40 dBA for properties not involved in the Project, with the requirement to address significant noise effects originating where non-involved properties are included inside the 35 dBA contour. The results of the assessment indicate:

- The Project avoids significant noise impacts on dense areas of population but does have a large number of dwellings within its noise footprint. These dwellings are expected to form part of the Project and accordingly may be subject to elevated noise levels to an appropriate degree. NZ Windfarms is actively engaging with these landowners and to date they are generally supportive of the Project and this engagement will continue through detailed design.
- To reduce noise contours related to the properties central to the Project Site, mitigation options such as selecting a turbine model with a sound power level of 104 dBA or less to implementing serrated blades will ensure that unreasonable noise can be avoided.
- There is unlikely to be cumulative noise effects with Waipipi Wind Farm.

Overall, subject to further consideration and implementation of one or more of the above mitigations, the Project will not have significant adverse noise effects and is expected to comply with NZS 6808:2010 requirements.

### **Erosion and Sediment Control Effects**

Any resource consent applications to be sought for the Project will be accompanied by a comprehensive Effects Assessment and Erosion and Sediment Control Management Plan prepared by a competent certified erosion control practitioner.

Actual or potential adverse effects attributed to erosion and sedimentation originate from activities including bulk earthworks and spoil disposal, construction of temporary and permanent laydown areas, vegetation removal, tracking and the batching and discharge of concrete for use in turbine and substation foundations. Earthworks and other activities anticipated for the Project are commonplace in major developments within the wider Region (and adjacent Regions) and management techniques anticipated to be employed have been developed and tested on comparative large-scale projects. These activities do not necessitate any bespoke or high-risk management options.

The earthworks, as currently anticipated, are of a nature and scale that can be appropriately managed using current best practice erosion and sediment control techniques detailed in Auckland Council Guideline Document 2016/005 'Erosion and Sediment Control Guideline for Land Disturbing Activities in the Auckland Region' (GD05). These are considered more conservative and responsive to the receiving terrain and conditions at the Project Site than under Taranaki Regional Council's adoption of Waikato Regional Council's 'Erosion and Sediment Control Guidelines for Soil Disturbing Activities' TR2009/02 document.

It is anticipated that a high level of environmental compliance can be achieved, and that any effects on downstream receiving environments can be limited such that they are minor or negligible. The highest risk effects, such as those associated with concrete batching and use, can be avoided through onsite containment.



# **Land Transport Network Effects**

Actual and potential effects of the Project on the land transport network primarily relate to network efficiency, condition, and safety of the local road network; including for residents, pedestrian, and cycle-oriented users of the network.

Transport impacts during wind farm development are predominantly temporary impacts over the construction period where intensive activities significantly above the baseline movements of residential and farming land uses occur. In addition, the effects (prior to mitigation) from the transport of over-dimension and / or over-weight turbine and substation components can be more than minor but are not significant.

Options for management of effects associated with construction trip generation increases and network impacts will include, but are not limited to, the following:

- Turbine Component Transport Management Plan and permit obtained through NZ Transport Agency Waka Kotahi;
- Spreading component transport over an extended period of four to six weeks and prioritising night-time transport;
- Undertaking any localised pavement widening, marking and signage improvements to primary and secondary access routes;
- Temporary closure of public and paper road areas to through traffic; and
- Encouraging carpooling / group transport alternatives when procuring Contractors.

Overall, construction generated impacts will be minor. A comprehensive Integrated Traffic Impact Assessment will be submitted alongside any resource consent application.

Impacts on the transport network are ultimately limited to a fixed time period. Operationally, the Project will have minimal impact limited to observational, general operations and maintenance activities.

### **Archaeological Effects**

The Project Site contains a number of mapped or recorded pre-European archaeological sites or find locations; however, due to the intensive working environment of the site (e.g., ploughing, disturbance due to forestry, tracking and grazing) it is expected that any surface-level archaeological material may be heavily modified or destroyed. Additional / residual sub-surface material may be present and / or discovered during works and, as such, a full archaeological assessment by a suitably qualified and experienced archaeologist will be undertaken prior to the lodgement of any approvals application for the Project. This review and assessment will take into account involvement of lwi / Hapū interests in the Project Site.

Any application will also include specifications for the recording and handling of discovered archaeological material prior to removal under a Heritage New Zealand Pouhere Taonga Act Authority.

Any actual or potential archaeological effects are likely to be less than minor, subject to these provisions.



# 6 National Policy Statements and National Environmental Standards

What is the general assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard?

The following table identifies the national planning documents that are applicable to the Project, followed by supporting detailed analysis.

National Planning Document	Relevance to Proposal	
National Policy Statements		
New Zealand Coastal Policy Statement (NZCPS)	Not applicable	
NPS on Freshwater Management 2020 (NPS FM)	Applicable	
NPS on Renewable Electricity Generation 2011 (NPS REG)	Applicable	
NPS on Electricity Transmission 2008 (NPS ET)	Applicable	
NPS for Highly Productive Land 2022 (NPS HPL)	Applicable	
NPS on Urban Development 2020 (NPS UD)	Not applicable	
NPS for Indigenous Biodiversity 2023 (NPS IB)	Not applicable  The NPS IB came into effect on 4 August 2023. The NPS IB seeks to achieve an integrated and holistic approach to maintaining indigenous biodiversity, through the fundamental concept of Te Rito o te Harakeke.  Clause 1.3(3) of the NPS IB is of specific relevance to the Project: "Nothing in this National Policy Statement applies to the development, operation, maintenance or upgrade of renewable electricity generation assets and activities and electricity transmission network assets and activities. For the avoidance of doubt, renewable electricity generation assets and activities, and electricity transmission network assets and activities, are not "specified infrastructure" for the purposes of this National Policy Statement."  As such, the Project is not subject to the NPS IB.	
NPS for Greenhouse Gases from Industrial Process Heat 2023 (NPS GGIPH)	Not applicable	
Proposed National Policy Statement on Natural Hazards	Potentially Applicable – Draft not yet released for Public Consultation	
National Environmental Standards		
NES for Electricity Transmission	Not applicable	
Activities 2009 (NES ETA)	The NES ETA aims to provide a nationally consistent set of planning requirements for activities (operation, maintenance, and upgrade) undertaken on or in relation to existing high voltage electricity transmission	



	lines. The NES ETA identifies permitted activities and those requiring consent.  Transpower's assets are afforded the recognition provided by the NES ETA. However, NZ Windfarms and the Project are not considered or regulated under the NES ETA. Consequently, in the event that assets (i.e., the Grid
	Connection) are transferred to Transpower post construction, they will be afforded recognition at that stage and the physical connection of the Substation to the Grid consented by Transpower.
NES for Assessing and Managing	Potentially applicable
Contaminants in Soil to Protect Human Health 2011 (NES CS)	A Preliminary Site Investigation and/or Detailed Site Investigation will be undertaken to confirm if any potentially soil contaminating activities on the Hazardous Activities and Industries List has occurred within the Project Site; and if so, the appropriate consents will be applied for as part of any bundled application package.
NES for Freshwater 2020 (NES FW)	Applicable
NES for Plantation Forestry 2017	Not applicable
NES for Air Quality 2004 (NES AQ)	Applicable
NES for Sources of Drinking Water 2007	Not applicable
NES for Telecommunication Facilities 2016 (NES TF)	Not applicable
NES for Marine Aquaculture 2020	Not applicable
NES for Storing Tyres Outdoors 2021	Not applicable
NES for Greenhouse Gases from Industrial Process Heat 2023	Not applicable

A detailed National Policy Statement (NPS) and National Environmental Standard (NES) analysis is included at **Appendix I** of this application. Summaries of the applicable assessments are included below:

#### NPS on Freshwater Management 2020

- Provided the Proposal is designed appropriately to avoid streams and wetlands where possible, and best practice environmental controls are implemented, it is not anticipated that there would be significant impacts on freshwater quality, or that the NPS FM 2020 would create a barrier to consenting the Project. Engagement with lwi / Hapū is fundamentally required to address compatibility with Policy 1, with detailed ecological assessment and classification and delineation of wetlands required prior to lodgement of any Impact Assessment. Best practice erosion and sediment control measures will be implemented to minimise sediment occurring within the waterways, connecting to the wider Whenuakura River and Kohi Stream catchments.
- While NZ Windfarms do not have pre-existing relationships with Ngaa Rauru Kiitahi, Ngāti Ruanui or Ngāti Rangi (through the Whanganui Land Settlement Negotiation Trust), NZ Windfarms will seek to develop these through Project engagement, the undertaking of cultural impact assessment(s), technical surveys (where practicable) to provide archaeological and ecological advice, as well as conditions workshops and application review. NZ Windfarms will continue to provide Project information to all lwi / Hapū with interests and associations in the Project Area in order to ensure cultural values are provided for in any future fast track approvals application process.

#### NPS on Renewable Electricity Generation 2011

Amendments are pending to this legislation and include stronger and more directive policy in relation to the important role of renewable electricity generation activities in achieving emission reduction targets and mitigation of climate change. In addition, the NPS seeks to provide further direction on amenity effects, including allowing activities where there are potential adverse effects on local amenity values, so long as effects are avoided, remedied, or mitigated to the extent practicable.



- Of relevance to the Project Site, the NPS introduces new policy direction, recognising and providing for Māori interests, including early, meaningful engagement and supporting tangata whenua aspirations. Further engagement with lwi / Hapū to address policy alignment will be undertaken during the consenting phase of the Project.
- Based on the conclusions of the Preliminary Landscape and Visual Effects Assessment, the effects of the Proposal are below the Significant threshold. The Project will have a very low level of effect in relation to the biophysical values of the landscape and a low to moderate level of effect on its perceived character, values, and associative / amenity values. In relation to amenity effects, the Project will have a moderate level of effects in relation to amenity values derived from changes to the perceived rural character of the environment irrespective of the visibility of the turbines. While the preliminary assessment notes limited properties internal to the wind farm that have the potential to be subject to high amenity effects in term of visual over-dominance, shadow flicker, and changes to the pleasantness and aesthetic coherence of the landscape, further detailed onsite assessment is required and will likely reduce these impacts. NZ Windfarms is actively engaging with potentially affected landowners and to date they are generally supportive of the Project and this engagement will continue through detailed design.

#### **NPS on Electricity Transmission 2008**

The NPS ET effectively permits the growth and upgrade of the National Grid network subject to limited considerations or controls. It is acknowledged that further consultation and engagement will need to be undertaken with Transpower to ensure that the Project is carried out in a manner that does not impact Transpower assets, and a connection application process has already been commenced by NZ Windfarms. Co-lodgement with Transpower to utilise the NPS ET is considered an option to accelerate the investigations process and will be canvassed with this party.

### **NPS for Highly Productive Land 2022**

- The majority of the Project Site is considered to be highly productive land and varies between land use classes LUC1, LUC2 and LUC3.
- Any wind farm activities that do take place on highly productive land will have a limited footprint, are expected to rehabilitate temporarily disturbed surfaces following construction, and will generally allow productive land uses to continue. Further, the NPS-HPL provides that where there is a functional need to be on such land (which is relevant here given the location of the Class 2 and 3 wind resource), and it is for the expansion of specified infrastructure (the wind farm would likely fall within this definition), the land use would not be considered inappropriate.
- Considering the national importance given to renewable electricity activities under other national policies, it is not expected the NPS HPL would create a barrier to consenting the Project, subject to demonstrating functional and compelling need requirements.

#### NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

A Detailed Site Investigation will be progressed to confirm there are no prior or current land uses identified through historical aerial photography that may bring the NES CS into play, to identify (through intrusive testing) whether contaminant hotspots exist at certain historic use locations, and to otherwise confirm whether accidental discovery and remediation protocols employed at hot spot locations will be a suitable solution (to be subject to consent conditions).

#### **NES for Freshwater 2020**

- It is considered that the Project will meet the definition of specified infrastructure, qualifying under (a) lifeline utility and / or (b) regionally significant infrastructure. Under such circumstances, resource consent can be sought as a Discretionary Activity for a range of soil and vegetation disturbance works, drainage and water take and use within or adjacent to a natural inland wetland.
- Consent is likely to be required for any installation of culverts (potentially required for the upgrading of the site access) and for works within 100m of a large network of unverified wetlands that border the Whenuakura River.
- Detailed ecological assessment and classification and delineation of wetlands will be undertaken by the Project's ecological consultants prior to lodgement of any Impact Assessment and resource consent application.



# 7 Eligibility

Your application must be supported by an explanation as to how the project will help achieve the purpose of the Bill, that is to "provide a fast-track decision-making process that facilitates the delivery of infrastructure and development projects with significant regional or national benefits".

In considering whether the project will help to achieve the purpose of the Bill, the Ministers may have regard to the specific matters referred to below, and any other matter that the Ministers consider relevant.

# Will access to the fast-track process enable the project to be processed in a more timely and cost-efficient way than under normal processes?

The Project will progress through a significantly faster process by being listed under Schedule 2A of the Fast-track Approvals Bill 2024 as opposed to utilising the standard RMA framework.

Subject to the Project being listed in the priority schedule (Schedule 2A), the resultant fast-track process is estimated to be completed (to point of decision) in approximately 12 months; considerably faster than the standard RMA process. This includes time expended on preparing the necessary application documents and detailed Management Plans to obtain all approvals listed in response to Section 2 of this application, and the completion of the Panel Review and Recommendation process.

Historically, under the RMA, wind farms and associated infrastructure have taken on average between 20 and 24 months to obtain resource consents via Regional and District Council hearings processes. This timeframe excludes Environment Court appeals (and any subsequent appeals) which are frequent and can delay the ability of developers and Gen-tailers to proceed into construction for a significant period (sometimes several years).

While the Project could proceed through the two-stage fast-track consents process that remains 'live' under the now repealed Natural and Built Environments Act 2023, a significant number of projects are understood to be currently at the referrals stage and are progressing very slowly through that process. It is likely there would be resultant delays (at Panel appointment stage and in preparing, lodging, and processing stages of both referral and consenting stages) that would result in decisions on the Project being significantly behind the anticipated timeline of a single stage approvals process.

NZ Windfarms has noted significant reductions in consenting costs between traditional hearings processes and the Covid-19 Recovery Fast-track Consenting Act 2020 process (up to a 65% reduction – mostly associated with expert panel costs). Considering the process and timeframes sought by the Bill, further cost efficiencies will likely be realised especially with the combined application process.

# What is the impact referring this project will have on the efficient operation of the fast-track process?

Listing of the Project under Schedule 2A will enable the Project to accelerate into a consenting / multi-approvals phase; in particular due to the consultation and environmental assessments completed to date by NZ Windfarms that can be re-framed and expanded into approval-ready documentation and supporting engagement.

### Has the project been identified as a priority project in a:

Central government plan or strategy Local government plan or strategy Sector plan or strategy Central government infrastructure priority list Other

The NPS on Renewable Electricity Generation came into force in 2011. The stated objective of the NPS is to "recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation". By having renewable energy generation activities elevated at the NPS level, the



Government is sending a clear signal that the Project, and other similar developments, should be prioritised and adequately provided for at the legislative level.

It is understood that the Government is also proposing further changes to the NPS-REG to better enable the consenting of renewable energy facilities including wind.

In addition to the above, the following documents have been assessed as relevant non-statutory Government policy relevant to the Project:

#### New Zealand Energy Efficiency and Conservation Strategy 2017-2022

The New Zealand Energy Efficiency and Conservation Strategy 2017-2022 (NZEECS) sets the overarching policy direction for the promotion of energy efficiency, conservation, and the use of renewable sources of energy. It is acknowledged that this strategy expired as of mid-2022, but no updated version has as yet been released.

The goal of the NZEECS is identified as: New Zealand has an energy productive and low emissions economy.

There are three objectives, one for each key group of energy users (businesses, individuals, and the public sector). Notably, businesses should make renewable energy investments, and the public sector should demonstrate leadership through the adoption of greater energy efficiency and renewable energy.

The NZEECS sets out three targets - the first relates to industrial emissions, the second to use of electric vehicles and the third to the use of renewable energy. Of particular relevance to the Project, the third target is: Ninety per cent of electricity will be generated from renewable sources by 2025 (in an average hydrological year), providing security of supply is maintained.

The NZEECS seeks to recognise the importance of renewable energy and focuses on making investments and decisions that will continue unlocking New Zealand's energy productivity and renewable potential. It is acknowledged that this will be assisted through the increasing uptake of efficient technologies and additional renewable generating capacity. Furthermore, renewable energy is identified as an important pathway for achieving economic growth and climate change goals.

Overall, it is considered that the Project is strongly supported by the NZEECS and in turn, strongly supports the goals and targets set out the NZEECS. The Project will increase renewable energy capacity by 1,218 GWh / year. In addition, the turbine technology will be able to manage the changing climate patterns productively (being able to operate in a large range of wind speeds), ensuring continuing adaptation to the effects of climate change, while participating in the wider decarbonisation of the energy industry.

Consequently, the Project is strongly consistent with the policy direction set out by the NZEECS.

# Aotearoa New Zealand's first Emissions Reduction Plan: Towards a more productive, sustainable and inclusive economy

Aotearoa New Zealand's first Emissions Reduction Plan (ERP) contains strategies, policies, and actions for achieving New Zealand's first emissions budget, as required by the Climate Change Response Act 2002. In doing so, it also outlines how the New Zealand Government intends to play their part in global efforts to limit warming to 1.5°C above preindustrial levels. It is the first statutory plan, under the Climate Change Response Act, to require the Government to act to reduce emissions right across the economy and support all New Zealanders to make the most of the transition and seize the opportunity to lower the cost of living and improve living standards.

The ERP contains several chapters, which are based on 5 principles outlined in the strategy for reducing emissions (Playing our Part, Empowering Māori, Equitable Transition, Working with Nature, and A Productive, Sustainable and Inclusive economy).

Key components of the ERP, relevant to the Project, include recognising the importance that Mātauranga Māori plays within the transition to a climate-resilient society, accelerating the development of new renewable electricity generation across the economy to increase the electrification of other sectors, increasing access to low emission vehicles, decarbonising the heavy transport and freight industry, supporting businesses to improve energy efficiency and move away from fossil fuels and reduce the amount of waste going to landfills.

Overall, it is considered that the Project demonstrates strong consistency with the provisions and the strategy outlined in the ERP. The Project will directly increase renewable energy supply, enabling the further electrification of other sectors currently dependent on fossil fuels. By diversifying electricity production through

significantly adding to the existing renewables contributions to the region and country, energy resilience is improved.

NZ Windfarms has been, and will continue to, actively engage with Iwi / Hapū Authorities to ensure their values and aspirations are represented through the Project. Tikanga practices, cultural monitoring, cultural impact assessment and involvement in the Kohi Wind Farm Project will continue to be enabled and supported by NZ Windfarms should the Project proceed into consenting.

# Urutau, ka taurikura: Kia tū pakari a Aotearoa i ngā huringa āhuarangi / Adapt and thrive: Building a climate-resilient New Zealand – New Zealand's first national adaptation plan

The Urutau, ka taurikura: Kia tū pakari a Aotearoa i ngā huringa āhuarangi / Adapt and thrive: Building a climate-resilient New Zealand – New Zealand's first national adaptation plan (NAP) seeks to support all New Zealanders to adapt, live and thrive in a more damaging climate. It looks at the impacts of climate change now and into the future and sets out adaptation measures. The NAP recognises that climate change will increase the severity and frequency of natural hazards. The NAP contains Government-led strategies, policies and proposals that will help New Zealanders adapt to the changing climate and its effects.

There are four priorities identified, being enabling better risk-informed decision-making, driving climate-resilient development in the right places, laying the foundations for a range of adaptation options (including managed retreat) and embedding climate resilience across government policy. The Government has identified a series of objectives that drive the actions. These relate to either system-wide issues or the outcome areas above.

Wind farms contribute to the overall resilience of the national infrastructure system. Solar, wind and hydro are each reliant on different natural variations. By diversifying electricity production through significantly adding to the existing renewables contribution to the region and New Zealand via the Project, energy resilience is improved. It is further acknowledged that renewable energy generation from sources including but not limited to wind turbines support offset of carbon emissions as a result of fossil fuel energy generation and enhance the efficiency and reliability of the electricity network within New Zealand, contributing towards overall efforts to mitigate climate change.

Overall, it is considered that the Project is complementary with the strategies and policy direction of the NAP.

#### Will the project deliver regionally or nationally significant infrastructure?

The Project will deliver regionally significant infrastructure and is given priority as 'specified infrastructure' in the context of applicable national policy and environmental standards (such as the National Environmental Standards for Freshwater 2020).

The Regional Policy Statement for Taranaki 2010 (RPS) defines Regional Significance as matters which are of widespread public concern or interest throughout the region regarding actual or potential effects on the environment (refer definition, clause (a)) and any significant use or development of the region's stock of natural and physical resources (clause (e)). Given the size, scale, and nature of the Project, it is considered that the Project meets the RPS definition of the Regional Significance.

This is further supported by the provisions and direction outlined in the RPS. Section 14 identifies energy as having regional significance. Specifically, Section 14 of the RPS seeks to provide for renewable energy facilities, including specifically promoting the exploration, development, and transmission of renewable energy. The Project enables the development of a renewable energy facility, which will significantly increase generation capacity from solely renewable sources, adding 1,218 GW per year to the national grid.

At the District level, the South Taranaki District Council identifies large-scale renewable electricity generation activities and facilities as those electricity generation activities utilising renewable energy sources with a capacity of 20kW or greater for the purpose of exporting electricity directly into the distribution network or National Grid, including all ancillary components and activities. The Project will consist of 61 turbines generating approximately 366 MW and easily fits within this categorisation. At Section 2.10, the District Plan requires specific recognition of the significant local, regional, and national benefits from the use and development of renewable energy resources, and promotes activities by providing for the investigation, development, operation, maintenance and upgrading of renewable energy activities, including electricity generation. Other objectives further this by ensuring that any adverse effects are avoided remedied or mitigated, while recognising technical, locational, and operational constraints.



Economic benefits of the Project have been assessed as significant, primarily at the regional level, with the Project expected to contribute up to 1,360 jobs in the Taranaki Region (assessed over three years and including existing employment sustenance and new role creation) and generate more than \$188 million in GDP for the regional economy during construction. Further economic analysis is outlined in the response to the following question, and in the Economic Impact Assessment provided by MartinJenkins at **Appendix E**.

# Will the project: increase the supply of housing address housing needs contribute to a well-functioning urban environment?

Not applicable. The Project does not relate directly to housing or the urban environment. Any contribution to housing in the context of the Project is through induced impacts (i.e., employees of NZ Windfarms and supplier firms are paid a wage and the firms generate profits, some of which is then spent on consumption in the Region).

# Will the project deliver significant economic benefits?

The Project will deliver significant economic benefits. These benefits are the employment and regional GDP contributions to the economy directly as a result of the Project's expenditure during both the construction and operational phases. MartinJenkins has been engaged by NZ Windfarms to provide a preliminary Economic Impact Assessment of the Project, with the assessment attached at **Appendix E** of this application. A summary is provided below.

- The Project is projected to provide up to 366 MW of installed capacity and generate approximately 1,218 GW per year, helping New Zealand meet its greenhouse gas emission targets and providing significant economic benefits through both increased employment opportunities and increasing GDP.
- Regional Benefits:
  - During construction, the Project is estimated to support up to 1,360 jobs in the Taranaki region and generate more than \$188 million in GDP for the regional economy.
  - Once operating, the wind farm will sustain 95 jobs and generate \$13.2 million in GDP each year for the Taranaki region.
- National Benefits:
  - For New Zealand as a whole, including the Taranaki, construction is estimated to support up to 1,635 jobs (assessed over three years and including existing employment sustenance and new role creation) and generate \$231 million in GDP.
  - Once operating, the wind farm will sustain 109 jobs nationally and contribute \$15.4 million each year to New Zealand's economy.

### Further to the above:

- The Project will significantly increase renewably generated energy output from the Taranaki Region, further strengthening the Region's position in the renewable energy industry.
- The Project strongly supports Government policies around climate change and transitioning to a low emissions economy.

Overall, the Project is expected to make a significant economic contribution to New Zealand and meets the Purpose of the Fast-track Approvals Bill in that regard, bringing forward investment which will in turn support the regional economy and provide employment opportunities.

# Will the project support primary industries, including aquaculture?

A project is considered to have significant regional or national benefits if it involves a resource consent application for an aquaculture activity within an aquaculture settlement area declared under section 12 of the Māori Commercial Aquaculture Claims Settlement Act 2004 where the applicant holds the relevant authorisation; or an area identified within an individual iwi settlement as being reserved for aquaculture activities.



No. The Project will not prevent the existing land uses (primarily intensive dairy farming and dry-stock grazing) from continuing following construction and is therefore neutral.

# Will the project support development of natural resources, including minerals and petroleum?

No. The Project will involve future sourcing of sand, gravel, and cement products within the Region at the time of construction for turbine foundations and component haul routes, economically supporting primary industries involved in quarrying and producing these materials.

# Will the project support climate change mitigation, including the reduction or removal of greenhouse gas emissions?

Yes, the Project will support climate change mitigation.

The key benefits of the Project related to climate change mitigation and reduction of greenhouse gases include:

- The Project will enable the further electrification of sectors and activities that are currently dependant on fossil fuel combustion.
- Given the location of the Project in the Region and the sustained onshore wind resource (which has been built on, for example at Waipipi), the establishment of additional wind generation capacity at a Class 2/3 site will prove significantly valuable for New Zealand in order to meet its broader decarbonisation commitments. The location of the Project in the region is equivalent to an estimated capacity factor of 40% which is equal to the long-run average at the national level of 40%.

It is worth noting that the benefits associated with the development of the Project for climate change offset or mitigation will significantly outweigh the temporary effects of development.

The increase in energy supply from the Project is expected to be enough to power approximately 164,000 houses or 535,000 electric vehicles. If constructed today, it would be the largest windfarm in New Zealand, in terms of MW.

#### Will the project support adaptation, resilience, and recovery from natural hazards?

The Project will contribute to the mitigation and/or offset of greenhouse gas emissions that contribute to the acceleration, frequency and severity of natural hazards caused by climate change.

Wind farms contribute to the overall resilience of the national infrastructure system. Solar, wind and hydro are each reliant on different natural variations. By diversifying electricity production through significantly adding to the existing renewables contribution to the region and New Zealand, energy resilience is improved; wind generation can fill gaps in generation when hydro lakes are low, or solar conditions are inadequate.

Potential associated effects of climate change and the reducing supply of fossil fuels may see more stringent policies and pricing for such fuels, with potential shortages or supplies being uneconomic to utilise. Additional wind generated electricity through projects such as this will help provide additional supply to the National Grid. It is estimated that no less than 6.5% of renewable electricity generated within New Zealand is derived from windfarms, however the Ministry for Business, Innovation and Employment suggest that wind will account for between 20% and 55% of all new renewable electricity generation to enable fossil fuel transition.

The additional generation capacity of the Project will significantly contribute towards the 17-35% additional renewable energy required to meet New Zealand's energy demands by 2035.

# Will the project address significant environmental issues?

Overall, the preliminary environmental effects of the Project have been found to be at levels that are acceptable and appropriate in the context of the receiving environment. No environmental effects (as determined by the technical assessments) of the Project will be Significant, or unable to be mitigated, offset or compensated.



It is acknowledged that the Preliminary Landscape and Visual Effects Assessment (**Appendix F**) identifies that potential amenity effects are moderate in relation to amenity values derived from changes to the perceived rural character of the environment irrespective of the visibility of the turbines. While the preliminary assessment notes limited properties internal to the wind farm that have the potential to be subject to high amenity effects in term of visual over-dominance, shadow flicker, and changes to the pleasantness and aesthetic coherence of the landscape, further detailed onsite assessment is required and will likely reduce these impacts. These properties have since been included in the Project Site and form part of the Project.

The Project will have a very low level of effect in relation to the biophysical values of the landscape and a low to moderate level of effect on its perceived character, values, and associative / amenity values.

Mitigation measures that may be employed to reduce the overall landscape ratings include by pushing the turbine platforms off the primary ridgeline, colouring, mitigation planting or by bringing landowners into the Project by way of agreements. NZ Windfarms will work through these matters with all landowners as part of the next stage of the process, and in conjunction with turbine suppliers.

### Is the project consistent with local or regional planning documents, including spatial strategies?

### Regional Policy Statement for Taranaki 2010

The RPS provides an overview of the Region's resource management issues, as well as high-level policy reflected in regional and district plans.

Of specific relevance to the Project Sections 4 and 14 of the RPS set out regionally significant issues for energy and state the respective objective and policies.

UDR Objective 1 and Policy 1 recognise the role of resource use and development in the Taranaki region and its contribution to enabling people and communities to provide for their social, economic, and cultural wellbeing. ENE Objective 1 and ENE Policy 2 require that District Plans promote the exploration, development, production, transmission, and distribution of energy to meet the energy supply needs of the Region in a manner that avoids, remedies or mitigates adverse effects on the environment. ENE Objective 2 and ENE Policy 3 further this, by specifying the use and development of renewable energy sources.

The key element of the Project is that it seeks to significantly increase generation capacity from solely renewable sources, providing additional electricity to consumers through the grid connection and ultimately meeting the demands of the Region and New Zealand. Section 5 of this listing application has outlined the anticipated adverse effects that the Project may generate at construction or operational phases, and concludes that these can be appropriately avoided, remedied, mitigated, offset or compensated. In addition, the Project will deliver an extensive range of benefits and positive effects through employment and contributions to GDP as well as provision of renewable energy generation in the face of climate change.

Section 7 provides for Air and Climate Change. CCH Objective 1 directs activities to avoid, remedy and mitigate the adverse effects on the environment arising from climate change. CCH Policy 1 furthers this, by requiring activities to recognise and provide for adaptation within agriculture and other primary industries to reduce adverse effects of climate change.

The Project directly relates to the management of climate change effects, as it will contribute to the decarbonisation of the electricity industry and assist with New Zealand's transition to a low emissions economy. Wind farms contribute to the overall resilience of the national infrastructure system, through improvements to resilience and prevention of future atmospheric hazard events.

Solar, wind and hydro are each reliant on different natural variations. By diversifying electricity production through significantly adding to the existing renewables contribution to the Region and country, energy resilience is improved; wind generation can fill gaps in generation when hydro lakes are low, or solar conditions are inadequate.

Conversely, whilst the Project Site is predominately located within rural land, and turbines will likely be placed on agricultural land, there is very little opportunity cost of lost agricultural efficiency as the turbines take up such a small percentage of the farmland and the rentals from the windfarm improve the economics for the farms. Pastoral areas located at the base of turbines and in the wider vicinity can continue to efficiently operate without the turbine scale or noise causing disturbance or distress for livestock.



Section 16 of the RPS identifies the resource management issues of significance to iwi authorities in the Region. KIA Objective 1 directs Councils to have particular regard to kaitiakitanga in relation to managing the use, development and protection of natural and physical resources in the Taranaki region, in a way that accommodates the views of individual Iwi and hapū. KIA Objective 1 states that Iwi and hapū will be consulted with on an individual basis to determine how kaitiakitanga can be recognised and integrated in the management of use and development of resources. As detailed at Section 3 of this application, NZ Windfarms have actively engaged with Iwi Authorities and Treaty Settlement entities (and sought advice from Ngaa Rauru Kiitahi on appropriate engagement with their hapū) to understand their values and aspirations, including how they can be represented in the Project. It is recognised that this engagement is only the start and will continue to develop as the Project proceeds into an approvals phase.

Whilst the above demonstrates the consistency of the Project against the key relevant objectives and policies, there are a range of other objectives and policies that are considered relevant within the RPS relating to specific activities (Land and Soil, Freshwater, Indigenous Biodiversity). An initial screening of the relevant objectives and policies in these chapters alongside the preliminary assessments undertaken (in particular those relation to Erosion and Sediment Control and Ecology) finds that the Project is consistent with them.

Overall, it is considered that the Project will achieve a high-level of consistency with the objectives and policies of the RPS.

### **Regional Plans**

Regional Soil Plan for Taranaki

The Regional Soil Plan for Taranaki (the Soil Plan) seeks to address soil loss and soil health issues largely by non-regulatory methods. Of relevance to the Project, Objective 1 seeks to maintain and enhance the soil resource of the Taranaki Region by avoiding, remedying, or mitigating accelerated erosion.

Project earthworks, as currently anticipated, will be of a nature and scale that can be appropriately managed using current best practice erosion and sediment control techniques. Works are not proposed to be undertaken in areas of high susceptibility to natural hazards and suitable measures for the management of benched cuts, fills and stabilisation can be developed during the approvals phase. As such, any accelerated soil erosion can be avoided, remedied, or otherwise mitigated.

Overall, it is considered the Project will be able to demonstrate consistency with the Soil Plan.

Regional Freshwater Plan for Taranaki

The Regional Freshwater Plan for Taranaki (the Freshwater Plan) promotes the sustainable management of the freshwater resources of the region. Objectives and policies relate to protecting, maintaining and enhancing (as far as practicable) the natural, ecological and amenity values of rivers, lakes and wetlands, including water levels and flows, water quality and riparian margins. The Project will include the installation of culverts (potentially required for the upgrading of the site access), wetland traversal or partial removal / disturbance and discharges within 100m of unverified natural wetlands that border the Whenuakura River, however the Project will meet the definition of specified infrastructure under the NES FM 2020 and is afforded a Discretionary Activity pathway for a range of soil and vegetation disturbance works, drainage, water take and use within or adjacent to a natural inland wetland with the ability to offset or compensate effects.

Detailed ecological assessment and classification and delineation of wetlands will be undertaken by the Project's ecological consultants prior to lodgement of any Impact Assessment and approvals application.

Overall, it is considered the Project will be consistent with the Freshwater Plan.

South Taranaki District Plan

The STDP provides for the Project as a large-scale renewable electricity generation activity. Large scale facilities are those electricity generation activities utilising renewable energy sources with a capacity of 20kW or greater for the purpose of exporting electricity directly into the distribution network or National Grid, including all ancillary components and activities. Section 2 of the STDP sets out the objectives and policies of the District. Of particular relevance to the Project is Section 2.10 which outlines those relating to energy.

At Section 2.10, the District Plan requires specific recognition of the significant local, regional, and national benefits from the use and development of renewable energy resources, and promotes activities by providing for the investigation, development, operation, maintenance and upgrading of renewable energy activities,



including electricity generation. Other objectives further this by ensuring that any adverse effects are avoided remedied or mitigated, while recognising technical, locational, and operational constraints.

Associated policies seek to recognise the potential of the available wind resource in South Taranaki, as well as specific requirements of the development of renewable energy activities, including ensuring adverse effects are avoided, remedied, and mitigated. The Project envelope has been developed to maximise the generation capacity of the Project Site and the wind resource while subject specific management plans can be developed to manage effects requiring mitigation. These matters can be addressed through a later detailed process. Through this, significant local, regional, and national benefits will be realised.

Based on a general screening of other provisions of the STDP, it is considered the Project will be highly consistent with the policy direction of the District Plan.

### Does the project include an activity which would make it ineligible?

No. The Project does not include any activities or relate to matters that are listed as ineligible projects under section 18 of the Fast-track Approvals Bill.



### 8 Climate Change and Natural Hazards

### Will the project be affected by climate change and natural hazards?

### Climate Change (Atmospheric)

Climatic changes at the atmospheric level relate to the frequency and severity of high wind events. Turbines are designed to continue to operate in elevated wind speeds of up to 108km/h prior to entering an automatic shut-down stage to minimise the risk of bearing and blade damage. This approach is standard across all modern turbine models and manufacturers.

Turbines and substations are fitted with lightning arrestors and earthing requirements to prevent damage or failure in the event of a lightning strike.

It is acknowledged that renewable energy generation from sources including but not limited to wind turbines support offset of carbon emissions as a result of fossil fuel energy generation and enhance the efficiency and reliability of the electricity network within New Zealand, contributing towards overall efforts to mitigate climate change.

### Earthquake, Slope Stability and Liquefaction

The Project is located immediately north of the Moumahaki Fault, with the Waverley Fault extending to the south-west of the Project Site and township. No mapped faults are located to the immediate north, west or east.

The Project area may be prone to risk of earthquakes, slope instability and liquefaction however these matters can be appropriately addressed through geotechnical investigation and design to avoid, or otherwise significantly reduce the likelihood and consequences of such an event occurring. This includes by:

- Undertaking intrusive geotechnical investigations to determine underlying material profiles;
- Providing adequate subsoil drainage and material compaction within sites of fill and/or spoil disposal;
- Ensuring slope stability during and following construction by achieving graded slopes or benched slopes with drainage profiles subject to detailed geotechnical material testing, design, and certification; and
- Engineering design and certification of concrete turbine foundations, internal reinforcement and fixing of the turbines to foundations.

Such matters will be managed at the time of applying for resource consents, and subsequent detailed design.

### **Flooding**

The proposed turbines are not located within an area subject to flood hazard risk. Water based hazards are limited to sheet flows and stream conveyance during high rainfall periods and will be addressed through:

- Appropriately sized erosion and sediment control devices; and
- Appropriately designed culvert structures subject to level of service requirements.

### **Volcanic Activity**

The Project will not be located within any area at risk of volcanic activity.

### **Coastal Hazards and Processes**

The Project will not be affected by coastal hazards such as tsunami, inundation, or coastal erosion.



### 9 Track Record

Please add a summary of all compliance and/or enforcement actions taken against the applicant by any entity with enforcement powers under the Acts referred to in the Bill, and the outcome of those actions.

### **Palmerston North City Council**

In October 2010, Palmerston North City Council (PNCC) applied to the Environment Court for nine enforcement declarations in relation to noise generated by turbines at NZ Windfarms Te Rere Hau Wind Farm. To assist in resolving the issues, NZ Windfarms agreed to undertake further compliance monitoring and worked with PNCC to refine the issues requiring determination by the Court.

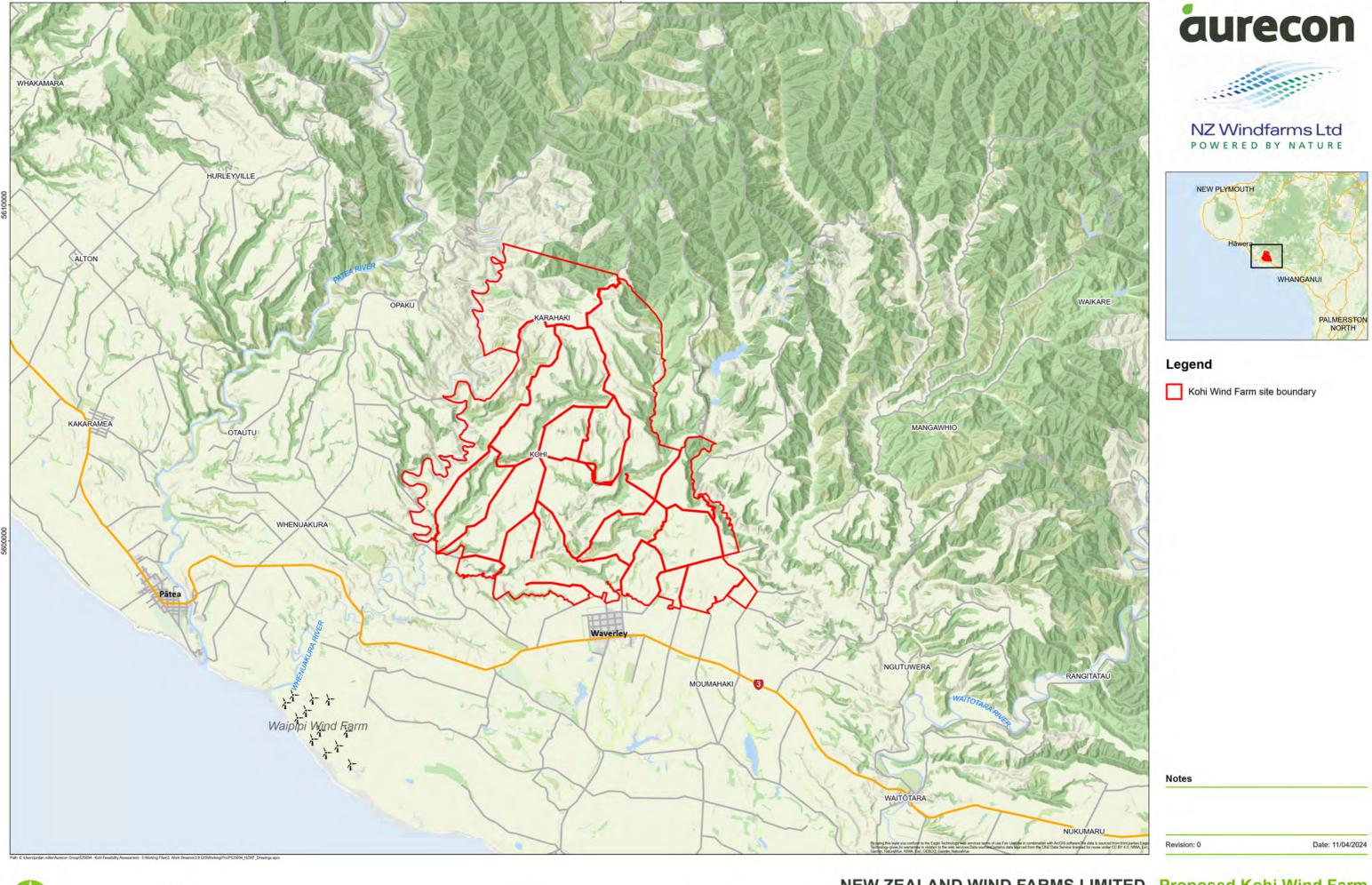
Following a number of hearings and appeals, two declarations were subsequently confirmed: that PNCC was entitled to conduct a review of the noise conditions of consent and that the noise of the Windflow 500 turbines had special audible characteristics. NZ Windfarms then agreed a review process with PNCC which enabled active participation of the local community.

NZ Windfarms worked with PNCC and the community throughout that process to develop a set of improved noise conditions and an operating regime which tangibly reduced noise effects for the neighbours of the windfarm. The conditions included new noise and operating limits, additional monitoring, an improved complaints management process, and a community liaison group to provide a forum for NZ Windfarms and its neighbours to discuss any issues or developments proposed for the site.

NZ Windfarms has not received a complaint in the previous 12-months regarding noise from Te Rere Hau under these new conditions. As outlined in this report, NZ Windfarms has recently consented the repowering of Te Rere Hau via the COVID-19 Recovery (Fast-track Consenting) Act 2020 (to replace the aged Windflow 500 turbines with new, efficient, and quieter turbine technology) and has successfully maintained and grown new constructive and supportive relationships with the local community and Council.



### Appendix A – Project Location Plans



1750000



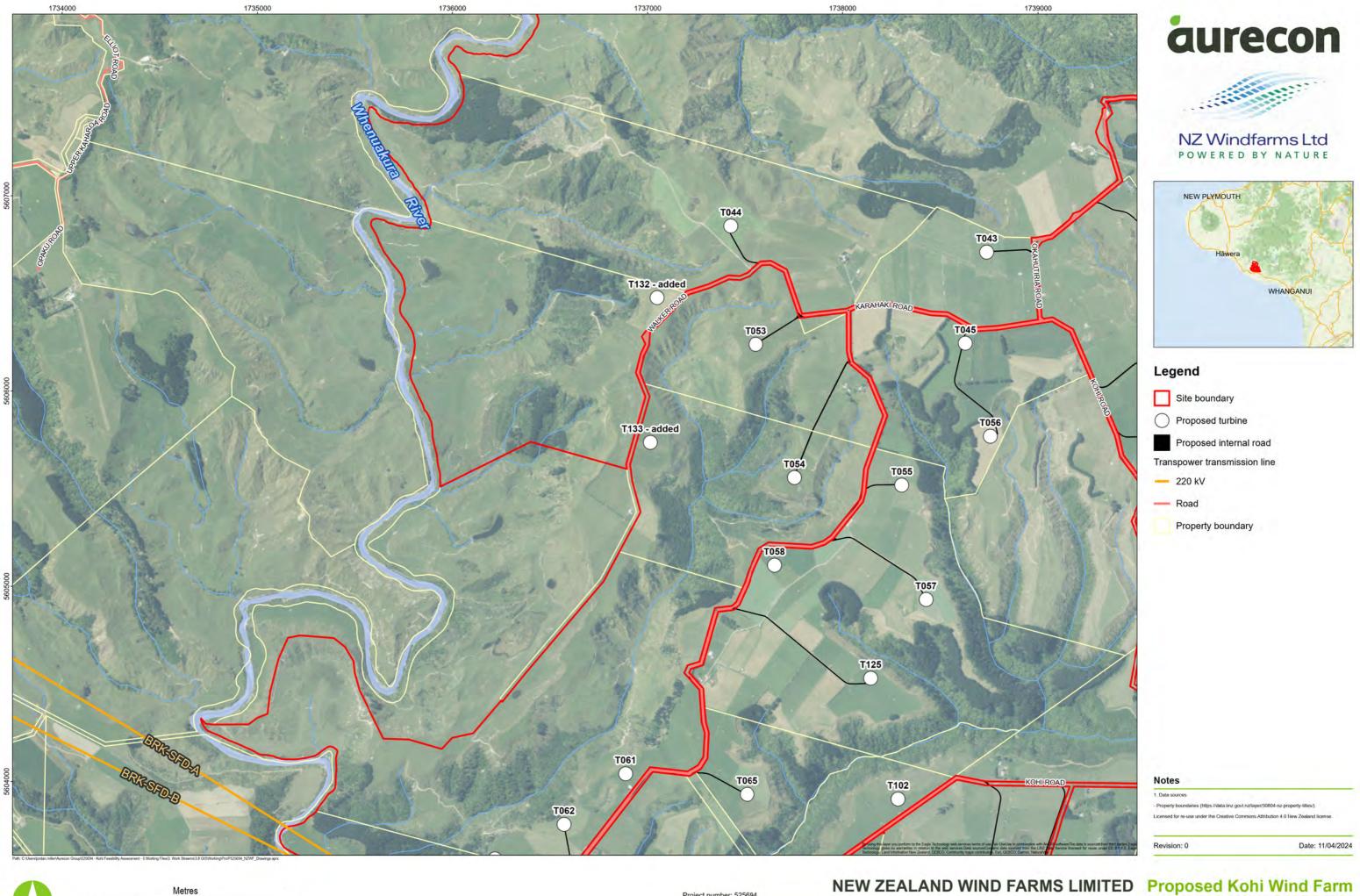
3000 4000 5000

2000

1730000

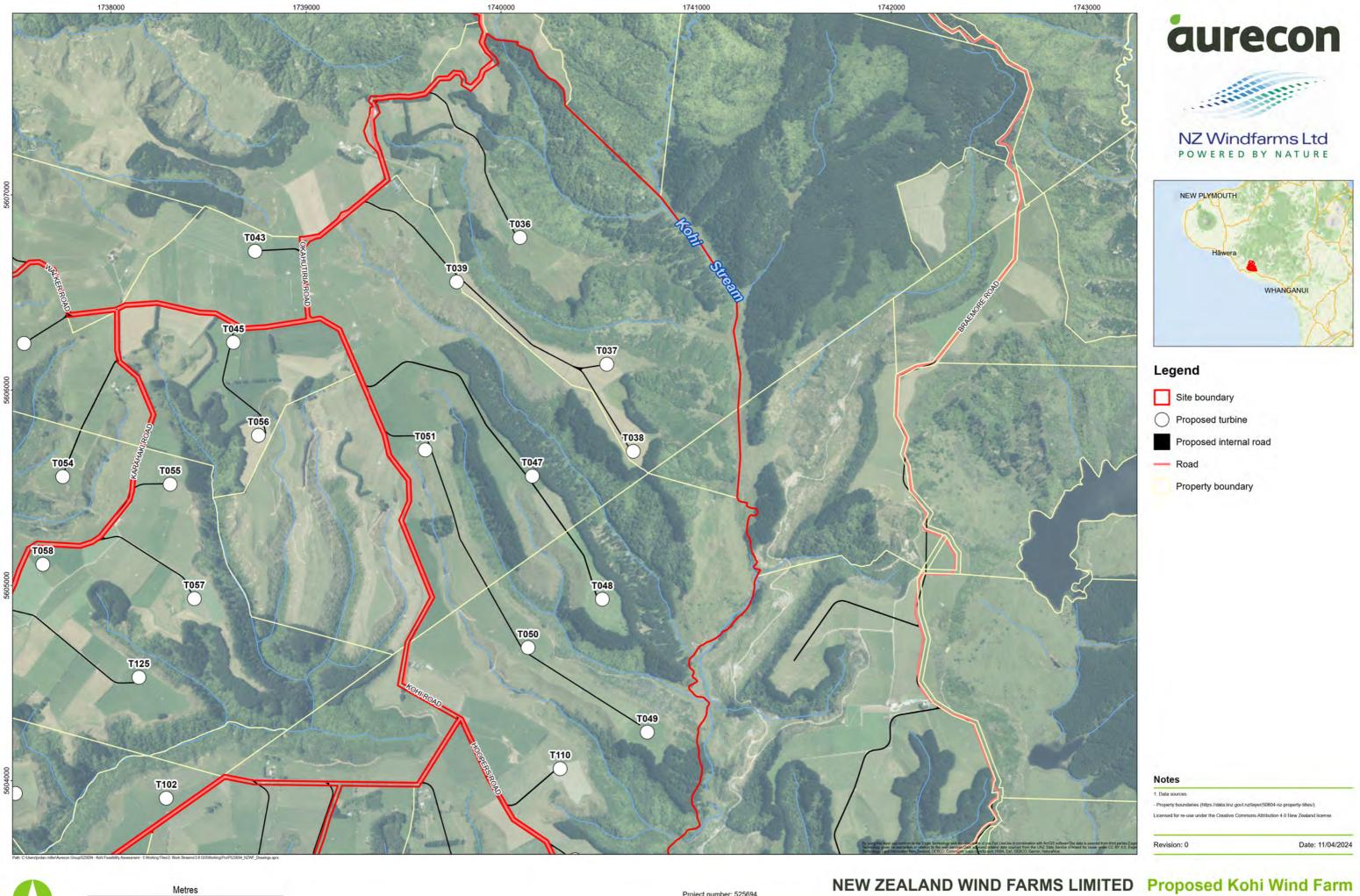
Projection: NZTM

NEW ZEALAND WIND FARMS LIMITED Proposed Kohi Wind Farm





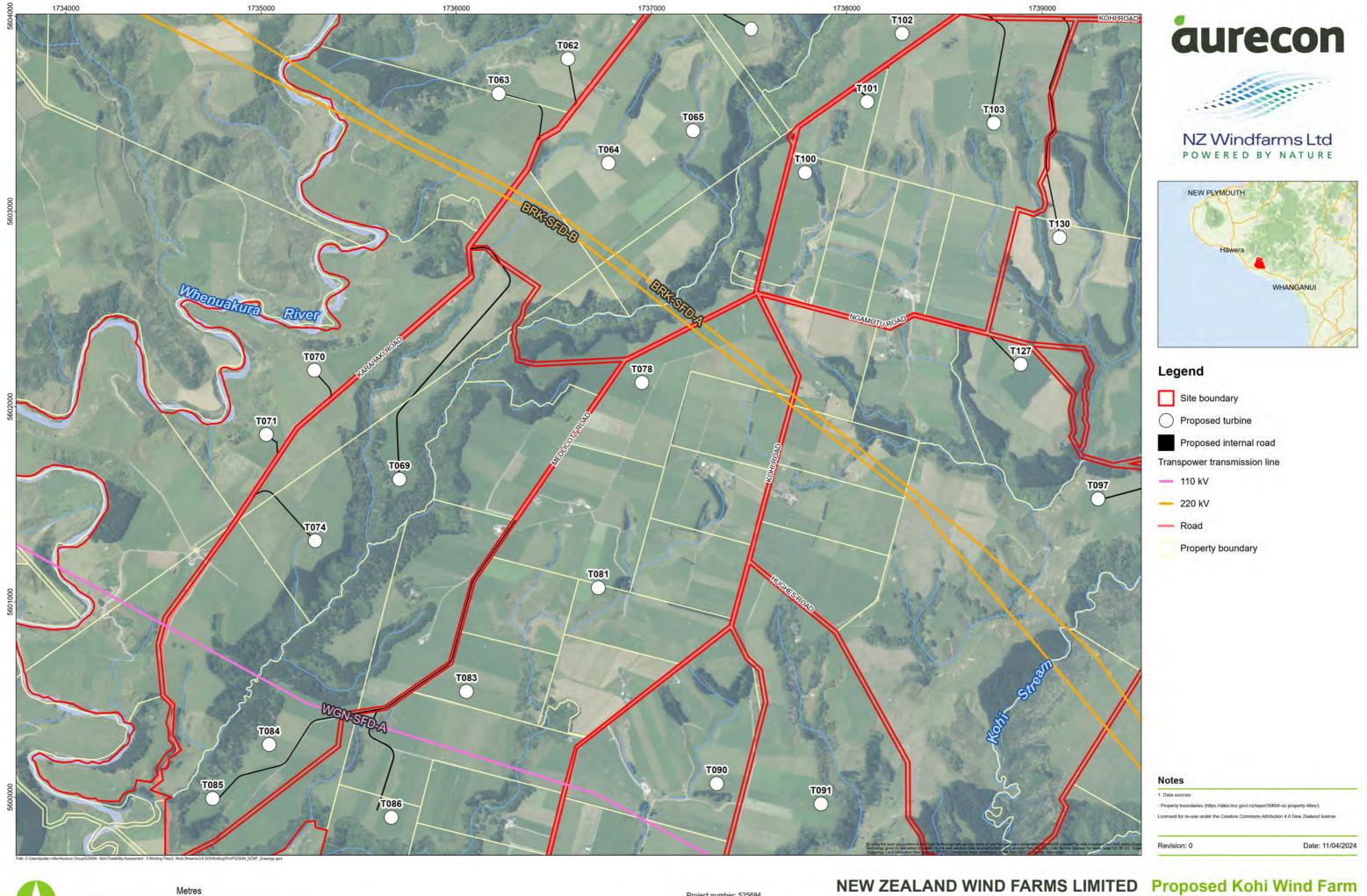
Project number: 525694 Projection: NZTM





500

Projection: NZTM





500

Projection: NZTM

### Appendix B – Records of Title

[Enclosed as separate attachment due to file size]



**Search Copy** 



Identifier 47427

Land Registration District Wellington

Date Issued 22 October 2002

**Prior References** 

WN9/54

**Estate** Fee Simple

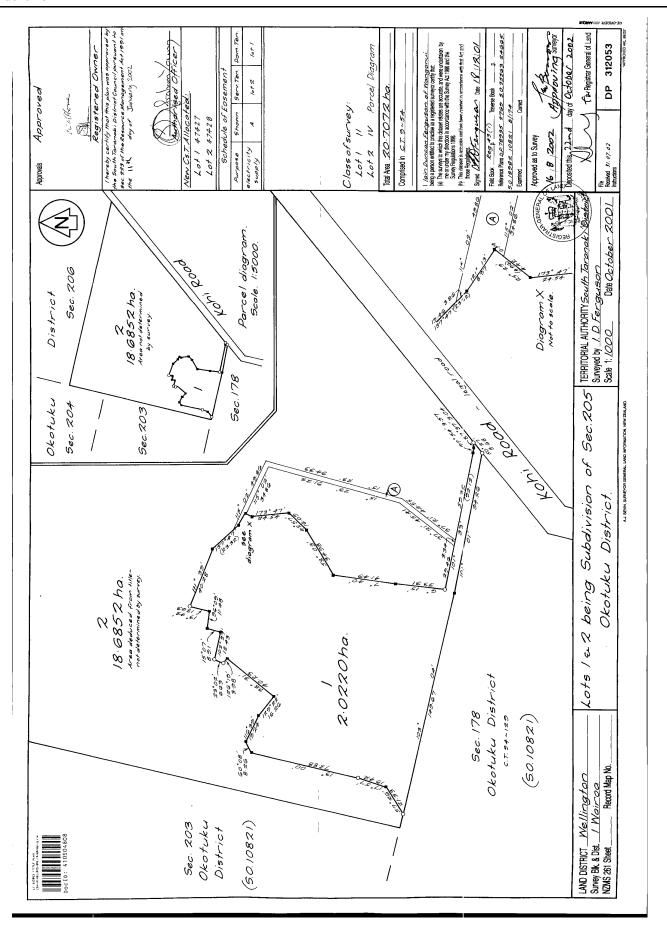
Area 2.0220 hectares more or less
Legal Description Lot 1 Deposited Plan 312053

**Registered Owners** 

Joel Steven Johnston and Holly Navana Christie Johnston

### **Interests**

Appurtenant hereto are rights to take and convey water created by Transfer 865962 - 5.4.1971 at 12.24 pm 5379080.1 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 22.10.2002 at 9:00 am Appurtenant hereto is a right to convey electricity created by Transfer 5611860.2 - 6.6.2003 at 9:00 am 10634584.3 Mortgage to Kiwibank Limited - 1.12.2016 at 4:42 pm









Identifier 47428

Land Registration District Wellington

Date Issued 22 October 2002

**Prior References** 

WN9/54

**Estate** Fee Simple

Area 18.6852 hectares more or less
Legal Description Lot 2 Deposited Plan 312053

**Registered Owners** 

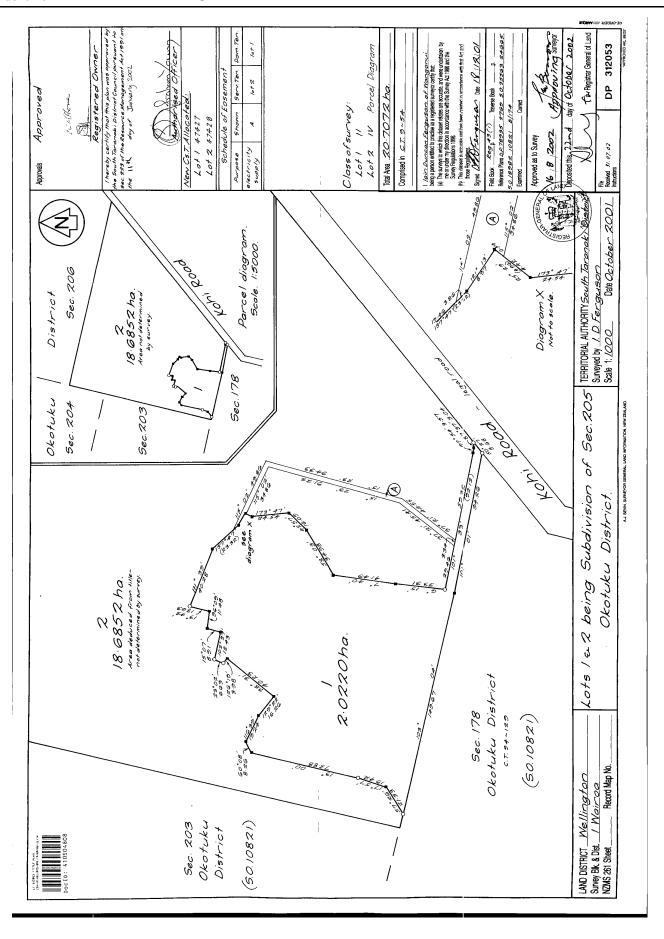
Kohi Farms 2023 Limited

#### **Interests**

Appurtenant hereto are rights to take and convey water created by Transfer 865962 - 5.4.1971 at 12.24 pm Subject to a right to convey electricity over part marked A on DP 312053 created by Transfer 5611860.2 - 6.6.2003 at 9:00 am

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier 348821

Land Registration District Wellington

Date Issued 18 April 2007

**Prior References** WN443/221

**Estate** Fee Simple

Area 20.3759 hectares more or less
Legal Description Section 204 Okotuku Block

**Registered Owners** Kohi Farms 2023 Limited

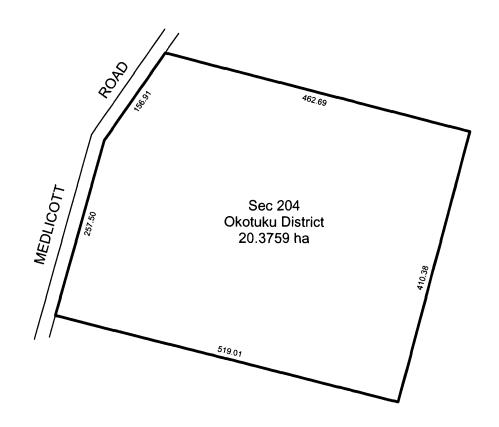
### **Interests**

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm









**Search Copy** 



Identifier 348822

Land Registration District Wellington

Date Issued 18 April 2007

**Prior References** WN443/221

**Estate** Fee Simple

Area 20.8818 hectares more or less
Legal Description Section 206 Okotuku Block

**Registered Owners** 

Kohi Farms 2023 Limited

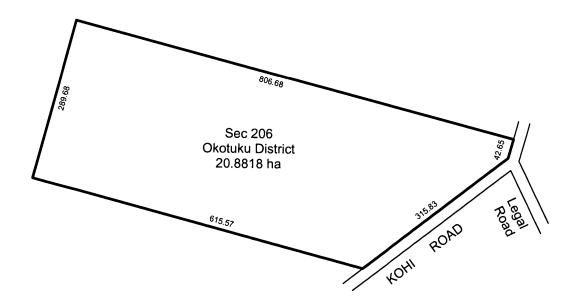
### **Interests**

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm













Identifier 452861

Land Registration District Taranaki

Date Issued 01 October 2013

**Prior References** 

TNF4/561

**Estate** Fee Simple

**Area** 81.1006 hectares more or less

Legal Description Lot 2 Deposited Plan 414102 and Section

446 Okotuku District

**Registered Owners** 

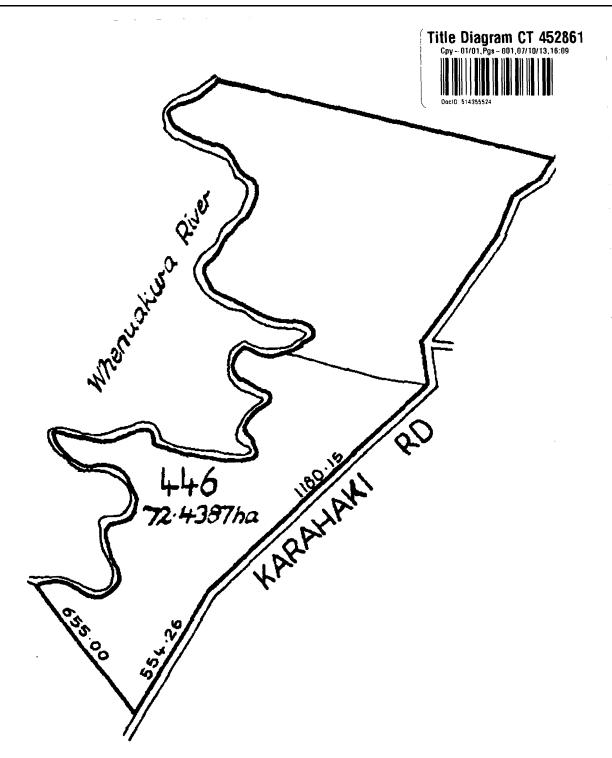
Sam Graham Lennox, Natalie Jane Lennox and Guy Robert James Lennox

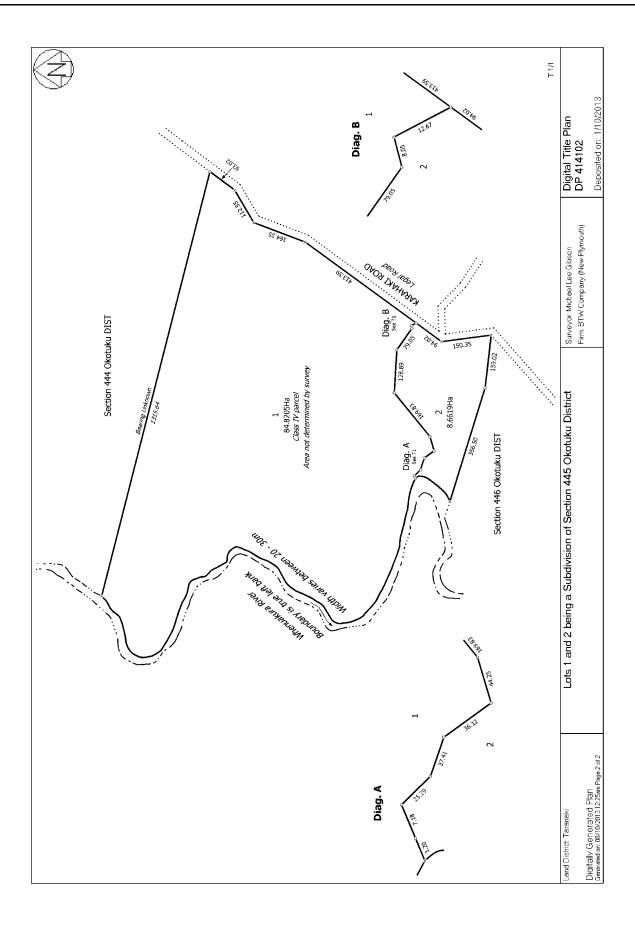
### **Interests**

Subject to Section 241(2) Resource Management Act 1991 (affects DP 414102)

11447107.2 Mortgage to Rabobank New Zealand Limited - 1.7.2019 at 4:38 pm

Appurtenant hereto is a right of way created by Easement Instrument 11762894.3 - 1.7.2020 at 8:21 am











Identifier 456645

**Land Registration District Taranaki Date Issued** 08 July 2009

**Prior References** 

TN190/82

**Estate** Fee Simple

Area 206.4493 hectares more or less Legal Description Lot 2 Deposited Plan 413960

**Registered Owners** 

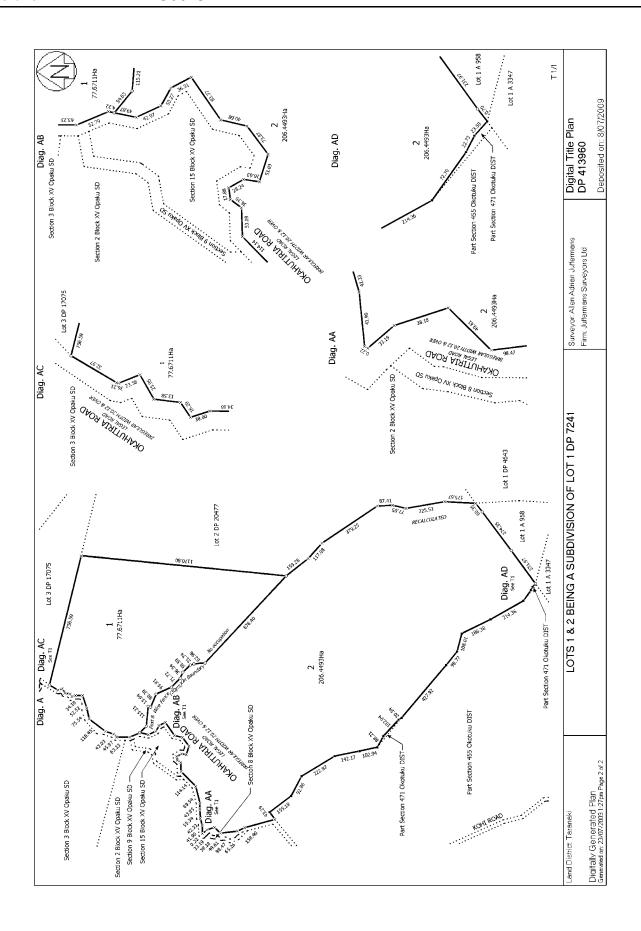
Lupton Land Company Limited

#### **Interests**

5770036.2 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Morris Noel Fisher Term 35 years commencing on the 1st day of June 2002 and shall continue for a period of thirty-five (35) years or until milling clearing and the work referred to in Clause 4.5 of the forestry right have been completed in terms of the forestry right agreement, whichever is the sooner - 20.10.2003 at 9:00 am

5770054.2 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Jason David McKillop Term 35 years commencing on the 1st day of October 1999 and shall continue for a period of thirty-five (35) years or until milling clearing and the work referred to in Clause 4.5 of the forestry right have been completed in terms of the forestry right agreement, whichever is the sooner - 20.10.2003 at 9:00 am

9115108.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 5.7.2012 at 3:04 pm 10034157.3 Mortgage to ANZ Bank New Zealand Limited - 1.5.2015 at 4:20 pm









Identifier 537922

Land Registration District Wellington

**Date Registered** 13 October 2010 09:49 am

**Prior References** WN16B/194

Estate Leasehold Instrument L B530401.1

Area 67.5293 hectares more or less Term 21 years from 1.1.1990 (right of renewal)

extended to 31.12.2031

**Legal Description** Lot 4 Deposited Plan 3135

**Registered Owners** 

Sam Graham Lennox, Natalie Jane Lennox and Guy Robert James Lennox

### **Interests**

Subject to Schedule 1 of the Maori Reserved Land Amendment Act 1997 (which provides a right of first refusal to the other party to a lease, on either a transfer by the lessor or an assignment by the lessee, to a third party)

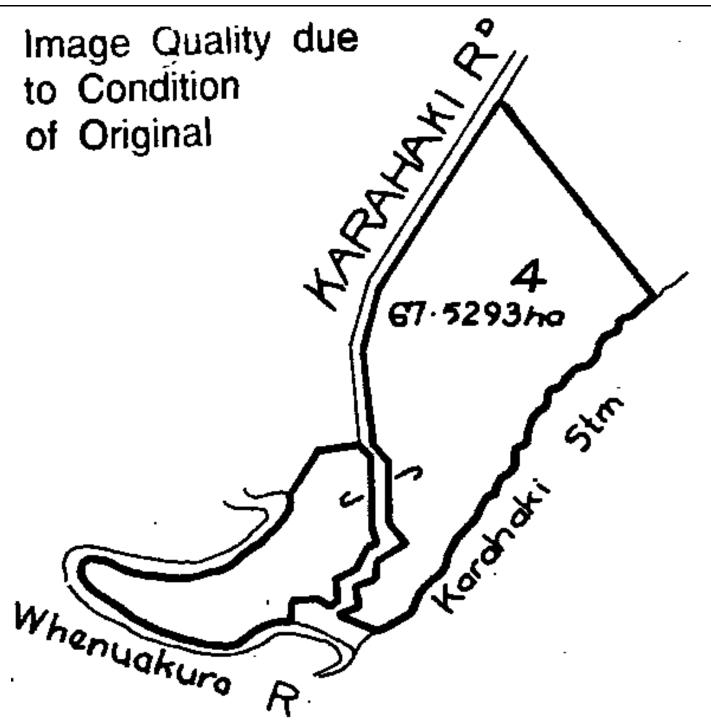
Fencing covenant in Lease B530401.1 - 24.7.1996 at 10.21 am

8539049.2 Variation of Lease B530401.1 and extension of term to 31.12.2031 - 13.10.2010 at 9:49 am

8715665.2 Variation of Lease B530401.1 - 22.3.2011 at 2:49 pm

8929772.2 Variation of Lease B530401.1 - 5.12.2011 at 1:24 pm

11447107.2 Mortgage to Rabobank New Zealand Limited - 1.7.2019 at 4:38 pm



Identifier 537922



### Report on Maori Land details for the following Record(s) of Title



Record(s) of Title

537922

Identified as potentially Maori Freehold Land

\*\*\* End of Report \*\*\*







Identifier 577916

Land Registration District Taranaki

Date Issued 21 February 2012

**Prior References** 

GN 8989241.1 TNB1/187

**Estate** Fee Simple

**Area** 36.4467 hectares more or less

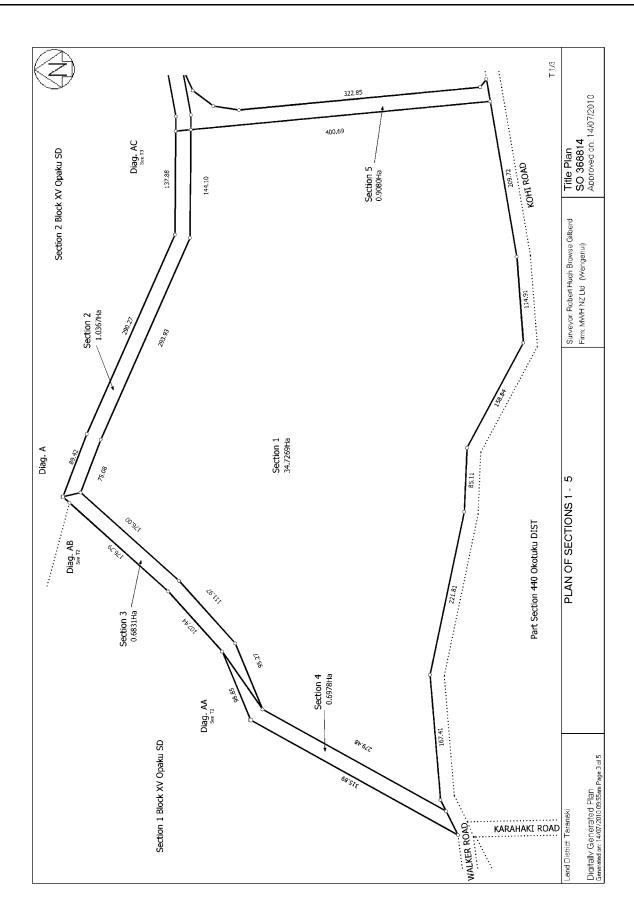
**Legal Description** Section 1-3 Survey Office Plan 368814

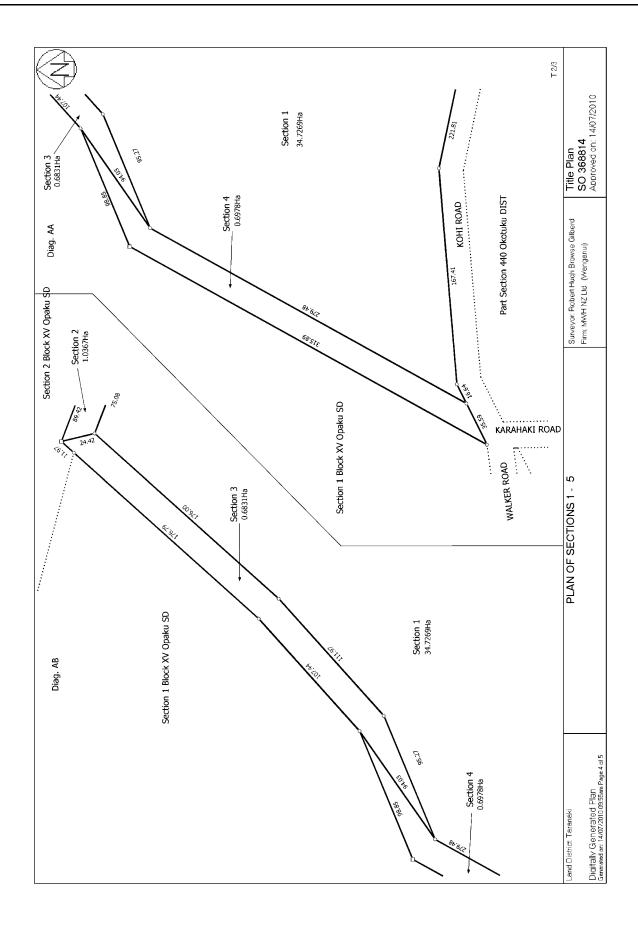
**Registered Owners** 

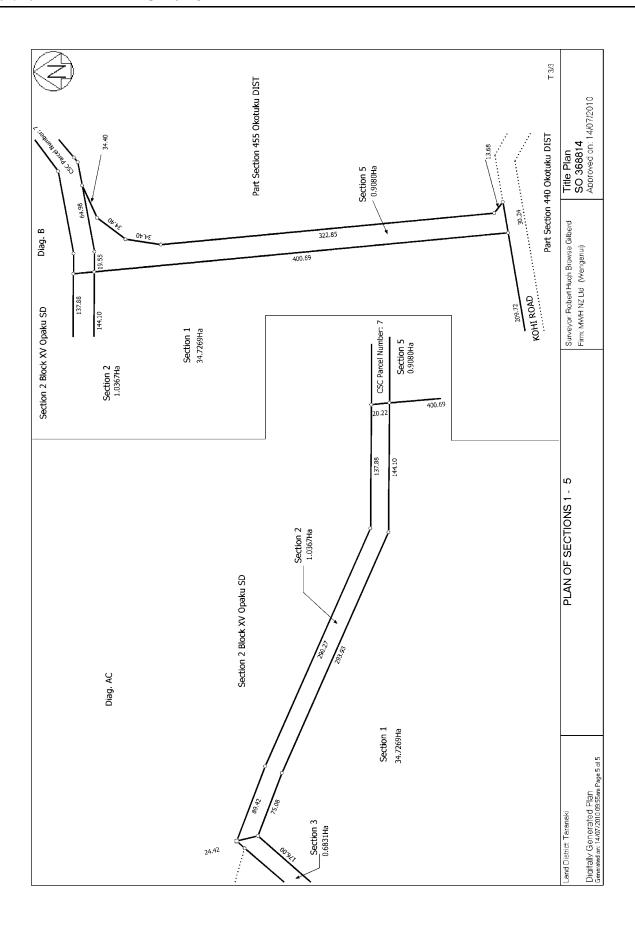
Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.10 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm









### **Search Copy**



Identifier 577917

Land Registration District Taranaki

Date Issued 21 February 2012

**Prior References** 

GN 8989241.1 TN112/11

**Estate** Fee Simple

Area 1068.5118 hectares more or less

Legal Description Section 1-2 Block XV Opaku Survey

District and Section 2, 6-7 Block V Carlyle Survey District and Section 17 Block XIV Opaku Survey District and Section 4

Survey Office Plan 368814

Purpose In trust as an endowment for providing

Taranaki Scholarships under The

Education Act 1908

### **Registered Owners**

Her Majesty the Queen

#### **Interests**

Subject to Section 120(9) Public Works Act 1981

10983371.1 Lease in Renewal of Lease 456765.1 of Sec 17 Blk XIV Opaku SD Term 21 years commencing from 1 January 2018 (Renewal Clause) CIR 812343 issued - 11.4.2018 at 2:26 pm

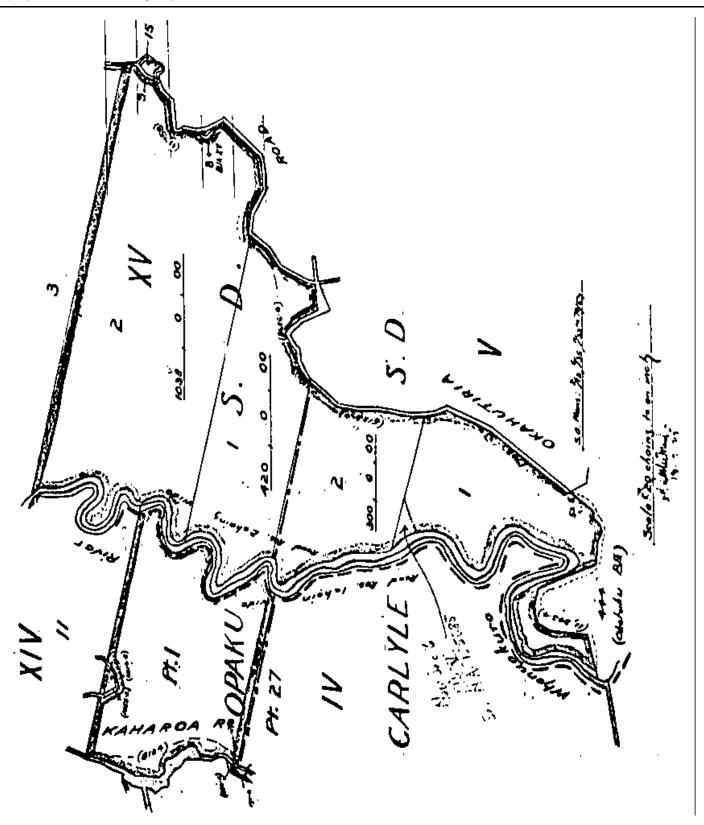
10983375.1 Lease in Renewal of Lease 450761.1 of Section 7 Block V Carlyle Survey District Term 21 years commencing 1st January 2018 (Right of Renewal) CIR 812351 issued - 11.4.2018 at 2:31 pm

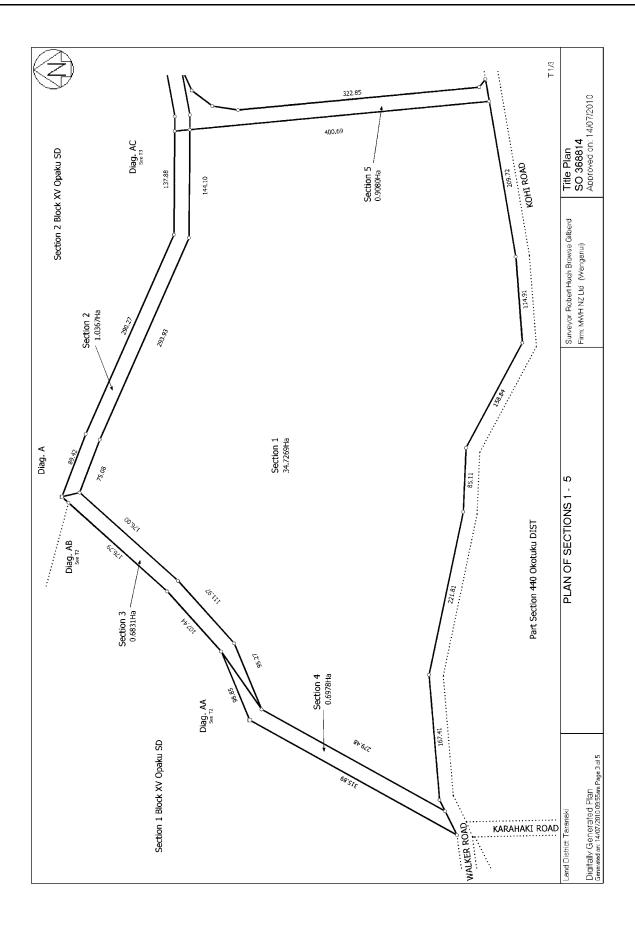
11209695.1 Lease in renewal of Lease 451509.1 of Section 1 Block XV Opaku Survey District and Section 4 Survey Office Plan 368814 Term 21 years commencing 1.1.2018 (right of renewal) Record of Title 868778 issued - 26.11.2018 at 8:50 am

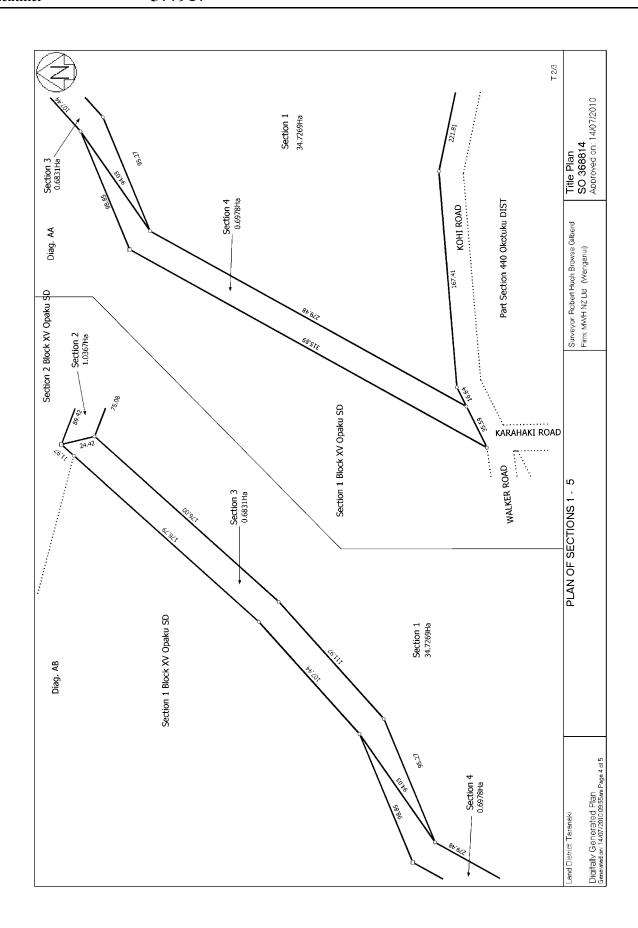
11209695.2 Lease in renewal of Lease 451509.2 of Section 2 and Section 6 Block V Carlyle Survey District Term 21 years commencing 1.1.2018 (right of renewal) Record of Title 868779 issued - 26.11.2018 at 8:50 am

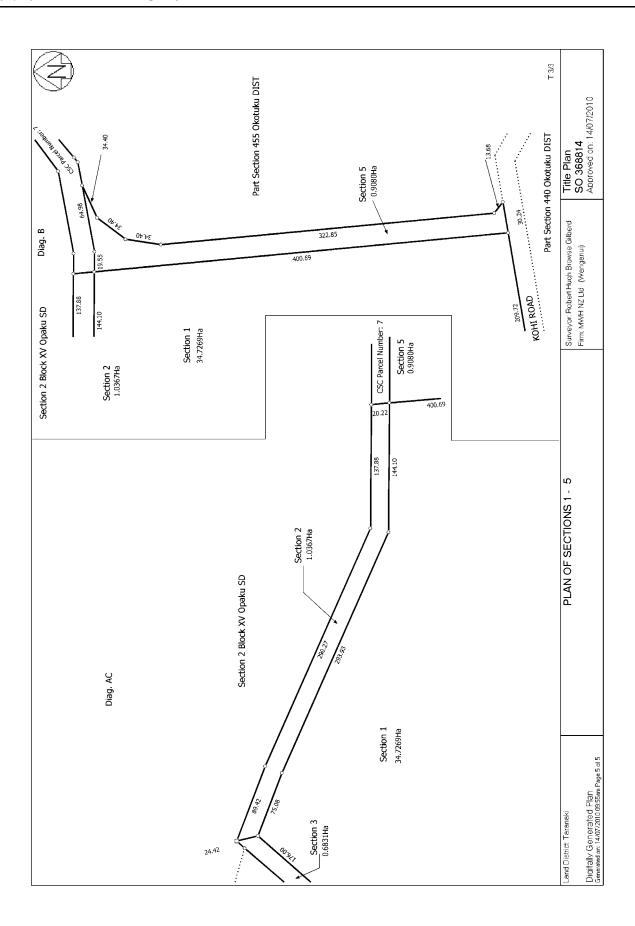
11238833.1 Lease in renewal of Lease 453904.1 of Section 2 Block XV Opaku Survey District Term 21 years commencing 1.1.2018 (right of renewal) Record of Title 868823 issued - 29.11.2018 at 3:12 pm

12936637.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 (affects Section 2 Block XV Opaku Survey District) - 12.2.2024 at 3:19 pm















Identifier 812351

Land Registration District Taranaki

**Date Registered** 11 April 2018 02:31 pm

**Prior References** 

577917

Estate Leasehold Instrument L 10983375.1

Area 133.8300 hectares more or less Term 21 years commencing 1st January 2018

(Right of Renewal)

Legal Description Section 7 Block V Carlyle Survey District

**Registered Owners** 

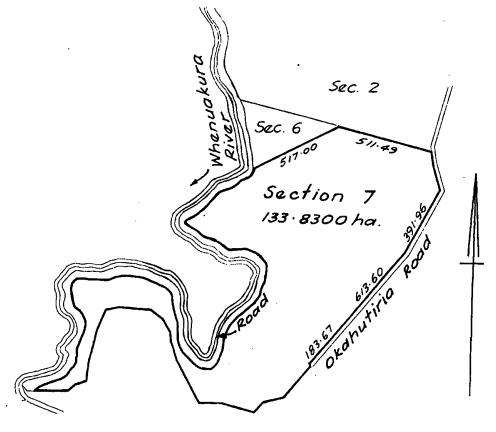
Dylan Louis Amon, Peter John Amon and Gresham Walkinton Trustee Co Limited

### **Interests**

12422322.4 Mortgage to Rabobank New Zealand Limited - 1.8.2022 at 3:03 pm



## Block V Carlyle Survey District



Sec. 444 Okotuku District

Scale 1: 15000 5.0.10741









Identifier 868778

Land Registration District Taranaki

**Date Registered** 26 November 2018 08:50 am

**Prior References** 

577917

Estate Leasehold Instrument L 11209695.1

Area 170.6658 hectares more or less Term 21 years commencing 1.1.2018 (right of

renewal)

Legal Description Section 1 Block XV Opaku Survey District

and Section 4 Survey Office Plan 368814

### **Registered Owners**

Richard Antony Watkins, Michelle Anne Smith and Mark Geoffrey Hughson

## **Interests**

431312.2 Forestry Right pursuant to the Forestry Rights Registration Act 1983 - 23.4.1996 at 11.30 am (affects Sec 1 Blk XV Opaku Survey District)

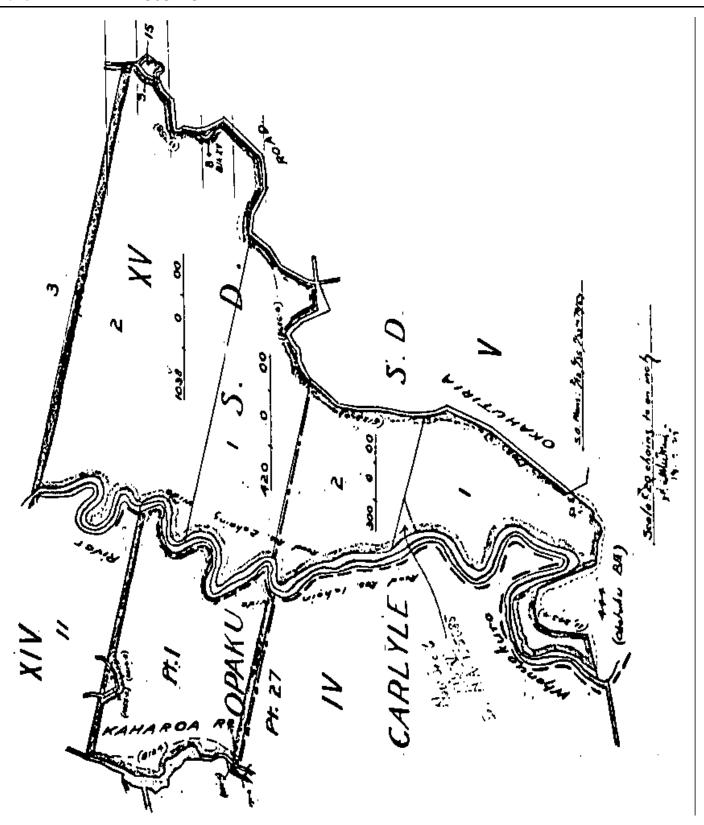
Fencing covenant in Lease 451509.1 - 10.6.1998 at 10.43 am (affects Sec 1 Blk XV Opaku Survey District)

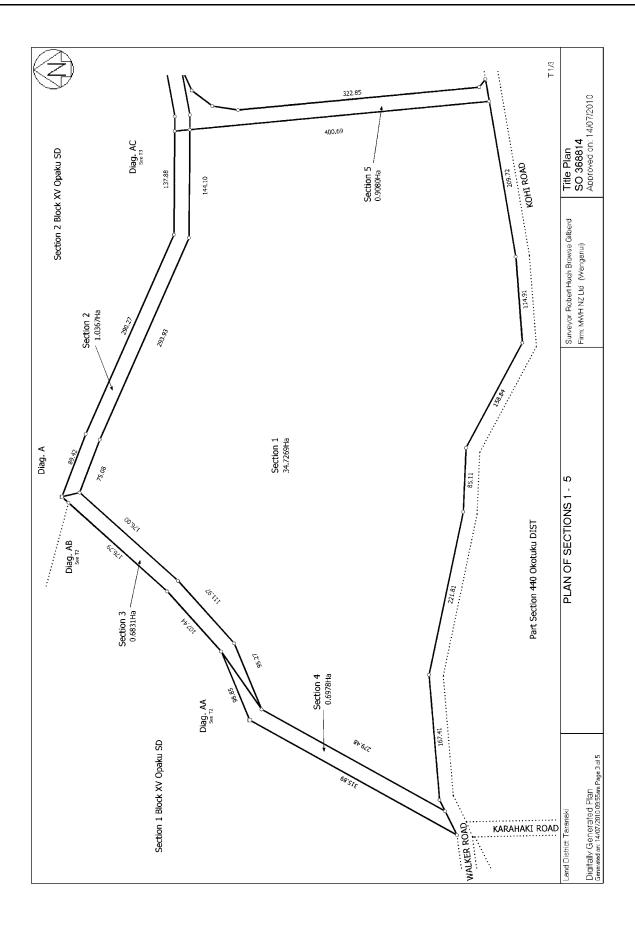
456195.2 Forestry Right pursuant to the Forestry Rights Registration Act 1983 for a Term equal to the residue of the term of years of Lease 451509.2 or until the trees are harvested and removed from the Grantors land whichever is earlier - 30.11.1998 at 11.51 am (affects Sec 1 Blk XV Opaku Survey District)

7880154.2 Mortgage to ANZ National Bank Limited - 17.7.2008 at 9:00 am

Subject to Section 120(9) Public Works Act 1981

9946303.1 Variation of Mortgage 7880154.2 - 2.2.2015 at 2:04 pm











Identifier 868779

Land Registration District Taranaki

**Date Registered** 26 November 2018 08:50 am

**Prior References** 

577917

Estate Leasehold Instrument L 11209695.2

Area 130.6123 hectares more or less Term 21 years commencing 21.1.2018 (right of

renewal)

Legal Description Section 2, 6 Block V Carlyle Survey

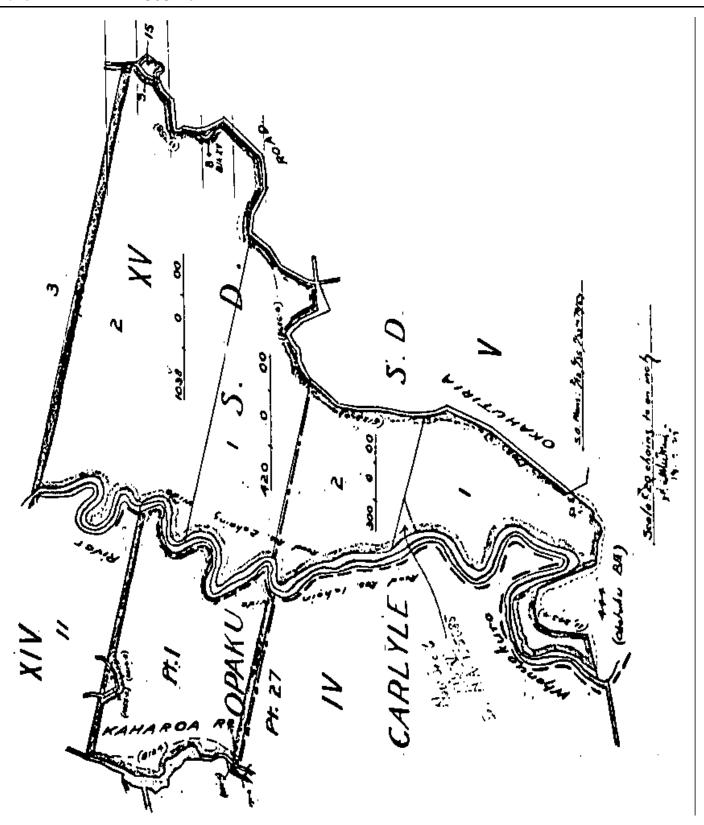
District

**Registered Owners** 

Richard Antony Watkins, Michelle Anne Smith and Mark Geoffrey Hughson

### Interests

Fencing covenant in Lease 451509.2 - 10.6.1998 at 10.43 am 7880154.2 Mortgage to ANZ National Bank Limited - 17.7.2008 at 9:00 am 9946303.1 Variation of Mortgage 7880154.2 - 2.2.2015 at 2:04 pm





**Search Copy** 



Identifier 922634

Land Registration District Taranaki
Date Issued 01 July 2020

**Prior References** 

452860

**Estate** Fee Simple

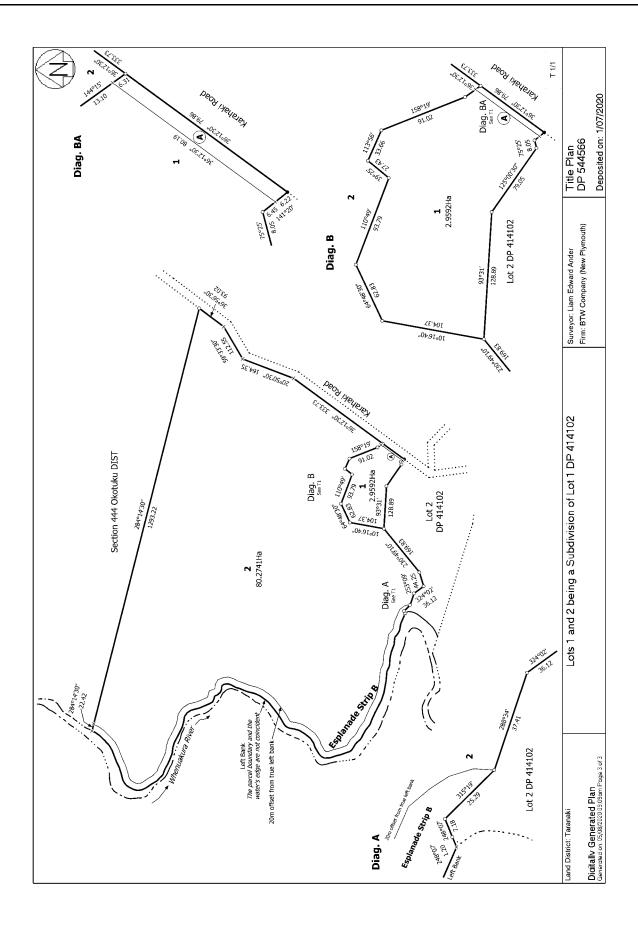
Area 2.9592 hectares more or less
Legal Description Lot 1 Deposited Plan 544566

**Registered Owners** 

David Bruce Newland, James Kemp Newland and Young + Carrington Trustees Limited

### **Interests**

Subject to a right of way over part marked A on DP 544566 created by Easement Instrument 11762894.3 - 1.7.2020 at 8:21 am





**Search Copy** 



Identifier 922635

Land Registration District Taranaki
Date Issued 01 July 2020

**Prior References** 

452860

**Estate** Fee Simple

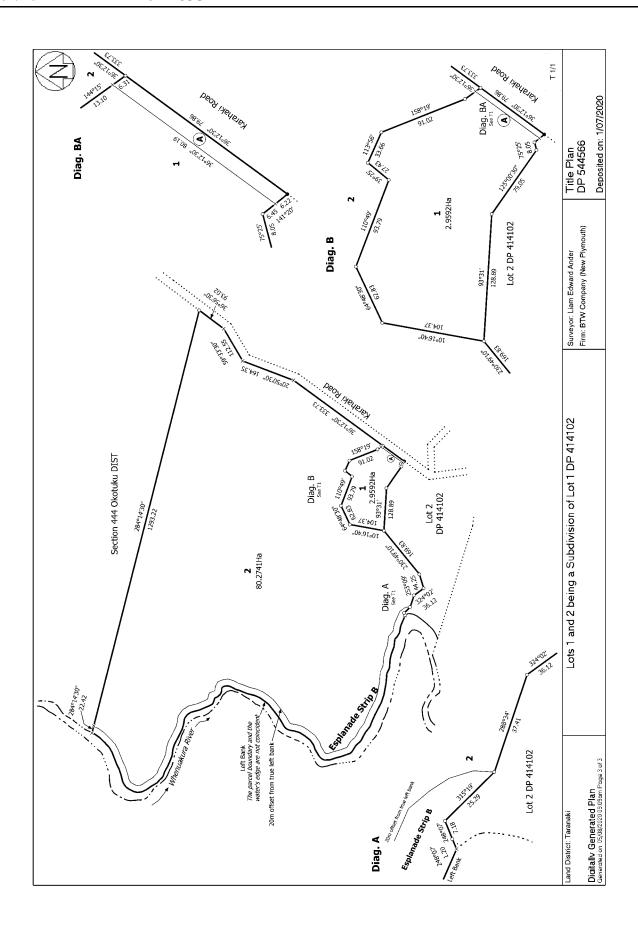
Area 80.2741 hectares more or less
Legal Description Lot 2 Deposited Plan 544566

**Registered Owners** 

Sam Graham Lennox, Natalie Jane Lennox and Guy Robert James Lennox

### **Interests**

11762894.1 Esplanade Strip Instrument pursuant to Section 232 Resource Management Act 1991 - 1.7.2020 at 8:21 am Appurtenant hereto is a right of way created by Easement Instrument 11762894.3 - 1.7.2020 at 8:21 am 11823004.3 Mortgage to Rabobank New Zealand Limited - 12.8.2020 at 4:17 pm





**Search Copy** 



Identifier 1042458

Land Registration District Taranaki

**Date Issued** 15 February 2024

**Prior References** 

TNF2/980

**Estate** Fee Simple

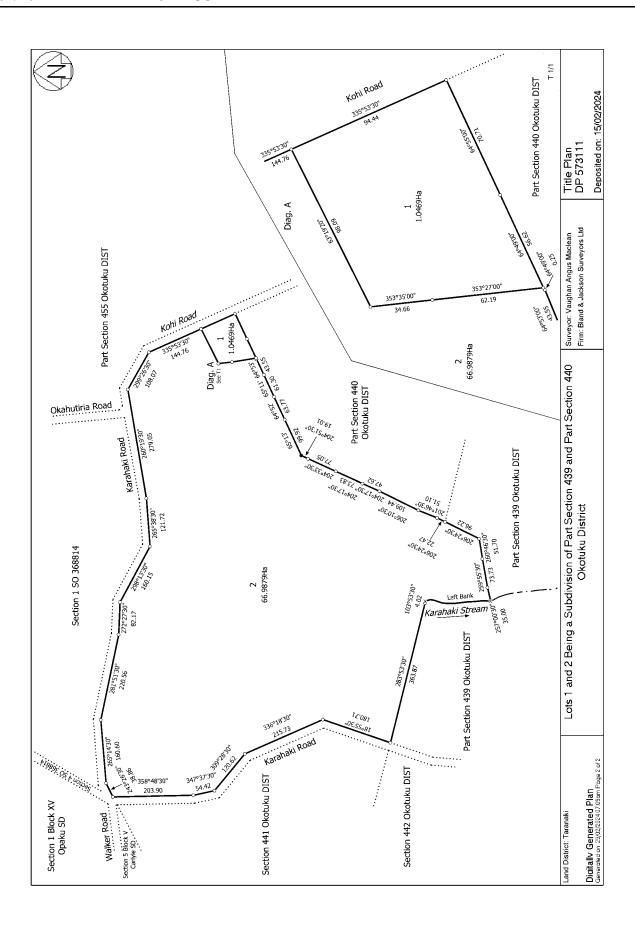
Area 1.0469 hectares more or less
Legal Description Lot 1 Deposited Plan 573111

**Registered Owners** 

Victoria Renee Lewis and Jake Shane Beckham

### **Interests**

12947437.3 Mortgage to ASB Bank Limited - 15.3.2024 at 3:37 pm





**Search Copy** 



Identifier 1042459

Land Registration District Taranaki

**Date Issued** 15 February 2024

**Prior References** 

TNF2/980

**Estate** Fee Simple

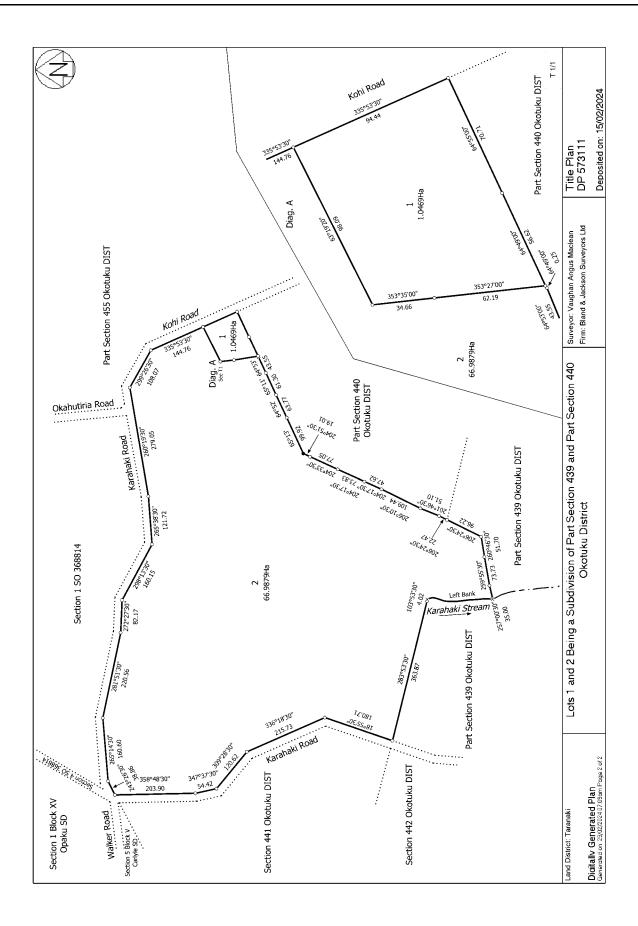
Area 66.9879 hectares more or less
Legal Description Lot 2 Deposited Plan 573111

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.11 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm









Identifier TN94/21

Land Registration District Taranaki

Date Issued 11 August 1919

**Prior References** 

TN14/270 TN2/155

**Estate** Fee Simple

Area 34.1757 hectares more or less

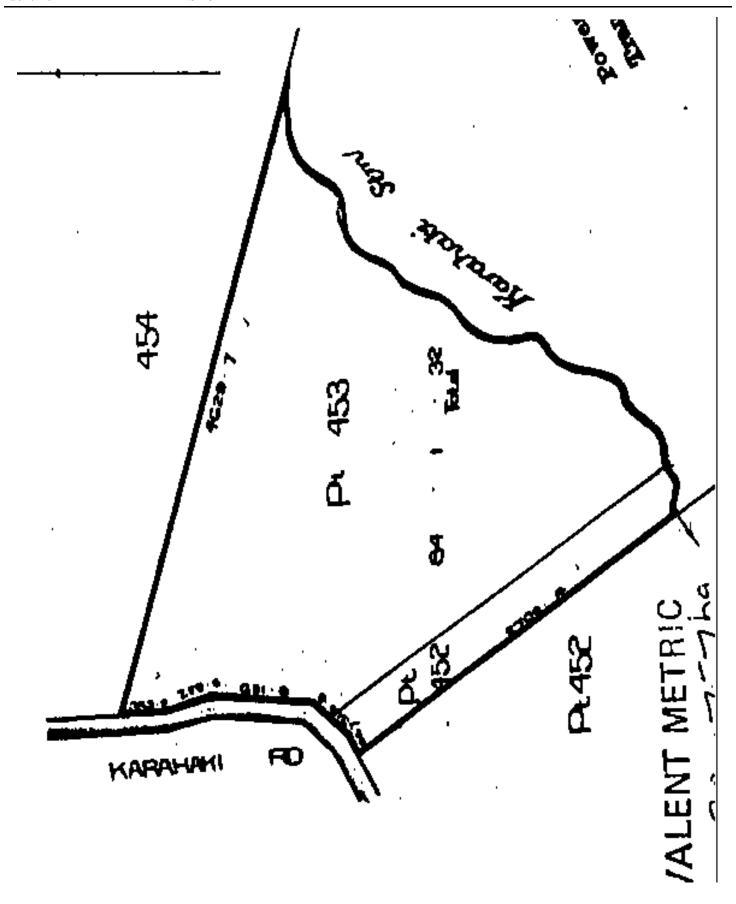
Legal Description Allotment 1 Deposited Plan 3374

**Registered Owners** 

Theland Tahi Farm Group Limited

### **Interests**

10865616.3 Mortgage to Coöperatieve Rabobank U.A. - 9.8.2017 at 3:38 pm





**Search Copy** 



Identifier TN151/39

**Land Registration District Taranaki Date Issued** 28 May 1943

**Prior References** 

TN6/213

**Estate** Fee Simple

Area 20.0496 hectares more or less

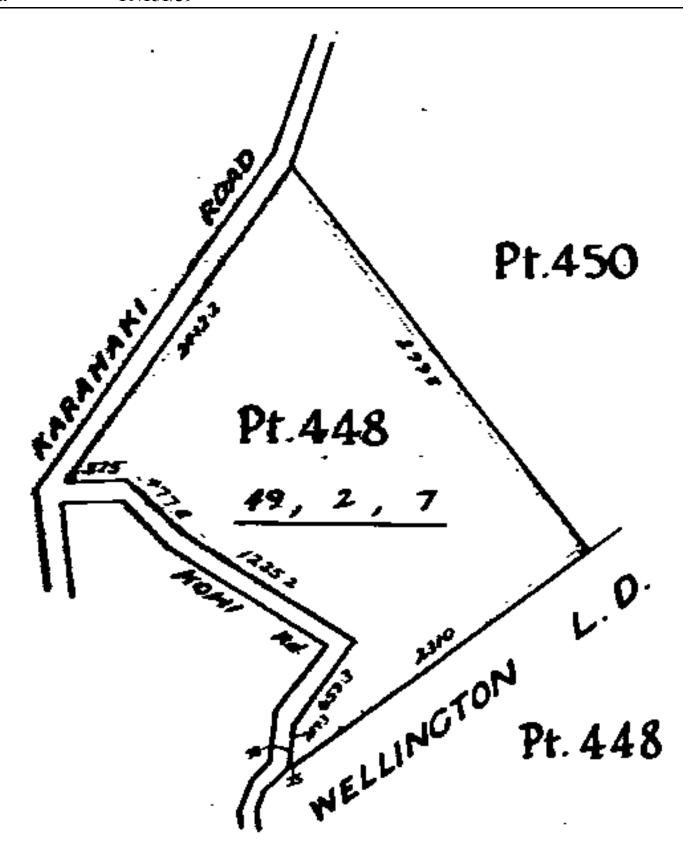
Legal Description Part Section 448 Okotuku District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

### **Interests**

9099222.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 21.6.2012 at 11:12 am 11244915.2 Mortgage to ANZ Bank New Zealand Limited - 8.10.2018 at 3:42 pm





**Search Copy** 



Identifier TN151/40

**Land Registration District Taranaki Date Issued** 28 May 1943

**Prior References** 

TN6/213

**Estate** Fee Simple

**Area** 89.1396 hectares more or less

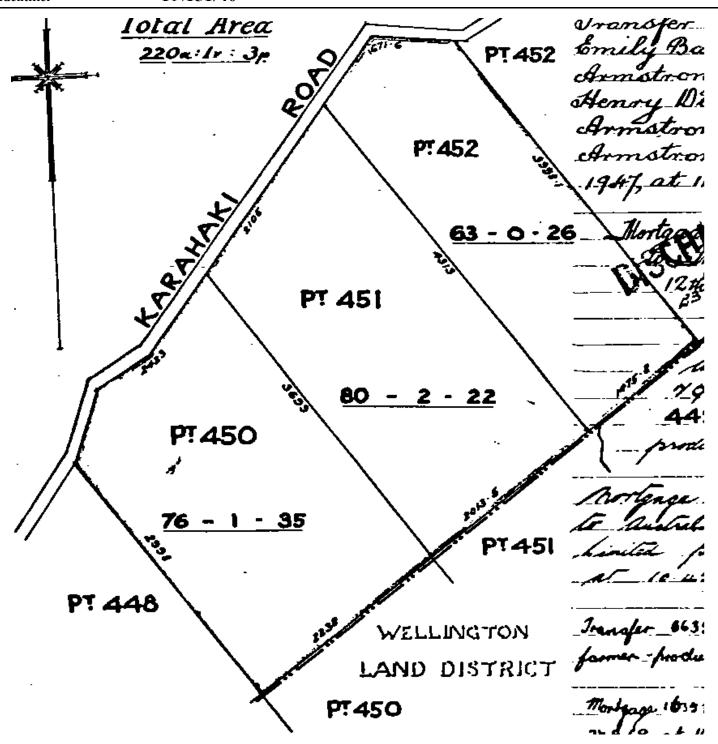
Legal Description Part Section 450-452 Okotuku District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

### **Interests**

9499746.3 Mortgage to ANZ Bank New Zealand Limited - 4.9.2013 at 2:29 pm









Identifier TN262/30
Land Registration District Taranaki

**Date Issued** 21 July 1961

**Prior References** 

TN1/175

**Estate** Fee Simple

Area 42.3807 hectares more or less

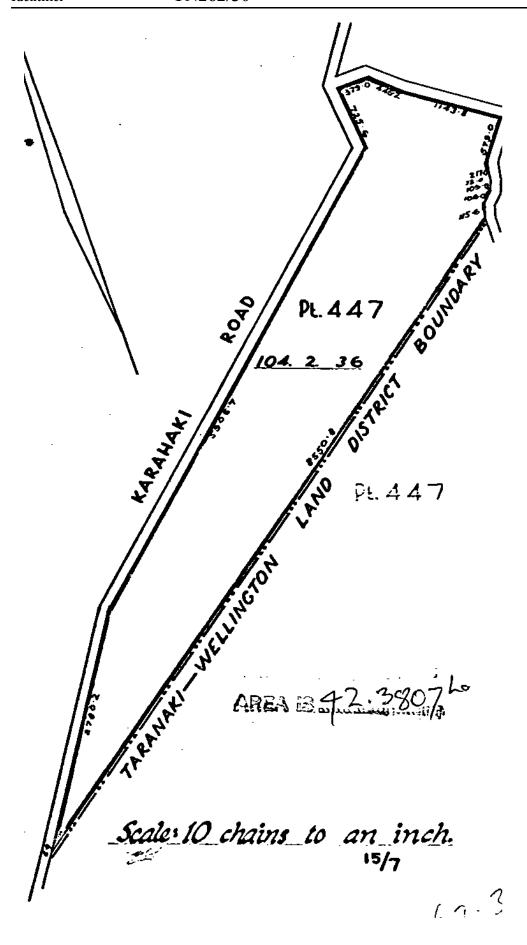
Legal Description Part Section 447 Okotuku District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

### **Interests**

9099232.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 19.6.2012 at 12:36 pm 11244915.2 Mortgage to ANZ Bank New Zealand Limited - 8.10.2018 at 3:42 pm









Identifier TNA1/156

Land Registration District Taranaki

Date Issued 27 August 1962

**Prior References** PROC 120601

**Estate** Fee Simple

**Area** 1.0476 hectares more or less

**Legal Description** Section 5 Block V Carlyle Survey District

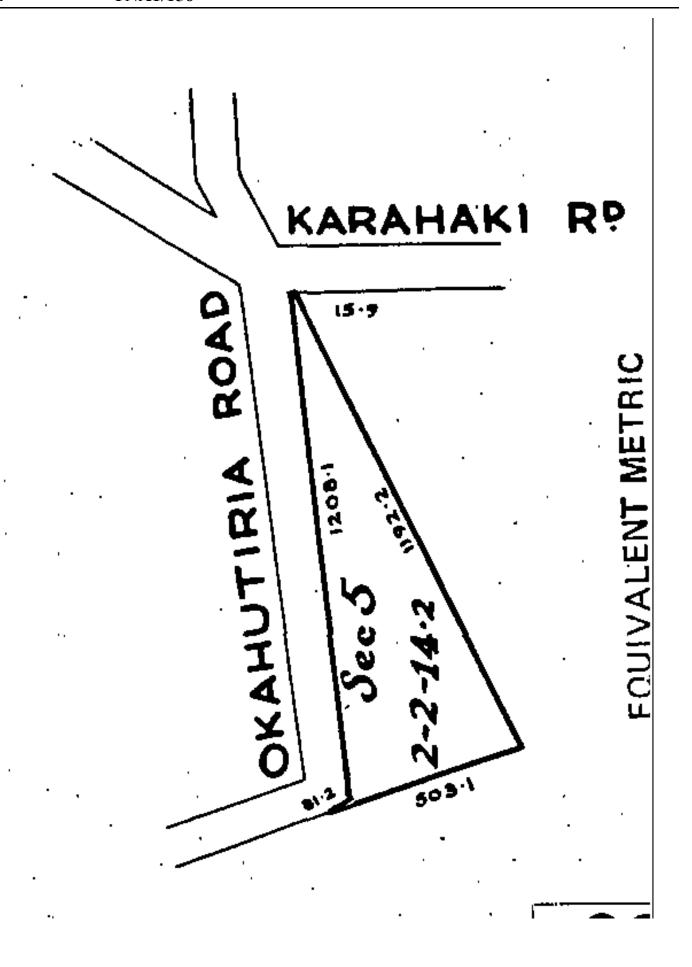
**Registered Owners** 

Richard Antony Watkins, Michelle Anne Smith and Mark Geoffrey Hughson

### **Interests**

Subject to Section 59 Land Act 1948

9946249.3 Mortgage to ANZ Bank New Zealand Limited - 2.2.2015 at 2:03 pm









Identifier TNB1/166

Land Registration District Taranaki

**Date Issued** 14 December 1966

**Prior References** 

TN190/81

**Estate** Fee Simple

**Area** 178.9570 hectares more or less

Legal Description Part Section 455 and Part Section 471

Okotuku District

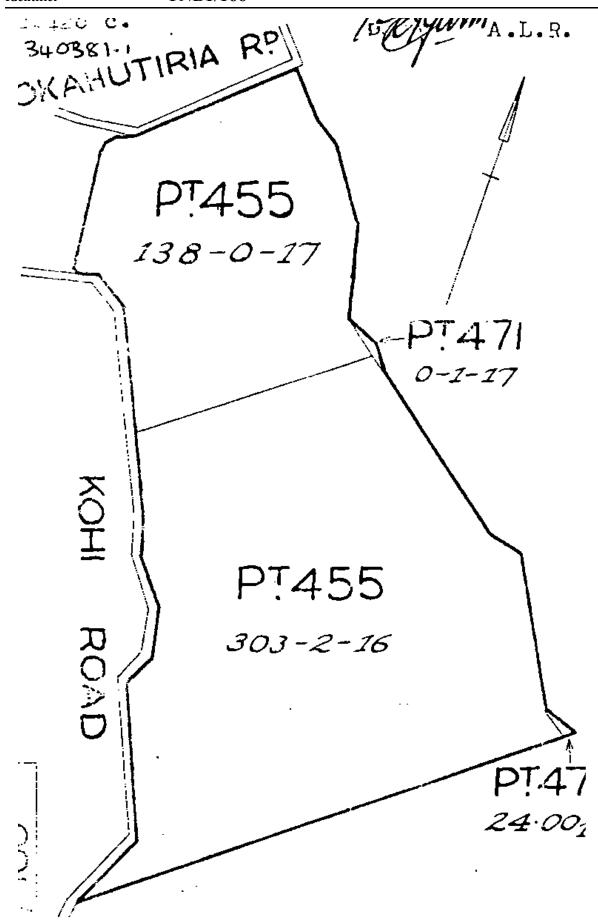
**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

12694699.8 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier TNB2/1296

Land Registration District Taranaki

**Date Issued** 27 September 1968

**Prior References** 

TN14/271

**Estate** Fee Simple

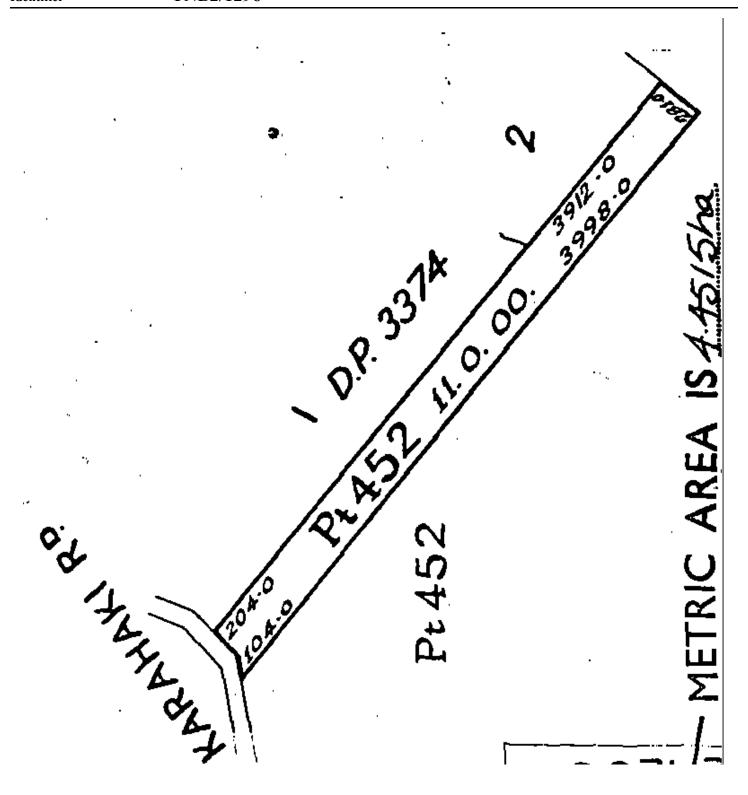
Area 4.4515 hectares more or less
Legal Description Part Section 452 Okotuku District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

### **Interests**

9499746.3 Mortgage to ANZ Bank New Zealand Limited - 4.9.2013 at 2:29 pm





**Search Copy** 



Identifier TNB4/1175

**Land Registration District Taranaki Date Issued** 20 July 1970

**Prior References** 

TN45/188

**Estate** Fee Simple

Area 100.8578 hectares more or less

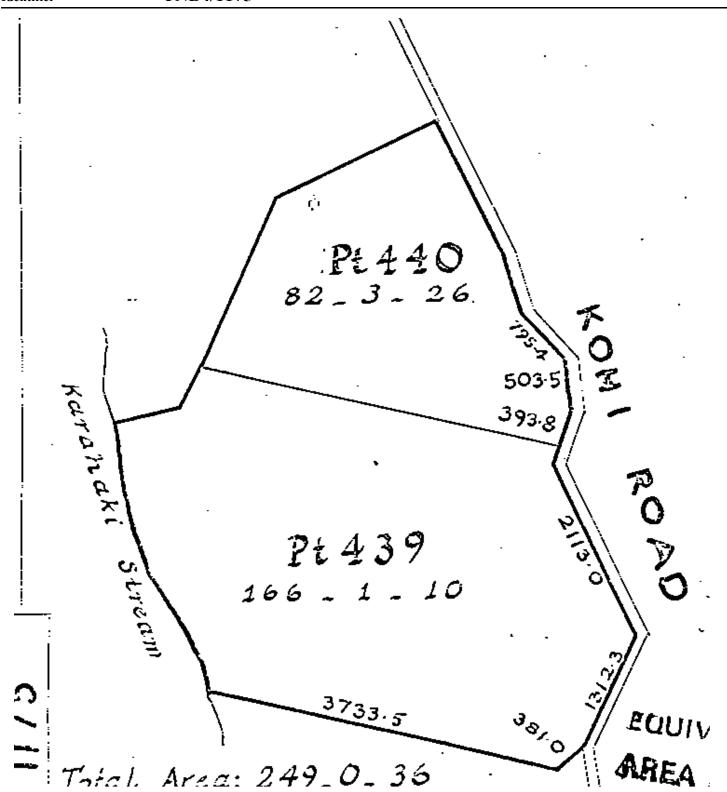
Legal Description Part Section 439-440 Okotuku Block

**Registered Owners** 

Malcolm Blair Burling and Andrea Mary Burling

### **Interests**

9734687.2 Mortgage to ASB Bank Limited - 6.6.2014 at 9:13 am





**Search Copy** 



Identifier TNF1/1014

Land Registration District Taranaki

Date Issued 07 October 1980

**Prior References** 

TN90/160

**Estate** Fee Simple

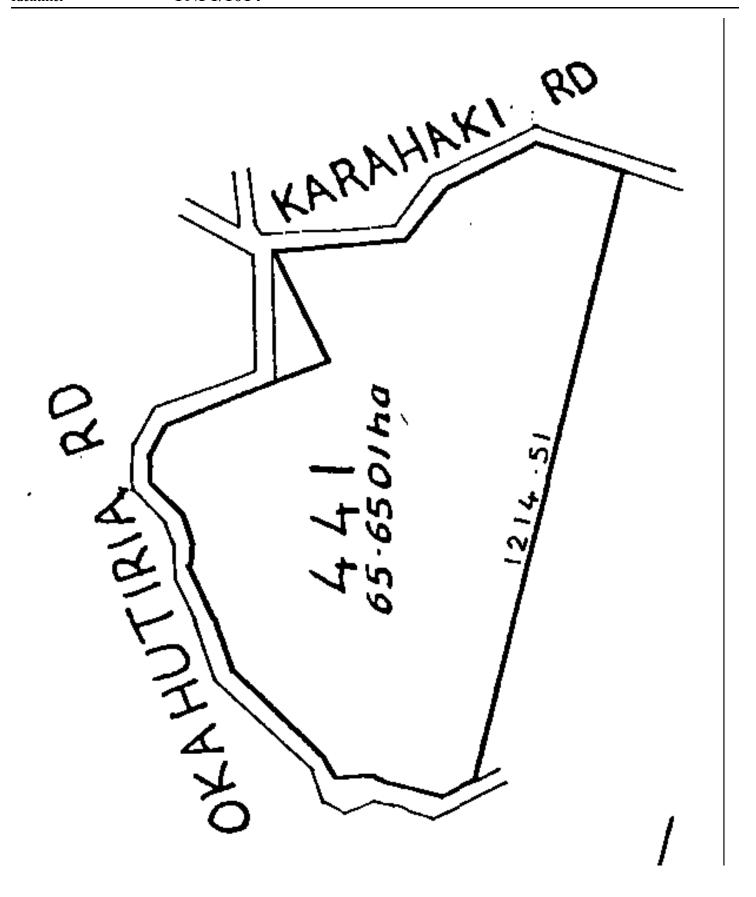
Area 65.6501 hectares more or less
Legal Description Section 441 Okotuku District

**Registered Owners** 

Richard Antony Watkins, Michelle Anne Smith and Mark Geoffrey Hughson

### **Interests**

9946249.3 Mortgage to ANZ Bank New Zealand Limited - 2.2.2015 at 2:03 pm









Identifier TNF3/815

**Land Registration District Taranaki Date Issued** 24 May 1982

**Prior References** 

TN60/36

**Estate** Fee Simple

**Area** 172.0749 hectares more or less

**Legal Description** Part Section 439 and Part Section 454

Okotuku District and Defined On

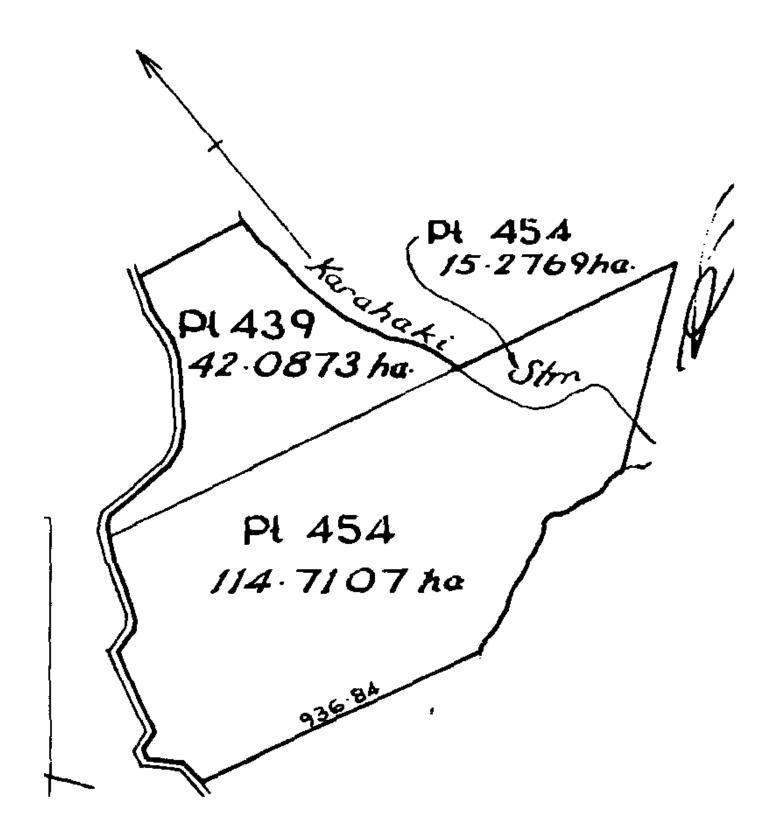
Deposited Plan 87

**Registered Owners** 

Theland Tahi Farm Group Limited

### Interests

10865616.3 Mortgage to Coöperatieve Rabobank U.A. - 9.8.2017 at 3:38 pm





**Search Copy** 



Identifier TNG1/852

Land Registration District Taranaki

**Date Issued** 09 December 1983

**Prior References** 

TN90/160

**Estate** Fee Simple

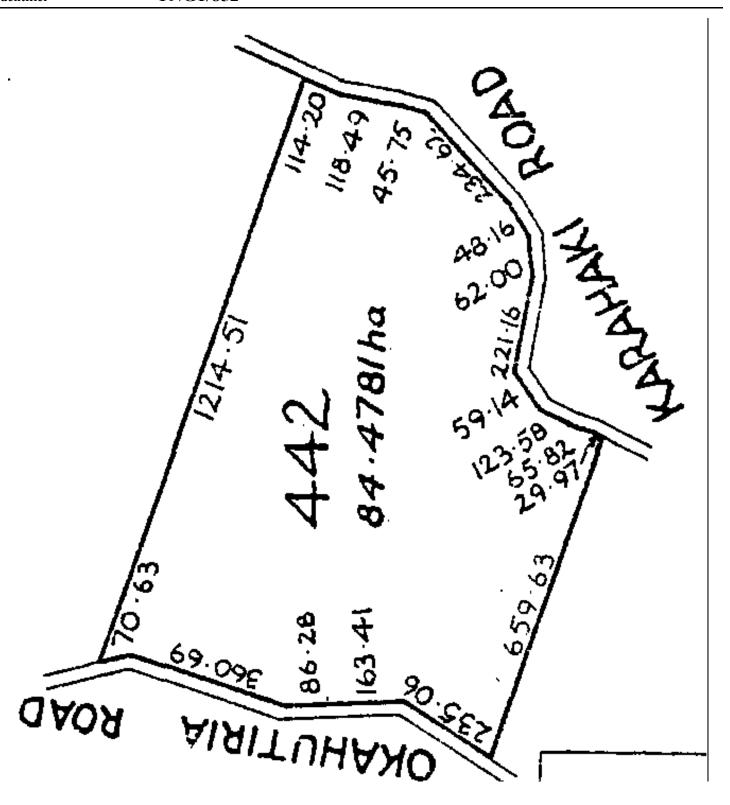
Area 84.4781 hectares more or less
Legal Description Section 442 Okotuku District

**Registered Owners** 

Richard Antony Watkins, Michelle Anne Smith and Mark Geoffrey Hughson

### **Interests**

9946249.3 Mortgage to ANZ Bank New Zealand Limited - 2.2.2015 at 2:03 pm





**Search Copy** 



Identifier TNG2/139

**Land Registration District Taranaki Date Issued** 25 May 1984

**Prior References** 

TN100/225

**Estate** Fee Simple

**Area** 9.2066 hectares more or less

Legal Description Part Section 454 Okotuku Block and

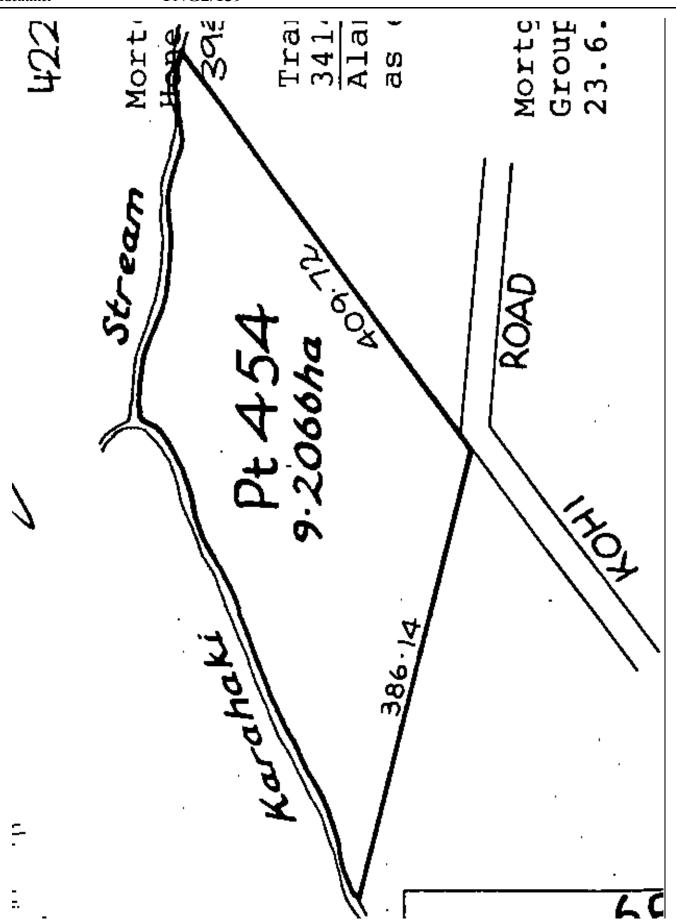
Defined On Deposited Plan 92

**Registered Owners** 

Alan Leslie Hone

#### Interests

422367.2 Mortgage to ANZ Banking Group (New Zealand) Limited - 23.6.1995 at 11.45 am





**Search Copy** 



Identifier TNH2/1252

Land Registration District Taranaki

Date Issued 17 March 1988

**Prior References** 

TN72/19

**Estate** Fee Simple

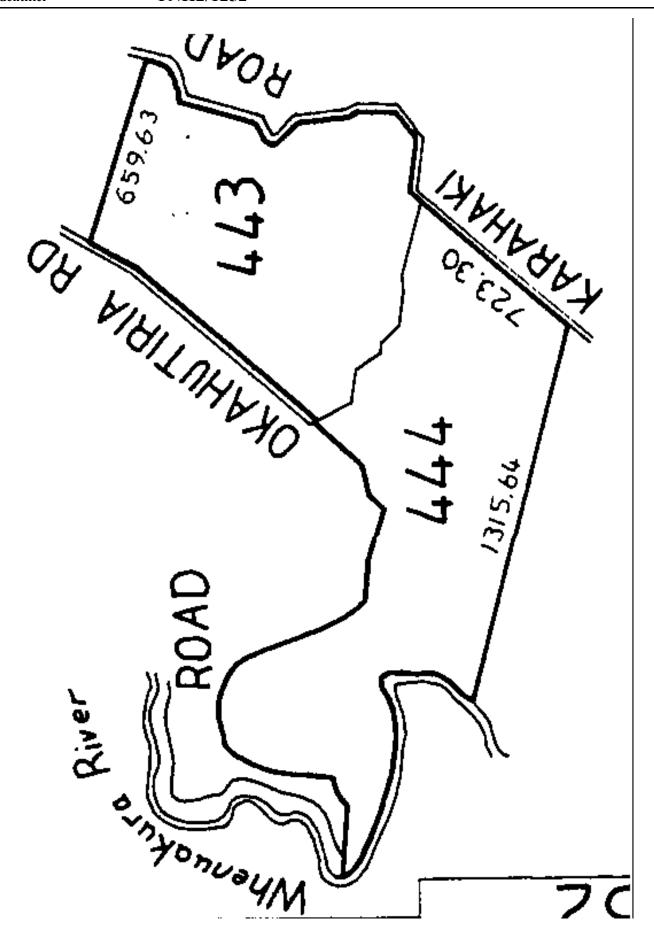
Area 193.8444 hectares more or less
Legal Description Section 443-444 Okotuku District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

#### **Interests**

9499746.3 Mortgage to ANZ Bank New Zealand Limited - 4.9.2013 at 2:29 pm





**Search Copy** 



Identifier WN6B/1341

Land Registration District Wellington

**Date Issued** 19 September 1968

**Prior References** 

WN5/107

**Estate** Fee Simple

**Area** 20.8024 hectares more or less

Legal Description Section 192 Okotuku District and Defined

On Application Plan 991

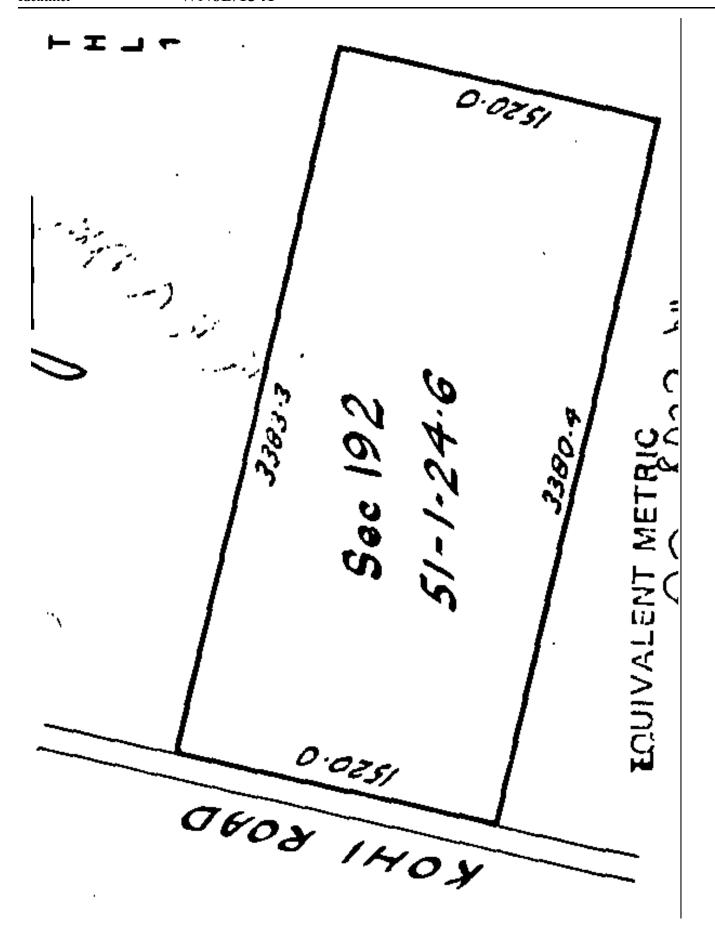
#### **Registered Owners**

Douglas John Hooper as to a 1/2 share

Gillian Margaret Hooper as to a 1/2 share

#### Interests

12257220.3 Mortgage to Rabobank New Zealand Limited - 28.10.2021 at 4:08 pm









Identifier WN6B/1342

Land Registration District Wellington

Date Issued 19 September 1968

**Prior References** 

WN100/55

**Estate** Fee Simple

**Area** 41.6143 hectares more or less

Legal Description Section 191 and Section 193 Okotuku

District and Defined On Application Plan

991

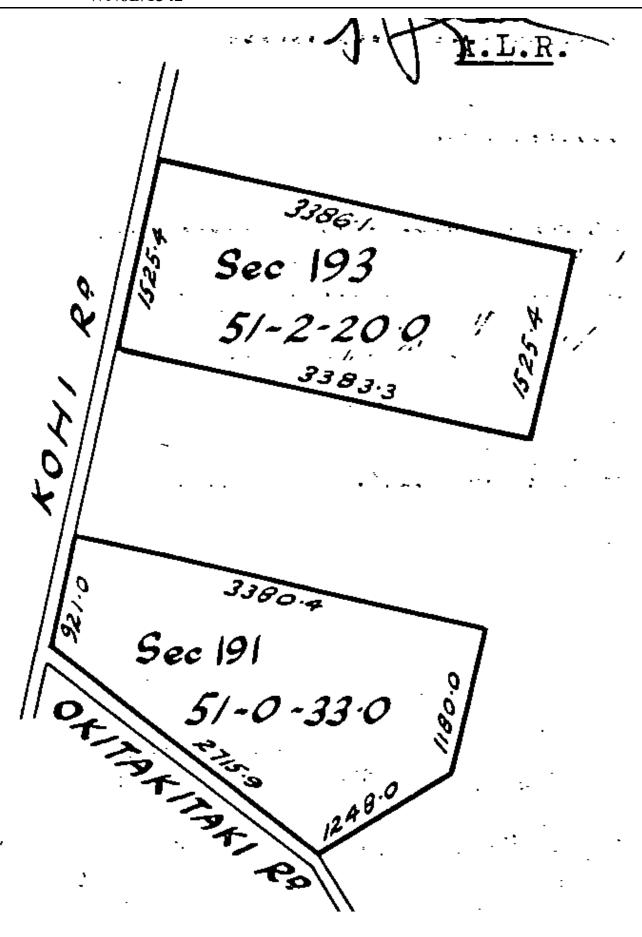
**Registered Owners** 

Douglas John Hooper as to a 1/2 share

Gillian Margaret Hooper as to a 1/2 share

#### **Interests**

12257220.3 Mortgage to Rabobank New Zealand Limited - 28.10.2021 at 4:08 pm









IdentifierWN16/116Land Registration DistrictWellingtonDate Issued23 December 1878

**Estate** Fee Simple

Area 21.0437 hectares more or less
Legal Description Section 174 Okotuku District

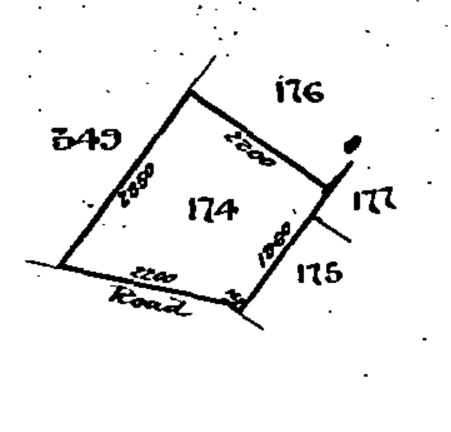
**Registered Owners** Kohi Farms 2023 Limited

#### **Interests**

9110030.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 29.6.2012 at 1:37 pm 12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm











Identifier WN16B/194

Land Registration District Wellington

Date Issued 15 June 1976

**Prior References** 

WN29/100

**Estate** Fee Simple

Area 67.5293 hectares more or less
Legal Description Lot 4 Deposited Plan 3135

**Registered Owners** 

The Proprietors of Parininihi Ki Waitotara Block

#### **Interests**

Subject to Schedule 1 of the Maori Reserved Land Amendment Act 1997 (which provides a right of first refusal to the other party to a lease, on either a transfer by the lessor or an assignment by the lessee, to a third party)

B530401.1 Lease Term 21 years from 1.1.1990 (right of renewal) - CT 537922 issued - 24.7.1996 at 10:21 am

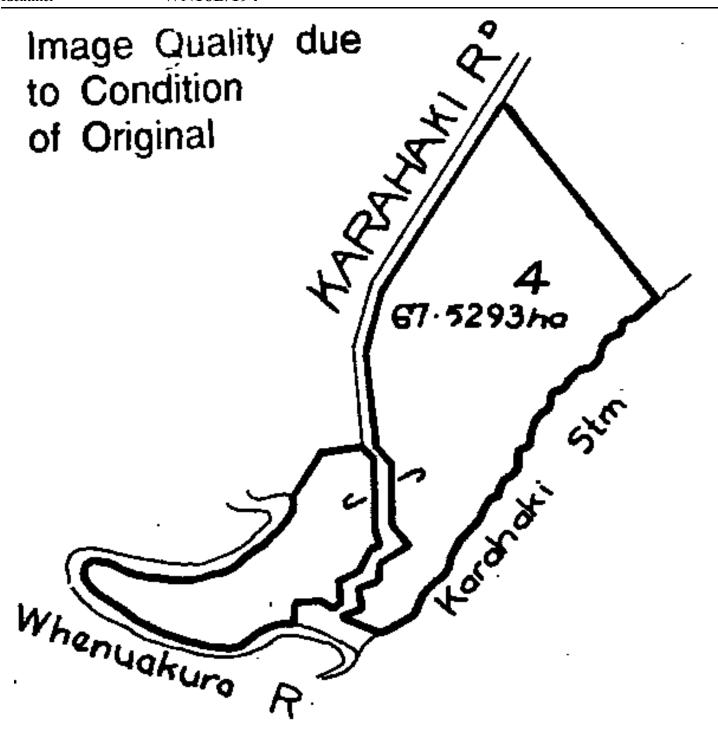
Fencing covenant in Lease B530401.1 - 24.7.1996 at 10.21 am

8539049.2 Variation of Lease B530401.1 and extension of term to 31.12.2031 - 13.10.2010 at 9:49 am

8715665.2 Variation of Lease B530401.1 - 22.3.2011 at 2:49 pm

8929772.2 Variation of Lease B530401.1 - 5.12.2011 at 1:24 pm

9097411.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 15.6.2012 at 10:58 am





## Report on Maori Land details for the following Record(s) of Title



Record(s) of Title WN16B/194

Identified as potentially Maori Freehold Land

\*\*\* End of Report \*\*\*



**Search Copy** 



Identifier WN19A/1156

Land Registration District Wellington

Date Issued 24 October 1978

**Prior References** 

WN25/243

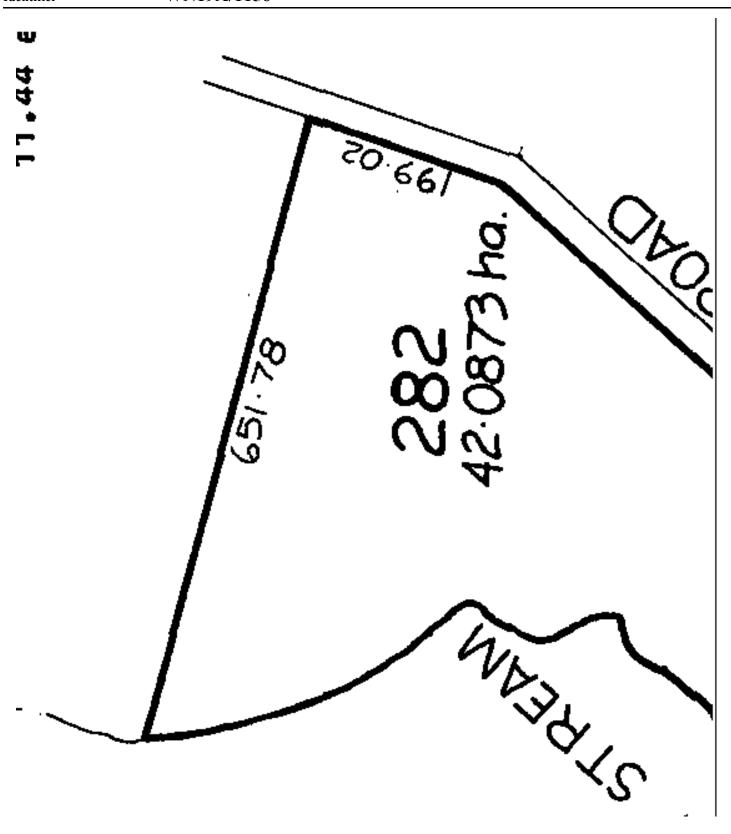
**Estate** Fee Simple

Area 42.0873 hectares more or less
Legal Description Section 282 Okotuku Block

**Registered Owners**Marinoto Dairies Limited

#### **Interests**

8711577.1 Mortgage to ASB Bank Limited - 1.6.2011 at 4:45 pm





**Search Copy** 



Identifier WN19A/1157

Land Registration District Wellington

Date Issued 24 October 1978

**Prior References** 

WN33/280

**Estate** Fee Simple

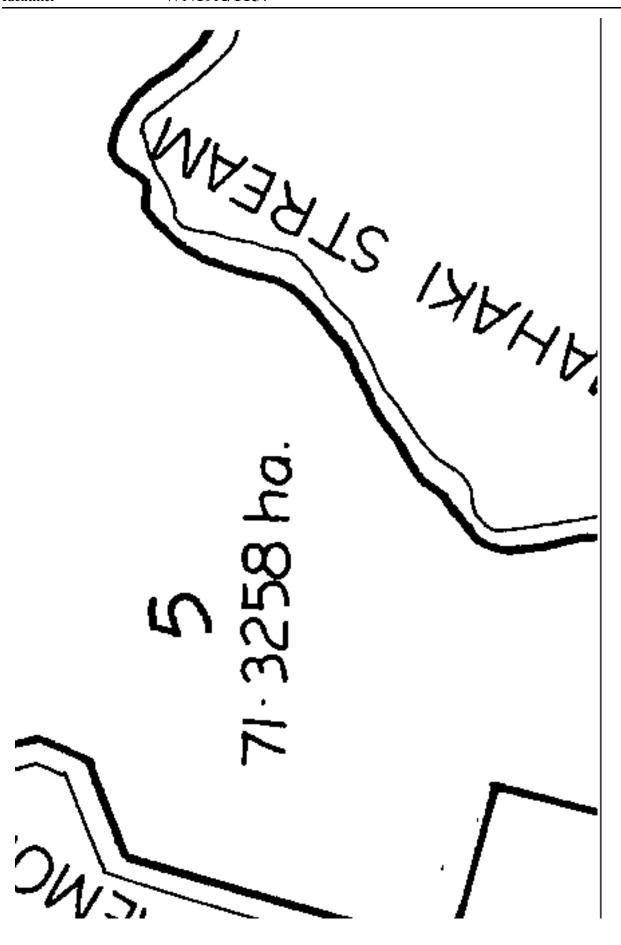
Area 71.3258 hectares more or less
Legal Description Section 5 Okotuku Block

**Registered Owners** 

Marinoto Dairies Limited

#### **Interests**

8711577.1 Mortgage to ASB Bank Limited - 1.6.2011 at 4:45 pm









Identifier WN19A/1158

Land Registration District Wellington

Date Issued 24 October 1978

**Prior References** 

WN7/189

**Estate** Fee Simple

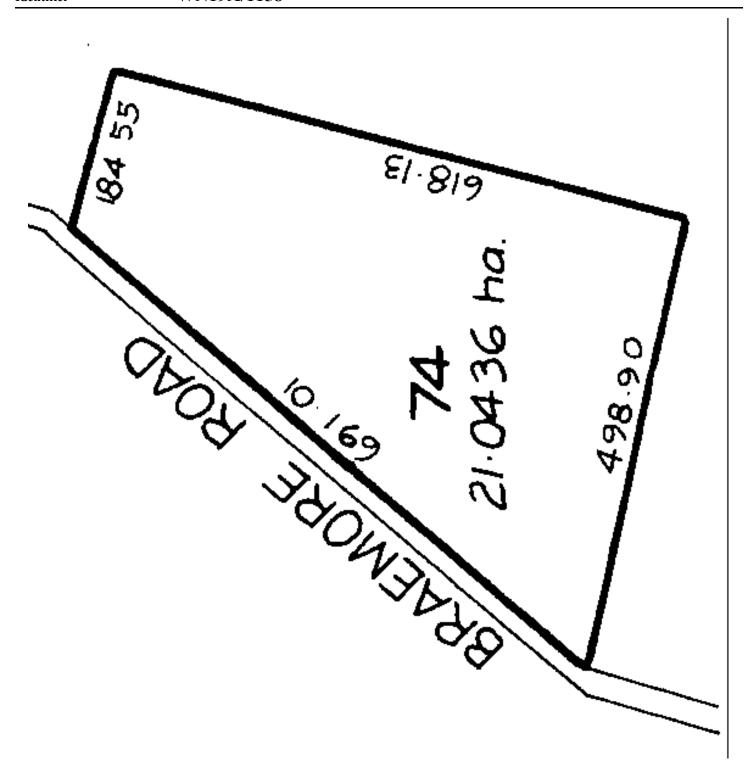
Area 21.0436 hectares more or less
Legal Description Section 74 Okotuku Block

**Registered Owners** 

Marinoto Dairies Limited

#### **Interests**

8711577.1 Mortgage to ASB Bank Limited - 1.6.2011 at 4:45 pm





**Search Copy** 



Identifier WN22B/304

Land Registration District Wellington

Date Issued 19 March 1982

**Prior References** 

WN27/197

**Estate** Fee Simple

Area 227.0286 hectares more or less
Legal Description Lot 1 Application Plan 3347

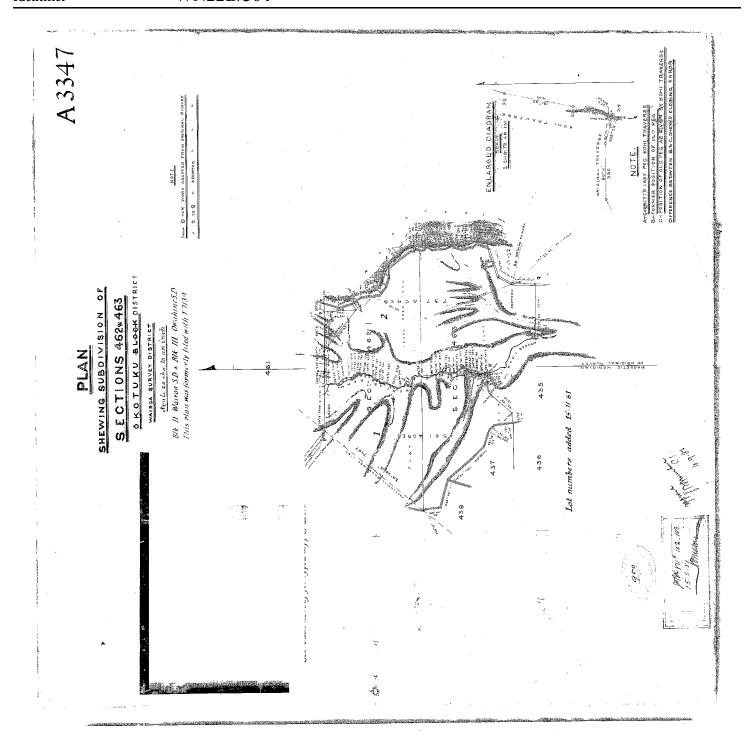
**Registered Owners** 

Kohi Farms 2023 Limited

#### **Interests**

12694699.8 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm









Identifier WN26C/875

Land Registration District Wellington

Date Issued 13 February 1985

**Prior References** 

WN47/103

**Estate** Fee Simple

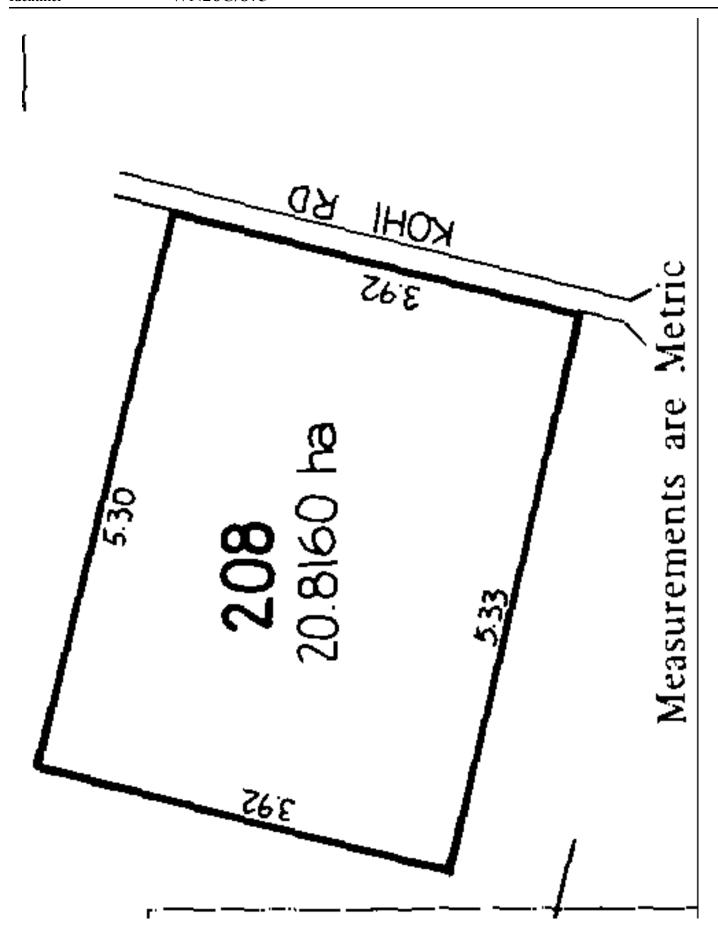
Area 20.8160 hectares more or less
Legal Description Section 208 Okotuku District

**Registered Owners** 

G & L Gulliver Nominees Limited

#### **Interests**

11649953.2 Mortgage to ANZ Bank New Zealand Limited - 15.7.2020 at 2:53 pm





**Search Copy** 



Identifier WN26C/876

Land Registration District Wellington

Date Issued 13 February 1985

**Prior References** 

WN4/246

**Estate** Fee Simple

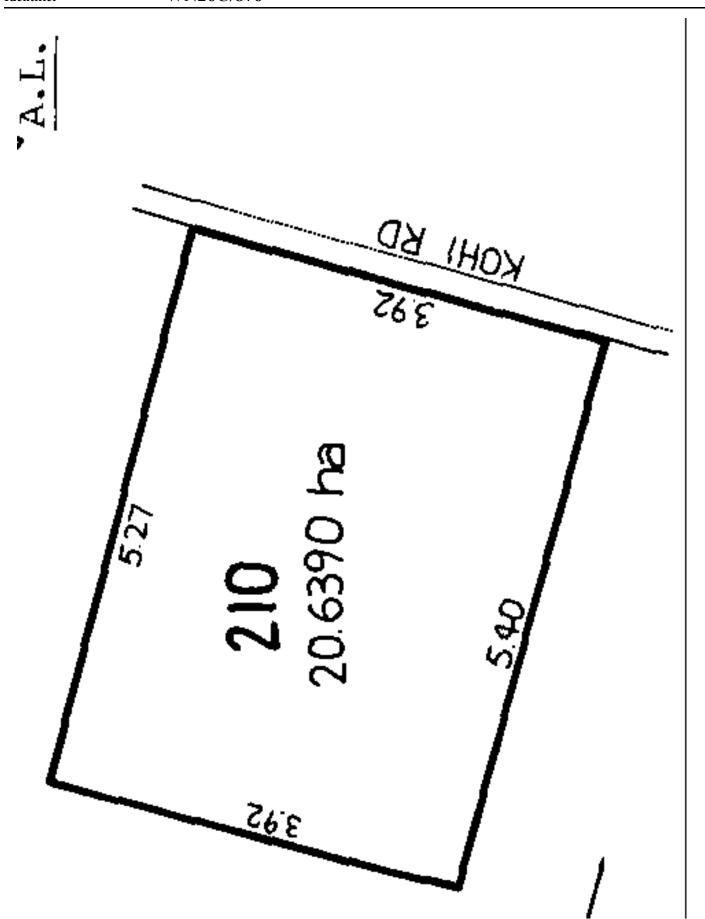
Area 20.6390 hectares more or less
Legal Description Section 210 Okotuku District

**Registered Owners** 

G & L Gulliver Nominees Limited

#### **Interests**

11649953.2 Mortgage to ANZ Bank New Zealand Limited - 15.7.2020 at 2:53 pm









**Part-Cancelled** 

Identifier WN35/278

Land Registration DistrictWellingtonDate Issued29 April 1884

**Estate** Fee Simple

Area 103.3112 hectares more or less

Legal Description Section 186-190 Okotuku District

**Registered Owners** Kohi Farms 2023 Limited

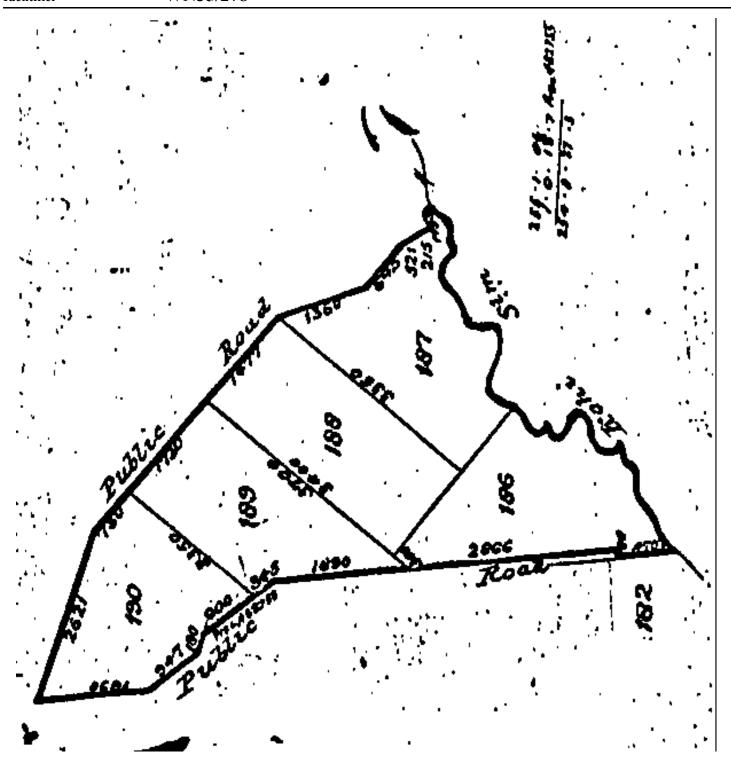
#### **Interests**

482765 Proclamation proclaiming as road part Sections 189 and 190 herein - 20.12.1960 at 3.00 pm

9110056.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 2.7.2012 at 11:50 am (affects part Section 186, 187 and 188 Okotuku District)

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



IdentifierWN36/255Land Registration DistrictWellingtonDate Issued16 September 1884

**Estate** Fee Simple

Area 147.0021 hectares more or less
Legal Description Section 68-70 Okotuku Block

**Registered Owners** 

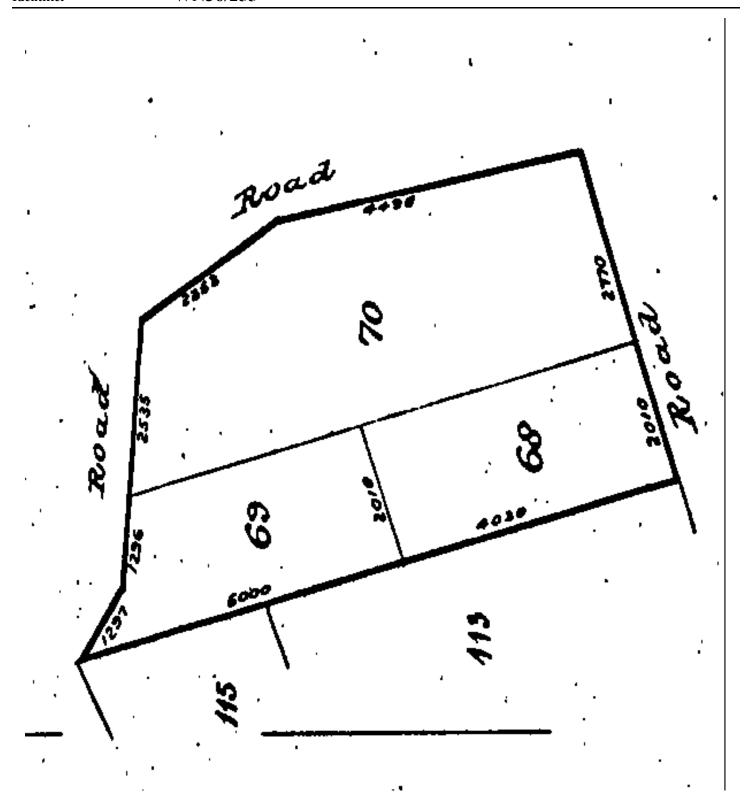
Peter William Campbell, Stephen James Barr and P & J Campbell Nominees Limited as to a 1/2 share

Peter William Campbell and P & J Campbell Nominees Limited as to a 1/2 share

#### **Interests**

8273215.1 Open Space Covenant pursuant to Section 22 Queen Elizabeth The Second National Trust Act 1977 - 2.9.2009 at 9:00 am (affects Section 70 Okotuku Block)

9724507.5 Mortgage to Rabobank New Zealand Limited - 5.6.2014 at 10:15 am









Identifier WN39B/936

Land Registration District Wellington

Date Issued 25 October 1991

**Prior References** WN12C/481

**Estate** Fee Simple

Area 30.5537 hectares more or less **Legal Description** Section 484 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

#### **Interests**

Subject to Part IV A Conservation Act 1987

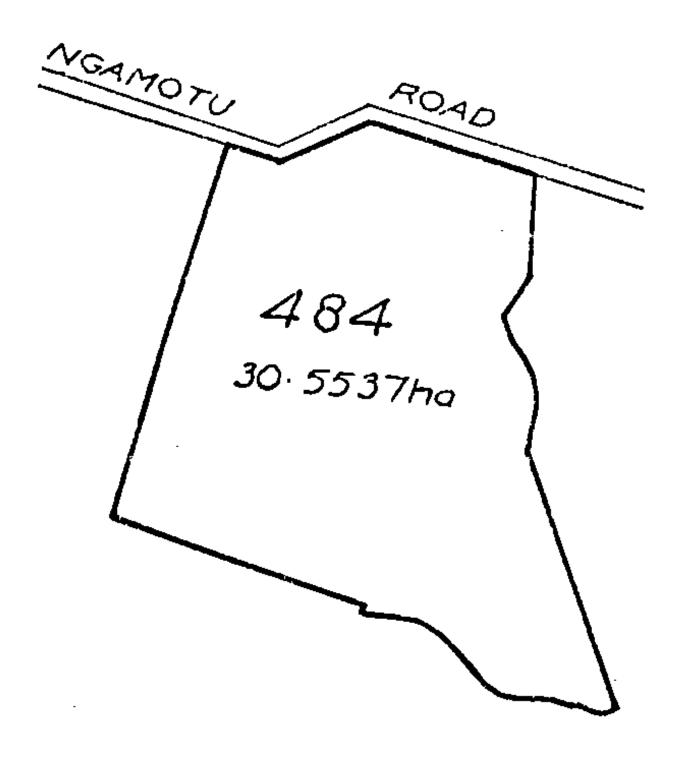
Subject to Section 11 Crown Minerals Act 1991

B422077.2 Forestry Right pursuant to the Forestry Rights Registration Act 1983 over part herein for a term of 20 years from and inclusive of 30.6.1994 - 8.3.1995 at 9.15 am

9110056.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 2.7.2012 at 11:50 am

12263688.9 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm

A.L.R.





**Search Copy** 



Identifier WN39D/645

Land Registration District Wellington

Date Issued 30 May 1991

**Prior References** 

WN12/60

**Estate** Fee Simple

**Area** 87.1463 hectares more or less

Legal Description Section 126-128 and Section 131 Okotuku

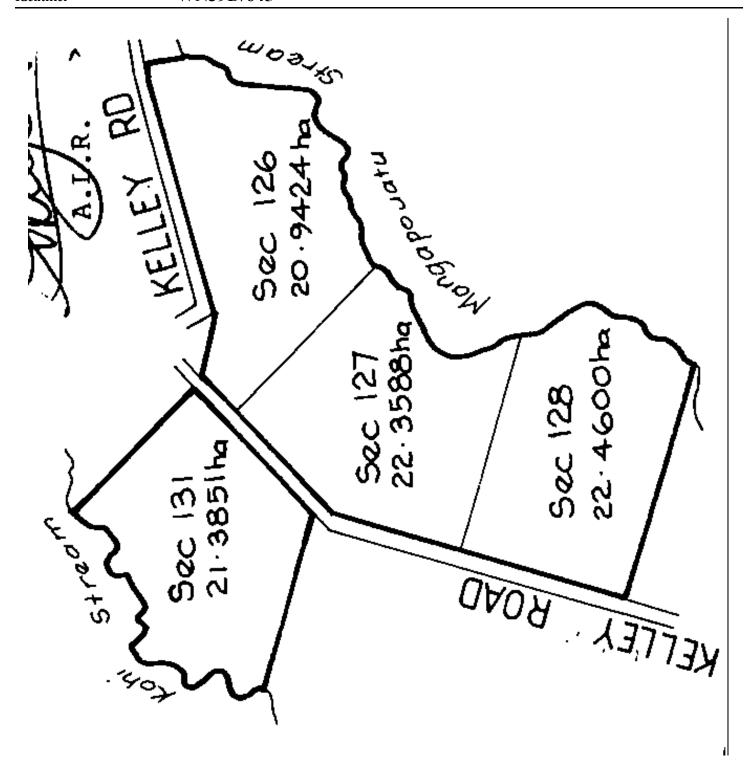
District

**Registered Owners** 

Ian Alan Rosewarne and Vivienne Iranui Rosewarne

#### **Interests**

9037943.2 Mortgage to Rabobank New Zealand Limited - 27.4.2012 at 5:05 pm









Identifier WN39D/691

Land Registration District Wellington

Date Issued 06 June 1991

**Prior References** GN 897634.1

**Estate** Fee Simple

Area 5136 square metres more or less

Legal Description Section 1 Survey Office Plan 35563

**Registered Owners** 

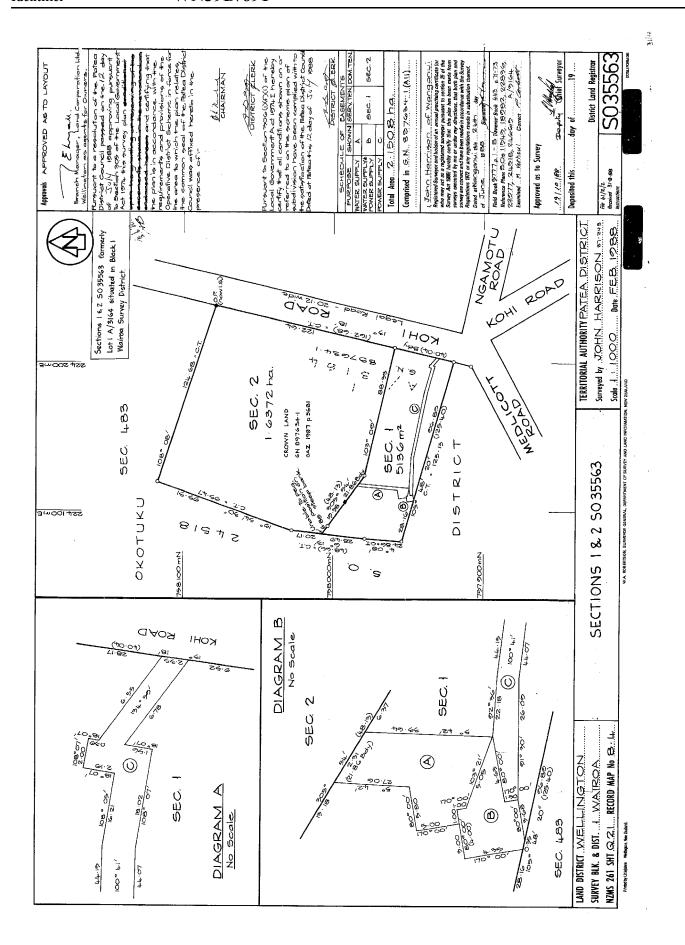
Kohi Amenities Charitable Trust Board

#### **Interests**

Subject to Section 5 Coal Mines Act 1979

Subject to Section 8 Mining Act 1971

Subject to water supply rights over parts marked A and B and power supply rights over parts marked B and C on DP 69480 created by Transfer B164417.3 - 6.6.1991 at 9.10 am





**Search Copy** 



Identifier WN39D/692

Land Registration District Wellington

Date Issued 06 June 1991

**Prior References** GN 897634.1

**Estate** Fee Simple

**Area** 1.6372 hectares more or less

**Legal Description** Section 2 Survey Office Plan 35563

Registered Owners

Ann Marie Fahy

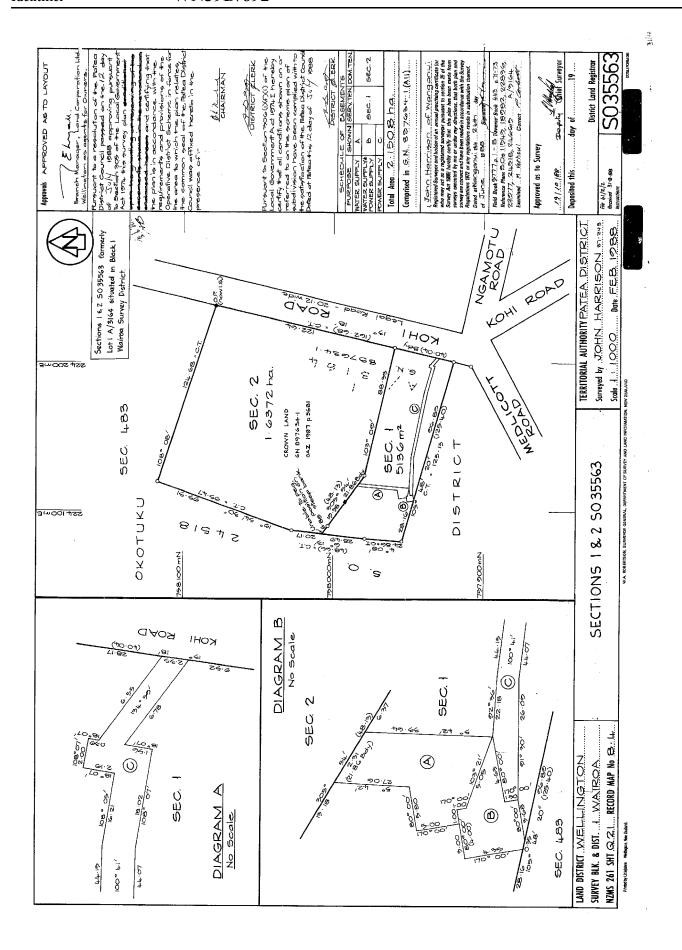
### **Interests**

Subject to Section 5 Coal Mines Act 1979 Subject to Section 8 Mining Act 1971

Appurtenant hereto are water supply rights and power supply rights created by Transfer B164417.3 - 6.6.1991 at 9.10 am

B774208.3 Mortgage to The National Bank of New Zealand Limited - 17.3.2000 at 10.06 am

6731782.1 Variation of Mortgage B774208.3 - 27.1.2006 at 9:00 am









Identifier WN40B/412

Land Registration District Wellington

Date Issued 27 November 1991

**Prior References** 

WN991/52

**Estate** Fee Simple

Area 35.6890 hectares more or less

Legal Description Section 482-483 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

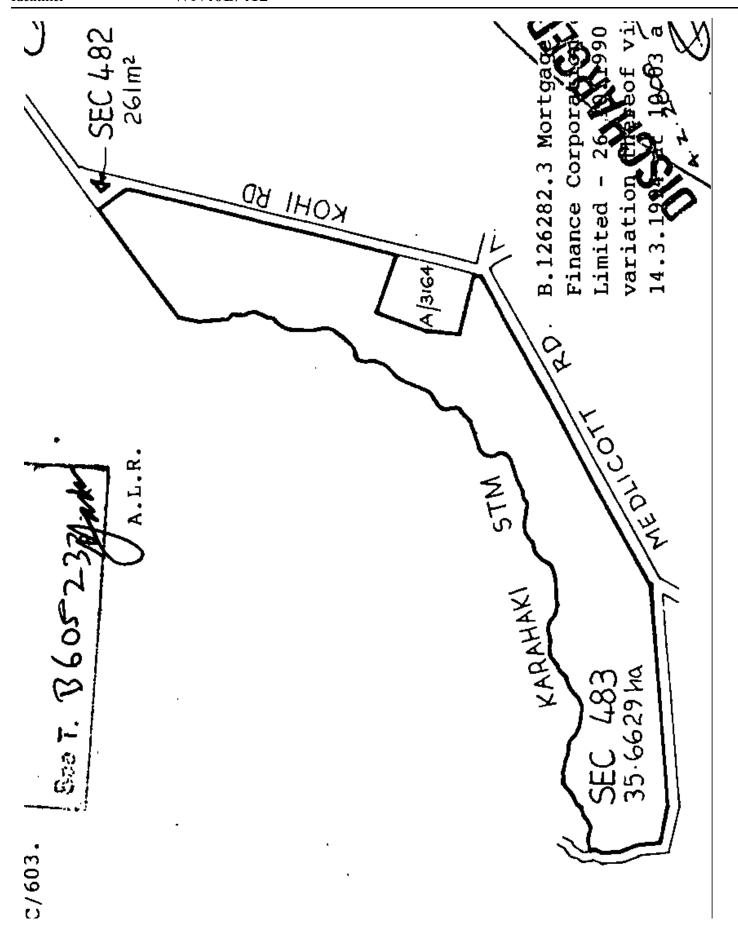
### **Interests**

Subject to Part IV A Conservation Act 1987

Subject to Section 11 Crown Minerals Act 1991

8929512.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 30.11.2011 at 3:43 pm (affects part)

12263688.12 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm





**Search Copy** 



Identifier WN43A/272

**Land Registration District** Wellington **Date Issued** 19 July 1993

**Prior References** 

WN9/243

**Estate** Fee Simple

Area 41.6826 hectares more or less
Legal Description Section 283 Okotuku District

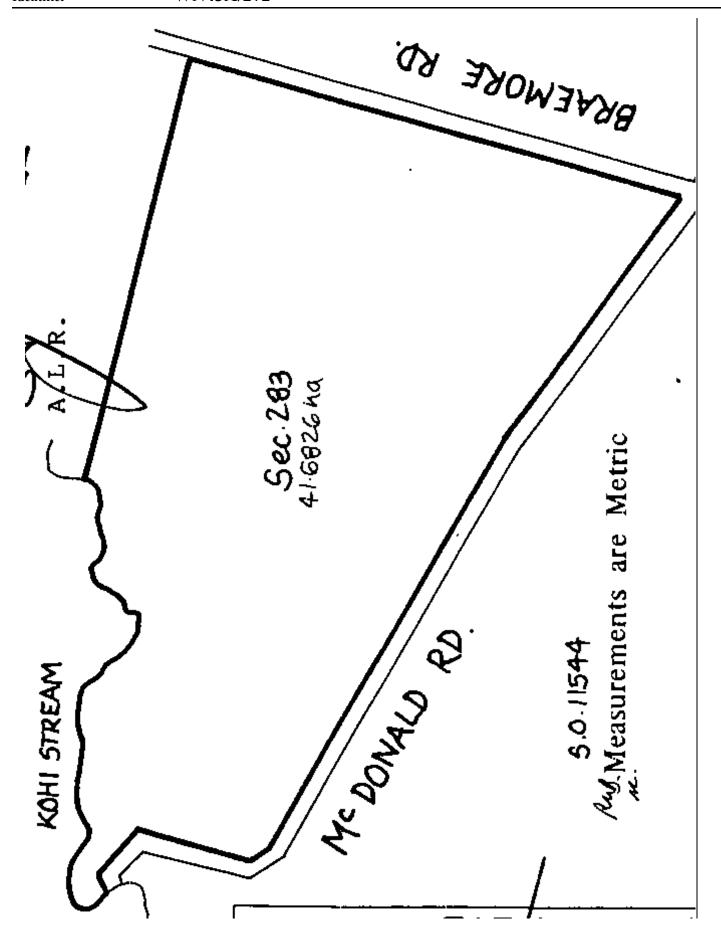
**Registered Owners** 

Brian Alexander Train and Andrew Campbell Cutler

### **Interests**

Subject to a right of road reserve in Crown Grant No. 9/243

B300632.5 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Peter Finlay McDonald and Margaret McDonald for a term of 25 years from and inclusive of 1.6.1993 or until the trees are harvested and removed from the within land (whichever is earlier) - 19.7.1993 at 2.55 pm









Identifier WN44C/552

**Land Registration District** Wellington **Date Issued** 25 July 1996

**Prior References** 

WN29D/752 WN43C/796

**Estate** Fee Simple

Area 20 square metres more or less
Legal Description Lot 1 Deposited Plan 77539

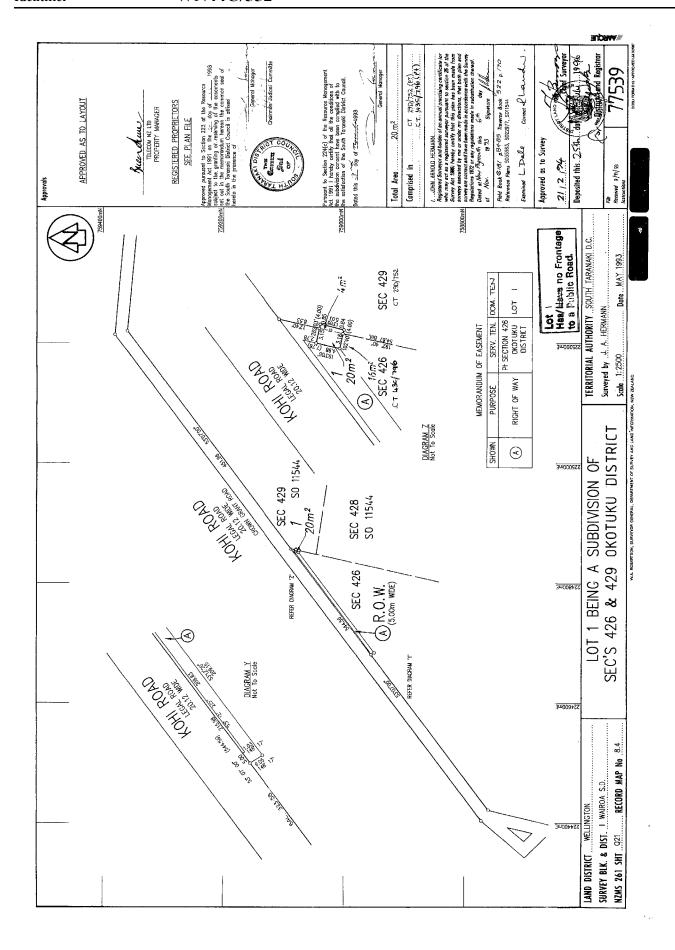
**Registered Owners** 

Chorus New Zealand Limited

### **Interests**

Appurtenant hereto is a right of way created by Transfer B530584.6 - 25.7.1996

The easements created by Transfer B530584.6 are subject to Section 243 (a) Resource Management Act 1991









Identifier WN44C/553

Land Registration District Wellington

Date Issued 29 July 1996

**Prior References** WN43C/796

**Estate** Fee Simple

Area 11.8076 hectares more or less

Legal Description Part Section 426 Okotuku District

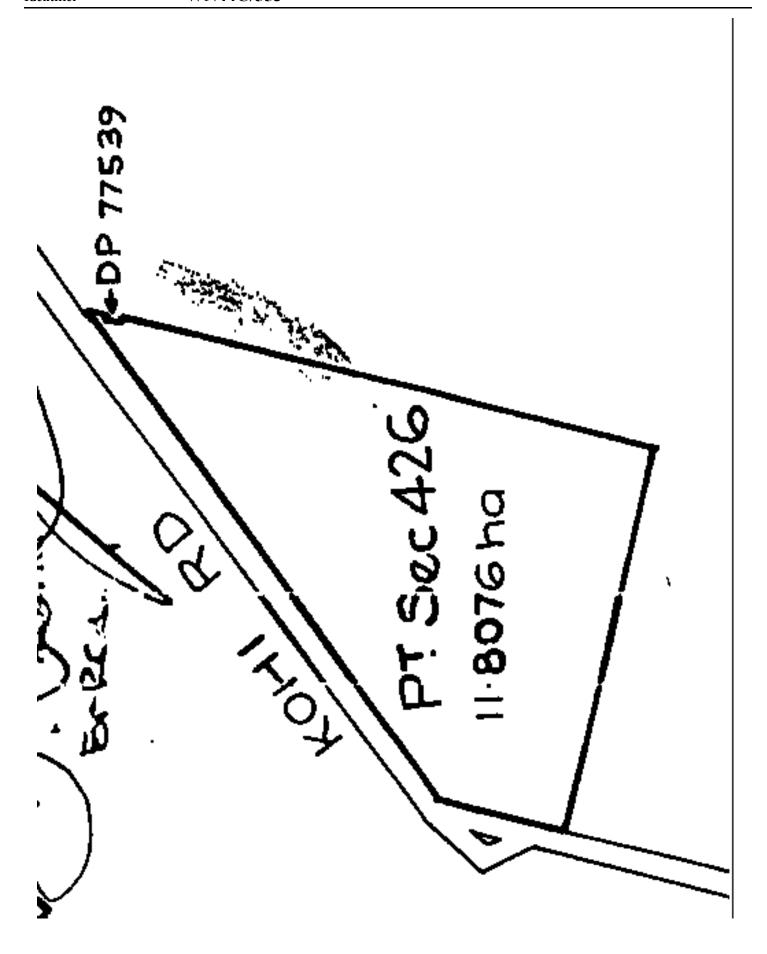
**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

Subject to a right of way over part marked A on DP 77539 created by Transfer B530584.6

The easements created by Transfer B530584.6 are subject to Section 243 (a) Resource Management Act 1991 12263688.12 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm





**Search Copy** 



Identifier WN44C/554

Land Registration District Wellington

Date Issued 25 July 1996

**Prior References** WN29D/752

**Estate** Fee Simple

**Area** 76.5180 hectares more or less

**Legal Description** Part Section 429, Section 427-428 and

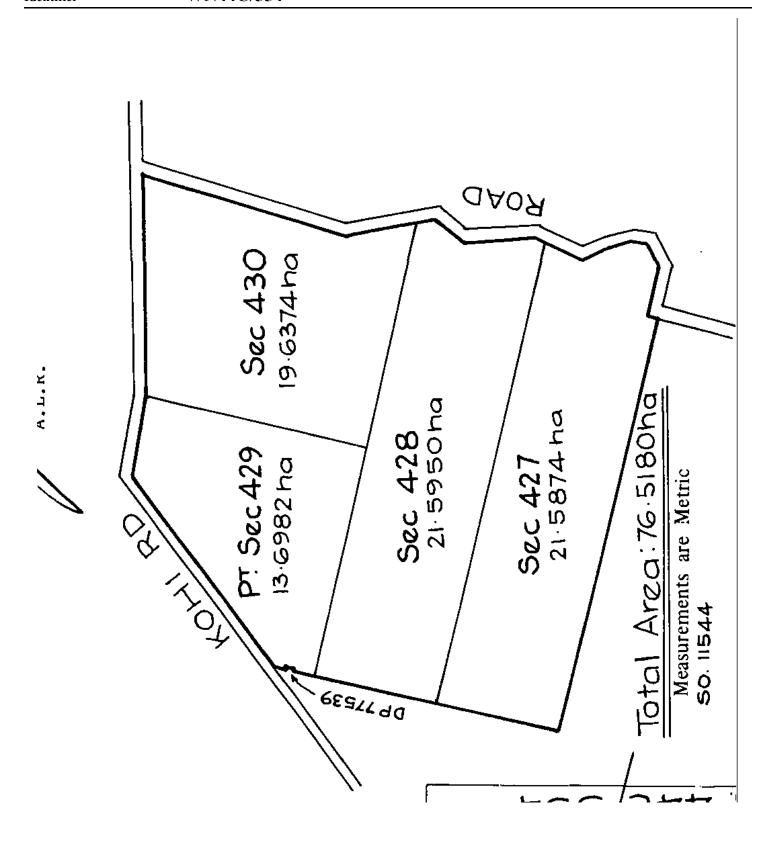
Section 430 Okotuku District

**Registered Owners** 

Alan Leslie Hone

### **Interests**

B447486.2 Mortgage to ANZ Banking Group (New Zealand) Limited - 3.8.1995 at 11.35 am





**Search Copy** 



Identifier WN45B/646

Land Registration District Wellington

Date Issued 27 February 1995

**Prior References** 

WN248/48

**Estate** Fee Simple

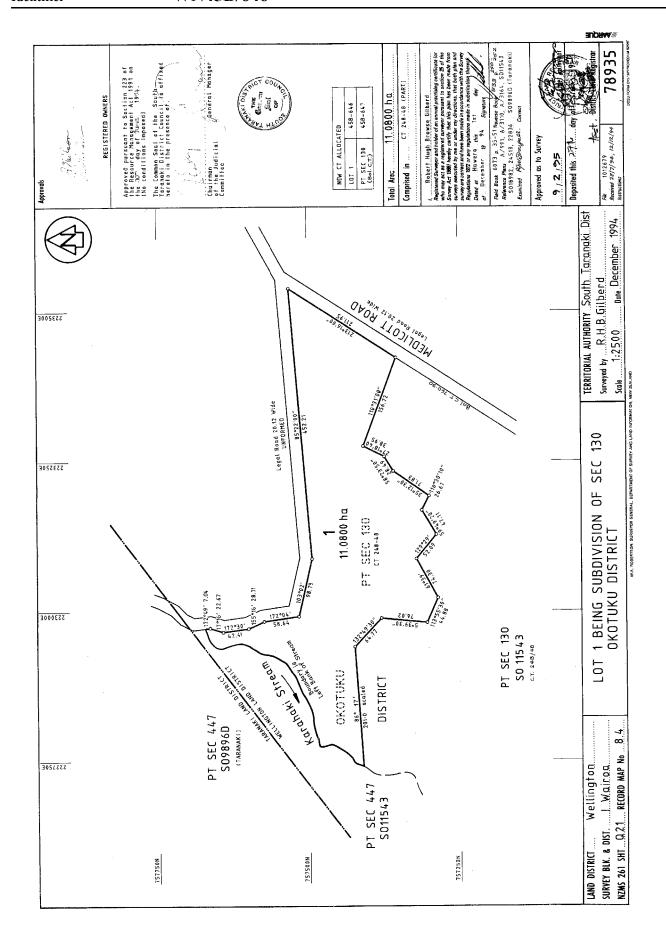
Area 11.0800 hectares more or less
Legal Description Lot 1 Deposited Plan 78935

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

8929512.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 30.11.2011 at 3:43 pm 12263688.12 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm





**Search Copy** 



Identifier WN45B/647

Land Registration District Wellington

Date Issued 27 February 1995

**Prior References** 

WN248/48

**Estate** Fee Simple

Area 37.8870 hectares more or less

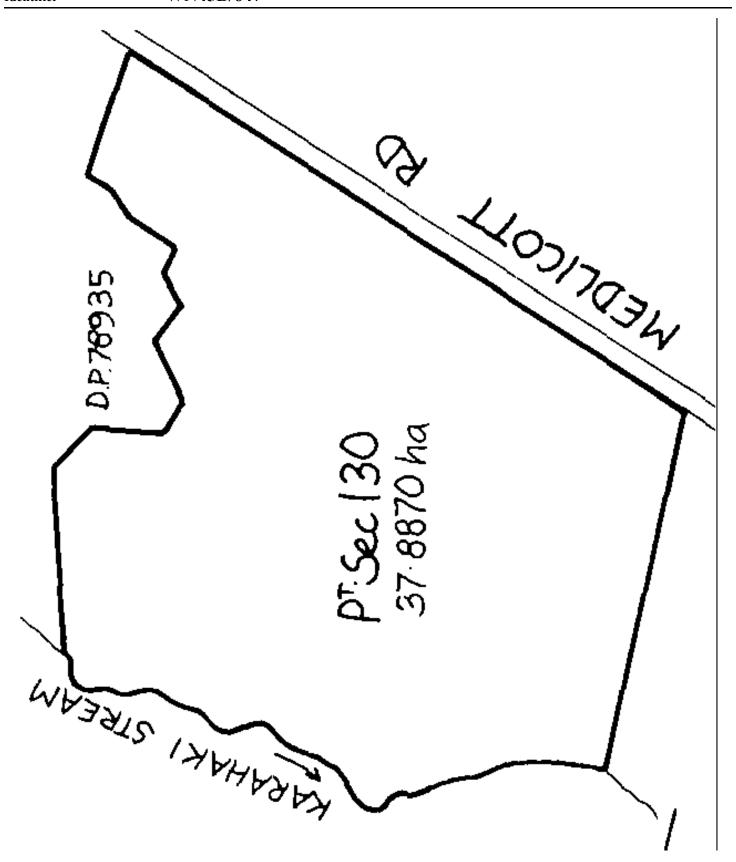
Legal Description Part Section 130 Okotuku District

**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm









Identifier WN46B/544

Land Registration District Wellington

Date Issued 24 April 1995

**Prior References** WN146/189

**Estate** Fee Simple

Area 41.0756 hectares more or less

Legal Description Section 200-201 Okotuku District

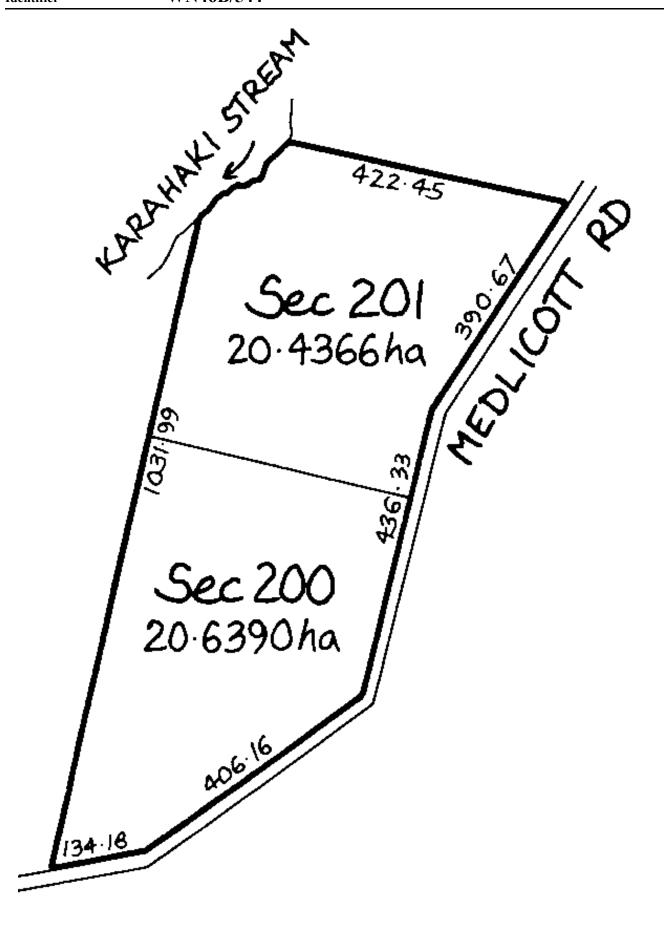
**Registered Owners** 

Kohi Farms 2023 Limited

#### **Interests**

9110056.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 2.7.2012 at 11:50 am (affects Section 201 Okotuku District)

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm









Identifier WN56A/401

Land Registration District Wellington

Date Issued 04 February 2000

**Prior References** WN135/142

**Estate** Fee Simple

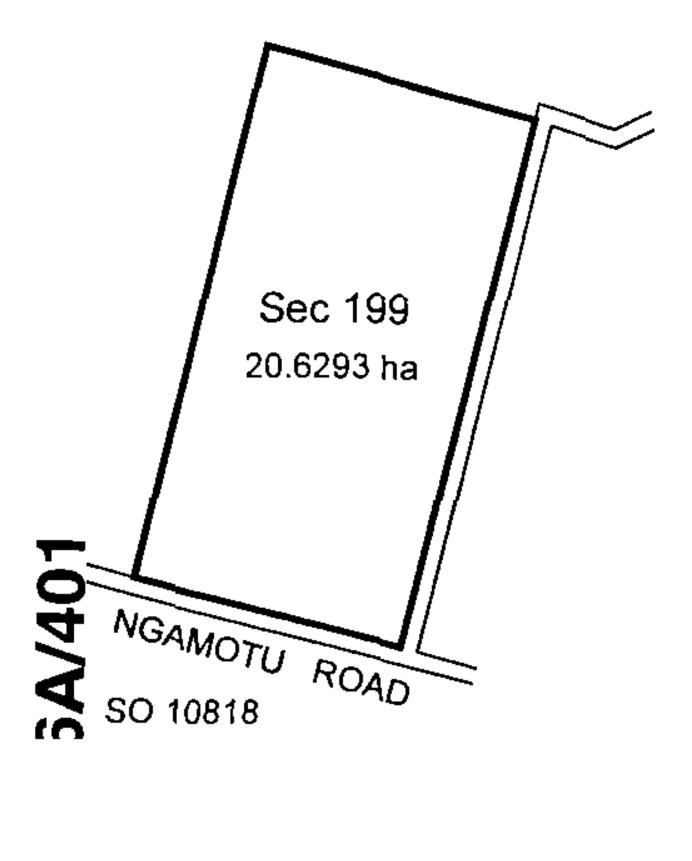
Area 20.6293 hectares more or less
Legal Description Section 199 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.9 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm









Identifier WN56A/402

Land Registration District Wellington

Date Issued 04 February 2000

**Prior References** 

WN100/90

**Estate** Fee Simple

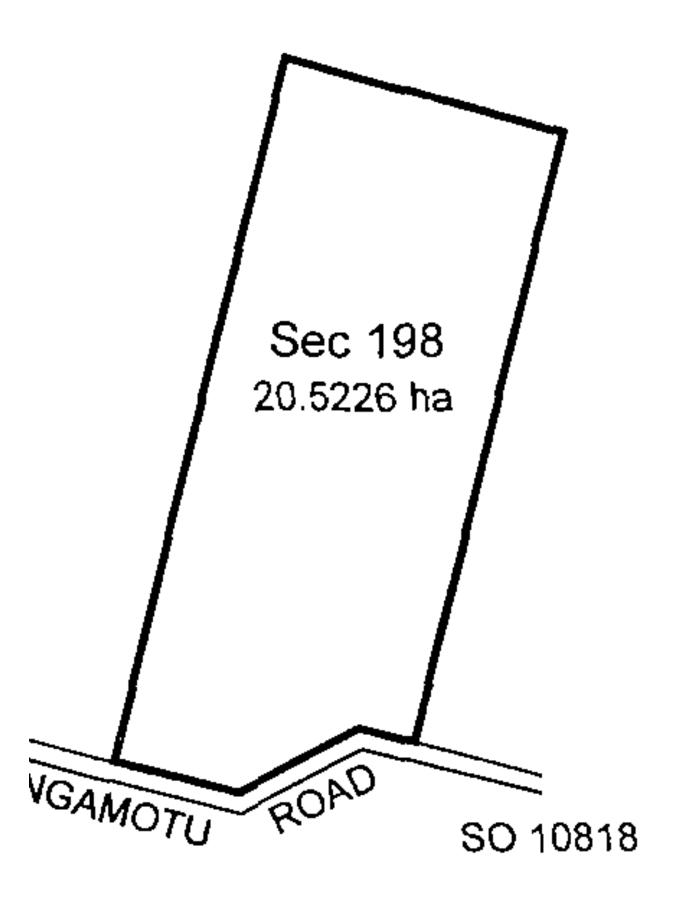
Area 20.5226 hectares more or less
Legal Description Section 198 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.9 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm





**Search Copy** 



Identifier WN56A/403

Land Registration District Wellington

Date Issued 04 February 2000

**Prior References** 

WN41/116

**Estate** Fee Simple

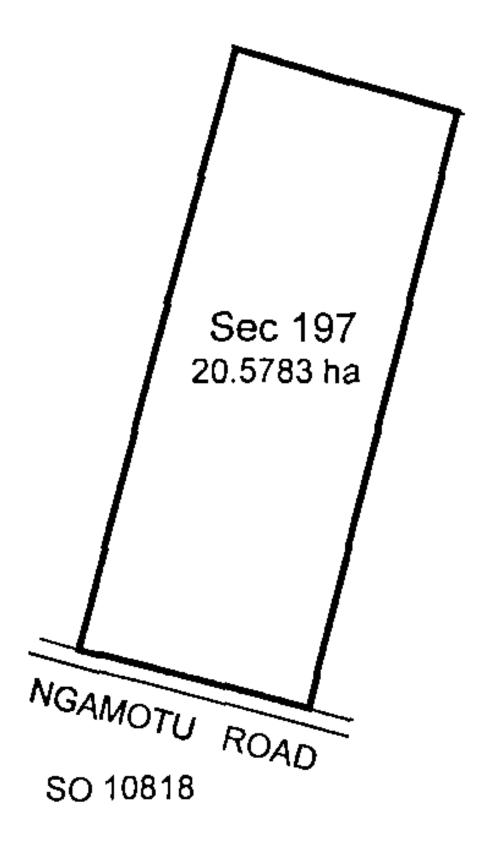
Area 20.5783 hectares more or less
Legal Description Section 197 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.9 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm









IdentifierWN94/129Land Registration DistrictWellingtonDate Issued19 August 1898

**Estate** Fee Simple

**Area** 63.6798 hectares more or less

Legal Description Section 175-176 and Section 178 Okotuku

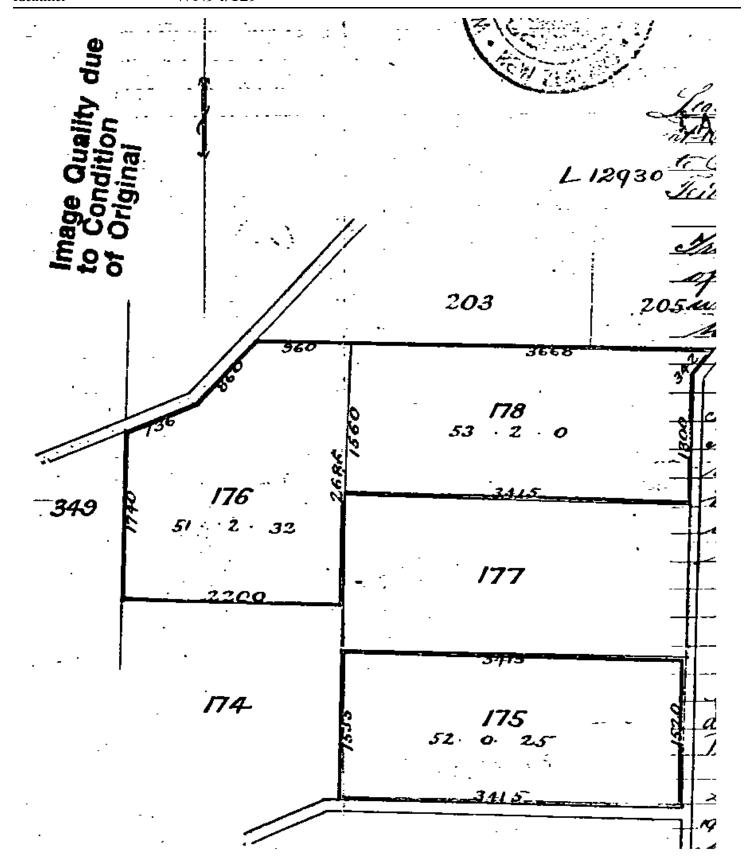
District

**Registered Owners** 

Public Trustee

### **Interests**

Subject to rights to take and convey water over part created by Transfer 865962 - 5.4.1971 at 12.24 pm (affects Section 178 Okotuku District)









Identifier WN99/294

Land Registration District Wellington

Date Issued 19 May 1899

**Prior References** 

WN10/151

**Estate** Fee Simple

Area 9.8035 hectares more or less

Legal Description Part Section 461 Okutuku District

**Registered Owners** 

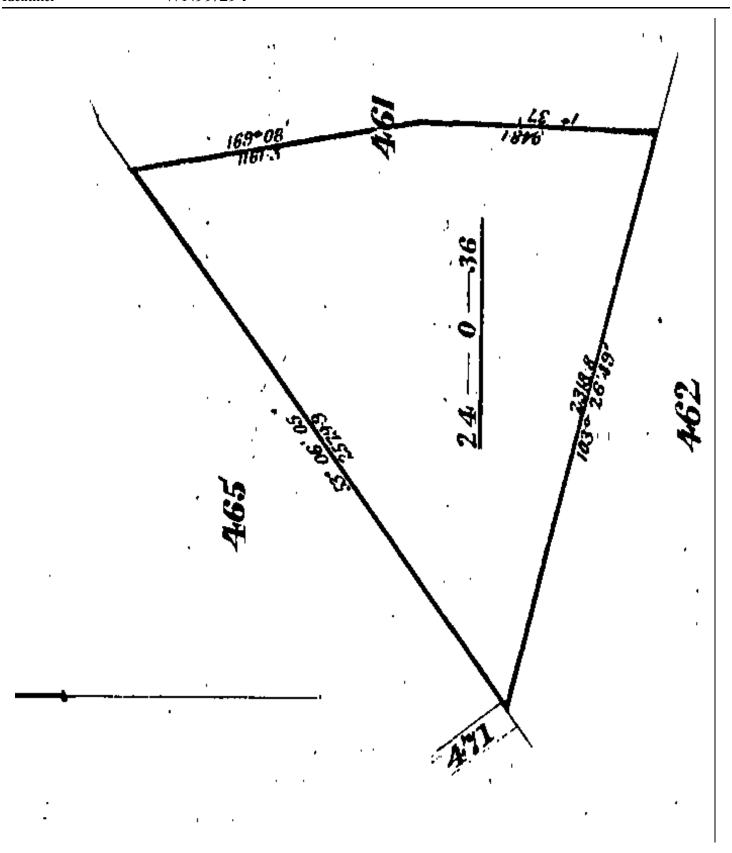
Lupton Land Company Limited

#### **Interests**

5770036.1 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Morris Noel Fisher Term 35 years commencing on the 1st day of June 2002 and shall continue for a period of thirty-five (35) years or until milling clearing and the work referred to in Clause 4.5 of the forestry right have been completed in terms of the forestry right agreement, whichever is the sooner - 20.10.2003 at 9:00 am

5770054.1 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Jason David McKillop Term 35 years commencing on the 1st day of October 1999 and shall continue for a period of thirty-five (35) years or until milling clearing and the work referred to in Clause 4.5 of the forestry right have been completed in terms of the forestry right agreement, whichever is the sooner - 20.10.2003 at 9:00 am

10034157.3 Mortgage to ANZ Bank New Zealand Limited - 1.5.2015 at 4:20 pm









Identifier WN219/163

Land Registration District Wellington

**Date Issued** 06 August 1913

**Prior References** 

WN135/126 WN135/127

**Estate** Fee Simple

**Area** 62.5012 hectares more or less

Legal Description Lot 1-2 Deposited Plan 2769 and Section

184-185 Okotuku Block

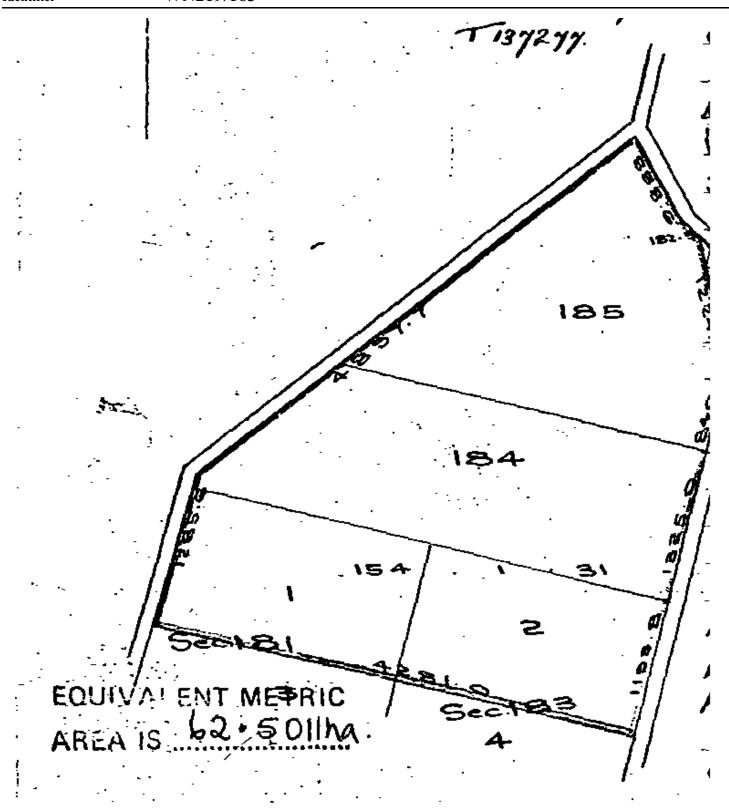
**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

9110030.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 29.6.2012 at 1:37 pm (affects Lot 2 DP 2769 and Section 184-185 Okotuku Block)

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier WN230/86

Land Registration District Wellington

Date Issued 29 October 1914

**Prior References** 

WN34/284

**Estate** Fee Simple

Area 86.0969 hectares more or less
Legal Description Lot 1 Deposited Plan 3016

**Registered Owners** 

Kohi Farms 2023 Limited

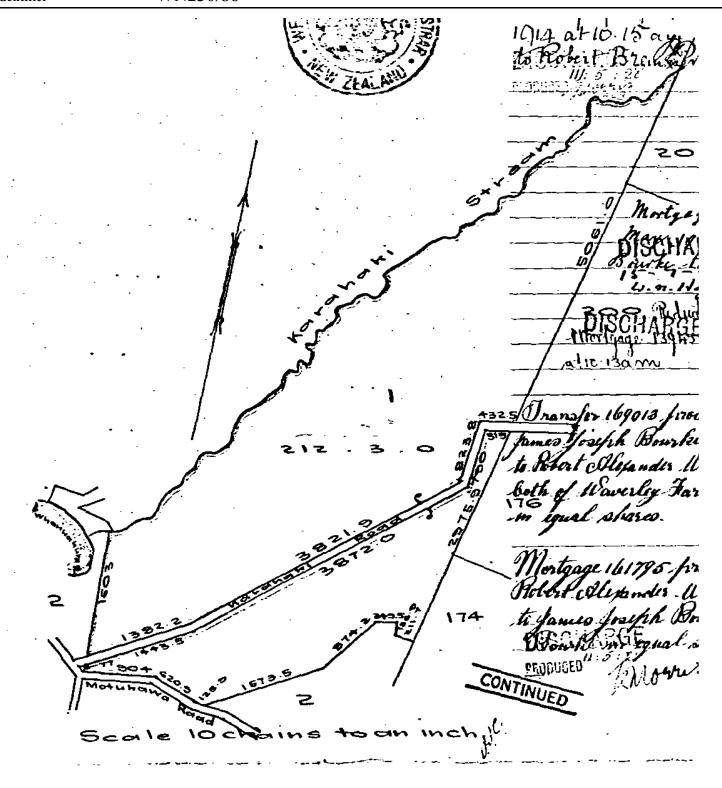
#### **Interests**

9110030.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 29.6.2012 at 1:37 pm

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey

and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm









Identifier WN230/89

Land Registration District Wellington

Date Issued 29 October 1914

**Prior References** 

WN1/293 WN1/301

**Estate** Fee Simple

**Area** 40.7721 hectares more or less

Legal Description Section 207 and Section 209 Okotuku

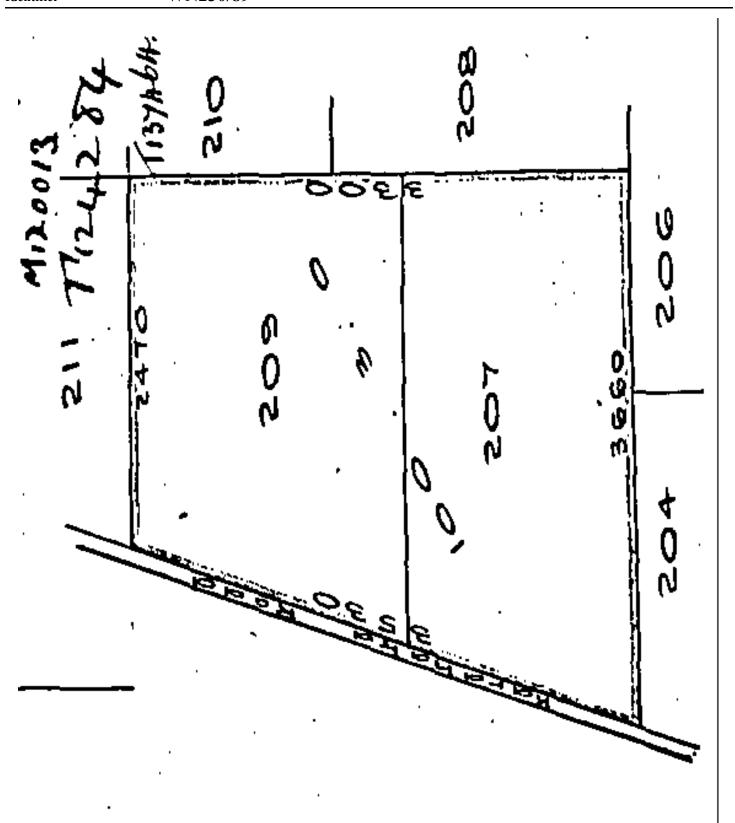
District

**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm









Identifier WN230/90
Land Registration District Wellington

**Date Issued** 29 October 1914

**Prior References** 

WN1/293 WN9/239

**Estate** Fee Simple

**Area** 40.6355 hectares more or less

Legal Description Section 211 and Section 213 Okotuku

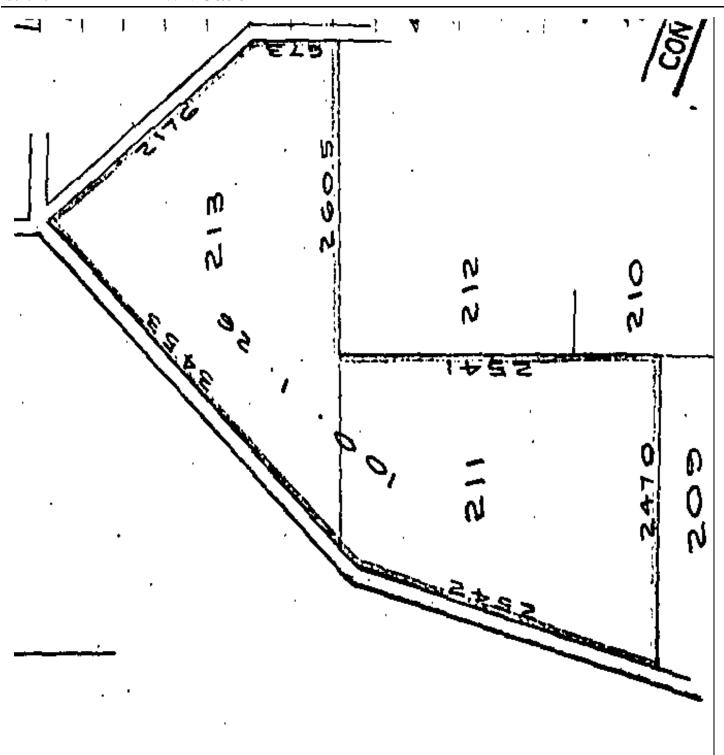
District

**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm









Identifier WN242/44

Land Registration District Wellington

Date Issued 29 August 1916

**Prior References** 

WN14/12 WN221/247

**Estate** Fee Simple

Area 205.6815 hectares more or less Legal Description Lot 2-3 Deposited Plan 2586

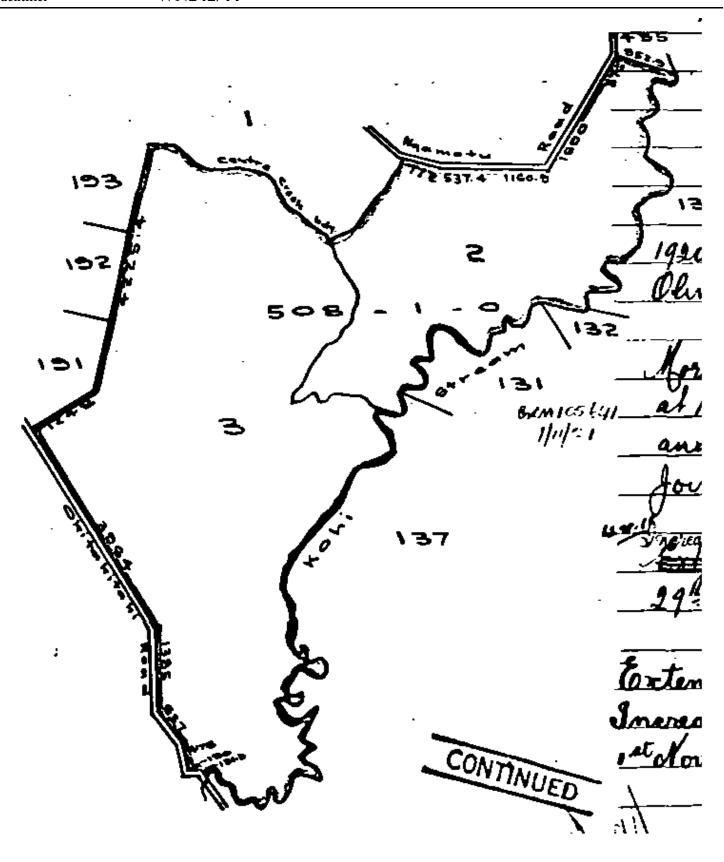
**Registered Owners** 

The Kohi Cattle Company Limited

### **Interests**

11474204.3 Mortgage to Rabobank New Zealand Limited - 27.6.2019 at 4:23 pm

11878057.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - 30.9.2020 at 9:47 am









Identifier WN242/45

Land Registration District Wellington

Date Issued 29 August 1916

**Prior References** WN221/247

**Estate** Fee Simple

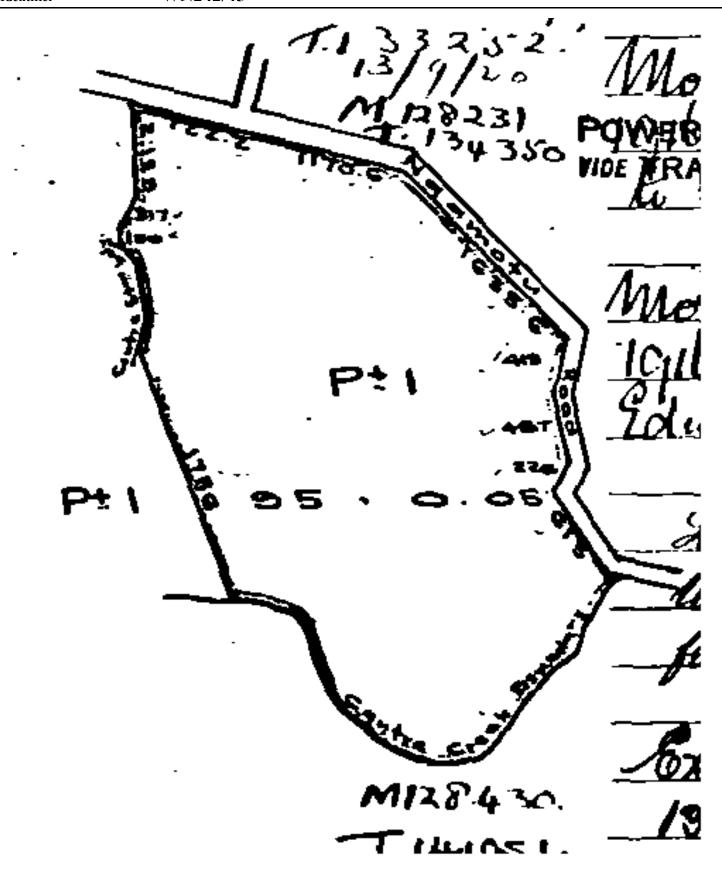
Area 38.4578 hectares more or less
Legal Description Part Lot 1 Deposited Plan 2586

**Registered Owners** 

G & L Gulliver Nominees Limited

### **Interests**

8892529.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 19.10.2011 at 5:35 pm 12745896.10 Mortgage to ANZ Bank New Zealand Limited - 16.6.2023 at 2:41 pm





**Search Copy** 



IdentifierWN271/57Land Registration DistrictWellingtonDate Issued21 August 1920

**Prior References** WN262/243

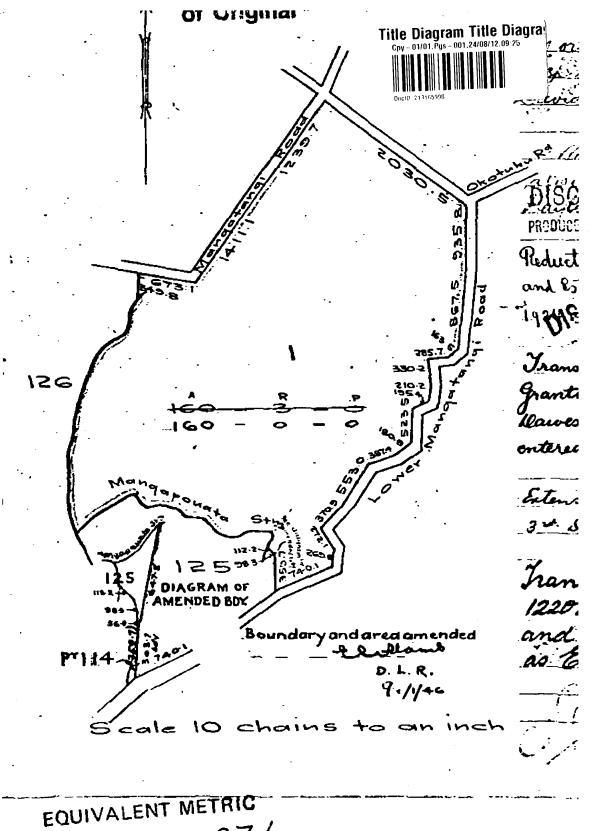
**Estate** Fee Simple

Area 64.7497 hectares more or less
Legal Description Lot 1 Deposited Plan 4352

**Registered Owners** 

Brian Alexander Train and Andrew Campbell Cutler as to a 1/2 share

Brian Alexander Train, Joan Ellen Train and Andrew Campbell Cutler as to a 1/2 share



AREA IS ...64:74.9.7...



**Search Copy** 



Identifier WN275/126
Land Registration District Wellington

**Date Issued** 07 September 1920

**Prior References** 

WA 4/116

**Estate** Fee Simple

**Area** 20.9830 hectares more or less

Legal Description Section 134 Block II Wairoa Survey

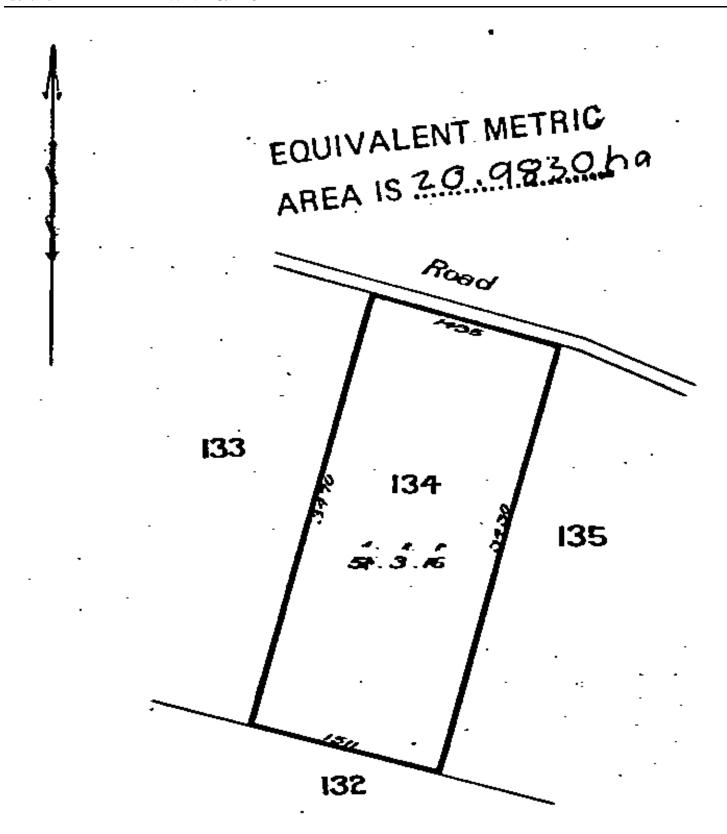
District

**Registered Owners** 

Andrew Campbell Cutler, Brian Alexander Train and Trevor James Harrop

### **Interests**

Subject to conditions of part XII The Land Act 1908 and excepting all minerals, oil and mineral gases and coal and the right to mine therefor and win and get the same respectively





## Limited as to Parcels

**Search Copy** 



Identifier WN339/54

Land Registration District Wellington

**Date Issued** 08 July 1926

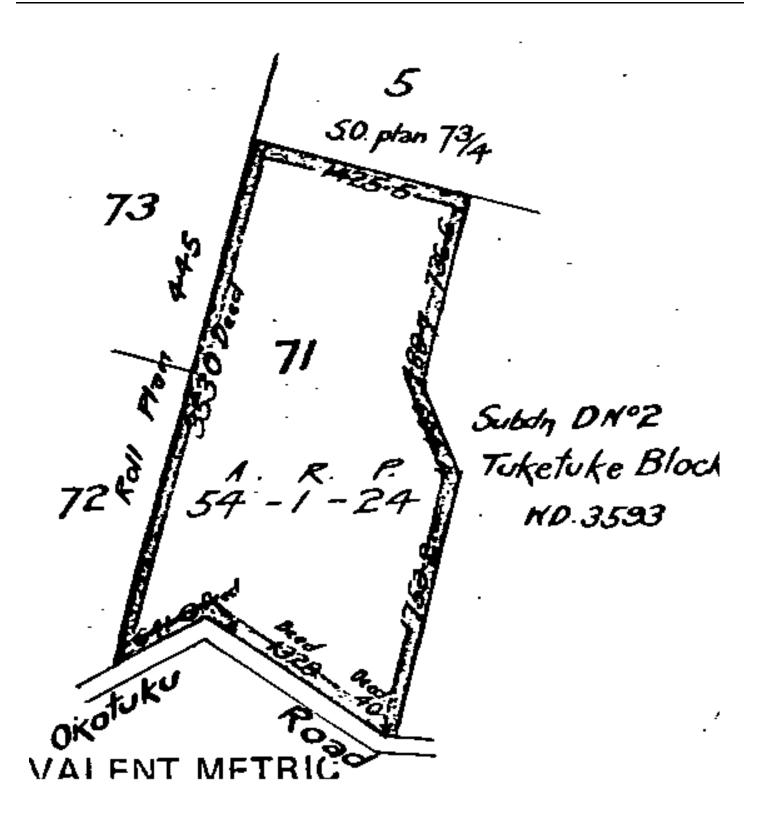
**Prior References** 

DI 29/71

**Estate** Fee Simple

Area 22.0149 hectares more or less
Legal Description Section 71 Okotuku District

**Registered Owners** Train Farm Limited





## Limited as to Parcels

**Search Copy** 



Identifier WN339/60

Land Registration District Wellington

**Date Issued** 09 July 1926

**Prior References** 

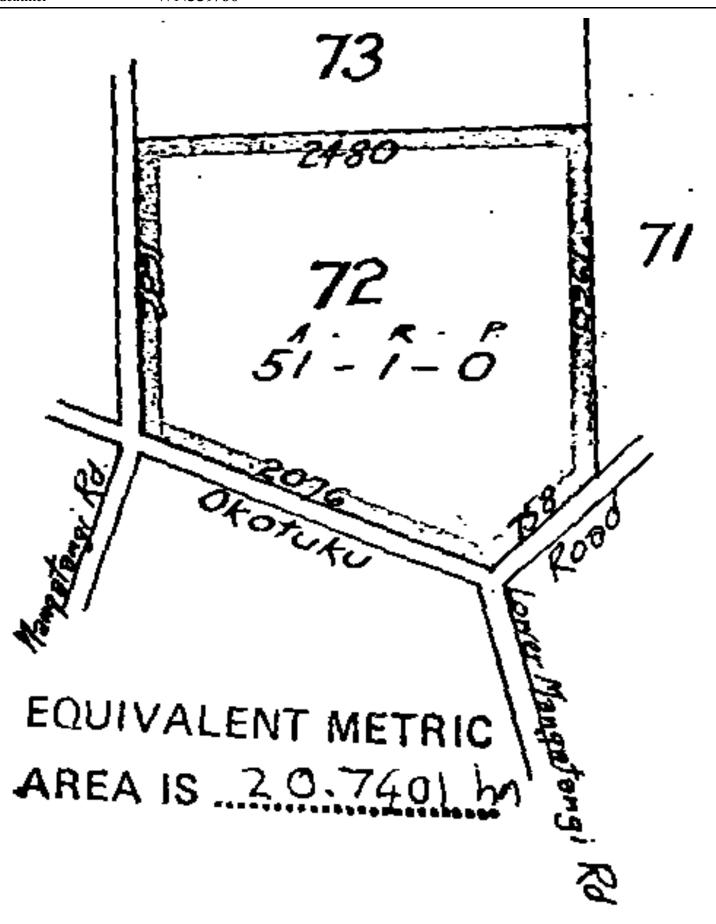
DI 29/72

**Estate** Fee Simple

Area 20.7401 hectares more or less
Legal Description Section 72 Okotuku District

**Registered Owners** 

Brian Alexander Train and Andrew Campbell Cutler





## Limited as to Parcels

**Search Copy** 



Identifier WN339/61
Land Registration District Wellington

**Date Issued** 09 July 1926

**Prior References** 

DI 29/73

**Estate** Fee Simple

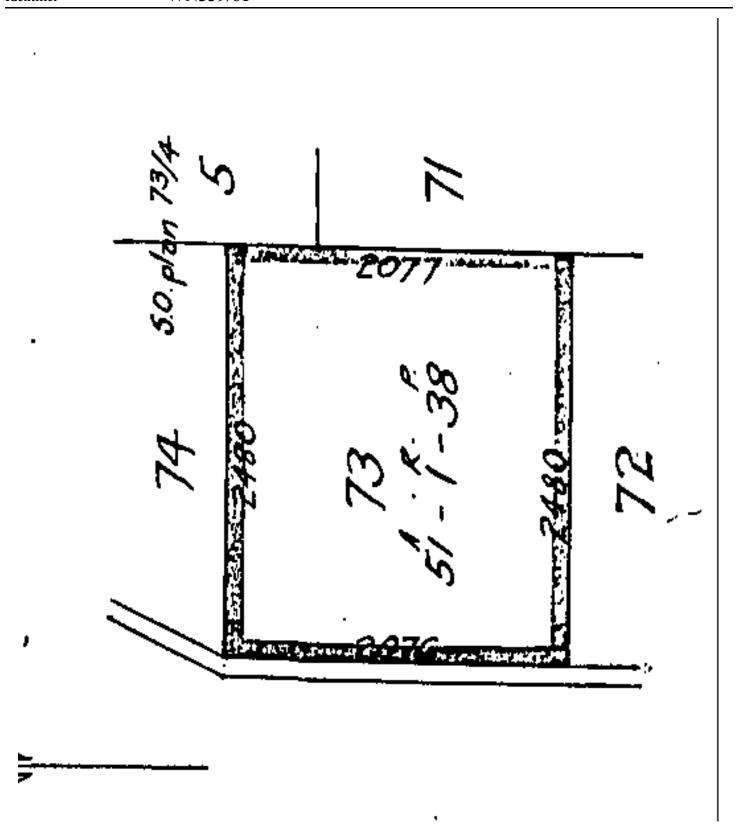
Area 20.8363 hectares more or less
Legal Description Section 73 Okotuku District

**Registered Owners** 

David Charles Lawrence, James Arthur Coleman and Gresham Walkinton Trustee Co Limited

### **Interests**

6401074.1 Mortgage to ANZ National Bank Limited - 29.4.2005 at 9:00 am





## Limited as to Parcels

**Search Copy** 



Identifier WN339/72
Land Registration District Wellington

**Prior References** 

DI 29/135

**Date Issued** 

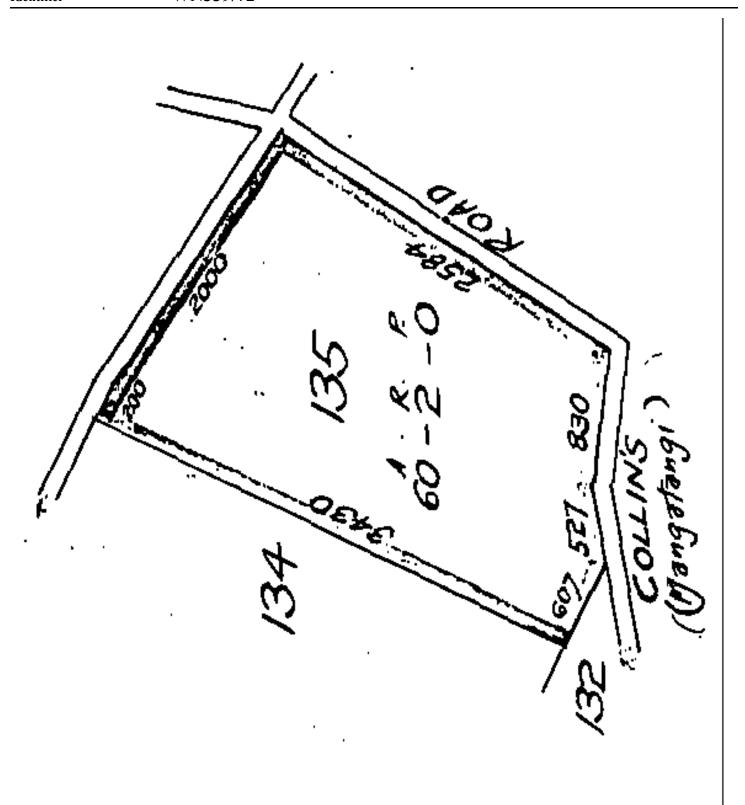
**Estate** Fee Simple

Area 24.4835 hectares more or less
Legal Description Section 135 Okotuku District

**Registered Owners** 

Andrew Campbell Cutler, Brian Alexander Train and Trevor James Harrop

21 July 1926





## Limited as to Parcels

**Search Copy** 



Identifier WN345/74

Land Registration District Wellington

**Date Issued** 08 July 1927

**Prior References** 

DI 29/194

**Estate** Fee Simple

Area 20.6390 hectares more or less
Legal Description Section 194 Okotuku District

**Registered Owners** 

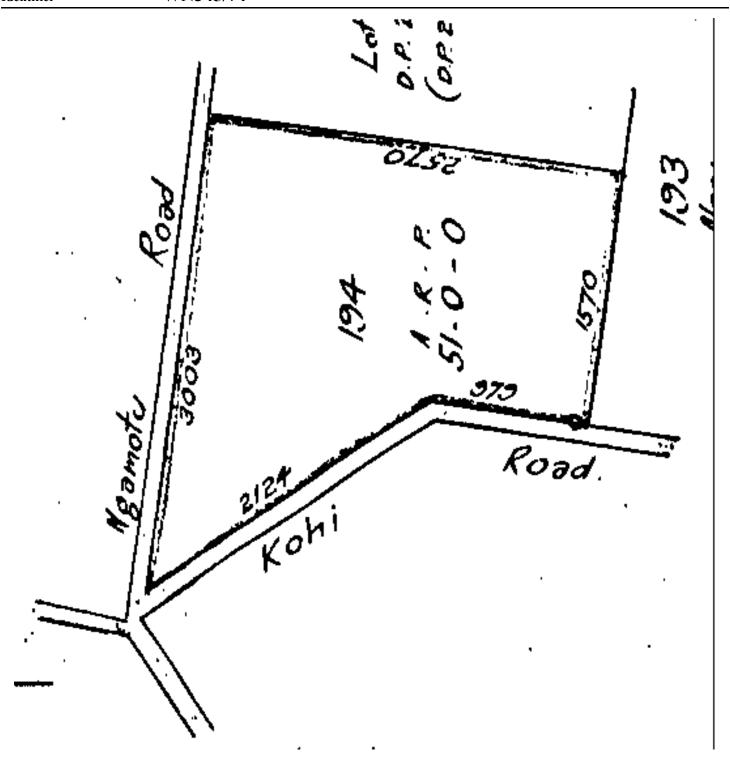
G & L Gulliver Nominees Limited

#### **Interests**

5183092.1 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to (now) Nelson Nestor Byers and to G & L Gulliver Nominees Limited in shares - 28.3.2002 at 9:00 am

8892529.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 19.10.2011 at 5:35 pm

12745896.9 Mortgage to ANZ Bank New Zealand Limited - 16.6.2023 at 2:41 pm





## Limited as to Parcels

**Search Copy** 



Identifier WN345/75

**Land Registration District** Wellington **Date Issued** 08 July 1927

**Prior References** 

DI 29/198 DI 29/204

**Estate** Fee Simple

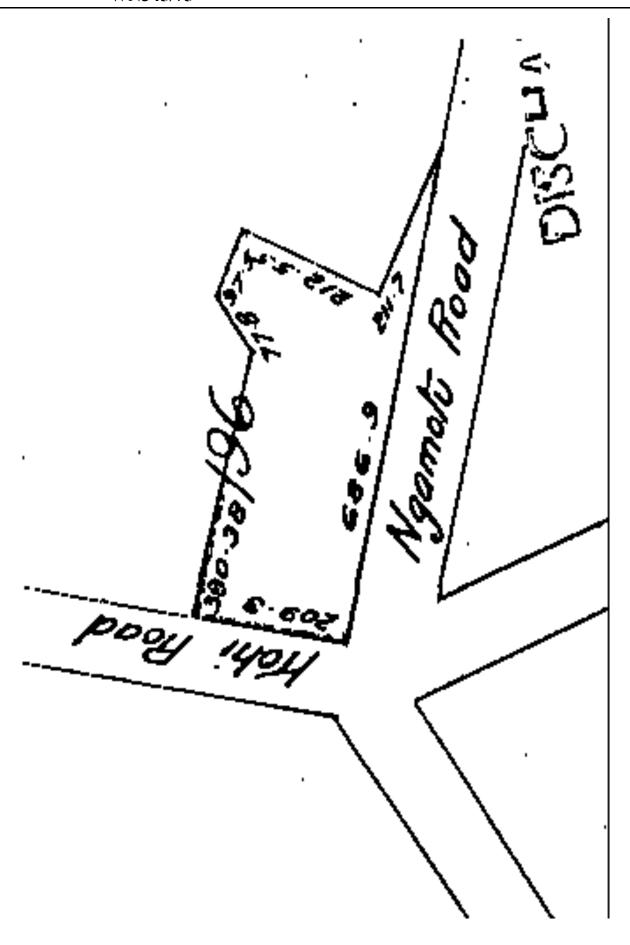
Area 4527 square metres more or less
Legal Description Part Section 196 Okotuku District

**Registered Owners** 

Nellie Eileen Hone, Sheldon Maxwell Hone and Holly Navana Christie Johnston as Executors

### **Interests**

Fencing Agreement contained in Conveyance 112170 (206/28)





## Limited as to Parcels

**Search Copy** 



Identifier WN345/76

Land Registration District Wellington

Date Issued 08 July 1927

**Prior References** 

DI 29/200

**Estate** Fee Simple

Area 20.1786 hectares more or less

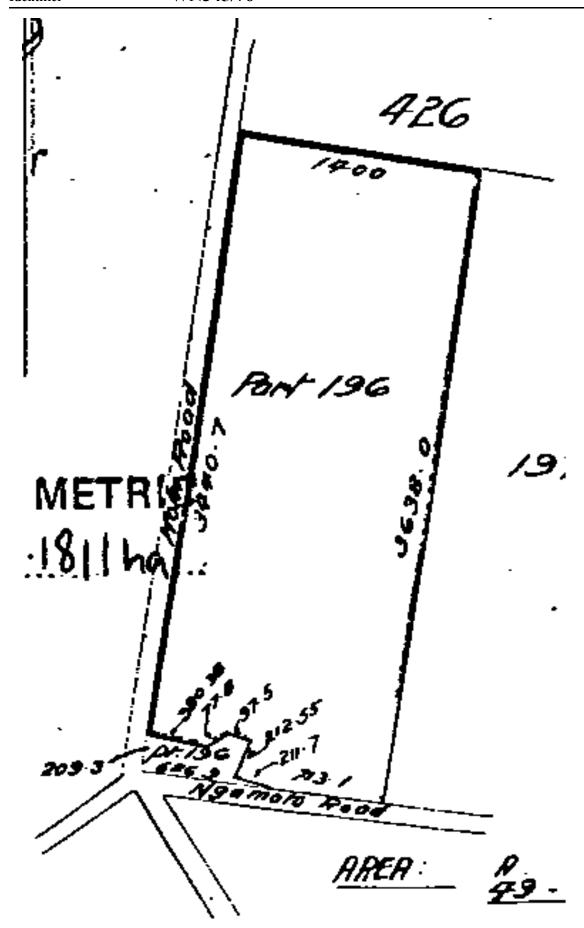
Legal Description Part Section 196 Okotuku District

**Registered Owners** 

Wayne Keith Neilson and Wayne Neilson Trustee Limited

### **Interests**

12263688.12 Mortgage to Rabobank New Zealand Limited - 21.10.2021 at 4:13 pm





## Limited as to Parcels

**Search Copy** 



Identifier WN345/77

Land Registration District Wellington

Date Issued 08 July 1927

**Prior References** 

DI 29/203

**Estate** Fee Simple

Area 20.2343 hectares more or less **Legal Description** Section 203 Okotuku District

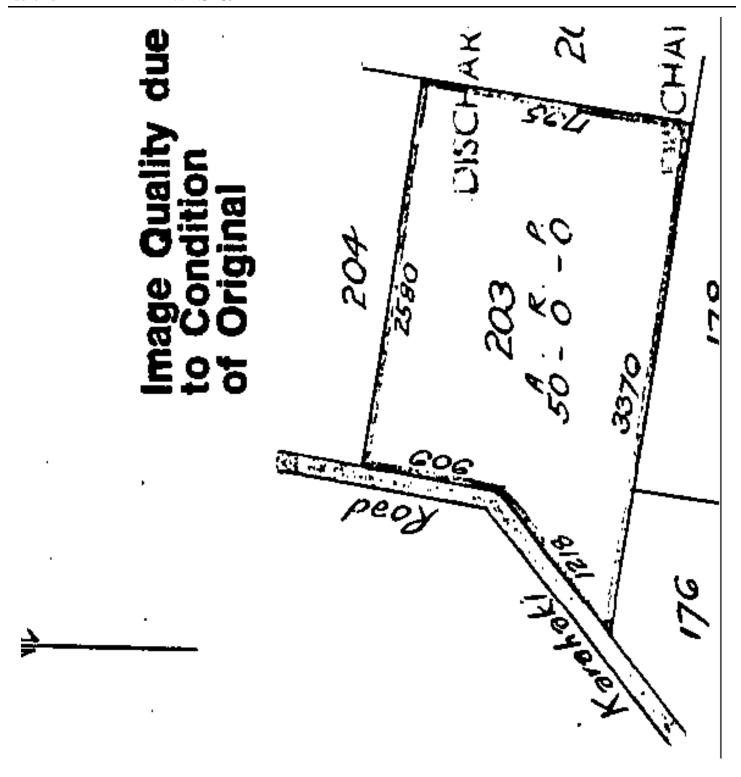
**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

Appurtenant hereto are rights to take and convey water created by Transfer 865962 - 5.4.1971 at 12.24 pm 12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier WN384/74

Land Registration District Wellington

Date Issued 29 February 1928

**Prior References** 

WN10/113

**Estate** Fee Simple

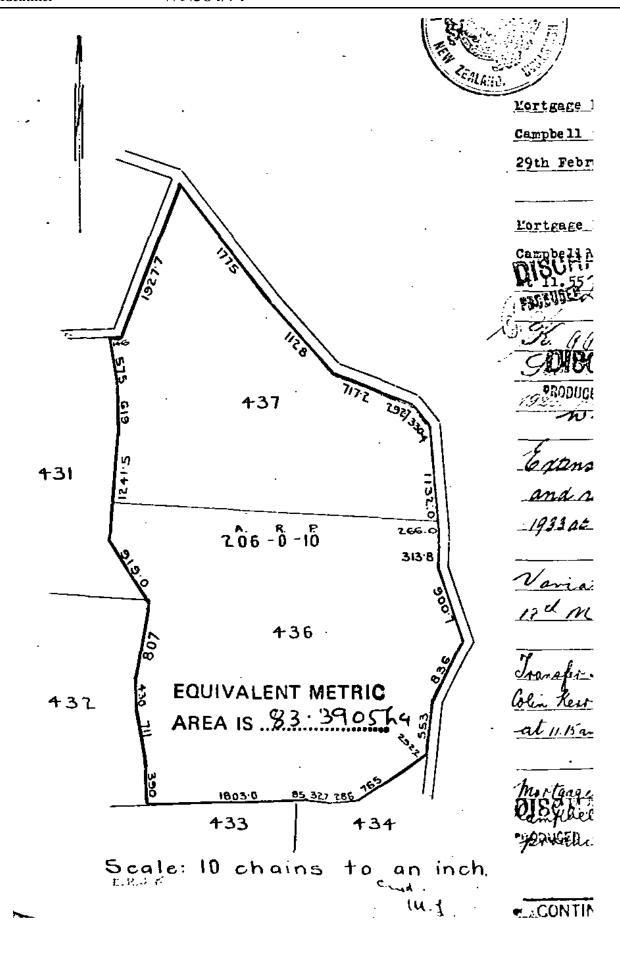
Area 83.3905 hectares more or less
Legal Description Section 436-437 Okotuku Block

**Registered Owners** 

Gresham Walkinton Trustee Co Limited and Alison Margaret Ross

### **Interests**

8223610.3 Mortgage to ANZ National Bank Limited - 14.7.2009 at 10:04 am









Identifier WN407/240

**Land Registration District** Wellington **Date Issued** 22 July 1929

**Prior References** WN229/103

**Estate** Fee Simple

**Area** 13.2535 hectares more or less

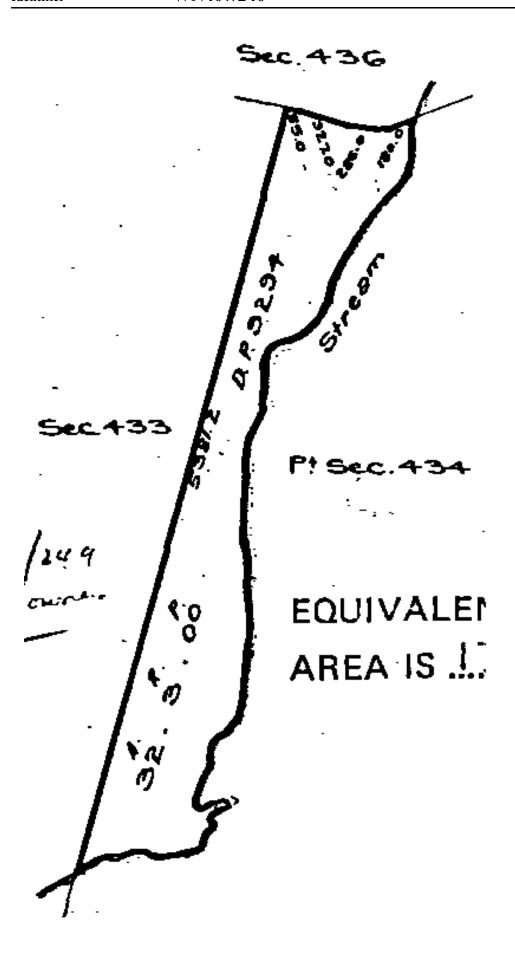
Legal Description Bordered Green Deposited Plan 9294

**Registered Owners** 

G & L Gulliver Nominees Limited

#### **Interests**

10356 CAVEAT BY THE DISTRICT LAND REGISTRAR - 5.9.1929 AT 10.00 AM 8892529.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 19.10.2011 at 5:35 pm 12745896.10 Mortgage to ANZ Bank New Zealand Limited - 16.6.2023 at 2:41 pm









Identifier WN409/140

Land Registration District Wellington

Date Issued 03 October 1929

**Prior References** WN229/103

**Estate** Fee Simple

**Area** 163.7325 hectares more or less

**Legal Description** Part Section 348 and Part Section 434-435

Okotuku District

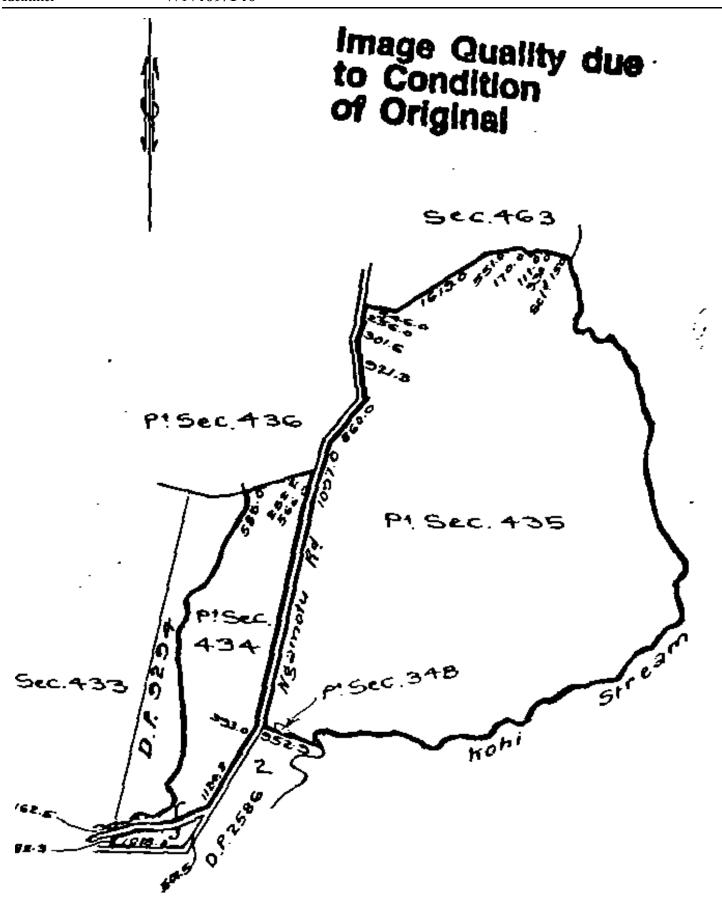
**Registered Owners** 

Kohi Farms 2023 Limited

### **Interests**

12694699.8 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier WN415/248

Land Registration District Wellington

Date Issued 26 March 1930

**Prior References** 

WN10/111 WN10/112

**Estate** Fee Simple

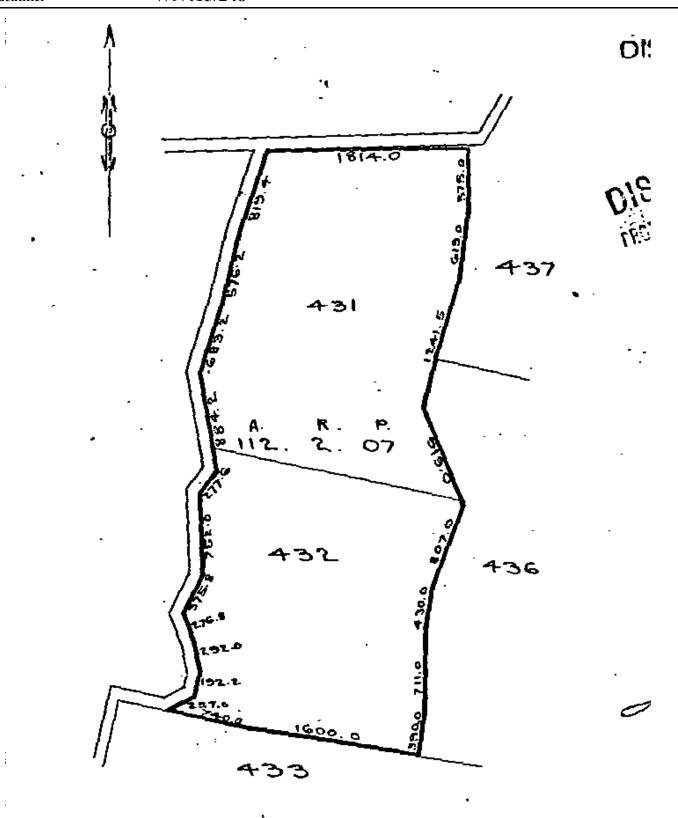
Area 45.5448 hectares more or less
Legal Description Section 431-432 Okotuku Block

**Registered Owners** 

Robert Ernest Hone as to a 1/3 share

Helen Vivienne Mortell as to a 1/3 share

Elizabeth Margaret Mollard as to a 1/3 share



Scale: 10 Chains to an inch







Identifier WN486/158

Land Registration DistrictWellingtonDate Issued24 June 1941

**Prior References** 

WN33/249

**Estate** Fee Simple

Area 79.3715 hectares more or less

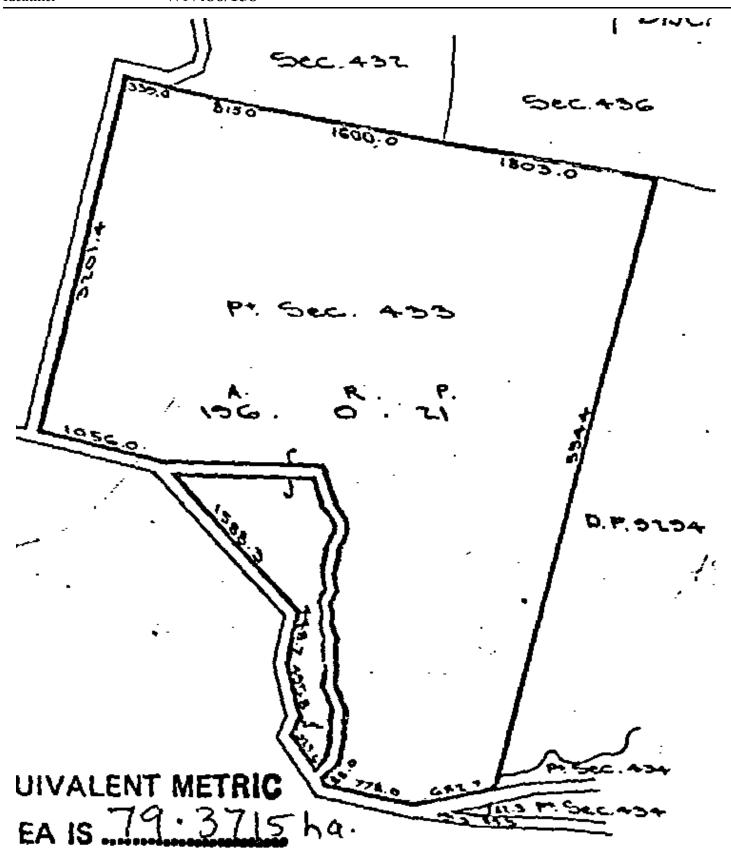
Legal Description Part Section 433 Okotuku District

**Registered Owners** 

G & L Gulliver Nominees Limited

### **Interests**

8892529.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 19.10.2011 at 5:35 pm 12745896.10 Mortgage to ANZ Bank New Zealand Limited - 16.6.2023 at 2:41 pm





**Search Copy** 



Identifier WN495/115

Land Registration District Wellington

Date Issued 25 February 1943

**Prior References** 

WN30/219

**Estate** Fee Simple

**Area** 7.8737 hectares more or less

**Legal Description** Part Section 448 Block I Wairoa Survey

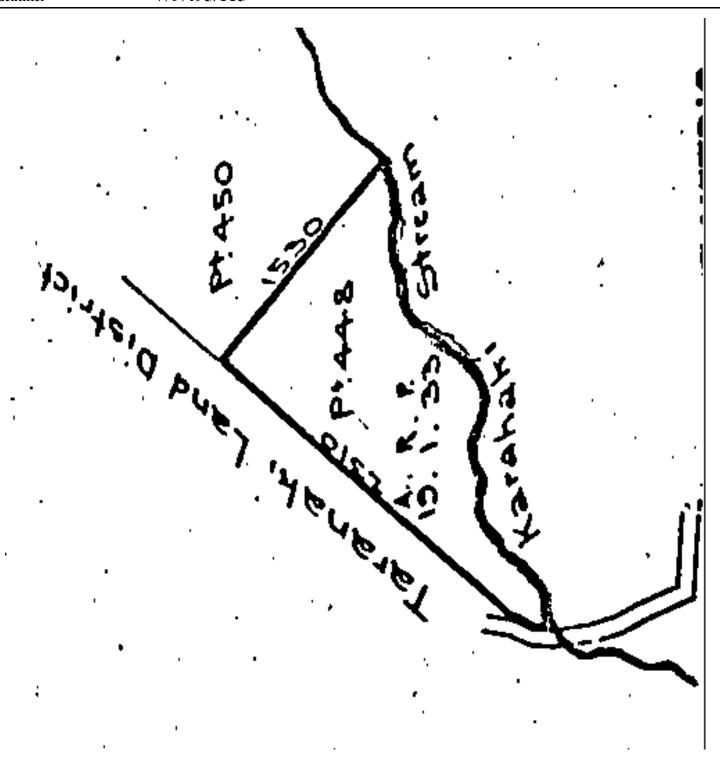
District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

### **Interests**

11244915.2 Mortgage to ANZ Bank New Zealand Limited - 8.10.2018 at 3:42 pm





**Search Copy** 



Identifier WN495/119

Land Registration District Wellington

Date Issued 25 February 1943

**Prior References** 

WN30/219

**Estate** Fee Simple

**Area** 24.9565 hectares more or less

**Legal Description** Part Section 451 and Part Section 450

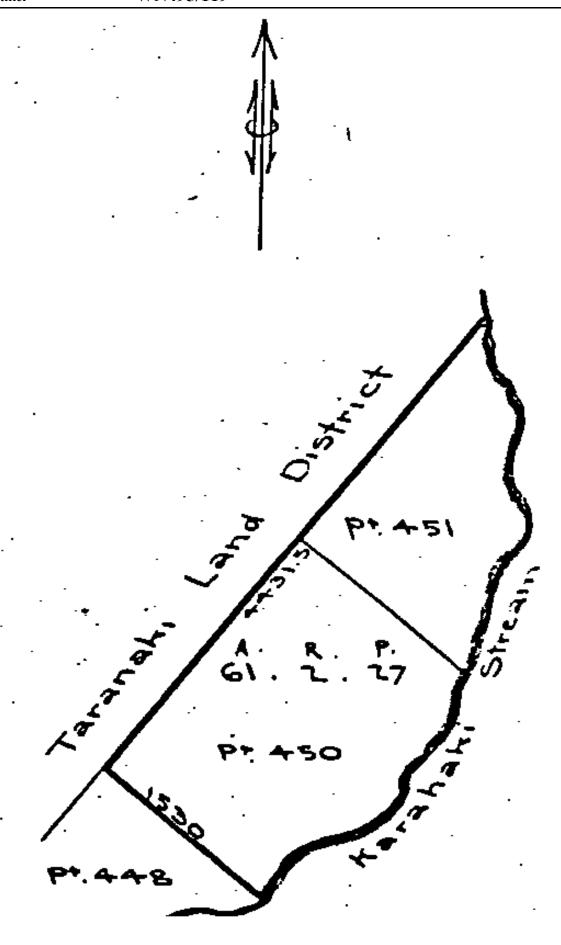
Block X Wairoa Survey District

**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

#### **Interests**

9499746.3 Mortgage to ANZ Bank New Zealand Limited - 4.9.2013 at 2:29 pm





**Search Copy** 



Identifier WN510/284

Land Registration District Wellington

Date Issued 28 September 1945

**Prior References** 

WN197/74

**Estate** Fee Simple

**Area** 37.3806 hectares more or less

Legal Description Section 124 and Part Section 125 Okotuku

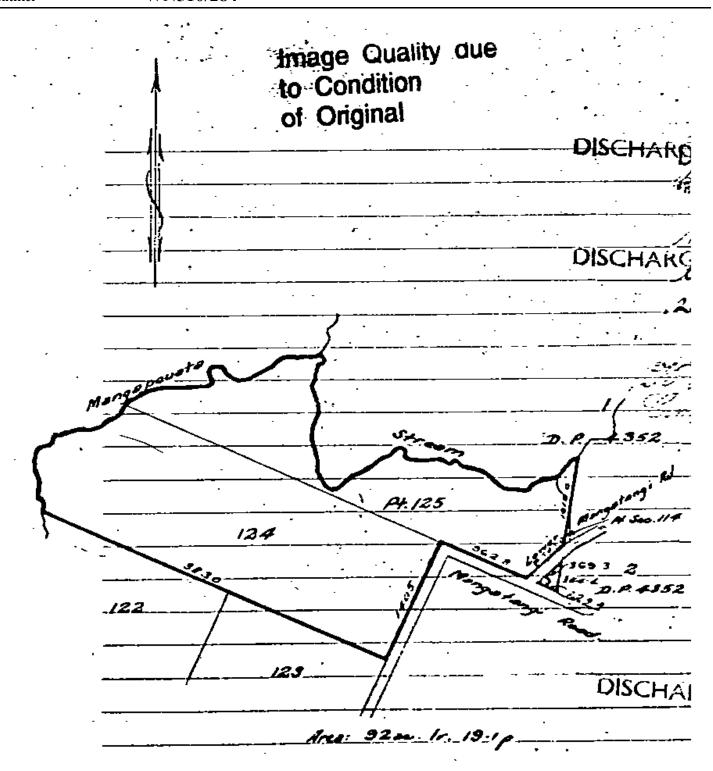
Block

**Registered Owners** 

Phillip Bruce Gudopp and Paul Follett Carrington as to a 1/2 share Maree Joy Gudopp and Paul Follett Carrington as to a 1/2 share

#### **Interests**

9048424.3 Mortgage to ANZ National Bank Limited - 3.5.2012 at 11:31 am









Identifier WN591/249

Land Registration District Wellington

Date Issued 19 November 1952

**Prior References** 

WN9/238

**Estate** Fee Simple

**Area** 58.0724 hectares more or less

Legal Description Section 129 and Section 137 Okutuku

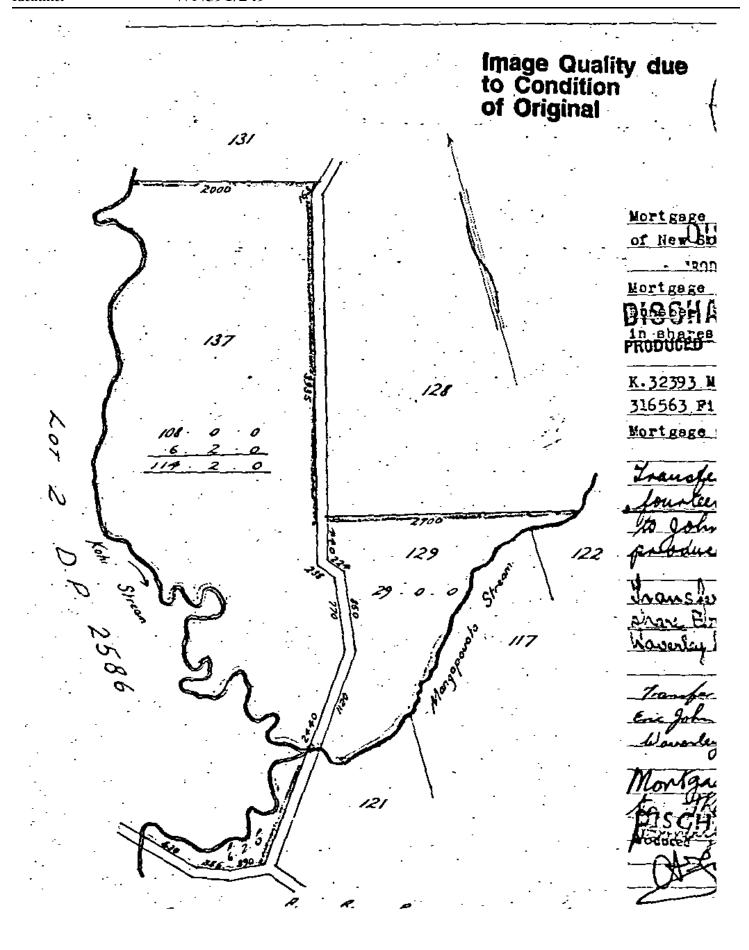
Block

**Registered Owners** 

Ian Alan Rosewarne and Vivienne Iranui Rosewarne

#### **Interests**

9037943.2 Mortgage to Rabobank New Zealand Limited - 27.4.2012 at 5:05 pm





**Search Copy** 



Identifier WN591/250

Land Registration District Wellington

Date Issued 19 November 1952

**Prior References** 

WN10/122

**Estate** Fee Simple

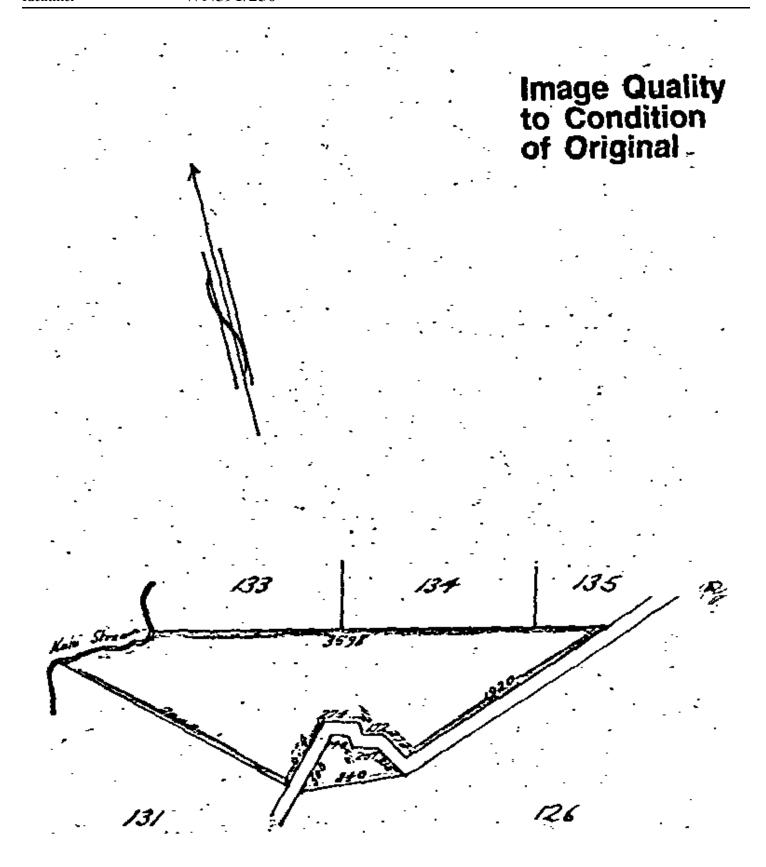
Area 12.3328 hectares more or less
Legal Description Section 132 Okutuku Block

**Registered Owners** 

Ian Alan Rosewarne and Vivienne Iranui Rosewarne

#### **Interests**

9037943.2 Mortgage to Rabobank New Zealand Limited - 27.4.2012 at 5:05 pm









Identifier WN607/18

Land Registration District Wellington

Date Issued 19 February 1954

**Prior References** WNPR19/145

**Estate** Fee Simple

Area 68.4576 hectares more or less

Legal Description Section 2S and Section 3S McLean

Settlement

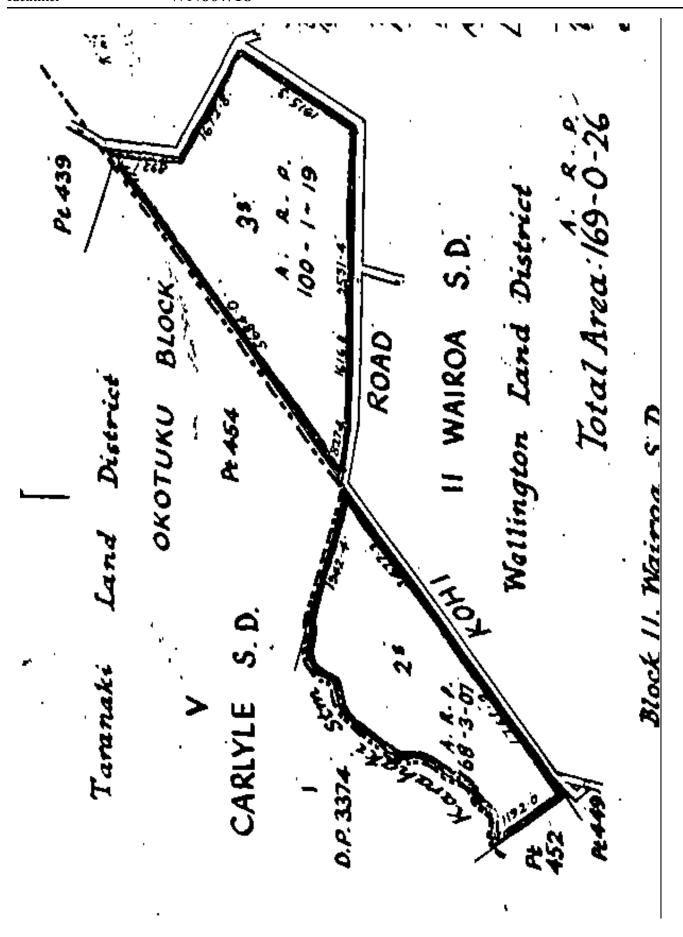
**Registered Owners** 

Alan Leslie Hone

#### **Interests**

Subject to Section 206 Land Act 1924

B447486.2 Mortgage to ANZ Banking Group (New Zealand) Limited - 3.8.1995 at 11.35 am









Identifier WN708/77

Land Registration District Wellington

Date Issued 13 July 1956

**Prior References** WN290/285

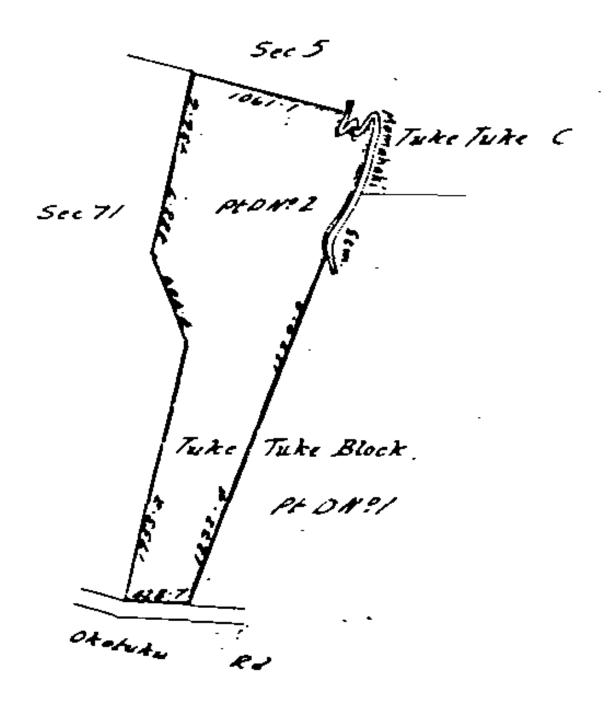
**Estate** Fee Simple

Area 10.9771 hectares more or less
Legal Description Part Tuke Tuke D 2 Block

**Registered Owners**Woodleigh Limited

#### **Interests**

10966014.2 Mortgage to Rabobank New Zealand Limited - 4.12.2017 at 3:17 pm









Identifier WN986/33

Land Registration District Wellington

Date Issued 23 November 1961

**Prior References** 

WA 10/7

**Estate** Fee Simple

Area 4287 square metres more or less
Legal Description Section 522 Okotuku District

**Registered Owners** 

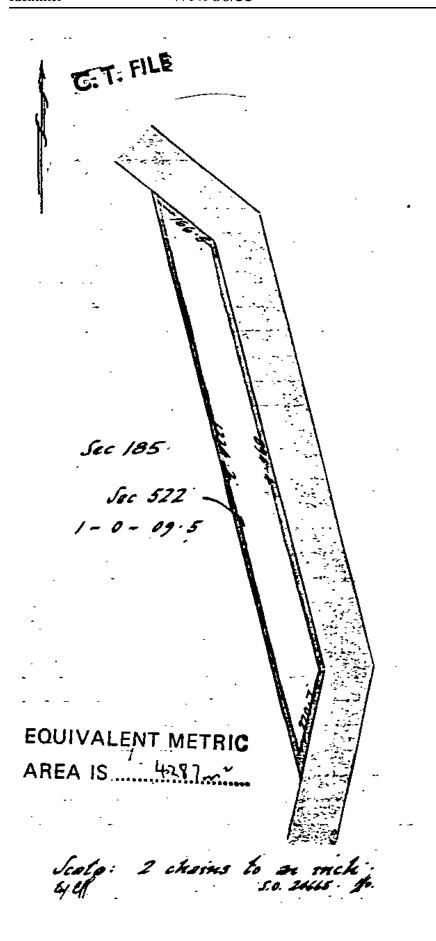
Kohi Farms 2023 Limited

#### **Interests**

Subject to Section 8 Coal Mines Amendment Act 1950

12694699.9 Mortgage to Rabobank New Zealand Limited - 1.6.2023 at 3:03 pm

12694699.10 Mortgage to John Michael Hickey and Gresham Walkinton Trustee Co Limited and to Beverley Anne Hickey and Gresham Walkinton Trustee Co Limited in shares - 1.6.2023 at 3:03 pm





**Search Copy** 



Identifier WNB2/579

Land Registration District Wellington

Date Issued 15 July 1963

**Prior References** 

WN1/297

**Estate** Fee Simple

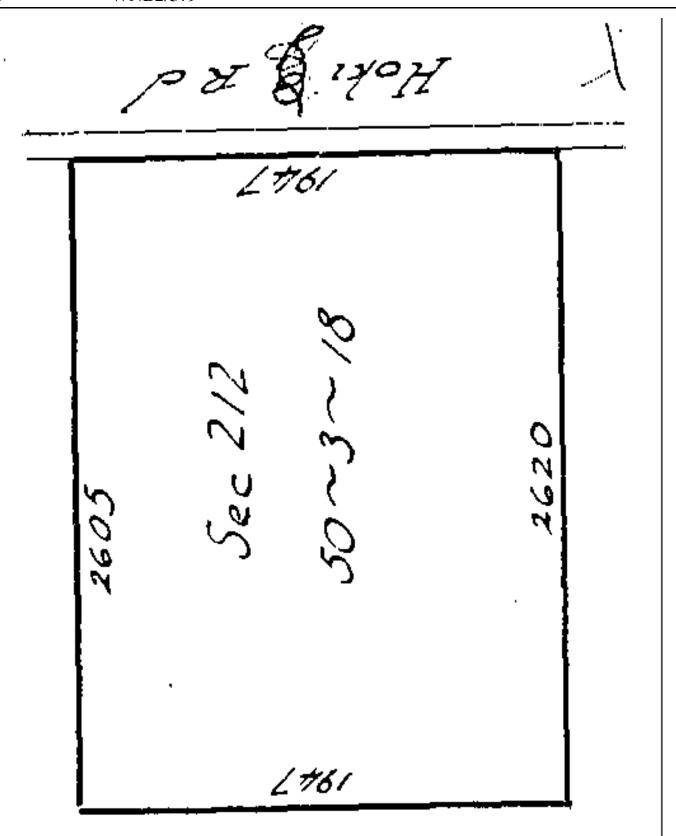
Area 20.5833 hectares more or less
Legal Description Section 212 Okotuku District

**Registered Owners** 

G & L Gulliver Nominees Limited

#### **Interests**

11649953.2 Mortgage to ANZ Bank New Zealand Limited - 15.7.2020 at 2:53 pm





**Search Copy** 



Identifier WNB2/924

Land Registration District Wellington

Date Issued 09 August 1963

**Prior References** 

WN24/32

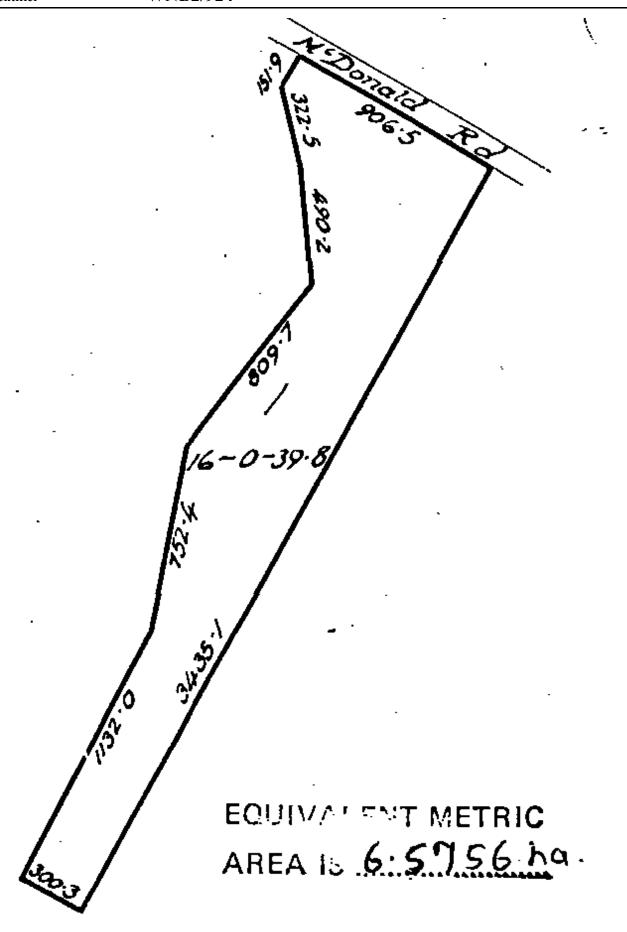
**Estate** Fee Simple

Area 6.5756 hectares more or less
Legal Description Lot 1 Deposited Plan 24823

**Registered Owners** 

Andrew Campbell Cutler, Brian Alexander Train and Trevor James Harrop

**Interests** 





#### Limited as to Parcels

**Search Copy** 



Identifier WNB4/175

Land Registration District Wellington

Date Issued 10 December 1963

**Prior References** 

WN24/32

**Estate** Fee Simple

Area 15.1762 hectares more or less

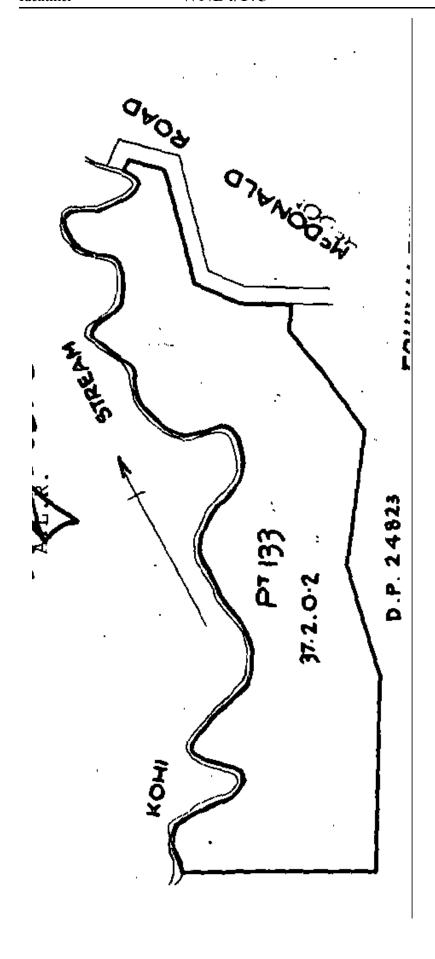
Legal Description Part Section 133 Okotuku District

**Registered Owners** 

Ian Alan Rosewarne and Vivienne Iranui Rosewarne

#### **Interests**

9126307.1 Notice pursuant to Section 195(2) Climate Change Response Act 2002 - - 18.7.2012 at 12:49 pm









Identifier WNE3/1150

Land Registration District Wellington

Date Issued 13 July 1966

**Prior References** 

WN7/291

Estate Fee Simple

Area 58.4113 hectares more or less

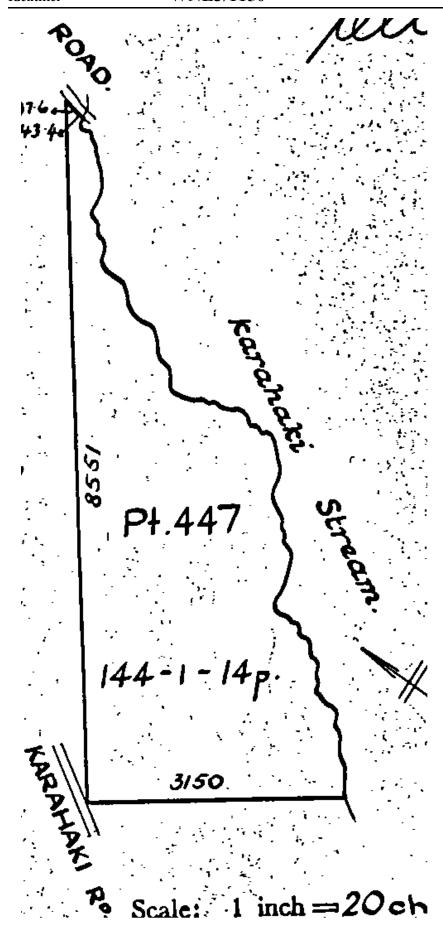
Legal Description Part Section 447 Okutuku Block

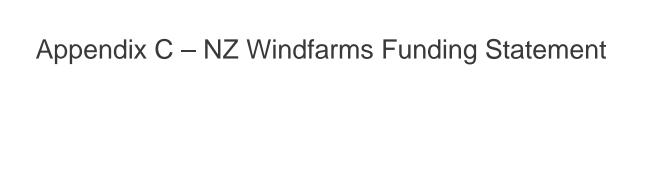
**Registered Owners** 

Aaron Blair Robertson, Ylva Birgitta Robertson and A & Y Robertson Trustees Limited

#### **Interests**

11244915.2 Mortgage to ANZ Bank New Zealand Limited - 8.10.2018 at 3:42 pm





#### **Private and Confidential | Not for Public Release**

NZ WINDFARMS LIMITED: KOHI AND MOTORIMU WINDFARMS FUNDING

#### Introduction and Overview

NZ Windfarms Ltd (NZ Windfarms) is a NZX listed Company, with an established track record, and skills and experience arising from the construction and operation of our existing Te Rere Hau windfarm. With the support of one of our new shareholders (Meridian Energy) we are now seeking to extend our portfolio to include further wind farms at Kohi and Motorimu.

With our strong track record in raising capital, our relevant debt and equity capital markets experience, and the investor demand for renewable energy projects, the Board is confident that should these projects successfully proceed through the fast track consenting process, there will be pathways available to fund these projects.

The following sections provide an overview of NZ Windfarms Ltd capital raising track record, its new shareholder (Meridian Energy), its directors' relevant capital markets experience, the current Kohi and Motorimu investment opportunities and an outline of the funding strategy the Company intends to employ to secure capital to design and construct these wind farms.

#### Strong Capital Raising Track Record to construct Te Rere Hau

NZ Windfarms has a long and successful track record of raising the necessary capital to fund its growth and development. NZ Windfarms was listed on the NZX in 2005 after a successful initial public offering which raised \$4 million. In 2006 a further \$3.7 million was raised to fund the establishment of the management and governance structure of the Company and the construction of the first five turbines. In June 2007, a further capital raising of \$75 million was successfully completed to fund the construction of 60 turbines. These were constructed and brought into operation through 2008 and 2009.

Perhaps most relevantly, in December 2023 NZ Windfarms demonstrated its current ability to put in place a financing structure that would enable it to build a new \$500m-\$600m wind farm at Te Rere Hau (and the proposed Aokautere extension if its current fast track consent application is granted).

For the repower of the Te Rere Hau wind farm, NZ Windfarms entered into a joint venture with Meridian Energy which enabled NZ Windfarms to retire all of its existing debt and be carried by Meridian Energy for all of its project development cost up to final investment decision on its Te Rere Hau wind farm repower.

The joint venture has appointed Mafic Partners to raise the requisite limited recourse project debt funding for Te Rere Hau. Based on recent bank market soundings, Mafic and NZ Windfarms are confident that there will be strong bank appetite (both domestic banks and from offshore) for such financing. NZ Windfarms would intend to utilise similar project financing for the proposed development of Kohi and Motorimu windfarms.

The funding certainty for the proposed development of the Kohi and Motorimu windfarms is enhanced by the quality of the partners and suppliers we will work with. The construction and ongoing operations and maintenance will be contracted out to one of the large and reputable wind turbine manufacturers (e.g Vestas, GE, Siemens or Enercon).

An application for a fast-track consent for the Aokautere project was filed in October last year and is currently being considered by an expert consenting panel under the COVID Recovery (Fast-track Consenting) Act 2020.

#### Meridian Energy Involvement

Meridian Energy now owns 19.99% of NZ Windfarms and its CEO, Neal Barclay, has joined the NZ Windfarms board.

Meridian Energy has a market capitalisation of ~\$15bn on the NZX. It is 51% owned by the NZ Government. Meridian in its own right has developed six wind farms in New Zealand and is New Zealand's largest wind farm owner. It is currently in the process of completing the build of the Harapaki wind farm.

Whilst there is no certainty of Meridian Energy being directly involved in either the Kohi or Motorimu wind farms, NZ Windfarms would look to partner with gentailers and / or other experienced wind farm developers like Meridian Energy to pursue its own wind farm development strategy.

#### Relevant Debt and Equity Capital Markets Experience

The Company will utilise the debt markets experience of its Board in partnership with its long-term banker (Bank of New Zealand, "BNZ") and other financial advisors.

NZ Windfarms Board includes directors with deep knowledge, experience and expertise in debt markets and project acquisition finance with a strong focus on renewable energy and infrastructure.

NZ Windfarms enjoys good support from its long-term banker BNZ with financing options for previous projects including green bonds and loans.

#### Kohi and Motorimu Windfarm projects

The two projects NZ Windfarms is seeking to have listed in the Fast Track Approvals Bill are nationally significant projects:

- The Kohi project is located to the immediate north of Waverley, in South Taranaki. It involves up to 61 wind turbines, generating up to 366 MW, with an investment spend of up to ~\$1.5 billion.
- The Motorimu project is located to the south of Linton in Palmerston North. It involves up to 28 wind turbines, generating up to 168 MW, with an investment spend of ~\$500 million.

#### Funding approach and timeframe

The Company will seek to fund the Kohi and Motorimu wind farms with a mix of debt and equity.

The Company has sufficient capital to fund the fast-track consent process and, should the consent be approved, the initial post approval steps. These would include contractor procurement, and the completion of any necessary management plan or other pre-start requirements mandated by the consent.

As with the Te Rere Hau and Aokautere wind farm projects, NZ Windfarms would intend to partner with a gentailer or other experienced wind farm developer/investor to take the Kohi and Motorimu wind farm projects to Final Investment Decision.

Once the two projects reach the Final Investment Decision stage, the construction of the projects would be funded by a combination of project equity, equity raising in NZ Windfarms by issue of new shares on the NZX and project debt financing.

Market feedback indicates that demand for investment exposure to pure play renewable energy projects is outstripping the supply of suitable projects to invest in and we expect that to continue into our expected capital raising period. The funding requirements and investment characteristics of new windfarms are expected to be very attractive to institutional investors whose underlying shareholders are demanding investment firms seek more exposure to businesses that demonstrate high degrees of environmental, social and governance characteristics such as those offered by these Projects.

#### Summary

The project is an exciting opportunity for all stakeholders and will assist in the further decarbonisation of the electricity industry and provide immediate and ongoing economic benefits to the country. The weight of capital seeking strong environmental, social and governance investment characteristics, will be extremely beneficial to the capital raise. The collective factors articulated in this letter and listing application provide the NZ Windfarms Board of Directors with confidence that should these projects successfully proceed through the fast-track consenting process, there is sufficient investor demand and appetite to fund them.

We trust that the contents of this letter will provide sufficient funding certainty and comfort for the Minister to accept NZ Windfarms' Kohi and Motorimu projects for listing in the Fast Track Approvals Bill.

# Appendix D – Consultation Records

#### Stephen Gascoigne

From: Adam Radich < Adam.Radich@trhservices.co.nz>

Sent: Wednesday, 1 May 2024 10:26 am

**To:** Stephen Gascoigne

**Subject:** FW: New Zealand Windfarms - Wind farm investigation

[External email] This email was sent from outside Aurecon. Do not click links or open attachments unless you were expecting the email and know that the content is safe.

From: Adam Radich

**Sent:** Friday, April 26, 2024 11:30 AM

To: Tumu Whakarae < tumu.whakarae@rauru.iwi.nz>

Subject: RE: New Zealand Windfarms - Wind farm investigation

Tēnā koe Mike,

Thank you so much for your time last week and for sharing so generously the vision, and strategy for Ngā Rauru Kītahi. We look forward to continuing dialogue around the potential windfarm in the Kohi area of your rohe. In the meantime, we thought you'd appreciate a record of conversation and what we took away to consider. Please let us know if we have missed or mis-interpreted anything.

Meeting Record – Thursday 18 April 2024, 13 Drews Avenue, Whanganui
Attendees – Mike Neho, Ngā Rauru Kītahi, Adam Radich and Sarah Ropata NZ Wind Farms
Purpose – To discuss potential Wind Farm project inland of Waverley.
Key points of the discussion:

- Ngā Rauru Kītahi focused on seeing current and future generations skilled and represented across all levels and roles in the renewable energy sector. Thriving and excelling across generations to lift prosperity, invest and develop, and grow potential for long term viability and growth.
- Globally the industry is short of more than 250K workers and iwi wish to be a part of fixing that problem bringing and retaining indigenous IP that supports a holistic approach to the industry.
- Ngā Rauru Kītahi have established a tech and innovation hub and are now working on establishing a digital schooling system and wānanga.
- Ngā Rauru Kītahi have met with other renewable developers from NZ (Mercury, Manawa), Germany, and Japan.
- Ngā Rauru Kītahi have a clear focus on the renewables sector supporting their aspirations with scholarship funding to train whānau to thrive and excel in the industry locally and globally.
- Ngā Rauru Kītahi are happy for NZWF to talk to other developers about potentially working together to support these aspirations.
- NZWF talked to the Fast Track Consenting pathway and the opportunity to apply to become a listed project. That this was on a no commitments basis at this stage but allowed NZWF if successful to consider The Fast Track Consent process as one of the pathways available for the project.
- Next steps in the Fast Track process are unclear as the Government has not fully defined them. But NZWF are keen to continue the conversation so opportunities can be explored with other developers and Ngā Rauru Kītahi.

Additionally please see the link below the independent review into climate event emergency response which Sarah said she would send to you <u>Independent External Review (hbemergency.govt.nz)</u>.

Ngā mihi, Adam and Sarah

From: Tumu Whakarae <tumu.whakarae@rauru.iwi.nz>

**Sent:** Tuesday, April 16, 2024 4:53 PM

**To:** Adam Radich < <u>Adam.Radich@trhservices.co.nz</u>>

Subject: RE: New Zealand Windfarms - Wind farm investigation

The Backhouse 3<sup>rd</sup> floor 14 drews Ave

From: Adam Radich < Adam.Radich@trhservices.co.nz>

**Sent:** Tuesday, April 16, 2024 4:51 PM

**To:** Tumu Whakarae < tumu.whakarae@rauru.iwi.nz >

Subject: Re: New Zealand Windfarms - Wind farm investigation

Perfect,

Where would you like us to meet you?

Adam Radich 021933191

On 16 Apr 2024, at 4:50 PM, Tumu Whakarae < tumu.whakarae@rauru.iwi.nz wrote:

Kia ora 1.30pm looks good

From: Adam Radich < Adam.Radich@trhservices.co.nz >

**Sent:** Tuesday, April 16, 2024 2:32 PM

To: Tumu Whakarae <tumu.whakarae@rauru.iwi.nz>

Cc: Renée Bradley < renee@rauru.iwi.nz>

Subject: Re: New Zealand Windfarms - Wind farm investigation

Some people who received this message don't often get email from adam.radich@trhservices.co.nz. Learn why this is important

Kia Ora Mike,

How is your Thursday afternoon looking, have you got any time available of an initial catch up? We will be free after 12.30pm, look forward to meeting in person .

Best regards,

Adam Radich 021933191

On 12 Apr 2024, at 11:37 AM, Tumu Whakarae <a href="mailto:tumu.whakarae@rauru.iwi.nz">tumu.whakarae@rauru.iwi.nz</a> wrote:

Tēnā koe Adam\, me te mihi nui ki a koe. Thank you for reaching out and for outlining the details of your wind farm project, as well as NZ Windfarms Ltd.'s commitment to collaborative partnerships with iwi and hapū. Ngā Rauru Kiitahi is interested in exploring the potential opportunities that could arise from this project.

As you mentioned, long-term relationships are important to us. Our primary focus for any partnership would be on building capability and skillsets within Ngā Rauru for participation in the wind farm sector. We are also interested in establishing meaningful scholarship opportunities to support the education and training of our people. Ultimately, we strive for a partnership that goes beyond tokenistic gestures and fosters genuine collaboration throughout the project's lifecycle.

We are happy to meet with you to discuss the project in more detail, including the potential fast-track pathway and what a strong partnership could look like for both Ngā Rauru Kiitahi and NZ Windfarms Ltd. Involving representatives from relevant marae and hapū would be crucial for us in these initial discussions. We can facilitate introductions to ensure all voices are heard.

We are available to meet next week while you are in Taranaki, or at a time that best suits you. Please let us know your preferred date and time, and we will be happy to accommodate.

We look forward to a productive conversation and the potential for a collaborative relationship that delivers long-term benefits for Ngā Rauru Kiitahi.

From: Adam Radich < Adam.Radich@trhservices.co.nz >

Sent: Friday, April 12, 2024 11:13 AM

To: Tumu Whakarae <a href="mailto:tumu.whakarae@rauru.iwi.nz">tumu.whakarae@rauru.iwi.nz</a>
<a href="mailto:subject: New Zealand Windfarms">Subject: New Zealand Windfarms</a> - Wind farm investigation

You don't often get email from adam.radich@trhservices.co.nz. Learn why this is important

Tēnā koe Mike, kōrua ko Renee

My name is Adam Radich and I'm General Manager of Operations and Development at NZ Windfarms Ltd.

I'm writing to introduce our company and a project we are exploring in your rohe, and to ask whether you might have time to meet with me to discuss it.

NZ Windfarms is a long-term specialist wind farm owner and operator, with its revenue coming from the sale of sustainably generated electricity from its Te Rere Hau wind farm. The Te Rere Hau wind farm is located on North Range Road in the Tararua Ranges outside of Palmerston North.

We've been investigating a potential wind farm opportunity within the Ngā Rauru rohe, just to the immediate north of Waverley. The site is surrounded by Kohi, Medlicott, Hooper and Ngāmotu Roads, and the broader area is encompassed by Kelley and Braemore Roads to the west and Waitangi and

Omahina roads to the east. We're currently proposing a site layout of up to 69 wind turbines, enough to generate 390 MW. We are conscious that there are at least four of your marae in the vicinity: Te Ihupuku, Wai o turi, Te Wairoa-iti and Waipapa, and that those marae and their hapū will have a particular interest in this proposal.

Last week the government released timeframes for applications from projects with significant national or regional benefits that want to be considered as listed projects for the proposed **fast track legislation**. We are currently considering whether to apply to have this project placed on the schedule of the proposed legislation, and we have until 3 May to make this decision.

While we're not sure at this stage whether we'll ultimately pursue the fast-track pathway, the reason we're considering that process is because it can potentially expediate decisions and allow us to release investment and benefits faster that some of the other consenting routes available. A wind farm is a significant long-term investment, and we are committed to enduring relationships. By way of example, we've recently worked constructively through a successful Covid Fast Track process with iwi partners and landowners in the Manawatū to define ways of working together for the life of the project.

I want to stress that **regardless of which consenting pathway we pursue, NZ Windfarms Ltd is committed to working collaboratively with iwi and hapū to form long term partnerships** for mutual benefit. We have absolutely no interest in short-circuiting iwi engagement. Instead, we'd like to discuss with you what partnership might mean for Ngā Rauru if our Project proceeds – whether it's environmental and design collaboration, workforce and business training and development, or even co-investment. Either way, there's a commitment from us to be open with you at all times about information and processes, timeframes, progress and changes.

Once we've had an initial discussion, we'd want to work with you to flesh out and then implement our commitments. If we chose the fast track then we would be advising the Ministers for Infrastructure, Transport and Regional development of our intentions and our commitment to partnership.

So, at this stage, I wonder whether either or ideally both of you would have time to meet me to discuss the Project, the potential pathways, and what partnership might mean for us both? I'd also be keen for your guidance on whether and how I should be approaching the Ngā Rauru marae and hapū closest to the site. I'll be Taranaki next week if you had any available windows otherwise can return at a time that suits you.

Naku I roto o ngā mihi

Adam Radich
GM Operations and Development

New Zealand Windfarms LTD <image001.png>

Street: North Range Road, RD1 Postal: PO Box 20031, Summerhill, Palmerston North 4448, New Zealand

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"Clear and honest communication removes the anxiety of the unknown"

### <~WRD0000.jpg>

Please Note: The information contained in this e-mail message and any attached files may be confidential information, and may also be the subject of legal professional privilege. It is not necessarily the official view of Te Kaahui o Rauru. If you are not the intended recipient, any use, disclosure or copying of this e-mail is unauthorised. If you have received this e-mail in error, please notify us immediately by reply e-mail and delete the original. Thank you

#### Stephen Gascoigne

From: Adam Radich < Adam.Radich@trhservices.co.nz>

**Sent:** Friday, 26 April 2024 10:21 am

**To:** Stephen Gascoigne

Subject: NZ Windfarms- Potential Windfarm development- Ruanui email

[External email] This email was sent from outside Aurecon. Do not click links or open attachments unless you were expecting the email and know that the content is safe.

From: Adam Radich

**Sent:** Thursday, April 18, 2024 7:39 PM

**To:** office@ruanui.co.nz; graham.young@ruanui.co.nz **Subject:** NZ Windfarms- Potential Windfarm development

Tēnā kōrua

#### A potential new wind farm project for NZ Windfarms Ltd near Waverley

- I am the GM for Operations and Development at NZ Windfarms Ltd a long term specialist wind farm owner and operator of Te Rere Hau wind farm in Palmerston North
- I am writing to let you know that we have been investigating a potential new wind farm project to the immediate north of Waverley
- The site is surrounded by Kohi, Medicott, Hooper and Ngāmotu Roads, and the broader area is encompassed by Kelley and Braemore Roads to the west and Waitangi and Omahina roads to the east
- The project is based on a layout of 69 wind turbines which would generate approximately 390 MW

#### Considering the opportunity for inclusion in the Fast Track Bill

- Recently the government released timeframes for applications from projects with significant national or regional benefits to be considered as listed projects in the Fast Track Bill
- We are currently considering whether to apply to be listed and have until 3 May to make this
  decision
- The reason we are considering this process is because it can potentially expedite decisions and allow us to release investments and benefits faster than some of the other consenting routes available
- We appreciate that there have been significant concerns expressed by iwi and hapū over the potential impact of the proposed fast track process
- We want to be clear that we don't see this process as an opportunity to shortcut or avoid engagement and interaction with iwi and hapū interests – on the contrary, it means we need to begin that engagement early, to ensure that those interests are properly reflected as the concept is developed

#### Why we are reaching out to you

- We have already been in contact with Ngā Rauru and are committed to engage constructively with the iwi and their hapū in the vicinity of the proposed project.
- We understand that Ngāti Ruanui also have interests close to the location of the project so wanted to let you know about our potential new project and that we are considering whether to apply to have it listed in the Bill
- We're also keen to discuss any opportunities that a development like this might offer Ngāti Ruanui
- At this stage we are keen to confirm whether you would like to engage with us to discuss this project and the potential pathways

#### **Next steps**

 Please give me a call or send me an email to let me know whether and how you would like to engage about the project

I look forward to hearing from you.

Nā mātou i roto i ngā mihi

# Adam Radich GM Operations and Development

**New Zealand Windfarms LTD** 



Street: North Range Road, RD1 Postal: PO Box 20031, Summerhill, Palmerston North 4448, New Zealand

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"Clear and honest communication removes the anxiety of the unknown"

#### Stephen Gascoigne

From: Adam Radich < Adam.Radich@trhservices.co.nz>

**Sent:** Friday, 26 April 2024 10:23 am

**To:** Stephen Gascoigne

**Subject:** FW: NZ Windfarms - Potential Windfarm Development-wlsnt

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From: Adam Radich

Sent: Thursday, April 18, 2024 7:36 PM

To: info.wlsnt@gmail.com

Subject: NZ Windfarms - Potential Windfarm Development

Tēnā koe

#### A potential new wind farm project for NZ Windfarms Ltd near Waverley

- I am the GM for Operations and Development at NZ Windfarms Ltd a long term specialist wind farm owner and operator of Te Rere Hau wind farm in Palmerston North
- I am writing to let you know that we have been investigating a potential new wind farm project to the immediate north of Waverley
- The site is surrounded by Kohi, Medicott, Hooper and Ngāmotu Roads, and the broader area is encompassed by Kelley and Braemore Roads to the west and Waitangi and Omahina roads to the east
- The project is based on a layout of 69 wind turbines which would generate approximately 390 MW

#### Considering the opportunity for inclusion in the Fast Track Bill

- Recently the government released timeframes for applications from projects with significant national or regional benefits to be considered as listed projects in the Fast Track Bill
- We are currently considering whether to apply to be listed and have until 3 May to make this decision
- The reason we are considering this process is because it can potentially expedite decisions and allow us to release investments and benefits faster than some of the other consenting routes available
- We appreciate that there have been significant concerns expressed by iwi and hapū over the
  potential impact of the proposed fast track process.
- We want to be clear that we don't see this process as an opportunity to shortcut or avoid engagement and interaction with iwi and hapū interests – on the contrary, it means we need to begin that engagement early, to ensure that those interests are properly reflected as the concept is developed

#### Why we are reaching out to you

- We have already been in contact with Ngā Rauru and are committed to engage constructively with the iwi and their hapū in the vicinity of the proposed project.
- Although the potential new project sits in the rohe of Ngā Rauru, we wanted to let the Whanganui Land Settlement Trust know about it and that we are considering whether to apply to have it listed in the Bill
- At this stage we are keen to confirm whether you would like to engage with us to discuss this
  project and the potential pathways

#### **Next steps**

 Please give me a call or send me an email to let me know whether and how you would like to engage about the project

I look forward to hearing from you.

Nā mātou i roto i ngā mihi

**Best Regards** 

Adam Radich
GM Operations and Development

**New Zealand Windfarms LTD** 



Street: North Range Road, RD1 Postal: PO Box 20031, Summerhill, Palmerston North 4448, New Zealand

Please consider the environment before printing this e-mail

"Clear and honest communication removes the anxiety of the unknown"

#### **Stephen Gascoigne**

From: Stephen Gascoigne

Sent: Wednesday, 1 May 2024 10:24 am

**To:** Stephen Gascoigne

**Subject:** FW: Crown Lease Titles - New Zealand Windfarms Windfarm investigation

From: Megan McKinstry < MMcKinstry@linz.govt.nz>

Sent: Wednesday, May 1, 2024 9:03 AM

To: Adam Radich < Adam.Radich@trhservices.co.nz >

Cc: Lyndon Slater <LSlater@linz.govt.nz>

Subject: FW: Crown Lease Titles - New Zealand Windfarms Windfarm investigation

Morning Adam,

As promised I have attached the link to the Taranaki Scholarships Trust Board Act for you - <u>Taranaki Scholarships Trust Board Act 1957 No 108 (as at 30 January 2021), Public Act Contents – New Zealand Legislation</u>

Probably the main section for you is under section 9 - see the snip below



# Part 2 Administration of Taranaki Scholarships Endowment

#### 9 Administration of Taranaki Scholarship Endowment reserve

- (1) The reserve described in the Schedule to this Act, which reserve is vested in the Crown, shall on and after the 1st day of January 1958 be held by the Crown in trust as an endowment for the purposes of this Act: Provided that section 16A of this Act shall not apply to the said endowment.
- (2) The said reserve shall be administered and dealt with by the Land Settlement Board, and with respect to any of the land in the reserve that Board may either—
  - (a) Grant leases under the provisions of the Public Bodies Leases Act 1969 in the same manner as if that Board were a leasing authority within the meaning of that Act; or
  - (b) Grant renewable leases, or licences with or without a right of renewal, under the Land Act 1948 on the same terms and conditions in all respects as in the case of Crown land: Provided that the lessee or licensee shall not have the right to acquire the fee simple of the land comprised in his lease or licence.
- (3) Nothing in this section shall deprive any lessee of any right of renewal now vested in him.
- (4) The revenue derived from the said reserve shall (after deducting such sum as may for the time being be approved b the Minister of Finance for the administration of the reserve and without further appropriation than this section) be paid to the Taranaki Scholarships Trust Board.

In subsection (1) the proviso was added by section 4(1) of the Taranaki Scholarships Trust Board Amendment Act 1961.

In subsection (2)(a) the Public Bodies Leases Act 1969, being the corresponding enactment in force, has been substituted for the repealed Public Bodies Leases Act 1908.

Just let me know if you require any further information.

#### Regards

## Megan McKinstry

Portfolio Manager/Customer and Regulatory Specialist

Crown Property - Land and Waterways

mmckinstry@linz.govt.nz | DDI +64 4 8311 691



Wellington Office, Level 7, Radio New Zealand House, 155 The Terrace PO Box 5501, Wellington 6145, New Zealand www.linz.govt.nz | data.linz.govt.nz

Mon	Tues	Wed	Thurs	Fri		
✓	✓	<u> </u>	✓	<b>~</b>		
√ = In the office;						

From: Adam Radich <a href="mailto:Adam.Radich@trhservices.co.nz">mailto:Adam.Radich@trhservices.co.nz</a>

Sent: Saturday, April 13, 2024 7:15:40 PM

To: Trevor Knowles <a href="mailto:Tknowles@linz.govt.nz">mailto:Tknowles@linz.govt.nz</a>

Cc: LINZ Customer Support <mailto:CustomerSupport@linz.govt.nz>; Crown Property

<mailto:CrownProperty@linz.govt.nz>; Stephen Gascoigne <mailto:stephen.gascoigne@aurecongroup.com>

Subject: Crown Lease Titles - New Zealand Windfarms Windfarm investigation

Tena koutou Trevor,

My name is Adam Radich, and I am the GM of Operations of development for NZ Windfarms.

We have been investigating the possibility of constructing a Windfarm in the Waverly area encompassing Kohi, Medlicott, Hooper and Ngāmotu Roads, and the broader area is encompassed by Kelley and Braemore Roads to the west and Waitangi and Omahina roads to the east.

While investigating this layout it has come to our intention that there are a couple of land parcels owned by the crown and leased on a long-term basis under a separate leasehold title, we believe these blocks are,

- Section 1 Block XV Opaku SD (RT: 577917))
- Section 2 Block V Carlyle SD and Section 6 Block V Carlyle SD (RT: 868779)

Could I please request a joint meeting (via Teams) early next week for the purpose of engaging about this land and also to help us get an understanding of how these leases work.

Hopefully you are the correct point of contact for this matter, or if not could you please point me to the right person.

Thanks, in advance

**Best Regards** 

Adam Radich
GM Operations and Development
New Zealand Windfarms LTD

Street: North Range Road, RD1 Postal: PO Box 20031, Summerhill, Palmerston North 4448, New Zealand

Phone: +64 (6) 280 2773 ext 1 Mobile:+64 (21) 933 191

Mail: mailto:adam@trhservices.co.nz Web:

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homas Phillips	Kohi	19/04/2024		1 Neutral	Initial dicussion on project and Fast Track list app	
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Appendix E – Preliminary Economic Impact Assessment



# KOHI WIND FARM

# Summary

The Kohi Wind Farm Project is projected to install up to 61 new turbines near Waverley in Taranaki, providing 366 megawatts of installed capacity and generating 1,218 gigawatts per year, helping New Zealand meet its greenhouse gas emission targets and providing significant economic benefits through both increased employment opportunities and increasing GDP.

- Benefits for Taranaki We estimate that, during construction, the project will support 1,360 jobs in the Taranaki region and generate more than \$188 million in GDP for the regional economy.
  - Once operating, the wind farm will sustain **95 jobs** and generate \$13.2 million in GDP each year for Taranaki.
- National benefits For New Zealand as a whole, including Taranaki, construction will support 1,635 jobs and generate \$231 million in GDP.

Once operating, the wind farm will sustain **109 jobs** nationally and contribute **\$15.4 million** each year to New Zealand's economy.

#### What this section covers

#### This section:

- discusses the methodology for Input-Output (I-O) Multiplier Analysis
- defines the "local area" as the Taranaki region
- explains how we estimated the expenditure and where it would take place, and
- provides a breakdown of the jobs and GDP that can be attributable to the Kohi Wind Farm Project.

# The approach

#### **Input-Output Multiplier Analysis**

To assess the economic impacts we have used I-O Multiplier Analysis, which is an internationally accepted method that is widely used in New Zealand to analyse the impacts of organisations, sectors, industries, and events on jobs and regional GDP.

Regional I-O tables and multipliers are derived from the Stats NZ national input-output tables, building on industry activity in the regions. The I-O tables used in the analysis were provided by Butcher Partners Ltd. Butcher Partners is a recognised producer of regional I-O tables, which

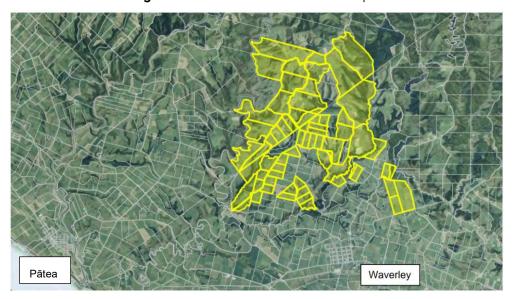


have been used in many regional economic impact studies in New Zealand, including for consent applications.

The method involves identifying the new expenditure occurring within the local area because of the activity; and then using this expenditure to estimate employment (jobs) and value added (GDP).

#### The local area is defined as the Taranaki region

The "local area" is the geographic area within which we are measuring the benefits. We have defined this as **the Taranaki region**. We have also assessed the impacts for New Zealand.



#### Measures of benefit: employment (jobs) and value added (GDP)

**Employment** is the jobs generated by that expenditure. Jobs are expressed as full-time equivalents (FTEs).

**Value Added, or GDP,** is the additional value that is captured within the local area. Value Added is generally the sum of salaries and wages, and profits.<sup>1</sup>

#### Direct and indirect benefits

As well as the direct impacts from the expenditure, I-O multiplier analysis is also used to estimate the indirect and induced activity in the study area resulting from the initial (direct) activity. These are discussed below.

- **Direct impacts:** NZ Windfarms purchases goods and services from its supplier firms and pays its staff generating employment and GDP in the study area.
- **Indirect impacts:** NZ Windfarms supplier firms make further purchases from their suppliers and so forth, some of which occurs in the study area.



<sup>&</sup>lt;sup>1</sup> Also includes depreciation and indirect taxes

• **Induced impacts:** employees of NZ Windfarms and supplier firms are paid a wage and the firms generate profits, some of which is then spent on consumption in the study area.

# Expenditure generated by Kohi in the study area and New Zealand

I-O Multiplier Analysis uses expenditure and where it occurs to calculate employment and GDP. Expenditure has been split into:

- two phases construction and operations
- for two areas Taranaki (the "local area") and for New Zealand.

We calculated forecast expenditure by category for each phase, based on average industry installed capacity costs for New Zealand wind farm developments as provided by NZ Windfarms. Costs are based on installed capacity of 366 MW.

Capital expenditure is rounded to the nearest million for construction and nearest \$100,000 for operations.

#### **Construction expenditure**

The total cost of developing the Kohi Windfarm has been estimated at \$1.123 billion (\$3.1 million per MW), estimated to occur over a 3-year period. The project will be undertaken in four phases – turbine supply and installation, civil, electrical, and overhead line and connection works.

For each phase, Table 1 below breaks down the estimated expenditure by where it occurs – within Taranaki, within New Zealand, and offshore.

Table 1. Construction costs

CapEx (\$m)	Taranaki	New Zealand Incl Taranaki	Offshore	Total Spend (NZ + Offshore)
Turbine supply and installation	\$72	\$81	\$725	\$805
Civil	\$158	\$176	\$44	\$219
Electrical	\$16	\$21	\$21	\$41
Overhead line and connection works	\$23	\$29	\$29	\$57
Total Capex	\$270	\$305	\$818	\$1,123

Source: NZ Windfarms and MartinJenkins

Of the \$1.123 billion, about \$818 million is forecast to go directly offshore, largely to buy the turbines but also specialty imports used in other phases of construction that are specific to the turbines. The remaining \$305 million is spent directly on companies in New Zealand. Breaking this down even further, about \$270 million of expenditure in New Zealand occurs in the local area, Taranaki.



Table 2. Construction cost by year incurred

Study Area	Year 1	Year 2	Year 3	Total
Taranaki	\$19	\$119	\$132	\$270
New Zealand	\$22	\$135	\$149	\$305
Offshore	\$657	\$94	\$67	\$818
Total	\$678	\$229	\$216	\$1,123

Source: NZ Windfarms and MartinJenkins

#### **Operating Expenditure**

Operating costs have been estimated at \$15 for every megawatt hour generated. With an installed capacity of 366 MW and annual energy production of about 1,200 GWh, the operating costs for the repowered windfarm are estimated at \$17.7 million per year. The breakdown of operating expenditure is shown in Table 3.

Table 3. Operating expenditure

OPEX (\$m)	Total expenditure			
Expenditure Area	Taranaki	New Zealand Incl Taranaki	Offshore	Total Spend (NZ + Offshore)
Operational expenses	\$15.1	\$16.8	\$0.9	\$17.7

Source: NZ Windfarms and MartinJenkins

Of the \$17.7 million in expected operating costs, a small amount will go directly offshore (\$0.9 million). Of the remaining \$16.8 million about \$15.1 million (90%) will be spent in the local area, Taranaki.

## The impact on jobs and GDP

Impacts are considered for two phases: the construction phase, and operations post-construction.

#### **Construction impacts**

The impact of construction expenditure is assessed over three years. The impacts are shown in **Error! Not a valid bookmark self-reference.** and Table 5, for Taranaki and New Zealand respectively.

Table 4. Construction impacts for Taranaki

Taranaki	Direct	Direct + Indirect + Induced
Output (\$m)	\$270	\$459
Employment (FTEs)	736	1,360
GDP (\$m)	\$101	\$188

The \$270 million directly spent in Taranaki will lead to 736 jobs over the three-year period and contribute \$101 million to the region's GDP.



Including indirect and induced expenditure the construction phase will support a further 624 jobs locally, bringing total impact on jobs to 1,360. Similarly this would result in an additional \$87 million in GDP bringing total impact on GDP to \$188 million.

Table 5. Construction impacts for New Zealand (incl Taranaki)

New Zealand	Direct	Direct + Indirect + Induced
Output (\$m)	\$305	\$825
Employment (FTEs)	832	1,635
GDP (\$m)	\$116	\$231
Source: MartinJenkins	·	

The \$305 million spent in New Zealand will lead to 832 jobs over the 3-year period and contribute \$116 million to New Zealand's GDP.

Including indirect and induced expenditure will support a further 803 jobs, bringing the total impact on jobs to 1,635. Similarly this would result in an additional \$115 million in GDP bringing total impact on GDP to \$231 million.

#### Impact of ongoing operations

The ongoing operation of the Kohi Wind Farm will provide benefits in employment and GDP, as shown in Table 6 and Table 7.

Table 6. Operating impacts for Taranaki

Taranaki	Direct	Direct + Indirect + Induced
Output (\$m)	\$15.1	\$22.7
Employment (FTEs)	66	95
GDP (\$m)	\$9.0	\$13.2

Source: MartinJenkins

The \$15.1 million spent in Taranaki will lead to 66 jobs and contribute \$9.0 million to the region's GDP.

Including indirect and induced expenditure, the ongoing operation of the Kohi Wind Farm will support a further 29 jobs, bringing total impact on jobs to 95. Similarly, this would result in an additional \$4.2 million in GDF for Taranaki, bringing the total impact on the region's GDP to \$13.2 million.



Table 7. Operating impacts for New Zealand (incl Taranaki)

New Zealand	Direct	Direct + Indirect + Induced
Output (\$m)	\$16.8	\$39.5
Employment (FTEs)	73	109
GDP (\$m)	\$10.0	\$15.4

Source: MartinJenkins

The \$16.8 million spent in New Zealand will lead to 73 jobs and contribute \$10.0 million to New Zealand's GDP.

Including indirect and induced expenditure will support a further 36 jobs, bringing total impact on jobs to 109. Similarly this would result in an additional \$5.4 million in GDP bringing total impact on GDP to \$15.4 million.



# Appendix F – Preliminary Landscape and Visual Effects Assessment





# LANDSCAPE ASSESSMENT KOHI WIND FARM PRELIMINARY ASSESSMENT

Prepared For:

NZ Windfarms Limited

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# 1. Introduction & Proposal

Brown NZ Ltd has been engaged by NZ Windfarms Limited (NZ Windfarms) to assess the landscape and amenity effects of the construction and operation of a wind farm on the 'Kohi' site in South Taranaki, east of the Whenuakura River (Figures 1 and 2). The proposed wind farm would be located directly north of the township of Waverley, straddling Kohi Road, which runs in a north-south direction through the wind farm site. Two other roads, also generally aligned from north to south, run through the site: Karahaki Road near the Whenuakura River, which bounds the western side of the site, and Mangatangi Road becoming Braemore Road closer to its eastern edge.

In progressing from the coastal plain around Waverley, the proposed site climbs up through a series of alluvial terraces that are flanked by steeply down-cut stream corridors and, to the north-east, Lake Moumahaki. These terraces climb steadily towards the outer foothills of the Matemateonga Range that, north of the junction of Kohi Road with Okahutiria Road, becoming increasingly steep and bush covered. Consequently, the proposed wind farm would progressively traverse four major terraces, with the transition from each 'step' to the next marked by a series of steep escarpments and slopes. Thus, while proposed Turbines T085 to T118, near Waverley, would sit on land that mainly comprises open pasture used for dairy and beef farming on gently rolling terrain, Turbine T033 would sit on a small hilltop surrounded by steeped-sided ridges and valley systems that rapidly transition from paddocks employed for sheep and beef farming into pockets of pine forest and large swathes of scrub merging with native forest.

In total, some 61 turbines would be spread across the landforms just described. At this stage, it is anticipated that each turbine would have a 120m high tower – to the turbine hub – and their blades would be 85m long, with a 170m diameter. However, these heights are indicative at this stage and it is understood that they could, in the future, vary by 5-10%. Irrespective of this, the turbines would be located on a series of terraces that rise north of Waverley, while the existing Waipipi Sands Wind Farm is found some 8km south-west of the town. That project, comprising 48 turbines, each with a 95m mast and 130m rotor diameter, sits on the coastal plain between SH3 and the edge of the Taranaki Bight. It also provides part of the context for the NZ Windfarms proposal at 'Kohi'.

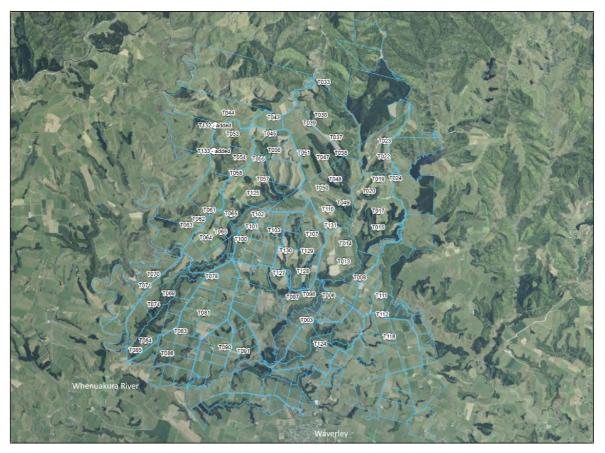
Like the proposed turbine pads, future internal roading to and between the turbines would traverse the series of terraces described above, which are already criss-crossed by local roads, farm tracks and shelterbelts, while 33kV lines would link each turbine to a substation and then part of the 220kV main grid transmission line that crosses the Whenuakura River and the centre of the Kohi Wind Farm site. This internal network of 33kV transmission lines would be laid underground, while one or more substations would be established amid farmland near the east-west aligned, 220kV grid – well away from Waverley. However, the exact location of the substation and the nature of its connection to the main grid has yet to be resolved.

Accordingly, these components of the wind farm are not addressed in this preliminary assessment. Instead, the proposed turbines are the only wind farm elements examined at this stage. As a result, this assessment focuses almost exclusively on the proposed turbines, while the anticipated roading and 33kV network would largely meld with the existing network of roads, accessways and tracks found within the proposed wind farm site.

# 2. The Site & Its Wider Landscape Context

#### 2.1 The Application Site

The wind farm site stretches over some 8.7km from south to north, from near the lower Mangatangi Stream to proposed Turbine site T033 off Okahutiria Road, and some 7.4km from west to east, from near the Whenuakura River to near the Moumahaki Stream.



The Kohi Wind Farm site

Located north of the lower Kohi Stream and Mangatangi Streams near Waverley, the proposed turbines would be spread across the layered series of terraces already outlined. Those terraces cascade down from the outer foothills of the Matemateonga Range and Rimunui Forest, via four large 'steps', to the open coastal plain around Waverley (see Figure 32 and extract overleaf). The proposed turbines would be located on these terraces, which are subdivided from one another by steeper scarps and banks.

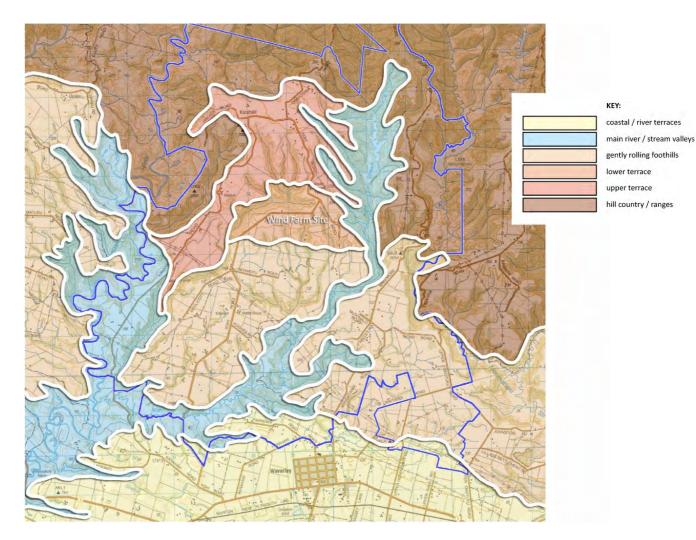
They are also flanked by a complex array of steep-sided river and stream valleys, some of which penetrate into parts of each terrace – notably between Kohi and Karahaki Roads, and Kohi Road and Braemore Road. Consequently, in addition to being layered into four terraces that run from north to south, the site is also subdivided by two major stream and valley systems (also running from north to south) into three vertical segments or layers that follow the three aforementioned roads. These stream corridors, together with those at the outer edge of the site rising into the Matemateonga Range foothills, contain large tracts of scrub to bush – including around much of Lake Moumahaki at the north-eastern

edge of the Kohi site. However, pockets of pines and some areas of significant sheet erosion are also apparent both within the valley systems and across the foothill margins. Some blocks of pine forestry also become more apparent close to the northern edge of the site around Okahutiria Road.

This landform and vegetation patterning, which are strongly evocative of the natural alluvial processes which have shaped, and continue to underpin, much of the Kohi landscape, contrast very markedly with the 'cultural', rural-production landscape that unfolds across the terraces between these incised features. By contrast, the farming landscape that is spread across most of the Kohi site is dominated by gently rolling to rolling terrain that contains a plethora of rural / pastoral landscape elements, including:

- A 'patchwork quilt' of open pasture, together with pockets of land used for cropping (corn);
- Shelterbelts and hedgerows;
- Farmhouses, farm sheds and storage areas;
- Associated shelter and amenity planting;
- Sileage pits;
- Roads, farm accessways and tracks; and
- An extensive network of farm fencing.

These elements, together with the wider matrix of pastoral farmland that they contribute to, are captured in **Figures 3-21** which contain panoramic photos taken in turn from Karahaki, Walker, Okahutiria, Kohi, Medicott, Ngamotu, Hughes, Monk, and Braemore Roads.



In addition, some pockets of dwellings and associated development are also evident. This includes a small cluster of houses and the historic Kohi Settlers Hall that are arrayed around the junction of Kohi, Medicott and Ngamotu Roads at the centre of the wind farm site. Other pockets of residential development are scattered across the subject site and its pastoral landscape, although nearly all comprise farmhouses within existing farms that are part of the Kohi Project — with just one or two exceptions. Finally, the existing 220kV transmission line that stretches across the site also makes a significant contribution to this widely modified, cultural environment. Its corridor crosses over the Whenuakura River directly west of the subject site, before traversing both it and Kohi Road south of the cluster of residential development described above. Continuing eastwards, it then traverses open farmland north of Hughes Road, followed by Mangatangi Road, Waitangi Road and Upper Herengawe Road — all just inside the south-eastern corner of the Kohi site.

#### 2.2 The Subject Site's Wider Landscape Context

The landscape around the wind farm site is effectively divided into three major components:

- The broad plane of the coastal terrace around Waverley that extends some 12km westwards to
  the settlement of Patea, as well as eastwards towards the smaller settlement Kai-Iwi Beach,
  perched on the very edge of the Taranaki Bight;
- A sequence of pancaked alluvial terraces and deeply incised stream / river valleys either side of the Kohi site, but similar to it; and
- The rising mantle of foothills north of the terraces that culminate in the even more serrated landforms and extensive bush cover of the Matemateonga Range.

#### The Coastal Plain:

The coastal and near-coastal landscape that gradually falls towards the edge of the Taranaki Bight and is again notable for its gently rolling topography and its expansive spatial character. Dominated by open paddocks that are intermittently demarcated by pine shelterbelts and even the odd stand of pines, it falls inexorably towards the equally open and expansive waters of the Bight. Largely devoid of notable features, apart from the major river corridor near the mouth of the Whenuakura River, this working landscape descends to a coastal edge that is also dominated by open pasture and (in places) rapidly eroding, coastal cliffs that stretch westwards beyond Patea and eastward past the smaller costal settlement of Kai Iwi Beach.

However, it also includes the Waipipi Sands Wind Farm and a sequence of large dune formations – the Waipipi Dunes – at the seaward edge of its site. Whereas other parts of the coastline have been subject to past stripping and mining of the coast's iron sand resource, these dunes represent a last major repository of such formations around Taranaki's maritime edge. As a result, they are identified as comprising an Area of Outstanding Natural Character in the South Taranaki District Plan – in stark contrast to the rural production landscape around them. Even so, this same landscape contains very little native vegetation and few other native or natural elements of note, other than the coastal plain's underlying landform.

For anyone venturing down to Waverley Beach, Mana Bay, the Whenuakura River mouth or other parts of South Taranaki's coastline, the very dynamism and confrontational nature of that interface — with large swells battering a fragile line of sedimentary cliffs — has significant appeal. By contrast, most of its hinterland, is simply another part of rural NZ, devoid of any great distinction or particular value: it is a working rural landscape whose identity is occasionally enhanced, to some degree at least, by its proximity to the nearby sea. Consequently, for those travelling along SH3 or passing through the hinterland of Waverley's coastal plain, the Waipipi Sands turbines — set against the grey, turbulent waters of the Taranaki Bight — are perhaps the only other feature that sets this part of rural NZ apart from the generality of such areas.

The small settlement of Waverley, with its grid of residential streets running perpendicular to SH3, lies at the northern edge of this hinterland, but is devoid of contact with both the coastline some 6.5km away and the Waipipi Sands turbines just over 5.5km away to the south-west. Although located within the extensive plain just described, it remains sequence of quite self-contained, with a series of shelterbelts, hedgerows and garden / amenity planting limiting its visual interaction with most surrounding areas, including the existing Waipipi Sands wind turbines and the proposed Kohi Wind Farm site to the north.

#### **The Alluvial Terraces and Valleys Either Side of The Kohi Site:**

The Whenuakura River effectively marks the western edge of the proposed wind farm site, while the Moumahaki Stream and Lake denote its eastern limits. Both sides of it, alluvial terraces and benches covered in farms and open pasture are intermixed with deep stream / river valleys lined by pines, scrub, and native forest.

This pattern is largely repeated west of the Whenuakura River, stretching through to the Patea River, although a large area of broken terrain with the Whenuakura River's own valley corridor is quite extensive, especially so west of Walker Road – diminishing in extent and width lower down. Regardless, a sequence of alluvial terraces covered in farmland that is intersected by stream courses extends as far north as the top of Kaharoa Road, approximately parallel with the top of the Kohi site.

However, to the east a series of major stream courses and valleys frames the eastern side of the wind farm site, with the Moumahaki, Omahine and Weraweraonga Streams combining to dissect the alluvial terraces between them into a series of much smaller 'slivers' and plateaux – following the likes of Block Eight Road and Mangawhio Road in a north-south direction. Scrub, bush and stands of pines are much more prevalent within this highly variable topographic environment, reinforcing the subdivision of both the area's benched landforms and local farms into smaller pockets. This more varied and 'jumbled' landscape climbs into a broad swathe of bush and pine covered foothills east of Lake Moumahaki, while to the south it reaches towards the coast east of Waverley, culminating in a series of low hills and major river valley around the Waitotara River and the small settlement of Waitotara on SH3.

#### The Northern Foothills:

The foothills just described wrap around the north-eastern side of the Kohi site, before consolidating near its head and enclosing the Whenuakura River to its north-west. Most of the area north of both Okahutiria Road and proposed Turbine site T033 (Figure 8), is therefore subdivided into a complex series of knife-edge ridges and steeply downcut river corridors, while large tracts of scrub and bush coalesce into an expanse of native forest either side of the road further north. This pattern is repeated north-

east to east of the top of the Kohi site, with this swathe of native forest extending down to the edge of Lake Moumahaki (Figure 20: Photo 24A), although it is interspersed with some large blocks of pine forest near the upper Kohi Stream and becomes more broken east of the lake.

Similarly, around the Whenuakura River west of Okahutiria Road, the landscape remains steeply incised and broken, but large areas of forest have been cleared, presumably for farming and production forestry. Even so, this area marks a point of significant transition into the bush and forest canopy that generally extends northwards from this point, and the top of the proposed wind farm site is also aligned with the interface between two contrasting landscapes: the much more modified and cultural farmland of the coastal plain and alluvial terraces to the south, and the more natural foothills and forest landscape of the Rimunui Forest and outer reaches of the Matemateonga Range to the north.

#### 2.3 Landscape Values

This range of landscape characteristics identified effectively suppresses many of the more natural characteristics of all three landscapes, with both the coastal plain and more expansive alluvial terraces largely shorn of natural elements, except within nearby and adjoining river / steam corridors. This includes the land on and around the proposed wind turbine sites, which, with the exception of Turbine T033, is almost surrounded by open pasture. At most shelterbelts, together with stands of pines, and pockets of scrub to native forest are found near some proposed sites, within the river and stream valleys just described.

In addition, while the sequence of terraces on which the proposed wind farm would be located displays some topographic character in its own right, it climbs inland – from the coastal plain near Waverley – progressively, rather than in one clearly defined, 'step'. Consequently, the wind farm terrain does not read as a line of hills or range, in the same way that, for example, the Tararua or Ruahine Range do, and its does not have a distinctive skyline. Moreover, unlike the Waipipi Sands Wind Farm nearby, its turbines would not be etched against the flat grey plane of the Taranaki Bight. Instead, they would be interspersed through, intermixed with farmland, shelterbelts and gradually rising terrain that is devoid of any obvious features or distinction in its own right. This sets the Kohi site somewhat apart from most wind farms, which frequently straddle notable landforms and features that have both appreciable value and a higher degree of sensitivity to change.

# 3. Statutory Context

### 3.1 Taranaki Regional Policy Statement

Section 10 of the Taranaki Regional Policy Statement contains objectives and policies which address the protection of outstanding natural landscape and features, together with 'other landscapes', and the maintenance and enhancement of amenity values. However, no ONLs, ONFs or other landscapes of significance are identified in the Regional Council's maps. Section 14 of the TRPS also contains some policies on energy and energy transmission; however, only one of those is applicable to the effects associated with energy production and transmission. Those provisions are shown below:

#### 10. Nationally and Regionally Outstanding Natural Features and Landscapes:

#### **NFL POLICY 1**

Outstanding natural features and landscapes are to be protected from inappropriate subdivision, use and development, including protection of:

- (a) the special scenic, recreational, scientific and M\(\tilde{a}\)ori cultural and spiritual values associated with Mount Taranaki;
- (b) the volcanic landforms and features of regional significance on the Taranaki ring plain;
- (c) the special scenic, recreational and scientific values associated with the coastal environment and coastal features of regional significance;
- the natural character and natural features and landscapes of regional significance associated with Taranaki's rivers and lakes and their margins;
- (e) the rural features and landscapes of regional significance, including the scenic and landscape qualities of the raised marine terraces of south Taranaki and inland Taranaki hill country; and
- (f) landscape features associated with areas of indigenous vegetation that are of regional significance.

Other natural areas, features or landscapes of value

#### **NFL POLICY 2**

Recognition shall be given to the appropriate management of other natural areas, features or landscapes not covered by Policy 1 above, but still of value to the region for one or more of the following reasons:

- (a) the maintenance of water quality and quantity;
- (b) soil conservation;
- (c) the avoidance or mitigation of natural hazards;
- (d) natural character amenity and heritage values and scientific and educational significance;
- (e) geological and geomorphological, botanical, wildlife and fishery values;
- (f) biodiversity and the functioning of ecosystems;
- (g) 'sinks' or 'pools' for greenhouse gases; and
- (h) cultural features of significance to tangata whenua.

Appropriate subdivision, use and development

#### **NFL POLICY 3**

The protection of outstanding and where appropriate, other natural features and landscapes of value shall be achieved by having regard to the following criteria in determining appropriate subdivision, use and development:

(a) the value, importance or significance of the natural feature or landscape at the local, regional or national level;

- (b) the degree and significance of actual or potential adverse effects on outstanding natural features and landscapes or other important natural features and landscapes, including cumulative effects, and the efficacy of measures to avoid, remedy or mitigate such effects;
- (c) the benefits to be derived from the use and development at the local, regional and national level;
- (d) the extent to which the subdivision, use or development recognises or provides for the relationship of tangata whenua and their culture and traditions with their ancestral lands, water, sites, wâhi tapu and other taonga;
- (e) the need for use or development to occur in the particular location;
- (f) the sensitivity or vulnerability of a natural feature or landscape to change, and its capacity to accommodate change, without compromising the values of the feature or landscape;
- (g) the degree of existing modification of the natural feature or landscape from its natural character;
- (h) the degree to which financial contributions associated with any subdivision, use and development can be used to offset actual or potential adverse effects arising from those activities.

#### 10.3 Maintaining and Enhancing Amenity Values:

#### AMY OBJECTIVE 1

To recognise the positive contributions of appropriate use and development in terms of providing for the maintenance and enhancement of amenity values in the Taranaki region, while avoiding, remedying or mitigating the adverse effects of inappropriate use and development on amenity values.

**POLICY Amenity values** 

#### AMY POLICY 1

The adverse effects of resource use and development on rural and urban amenity values will be avoided, remedied or mitigated and any positive effects on amenity values promoted. Any positive effects of appropriate use and development will be fully considered and balanced against adverse effects.

Those qualities and characteristics that contribute to amenity values in the Taranaki region include:

- (a) safe and pleasant living environment free of nuisance arising from excessive noise, odours and contaminants, and from traffic and other risks to public health and safety;
- (b) scenic, aesthetic, recreational and educational opportunities provided by parks, reserves, farmland, and other open spaces, rivers, lakes, wetlands and their margins, coastal areas and areas of vegetation;
- (c) a visually pleasing and stimulating environment;
- (d) efficient, convenient and attractive urban forms; and
- (e) aesthetically pleasing building design, including appropriate landscaping and signs.

#### 14. Energy:

Promotion of renewable energy

#### ENE POLICY 3

The use and development of renewable energy resources will be promoted whilst avoiding, remedying or mitigating adverse effects on the environment as far as practicable.

#### 3.2 The South Taranaki District Plan

The South Taranaki District Plan does, on the other hand, identify ONLs within the District, and those closest to the Kohi site comprise:

ONFL6 Waverley Beach

ONFL7 Waitōtara

However, both locations address the coastal interface with the Taranaki Bight and do not extend inland to the point where they might be construed to have any appreciable connection with the Kohi Wind Farm proposal. In a similar vein, three area of Outstanding Natural Character are identified within the

District, the closest of which – the previously described, Waipipi Dunes – is located some 6-7km from the Kohi site directly adjacent to the Waipipi Sands Wind Farm. Indeed, its turbines are located between the ONC Area and the Kohi site.

As a result, the Kohi is not subject to any provisions that address Outstanding Natural Landscapes or other landscapes of significance at the district level. This is also important in relation to the TRPS policies, listed above, as it confirms that the Kohi site does not contain, nor is it part of a regionally significant (let alone, nationally significant) ONL or ONF.

Turning to the matter of maintain and enhancing amenity values within the District's Rural Zone, Section 2.1 of the South Taranaki District Plan addresses Land Use Activities and references amenity values as follows:

Infrastructural and other industrial-type activities also occur in the Rural Zone, such as network utility facilities (e.g. transmission lines), quarrying, aggregate processing and gravel extraction, all of which are critical to the functioning of the District.

The above activities play a large role in the formation of a common rural character and amenity. Rural amenity values include landscape and scenic values, individual privacy, open rural outlook and open space, vegetation prevailing over built elements, openness, and ease of access, clean air, unique odours, overall quietness, water availability and the wellbeing of the community. ............ In general, buildings or structures are typically relatively low, and non-urban in density, with generous setbacks from external property boundaries, and with the height, scale, density and number of buildings not dominating the landscape and open space qualities of the rural environment. Properties are self- serviced with respect to water supply, wastewater disposal, and stormwater management.

While most of these activities are generally considered acceptable, they have the potential to generate adverse effects on the rural environment, depending on their size and location, and the proximity and sensitivity of adjacent land uses. Effects that can be experienced beyond the boundaries of the site (which sometimes cannot be avoided) include ...... noise, traffic, visual dominance and location effects of buildings ......

#### Related provisions include the following:

#### **Objectives**

**2.1.3** To ensure that subdivision, land use and development in the rural environment is of a nature, scale, intensity and location that maintains and, where appropriate, enhances rural character and amenity values.

#### **Rural Amenity and Character**

- **2.1.8** Manage the adverse effects of noise, vibration, odour, dust, traffic, glare and other nuisances from land use activities and development through relevant performance standards and appropriate spatial buffers and setback requirements for specific activities.
- **2.1.9** Ensure that new land use activities are of a nature, scale, intensity and location consistent with maintaining the character and amenity of the rural environment, and avoids or mitigates potential reverse sensitivity effects.

#### **Buildings (Location, Design and Setbacks)**

- 2.1.13 Reduce obtrusive built elements in the rural environment by integrating building location and design with the surrounding landform and landscape qualities, while recognising that the location and design of some buildings, and infrastructure is influenced by their function and/or resource constraints.
- **2.1.14** Avoid, remedy or mitigate adverse effects on rural privacy and rural character in the Rural Zone by maintaining road and site boundary setbacks for all buildings, while recognising that the degree of privacy and rural spaciousness is different in areas comprising existing smaller rural-residential lots.

In Section 13 of the District Plan addressing Energy Rules, large-scale renewable electricity generation activities are identified as a Permitted Activity, providing they comply with all relevant Permitted Activity Performance Standards. In this instance, however, the proposed turbines would well and truly exceed the 20m height limit for buildings in the Rural Zone and, as such is regarded as a Discretionary Activity and under Section 20.5.12, addressing Large-Scale Renewable Electricity Generation Activities, is to be assessed against matters that include the following:

- (b) The landscape and visual effects of the proposal, including:
  - The extent to which the proposal will impact on the natural character of the coastal environment, waterbodies and rural environment;
  - (ii) The extent to which the proposal will adversely impact on dwellings, sensitive activities, key public places including major roads and recreation areas;
  - (iii) The extent to which any aspects of the proposal can be sited or designed to reduce the visibility of any structures, including the potential to locate facilities underground.
- (e) The effect of the location, scale and design of the proposed development, including the number of structures, their height, the visual effect of the development as a whole, staging of the development and temporary effects as a result of construction.
- (g) The extent to which the proposal will affect amenity values of the surrounding environment with particular regard being had to the impact of the proposal on existing residential dwellings and other sensitive activities.
- (h) The proximity of the proposal to dwellings and sensitive activities, and existing and future residential urban growth areas.

Additional assessment criteria are also identified for Wind Farms in Section 20.5.13. However, most of these address noise issues and iwi consultation, which are subject to other specialist assessments.

#### 3.3 Summary

Taking all of these provisions into account, it is considered that a number of matters need to be addressed in this assessment – in particular, the degree to which the Kohi Wind Farm proposal would adversely affect:

- 1. The amenity enjoyed by Waverley's residential population;
- 2. The amenity values of other local residents who live around the wind farm site and somewhat unusually those living within its bounds who are not part of the project;
- 3. The landscape character and amenity values appreciated from public places, including SH3 (which passes through Waverley) and local roads.

It is not, however, anticipated that the proposed wind farm would affect and degrade appreciation of the coastal environment, as the nearest wind turbine to the coast (Turbine T085) would be some 7km from it (at the Whenuakura River mouth), with the rest of the proposed wind farm further north again.

## 4. Effects Assessment

#### 4.1 Effects In General

Assessments addressing changes to the various landscapes and environments, and the community perceptions of such change, often refer to a range of effects on visual, landscape, natural character, and amenity values. The following descriptions of each type of effect are designed to help clarify their areas of commonality and difference, which, in turn, affect how they have been addressed in this report.

#### **Visual Effects**

'Visual effects' reflect changes to the visual composition, configuration and character of a locality or landscape, together with the perceived magnitude or scale of such change(s) – in terms of their relative legibility and prominence. However, an assessment of visual effects does not address the values (including community values) associated with such change, which are more appropriately addressed in relation to the landscape, natural character, and amenity attributes of an area. Visual change and 'effects' are, in effect, devoid of value: they convey a sense of the magnitude of visible change that would be experienced from a photo point or viewpoint, but not the impact that this would have on the character, values and identity of the subject site and its surrounds. As such, visual 'effects' are no more than a stepping stone to addressing effects on landscape, amenity, and natural character values, which are ultimately much more meaningful precisely because such assessment focuses on how such changes would impact public and private perceptions of the subject landscape / environment.

#### **Landscape Effects**

"Landscape" is an all-encompassing term. The NZ Institute of Landscape Architects' (NZILA) Charter (2010) describes "Landscape" as being "the cumulative expression of natural and cultural elements, pattern and processes in a geographical area." Moreover, the Charter's Preamble offers the following, slightly more fulsome, description of landscapes – as follows:

"Landscapes are the result of unique combinations of biophysical, cultural and social processes, evolving over time and interwoven with memory, perception and tradition. They include land, water systems and marine areas, and play a vital role in human nurture, fulfilment and in shaping individual and collective identity. Landscapes range from the outstanding and the memorable, to the familiar and commonplace ......."

In addition, the NZILA's *Te Tangi A Te Manu – Aotearoa New Zealand Landscape Assessment Guidelines,* 2021 (p. 35, section 4.22) identifies landscape values as comprising three 'layers' of attributes:

#### Physical, associative, and perceptual dimensions

The current professional practice of conceptualising 'landscape' as the overlap of its physical, associative, and perceptual dimensions is reflected in 'case law' including the following recent decision<sup>1</sup>:

"Landscape means the natural and physical attributes of land together with air and water which change over time and which is made known by people's evolving perceptions and associations."

<sup>1 [2011]</sup> NZEnvC 384, Mainpower NZ Limited v Hurunui District Council, ('Mount Cass Wind Farm'), paragraph 300-301

"In keeping with the Act such a definition enables the development of landscape assessment which takes account of:

- 1. natural and physical environment: and
- 2. perceptual; and
- 3. associative aspects (beliefs, uses, values and relationships) which may change over time"

Within rural areas, therefore, landscape effects relate to the modification of both the biophysical and sensory (or perceptual) characteristics and values of an environment. Often, these are addressed in terms of changes to the landforms, vegetation cover, sea / water forms, biota and land uses within a landscape, together with the visual legibility, expressiveness, aesthetic value, transient values and other 'associative' matters (with reference to the well-known, 'Modified Pigeon Bay / WESI factors'). However, changes to the character of a landscape may also affect people's appreciation of its 'shared and recognised values' and identity (reflecting the appreciation of a landscape by local communities and the public at large), together with its cultural dimensions and historical values.

#### **Amenity Effects**

Amenity Values are defined in the Resource Management Act 1991 (RMA) as:

those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes.

Consequently, there is a significant overlap between amenity values and those 'sensory' and 'associative' qualities, described above, that pertain to any landscape. However, 'amenity' tends to focus more on locations, areas and places that are known, understood and appreciated by those who live within them or visit them — often on a reasonably regular basis. In a related vein, amenity values also relate to such factors as noise, lighting, smells and awareness of activity and movement; in effect, the fuller spectrum of sensory factors that contribute to perception and appreciation of an area's character, pleasantness and aesthetic coherence. Inevitably, this also brings into play perceptions of identity and sense of place (evolved from the Greek concept of the 'genius loci') that reflect the more particular, even unique, qualities of a locality or environment. Concepts of familiarity, shared ownership (in a figurative sense) and pride of place are also important in this regard. Moreover, Section 7(c) which refers to "amenity values" incorporates "cultural and recreational attributes", which often pertains to areas used for walking, cycling, coastal activities and passive recreation.

Amenity effects can also include so-called, 'nuisance' effects that degrade the 'pleasantness', 'aesthetic coherence' and other values associated with a particular locale. These often pertain to such matters as:

- Visual dominance or over-dominance
- Loss of open space and perceived spaciousness
- Encroachment on privacy
- Over-shadowing
- Noise.

#### **Natural Character Effects**

Natural character effects overlap with landscape effects, with emphasis on effects that impair, or otherwise alter, the naturalness of freshwater environments in terms of their biophysical attributes and perceived character. Such variables might include a river's fairway width, its flow regime, its water

clarity, human structures and modification, its context, and its landscape character. These elements and characteristics are not exclusive, and the significance of effects in relation to any one factor (or more) needs to be considered with regard to the particular characteristics of the subject river and its margins. Regardless, freshwater environments that are highly natural will nearly always be much more sensitive to the effects of change than those that are already highly developed and modified.

#### 4.2 Effects Relevant to the Proposal

Referring to the key issues identified in Section 4.1, above, it is considered that the effects of most relevance to the Motorimu proposal distil down to:

- Landscape effects, recognising that the proposed wind turbines have the potential to affect perception of the rural landscape as viewed from Waverley, SH3 and a range of public roads around and through the wind farm site;
- 2) Amenity effects focused on the rural character of the site and the effects that the wind farm would have on those values again as perceived and appreciated from Waverley, SH3 and a range of public roads around and through the wind farm site; and
- 3) <u>Amenity effects</u> pertaining to dwellings and local residents both around the Kohi site and in some cases, within it (excluding effects on active participants and beneficiaries of the project).

#### **4.3** Assessment Method

In assessing the landscape and amenity effects of the proposal, the following steps have been followed:

- 1) Identification of receiving environments / catchments and audiences exposed to the proposed wind turbines;
- 2) Identification of a sample of viewpoints representing those catchments and audiences, together with a range of viewing distances and angles relative to the wind farm site to provide the platform for more detailed evaluation of the project's effects;
- 3) Determination of key factors / variables that need to be addressed in evaluating the project's landscape and amenity effects;
- 4) Site visits and the taking of photos from each of the representative photo points / viewpoints that capture typical present-day views towards the wind farm;
- 5) Preparation of photomontages that show the proposed turbines superimposed on those same photos;
- 6) Use of the photos, photomontages, the assessment criteria, and site visits to evaluate the project's effects for a number of key / representative viewpoints;
- 7) Use of photos, the assessment criteria and site visits to evaluate the project's effects for other viewpoints also taking into account the photomontages and findings for the key / representative viewpoints just referred to; and
- 8) Discussion of the key findings drawn out of that evaluation, together with extrapolation of those findings to any other receiving environments where applicable.

#### 4.4 Receiving Environments & Audiences

Maps showing the cumulative Zones of Theoretical Visibility associated with each mast are attached to this report as Figures 33 - 41. It is important to note, however, that the ZTV mapping does not respond to minor landform variations or vegetation cover. Notwithstanding this limitation, the ZTVs show that most of the proposed turbines, each up to 205m high (indicative at this stage), would be visible over most of the combined coastal plain, alluvial terrace landscape and hill country margins around, and north of, Waverley — to varying degrees. Theoretically, this also includes the township of Waverley, much of SH3 either side of it and a broad network of roads within and around the Kohi site. Inevitably, this area includes residential properties spread across the wide-ranging countryside both within and outside the site. However, what the ZTVs don't show is the more nuanced nature of exposure to the proposed wind turbines modified by more subtle changes in the local terrain, shelterbelts, stands of pines and bush, and other planting.

Even so, it is considered that the main receiving environments / catchments likely to be exposed to the proposed wind turbines comprise:

- The northern edge of Waverley township, primarily around Fookes Street (Figures 26 and 27).
- Those travelling along SH3 either side of Waverley (Figures 24, 25, 28 and 29). However, this exposure reduces away from the town, both as the highway dips down towards the Whenuakura River (Figure 23), and to the east as it descends more gradually beyond the Waverley Weight Station at Moumahaki (east of Viewpoint H in Figure 29). It appears that the wind farm would also be distantly visible from part of SH3 that is more elevated west of the Whenuakura River extending through to Kaharoa Road (Figure 22, although the nearest wind turbine would be over 4km away).
- Those using multiple local roads, including:
  - Karahaki Road, Kohi Road, Braemore Road, Medlicott Road, Ngamotu Road, Hughes Road, Walker Road', Okahutiria Road, Kelley Road, Monk Road and parts of Mangatangi Road, Waitangi Road, Upper Herengawe Road (Viewpoint J, Figure 30), Upper Okotuku Road – all within the Kohi Wind Farm site;
  - Parts of Kohi Road, Walker Road', Okahutiria Road, Kelley Road, Mangatangi Road,
     Waitangi Road, Upper Herengawe Road, Upper Okotuku Road (Photo K, Figure 31) on
     the very edge of the wind farm site;
  - Parts of Kaharoa Road (Viewpoint I, Figure 30), Putahi Road, Nicholson Road, Niagara Road,
     and Elliot Road all west of the Whenuakura River; and
  - Parts of Waiau North Road, Village Settlement Road, Johnston Road, and Block Eight Road
     either side of the Moumouhaki Stream corridor.
- Farms and residential lots on many, if not most, of these local roads and SH3.

The audiences associated with these receiving environments mainly comprise:

- Residents living within Waverley, more especially those living on and near Fookes Road;
- Residents on local and surrounding farms, together with residential lots, that are associated with the roads identified above (though not those associated with the Kohi Project);

- Road users on SH3;
- Road users on the local roads identified above;
- Farmers and farm workers on surrounding rural properties not associated with the Kohi Project.

It is important to note, however, that views from Waverley – the only town close to the project site – as well as SH3 near it, are often constrained by the landforms on the northern side of the Mangatangi Stream, as well as shelterbelts and other vegetation found around that settlement (Figures 26 and 27), including that bordering a former school site on Fookes Road. Moreover, views towards the wind farm site from within the main body of the township are typically blocked by intervening development and gardens.

#### 4.5 Key Viewpoints Assessment

The assessment undertaken for this project focuses initially on 3 viewpoints located outside the proposed wind farm site. It employs photos taken in the course of site visits to Kohi, together with photomontages prepared by Brown NZ Ltd to assist with this evaluation. The viewpoints employed in this exercise are located as follows – see Figure 2 (Photo Points Location Plan):

Viewpoint C: SH3 West of Waverley Township

Viewpoint F: Fookes Road on the northern edge of Waverley

Viewpoint J: The Intersection of Upper Herengawe Road and Waitangi Road

The following checklist of assessment factors / criteria has also been used in addressing both the existing values of the landscape associated with each photo point and the effects that would be generated by the proposal:

#### **Existing Values:**

- 1. The general nature of the 'environment' including any key qualities associated with views towards the wind turbines and the western Tararua Range;
- Any key views encompassing the wind turbines and their surrounds;
- 3. Any key landscape features also captured in views generally in the direction of the proposed wind turbines.

#### Visibility / Prominence:

- 4. Viewing distance to the wind turbines & their relative elevation;
- 5. The natural orientation of views / outlook for the receiving environment / photo point;
- 6. Intervening elements landforms, vegetation, etc.

#### Landscape & Amenity Effects:

- 7. Any effects in relation to the biophysical characteristics and naturalness of the western Tararua Range;
- 8. Any effects in relation to the western Tararua Range's perceived naturalness, expressiveness, aesthetic value, legibility, transient values and 'shared and recognised' values;
- Any effects related to the rural character and aesthetic coherence, 'pleasantness' and identity of the western Tararua Range.

Table 1, below, shows the rating scale employed in respect of the effects identified for each photo point:

Table 1.

	Adverse Effects:	Effects Rating:	RMA Rating:	
1	No appreciable change to landscape character, together with landscape & amenity values: no visual intrusion / 'nuisance'	Very Low	Less Than Minor	
2	Limited change to landscape character; no appreciable change to landscape & amenity values: no visual intrusion / 'nuisance'	Low	LESS THUIT WIIIIO	
3	Increasingly evident change to landscape character; limited change to landscape & amenity values & a low level of visual intrusion / 'nuisance'	Low - Moderate	Minor	
4	Appreciable change to parts of the local landscape; more obvious impact on some landscape & amenity values, but still limited visual intrusion / 'nuisance'	Moderate	Mara Than Minor	
5	Marked change to parts of the local landscape; obvious impact on some landscape & amenity values, including evident visual intrusion / 'nuisance'	Moderate	More Than Minor	
6	Obvious changes to landscape character with degradation of landscape & amenity values, including obvious visual intrusion / 'nuisance'	High	Significant Effect	
7	Severe degradation of landscape & amenity values accompanied by high levels of visual intrusion / 'nuisance'	Very High		

This scale is aligned with the 7-point scale of ratings recommended by the NZILA (*Te Tangi A Te Manu / Aotearoa New Zealand Landscape Assessment Guidelines*, 2022).

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#### VIEWPOINT C. SH3 West of Waverley (Figures 42 & 43)

#### **Existing Values:**

Looking north-eastwards reveals a 'mosaic' of open pasture, hedgerows, shelterbelts, and rising landforms in the far distance that is 'pancaked' by the flat viewing perspective across Waverley's coastal plain. Whereas the foreground to middle distance is completely dominated by an open expanse of pasture – broken only by a hedgerow, some farm buildings with a small silo, and, more centrally, a sileage pit – the background beyond is where most of the elements described above are crammed together. There, they meld together into a mottled array of landforms, vegetation, and patches of open pasture at the far edge of the swathe of pasture in the foreground.

The resulting landscape is relatively simple. It is also highly modified, with any native / natural remnants firmly embedded in the much more complex mixture of landscape elements on and near the northern to eastern horizon. Inevitably, therefore, such views capture the essence of a rural production landscape that is devoid of any real character or features beyond being very expansive spatially. Even though its planar landform reflects the coastal processes that have created it, this fails to offset the absence of any residual naturalness, any real aesthetic appeal, memorability, or other qualities. It could, indeed, be a rural landscape in many parts of NZ, without any obvious attributes that might set it part or help to really locate it. Indeed, even though the Taranaki Bight and Tasman Sea lie just over 6km from this viewpoint, there is little, if any, awareness of its presence.

Overall, therefore, the landscape's existing values are considered to be of a **low** order overall.

#### **Visibility / Prominence:**

Most of the proposed wind turbines would be visible, to varying degrees, from this vantage point, starting with Turbine T091 centrally located to the north and T085 to T118 spread from left to right (west to east) in the front tier of turbines either side of it. The rest of the wind turbines would sit beyond these, receding into the low line of stacked plateaux near the northern skyline.

Their scale of the closer turbines would clearly 'etch' them on that skyline, while their numbers and the movement of their blades would also draw attention to them. This would be offset to a degree by their relatively lightweight profiles, their distance from this viewpoint, and the flat viewing plane (across the coastal plain underlying SH3) to them. The last of these factors, combined with the relatively gradual rise of the site terrain, would keep the profile of most turbines much lower than, for example, if they were located on a sharply rising ridge or range of hills.

Even so, it is anticipated that the turbines would have a **moderate-high** to high degree of visibility and prominence.

#### Landscape & Amenity Effects:

The Kohi proposal would have no impact on the <u>biophysical</u> environment of the rural landscape exposed to SH3.

<u>In terms of perceptual effects</u>, the wind farm would, as indicated above, be clearly apparent on the skyline north of SH3. Indeed, it would dominate that skyline, although it would not be close enough to appear intrusive. The

sheer mass of its turbines, combined with their sculptural form and often slow, even 'lazy', rotation, would inevitably draw attention – particularly amid a landscape that is quite bland and devoid of any other notable features. For some, this would add a degree of appeal to the existing landscape, whereas for others they would be relatively benign and would potentially erode some of the area's rural character.

Inevitably, the proposed wind farm would have a dramatic impact on the character of the SH3 and Kohi landscape. However, on balance, it is considered that the wind farm would have a quite limited level of impact on the landscape's aesthetic values and appeal, its expressiveness (related to awareness of its formative processes) and its naturalness. Furthermore, it could well enhance the area's legibility – as a memorable part of the South Taranaki District.

For those travelling eastwards along SH3, the wind farm would also be viewed after the Waipipi Sands Wind Farm, so that that the Kohi proposal would become part of motorists' sequential (and cumulative) exposure to an emerging 'energy landscape'. Moreover, the offshore Zealandia Wind Farm could also become part of this sequence in the future. On one hand, this would result in a degree of preconditioning to such activities and structures; on the other the Project Kohi could be regarded as exacerbating the cumulative erosion of rural character as experienced from the highway.



A Google Earth image of the Waipipi Sands Wind Farm viewed from SH3

Even so, it is anticipated that such cumulative exposure to a second wind farm would not greatly alter the landscape values associated with views from SH3. At worst, the sequence of existing and proposed wind farms would 'make sense' in utilising land that is otherwise only notable for its pastoral content and relative absence of real interest.

In terms of <u>associative</u> and <u>amenity</u> effects, the turbines would have a limited impact on the 'pleasantness' and aesthetic coherence of the Range, and would not be close to enough to generate any direct nuisance effects. However, in altering its character they would also alter the local area's sense of place and identity, by introducing a significant 'energy landscape' component to part of Waverley's hinterland that is largely – albeit not entirely – free of such structures at present.

Landscape Effects Rating: Low

Amenity Effects Rating: Low- Moderate

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#### VIEWPOINT F. Fookes Road On The Northern Edge of Waverley (Figures 44 & 45)

**Existing Values:** 

Looking directly northwards from the edge of Waverley township and Fookes Road, a large flat paddock in the immediate foreground recedes into a cluster of farm sheds and dwellings on its far side, ensconced in a mixture of shelterbelts, mature trees, and amenity planting. Part of a 33kV or 66kV transmission line is also visible, although it has a low profile and is backed by both pines, native bush and pasture spread across rising ground on the far side of the Mangatangi Stream.

The contrast between the flat plane of little-used pasture in the immediate foreground and that rising land – traversed by a section of Mangatangi Road – is quite marked. It is, in turn, capped by part of the 220kV transmission corridor that bisects the Kohi site, either side of Mangatangi Road, although at more than 1.2km from this viewpoint and partly backed by vegetation on the same ridge, it is not overly prominent, let alone dominant. In addition, part of both the ridge and transmission corridor are also backed by a thin line of hills on the very far horizon, although these remain only faintly apparent.

As a whole, the landscape exposed to this viewpoint is pleasant, enhanced by both its topographic variation and mixed vegetation cover. The latter is subdivided into a series of visual planes, including an elevated pine shelterbelt which frames the views beyond the immediate paddock, a mixture of native and exotic trees in two stands at each far corner of the paddock that further enhance its framing and sense of attractive enclosure, and a solid body of pines and native bush rising up from an unseen Mangatangi stream within its 'backcloth'. These factors lend views from this vantage point a degree of aesthetic appeal, the feeling of still retaining at least some residual naturalness, and they also contribute to appreciation of the area's formative geophysical processes.

Overall, therefore, the landscape values associated with this viewpoint are considered to be of a **low-moderate** level, recognising that most of the landscape exposed to this part of Fookes Road is still appreciably modified, irrespective of the more natural qualities associated with the Mangatangi Stream corridor and the stands of vegetation that frame views towards and beyond it.

Visibility / Prominence:

Turbine T124 would register more clearly than any other turbine within the Kohi Project – directly north of this vantage point, beyond both the Mangatangi Stream and the landforms and vegetation associated with its course. Its moving blades would be silhouetted on the northern skyline, together with part of its tower below its hub. On the other hand, most other turbines near Waverley would be largely screened from view, with mainly just the blades of a more distant T008, T011, T012 and T118 also partially visible to the north-east and the rotating blades of T003, T097, and – perhaps – T127 to the north also registering at times. Turbines further to the west, including T090 and T091 would be screened by intervening vegetation.

Even so, the flat viewing plane to nearly all of the wind farm means that even T124 would appear rather distant relative to most other landscape elements captured from this vantage point, and it would have just a moderate level of visual presence. As a whole, the wind farm, would have a **low-moderate** level of visibility / prominence.

#### Landscape & Amenity Effects:

The Kohi proposal would have no impact on the <u>biophysical</u> environment of the rural landscape that is visible north of Waverley and Fookes Road.

Perceptual effects: although several of the Kohi turbines would be clearly visible from this viewpoint, the intervening vegetation, and landforms in front of them would help to distance them from the edge of Waverley and, in addition to limiting the number of turbines that are apparent, would 'cut the legs out from under' those that are visible. This would effectively reduce the apparent scale and visual presence of most of the turbines visible from this viewpoint – with the possible exception of Turbine T124. Yet, even this turbine would remain in the background of views from this quarter, whereas most other would appear more distant and fragmented again. For the most part, just the movement of their combined blades would attract attention and signal their proximity to Waverley. In addition, the paddocks, stands of trees and bush that dominate the foreground to middle distance would remain intact, with all of the proposed turbines pushed back, beyond this key area of interaction just outside the town's northern boundary.

As a result, the proposed wind farm would have a modest level of impact on the local landscape's rural character, together with its aesthetic value, its legibility, the degree to which it expresses the area's formative geophysical processes, and its naturalness. Conversely, the presence of the turbines might subtly enhance the memorability of this vantage point and Waverley through its association with the wind farm, but this would not be as pronounced as in relation to other viewpoints, such as "C" and "J".

In relation to effects on <u>associative</u> and <u>amenity</u> values, the wind farm would have a similarly modest level of effect in relation to the 'pleasantness' and aesthetic coherence associated with views from Fookes Road, while Turbine T124 would not be close enough to give rise to any nuisance effects — let alone the other, less visible, turbines. Yet the Kohi proposal would still have an impact on the perceived identity and sense of place associated with Waverley, in part because of the visibility of some of its turbines from this quarter. The area around the settlement would seem less rural because of the introduction of an energy landscape to it and this would impinge on perception of it as a town that is inexorably linked to its rural landscape setting.

<u>Landscape Effects Rating:</u> **Low-Moderate**Amenity Effects Rating: **Moderate** 

#### VIEWPOINT J. The Intersection of Upper Herengawe Road & Waitangi Road (Figures 46 & 47)

**Existing Values:** 

Looking northwards from this vantage point, the more undulating terrain around the Moumahaki Stream and its valley system become apparent, while a gully containing a tributary of the Mangatangi Stream cuts into the foreground terrace form left to right. Some stands of old macrocarpas, then bush rising up out of the nearer stream corridor, and a shelterbelt of pines, also cut across this landscape, while the steep cut of the Moumahaki Stream is partly visible. A complex layering of hill country, pasture, bush, and other vegetation stretches beyond to the far horizon, which although more varied than in views from closer to SH3 is still relatively low. Overall, the landforms are more 'rolling', and the layering of elements is more varied and interesting than in most other views across Waverley's coastal hinterland – such as those associated with Viewpoints G and H in Figures 28 and 29.

Even so, this is a landscape that remains dominated by open pastoralism in the foreground to far middle-distance, with just the upper part of the Moumahaki Stream 'chasm' and the thin line of hills beyond hinting at more than just an unfolding sequence of slowly rising terraces covered in pasture and dairy / cattle herds extending to the northern horizon. Although still a rural 'working' landscape for the most part, it is less flat and 'pancaked' than, for example, when looking from Viewpoint C, with more of its formative processes also revealed in these distant glimpses. These factors, together with the greater complexity of the general outlook, lend it more aesthetic appeal and even memorability than others from closer to both Waverley and the coast.

It is therefore considered that the landscape exposed to Viewpoint J has a **moderate** to, perhaps, **moderate-high** level of value.

Visibility / Prominence:

Looking from this viewpoint, Kohi's eastern-most turbines T118, T12 and T111 would be especially prominent, with T118 just over 1.0km from this vantage point. A large grouping of turbines to the west, starting with T124, T003, T006, etc would also be highly visible to the left (north-west), while the greater mass of the entire wind farm would step back from these machines to spread across the rising terrace landscape beyond. Most of Kohi's turbines would rise up beyond a still quite low-lying skyline, although the lower tows of many turbines would also be screened by intervening shelterbelts and other vegetation. Even so, the combined mass of turbines on view would have a high level of presence and legibility.

Overall, the proposed turbines would therefore have a **high** degree of visibility / prominence.

Landscape & Amenity Effects:

As for Viewpoints C and F, the proposed wind farm would have no appreciable impact on the <u>biophysical</u> environment and landscape of the rural landscape exposed to this viewpoint.

<u>In terms of perceptual effects</u>, the proposed turbines would rise up to effectively capture the northern skyline, despite Turbines T11, T12 and T118 marking the eastern edge of the Kohi proposal. These three turbines would be particularly dominant in views from this vantage point, combining with

T124, T003, T006, and a sequence of turbines north of them, to appear to wrap around this vantage point in part. The line of Turbines T11, T12 and T118 stretching away from this viewpoint would, on the other hand, also lend to lend them a sculptural quality which goes beyond that of their generically slender profile, while the greater mass of other turbines (apart also from T1124 to T006) would appear much more remote – both because of their diminished relative size and the partial screening of many turbines by trees lining the near edge of part of the Mangatangi Stream.

Regardless, the proposed wind farm would fundamentally change the nature of the landscape exposed to this viewpoint. Kohi's 'energy landscape' would be in full view, and the proximity of the nearer turbines would emphasise the scale of this change. Having made this point, they would not reach the point of significantly eroding the aesthetic appeal of this landscape, appreciation of its formative processes, or its residual naturalness – which would remain visible through the 'layer' that the wind farm casts over it. At the same time, the presence and proximity of the turbines could well enhance the locality's legibility, with it becoming much more dramatic, distinctive, and memorable overall – although this also has to be balanced against the erosion of some of the area's rural character value.

Taking all of these factors into account, it is considered that the effects derived from the wind farm would be appreciable, but would not reach the point of being significant (with reference to Table 1).

In terms of <u>associative</u> and <u>amenity</u> effects, nearly all of the houses near this viewpoint are associated with the Kohi Project and relatively few are found within the countryside stretching southwards towards SH3. While the proposal would still have an appreciable impact on the rural character of the locality around this viewpoint, together with its pleasantness and aesthetic coherence, it would have much less impact on the area's identity and sense of place, and would not generate any nuisance effects, because of this situation.

<u>Landscape Effects Rating:</u> Moderate-High <u>Amenity Effects Rating:</u> Low-Moderate

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#### 4.6 Other Photo Points (Without Photomontages)

**Photos A, B, D, E, G, H, I, K and L** (Figures 22, 23, 25, 26, 28, 29, 30 and 31) capture a wide range of additional views and viewing perspectives towards the Kohi Wind Farm site, either from outside it or outside the area of the site that would be occupied by wind turbines—including from:

- SH3 west of Waverley;
- SH3 east of Waverley;
- The western half of Fookes Road on the northern edge of the township (west of Viewpoint C addressed above);
- Kaharoa Road west of the Whenuakura River; and
- The southern part of Upper Okotuku Road.

Most of these vantage points lie south of the proposed wind farm, and as such also focus on areas that are regularly used by the wider district / regional population, together with motorists on SH3 — as opposed to those who live and work within the bounds of the wind farm site.

Adopting the order of the viewpoints outlined above, the following is a breakdown of the anticipated landscape and amenity effects that would be generated by the wind farm proposal in relation to the various receiving environments represented by those viewpoints:

#### SH3 West of Waverley (Figures 22-25, 42 & 43):

Views from slightly more elevated parts of SH3 between Waverley and the Whenuakura River, and from that river corridor through to Kaharoa Road (east of Patea), display many of the characteristics and values described for Viewpoint C (Figures 42 and 43). The landscape remains flat, with the foreground dominated by open pasture that is partly subdivided by hedgerows and shelterbelt, whereas the distant terraces, vegetation, and hill country on and around the Kohi site is compressed into a narrow line that undulates across the skyline to the north-east. It is likely that the proposed wind turbines would register on that skyline and would penetrate though it, but they would be finely wrought, remote and devoid of any real presence relative to the highway and those using it.

Viewed from SH3 and nearby, it is anticipated that some clusters of turbines within the western half of the Kohi Project would be sporadically visible, although they would appear distant and low-lying, with their profiles visually truncated by both intervening landforms and vegetation — mainly farm shelterbelts. Those parts of the Kohi Project that are visible would still change the content and, to a certain extent, the perceived nature of the landscape across the Whenuakura River. However, the limited to very limited nature of such exposure, derived in part from the wind turbines' remoteness, the 'working' nature of their wider setting, and their low relief (in large part because of the flat viewing plane to them), would limit their impact on both landscape and amenity values.

Furthermore, when looking from that part of SH3 which dips down into the Whenuakura River's valley corridor near the Whenuakura Marae, the landscape becomes more incised and enclosed, so that few, if any, of the proposed turbines would be visible at all (Figure 23). At most, they would intermittently overtop the river's elevated banks and stands of pines around

part of its periphery – without appreciably changing the content or nature of this riverine landscape.

Overall, it is considered that landscape effects in relation to this sector (including other side roads and rural properties close to SH3) would be of a **Very Low** to **Low** order, while the wind farm's effect on the character, identity, pleasantness, and aesthetic coherence of the local area – its amenity values – would be a of a **Low** order.

#### SH3 East of Waverley (Figures 28 & 29):

Many of the factors just described also affect perception of the rural production landscape east of Waverley, with views to the east again dominated by the low relief of Waverley's coastal plain, while the terraces to the north barely register – swallowed up by very gently rolling ridges in that direction and shelterbelts. Again, this is a production landscape that is largely devoid of any real distinction, memorability, and features of interest.

The proposed wind farm would, in places, be evident on the northern horizon, sitting amid, and in front of, a narrow strip of 'pancaked' landforms and vegetation in that direction. Once more, however, its turbines would appear remote, perhaps even delicate, permeable, and ephemeral, despite being visible *en masse* from some sections of SH3 closer to Waverley. They would still have an impact on the character of this rural landscape, but would have a limited impact on a landscape that is largely devoid of interest and any appreciable value at present – beyond being 'rural'.

As a result, it is considered that the landscape effects of the Kohi proposal on this part of SH3, together with nearby roads and properties, would of a **Very Low** to **Low** order – much as described for the area west of Waverley – and any impact on amenity values would similarly be of a **Low** order.

#### Western Fookes Road on the Northern Edge of Waverley (Figures 26, 27, 44 & 45):

Figures 27, 44 and 45 capture both the current view from Fookes Road northwards and that anticipated with the advent of the Kohi Wind Farm. Viewpoint F conveys the character of that landscape viewed from near the eastern end of that road at the northern edge of Waverley township, whereas Viewpoint E reveals it viewed from further west. Again, the near edge of such views is captured by open pasture, but whereas Viewpoint F embraces a foreground that extends through to a ridge elevated beyond part of the Mangatangi Stream River, the viewing perspective from Viewpoint E is flatter. It effectively terminates at a line of young pines planted as a shelterbelt on the far side of the open paddock in the foreground, although other stands of vegetation, together with a low lining patina of distant hills, farmland, and yet more shelterbelts, is partly visible beyond, and either side of, the pines.

This landscape is less permeable and enticing than that experienced further down Fookes Road and – in relation to the adjoining township and its residential properties – it is also more shut off from the rural landscape and its sequence of terraces to the north. Consequently, whereas views over the old school site and past it embrace a landscape that has some variation and a sense of permeability, Viewpoint E captures a landscape that is much more one-dimensional.

Inevitably, many of the Kohi turbines proposed north-west to north-east of Waverley would still be visible above the pine shelterbelt and either side of it, but they would not appear as

extensive, massed and visually prominent as in some other views (Viewpoints C and J, for example), nor would individual turbines appear as 'present' as T124 does in relation to Viewpoint F sharing Fookes Road.

Also taking into account the more limited, one-dimensional nature of views from this quarter and their relative lack of interest and real focal-points, it is considered that effects in relation to the western half of Fookes Road would be of a **Low** order. The wind turbines would still be sufficiently visible and 'known' that they would erode some of the rural character associated with the terraced farmland to the north and the some of the identity of Waverley itself, but the proposal's amenity effects would be of a **Low-Moderate**, at most **Moderate**, order.

#### West of the Whenuakura River (Figure 30, Photo I):

North of SH3 and west of the Whenuakura River, Kaharoa Road, together with a series of short side-roads off it – from Putahi Road in the south as far north as Niagara Road – would cut through terrain that is more undulating to rolling. Shaped by the nearby river over aeons, this terrain, together with the odd shelterbelt breaks up the rural landscape to a greater into a series of 'humps and hollows' that rarely offer clear views towards the Kohi site. Consequently, although Kaharoa Road runs generally north-south, parallel to the western side of the proposed wind farm, views towards it are almost continually obstructed by intervening landforms, and in some cases, shelterbelts. While clearer views towards the site would be obtained from farms closer to the margins of the Whenuakura River, the public domain is almost entirely screened from it.

Again, therefore, any wind turbines that are visible would appear distant, would be visually truncated by the sort of screening elements just described. They would have quite limited visual presence. As such, it is considered that the proposal would have a **Very Low** to **Low** level of effect on the landscape values of this sector and a **Low** level of effect on amenity values.

Between Waverley and The Moumahaki Stream (Figure 30, Photo J; Figure 31, Photo K; & Figures 46 & 47):

The landscape north-east of Waverley and relatively close to the Moumahaki Stream valley, is much more varied than those parts of the landscape closer to the coast. This is described in relation to Viewpoint J above, embracing an area whose terrain remains dominated by open terraces, but also become much more folded and rolling as it approaches the stream corridor. It also captures longer views towards the more elevated sequence of terraces of, and around, the Kohi site, while the layering of vegetation cover – shelterbelts, stands of pines, native bush, etc – across the landscape also becomes more apparent – again much as described in relation to Viewpoint J.

Similarly, the proposed wind farm would be prominent to very prominent in views to the north, with Turbines T118, T112 and T11 especially obvious. Kohi's 'energy landscape' would be in full view, and the proximity of the nearer turbines would emphasise the scale of this change. However, this transformation would not reach the point of fundamentally eroding the character and aesthetic values of this landscape, its formative processes, or its residual naturalness. These qualities would remain evident through the through the layer of proposed turbines, while the proximity of the turbines could well make the local landscape appear more dramatic, distinctive, and memorable overall, although – as stated for Viewpoint J – this has to be balanced against the erosion of some of the area's rural character value.

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In addition to this general situation, one, quite isolated, residence not involved in the wind farm project sits within the Kohi site, but outside the envelope of its wind turbines. That house is located at 7 Monk Road near Turbines T118 and T12. Shown on Figure 31, Photo L (see below), it is located on a farm at the edge of the project site, backing into a stand of bush that wraps around its north-western, southern and south-eastern sides. As a result, the closer T11-T118 turbines would be largely, perhaps entirely, screened from view, although the much more distant, T015 to T023 grouping of turbines to the north would probably be visible from that side of the dwelling.

However, the close proximity of it to T118 and T112 – within 670m of the former site – means that even though those turbines may well be significantly screened, they might still 'over top' the intervening stand of bush in views from the western and northern sides of the house, as well as outside it. If this is the case, then the turbines might well be close enough to appear intrusive and generate other nuisance effects that include shadow flicker in the afternoon to late afternoon periods of fine days. At the very least, views would remain to the turbines to the north, but these would start some 3.0km to the north and would be much less problematic in relation to the residential amenity values enjoyed by the occupants of the residence at 7 Monk Road.

As a result, the effects in relation to this one property could range from low to high and it is impossible, therefore, to be definitive about the effects of the proposed wind farm on this property at present. Consequently, this matter needs further investigation as part of a more complete assessment of the Kohi Project's effects.



Taking all of these factors into account, it is considered that the effects derived from the wind farm would be **Moderate-High** in respect of local landscape values and **Moderate** in relation to the area's amenity values — also aligned with the findings for Viewpoint J. As indicated above, the effects in relation of 7 Monk Road are less clear and could range from **Low** to **High** at this preliminary stage. They require more detailed and specific examination.

#### 4.7 Effects Within The Kohi Site (Figures 2-21 & 48)

Nearly all farmhouses within the rest of the Kohi site are owned by participants in the wind farm project. Moreover, the key roads found within the site – Karahaki, Kohi, and Braemore Roads – together with side roads off them, effectively terminate at the top of the site and don't go beyond it – with the solitary exception of Okahutiria Road, a gravel road that climbs into the back blocks of the hill country and bush

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north of the subject site. It is more of an access route for hunters and trampers than a through route and no other road within the site is linked to areas outside it. In effect, the local road network is a 'closed circuit' that services local farms and farmhouses spread across the wind farm site.

Clearly, the presence of 61 wind turbines would fundamentally change the nature of the landscape found across the Kohi site and a sizeable number of farmhouses, together with farm cottages used by workers, would also be affected by the Kohi Project. The productive, 'working' nature of the farmland and terraces which provide the foundation for the project would be exacerbated and many of the farmhouses and other farm dwellings within its bounds would be exposed to the proposed turbines at close range. This could, in some locations, result in turbines -both individually and cumulatively – appearing over dominant and generating nuisance effects that erode some of the amenity enjoyed by farm owners, workers and their families.

Similarly, the roads accessing those properties are likely to be affected in a very similar manner, with the turbines looming over the likes of Kohi Road at very close range in places. The 'flip side' of this situation is that such close-up exposure to the turbines could well add some dynamism and excitement to the experience of travelling through the Kohi site – at least until locals get used to it and the experience starts to become more mundane.

Regardless, the great majority of those affected in the manner just described would be local farmers and their families who are part of the project and would become beneficiaries of it. As a result, the effects on them have been discounted in this assessment. The project would, in effect, have no impact on them. However, there is an exception to this situation: four residential dwellings found at the intersection of Kohi Road with Medlicott Road and Ngamotu Road, that is clustered around the Kohi Settlers Hall (Figure 48 and below).



The Kohi Settlers Hall (top left), two houses at 1 Ngamotu Rd (bottom left & right) & two houses at 717 Kohi Rd (top and centre right)

The older pair of houses west of Kohi Road – next to the Settlers Hall – are quite strongly enclosed by mature garden trees and other vegetation, then pines, macrocarpas, and native vegetation in an adjoining stream gully, although views remain across the gully to the terraced farmland beyond it near Karahaki Road. The pair of houses within one property on the Ngamotu Road side of the intersection are also flanked by trees and fencing, but to a less complete degree. For the most part, all four dwellings are surrounding by open pasture, although the 220kV transmission corridor that traverses the Kohi site is also visible to the south.

The closest turbine sites to this cluster of houses are T100, approximately 680m to the north; T065, some 780m to the northwest; and T078, approximately 800m to the south-west. Other turbines would be more remote, generally north and south to southwest of this grouping of dwellings, as they largely avoid the transmission corridor and nearby gully system. Looking from the houses at 717 Kohi Road, surrounding trees, hedgerows and other planting would make it difficult to see the proposed turbines, although some of T100 and T065 might remain visible through and over the trees at the edge of this property, including those lining the adjoining gully system. On the other hand, those turbines south of the Settlers Hall would be screened by a dense hedge near that building.

The dwelling at 1 Ngamotu Road that is closest to Kohi Road (bottom right in the images above) would have relatively clear views of T100 and the broad sweep of turbines north-west to north-east of it. Again, though, direct views to T100 and other turbines to the south would be restricted by the hedgerow and other planting near the driveway into the property, while the second house on that lot would be more substantially screened by a mixture of garden and farm vegetation in all directions — especially so to the south and east. Even so, some of the northern turbines (including T100) might well remain visible from the driveway area and outdoor areas connected to both dwellings.

Entering and leaving the properties either side of Kohi Road would also expose their occupants to the aforementioned turbines at quite close range, while awareness of the broader sweep of turbines across the wind farm site – in its entirety – would make it clear that they are located at the epicentre of a very substantial 'wind energy landscape'. Indeed, given the close proximity of T100, T065 and T078 to these properties, additional effects might also arise, such as show flicker at certain times of each clear day. Again, such matters need further evaluation. At the very least, the wind farm would very substantially change the nature and identity of the environment in which this grouping of houses is set. This would be particularly significant in relation to the dwellings at 717 Kohi Road, which are linked, perceptually, to the adjoining Settlers Hall and have more of an historic character in their own right.

Regardless, it is anticipated that amenity effects in the **Moderate-High** to potentially **High** range would accrue for all four dwellings and their occupants, primarily because of the close proximity of the three turbines described above.

#### 4.8 Key Findings

Table 2, overleaf, summarises the effects ratings for Photo Points / Viewpoints 1, 6 and 8:

Table 2.

Viewpoint / Viewing Sector:	Existing Values:	Visibility / Prominence:	Landscape Effects:	Amenity Effects:
C. SH3 West of Waverley	Low	Moderate-High	Low	Low-Moderate
F. Fookes Road, Waverley	Low-Moderate	Low-Moderate	Low-Moderate	Moderate
J. Upper Herengawe Road / Waitangi Rd	Moderate to Moderate-High	High	Moderate-High	Low-Moderate
A-D. SH3 West of Waverley (More Generally)	Low	Low to Moderate-High (Variable)	Low	Low
G & H. SH3 East of Waverley	Low	Low-Moderate	Very Low to Low	Low
E. Western Fookes Road, Waverley	Low	Low to Low-Moderate	Very Low to Low	Low
I. West of the Whenuakura River	Low	Low to Low- Moderate	Very Low to Low	Low
J & K. Between Waverley & the Moumahaki Stream	Moderate	Moderate-High to High Potentially High for residential property at 7 Monk Rd	Moderate-High Potentially High for residential property at 7 Monk Rd	Low-Moderate  Potentially High for residential property at 7 Monk Rd
1-25. Within The Kohi Site	Low -Moderate	Generally Very High Potentially High for residential properties at 717 Kohi Road & 1 Ngamotu Road	Generally Very Low Potentially High for residential properties at 717 Kohi Road & 1 Ngamotu Road	Generally Very Low Potentially High for residential properties at 717 Kohi Road & 1 Ngamotu Road

#### **Landscape Effects**

The full array of proposed wind turbines spread across the terraced landscape north of Waverley would be subject to a range of factors that limit their impact on the wider landscapes of the Waverley area, including SH3. Those factors include:

- The lightweight profile of the turbines which, together with their movement, can help to
  express a certain sculptural quality and contrast with the much more prosaic and productive
  nature of landscape elements spread across the coastal plain and alluvial terraces around and
  north of Waverley, including broad swathes of pasture intermixed with shelterbelts and (some)
  stands of pines.
- 2. The flat, planar nature of the landforms on which the wind farm would be established, together in turn with the flat viewing plane from key vantage points like SH3 and the northern edge of Waverley. The landforms of the Kohi site rise slowly inland, without any one ridge or topographic feature having a distinct profile that elevates the proposed wind turbines above the surrounding landscape as is the case with wind turbines on a range of hills. Consequently, the proposed turbines would rise above the northern skyline when viewed from the likes of SH3 and the edge of Waverley, but would still sit quite low down, and have less of a distinct relief than is more typically the case (e.g. with Te Rere Hau).

- 3. The location of most local roads outside the wind farm site, including SH3, from the Kohi site. Typically, 3.0km or more from the proposed turbines, this distance combined with the flat viewing plane just described, would limit exposure of the proposed turbines to most roads near and beyond the highway. These factors are sufficient to appreciably limit the perceived scale and visual dominance of its turbines, and prevent any nuisance effects in relation to most local residents.
- 4. The dynamic (ie. moving) nature of views from the state highway and local roads, which would also limit interaction with some of the proposed turbines.
- 5. This is also the situation in relation to the township of Waverley. Although the township stretches north of SH3, and closer to the proposed wind farm, viewing distance, combined with the flat viewing plant to the north, intervening shelterbelts (and other vegetation), and intervening landforms (above the Mangatangi Stream), would help to maintain a feeling of separation between the town and the wind farm, thus reducing its apparent scale, visual presence, and effects overall.
- 6. The highly modified, working character of the landscape found across and around most of the Kohi site, with open pasture almost totally dominating the coastal plain around Waverley and the terraces north of it. Although interspersed with major river / stream courses and valley systems, mixed bush and pines within those valleys, and shelterbelts across most of the aforementioned farmland, the landscape around the subject site has a distinctly working' character. This also includes hill slopes cleared for pasture and forestry at the northern edge of the site and the 220kV transmission corridor that runs across it from west to south-east. This effectively limits the sensitivity of the landscape around the proposed wind farm to further change and modification.
- 7. The widespread participation of the farming community across the Kohi site in the proposed wind farm project, so that effects on most local farms and farm residents can be effectively discounted, together with those on the 'closed road' network through the site almost exclusively serving that same community, with no real through connections.

These factors are reflected in the typically Low to Moderate (at most, Moderate-High) landscape effects ratings attributed to the various viewpoints and viewing quadrants examined in this report.

In addition to the matters set out above, the relationship of the Kohi Wind Farm proposal to the existing Waipipi Sands Wind Farm also needs to be considered in terms of potential cumulative effects. There is a 6.0km or more separation distance between the two wind farm sites. Even so, they would be viewed opposite one another from some parts of SH3 west of Waverley, and also sequentially – one after the other – from other parts of the highway, together with local roads. Together, they might well suggest entry to, and passage though, the sort of wind energy landscape described above (in relation to effects on the Kohi site area).

However, they would be viewed in opposite directions, set against different landscapes – one clearly coastal, the other entirely terrestrial – but in both cases would have a relatively low profile. Furthermore, these landscape settings have a highly productive nature – especially that framing the Kohi Project – and the combined projects would add a degree of dynamism and interest to a part of the South Taranaki coast and its hinterland that display very limited interest and appeal at present.

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Consequently, much as the two wind farms would, in combination, change the character of the landscape west of Waverley, there is not much of a 'downside' to this change from a landscape standpoint. The area's landscape values would not be appreciably eroded or reduced, while the identity of the area and its memorability would, if anything, be enhanced. Overall, therefore, while acknowledging that the Kohi Project might well appear to be associated with the Waipipi Sand s Wind Farm – albeit loosely – any adverse effects arising from that connection would be of a **Low** order.

#### **Amenity Effects**

In a similar vein, this assessment indicates that the proposed turbines would have a low to modest, level of effect in relation to the perceived 'pleasantness' and aesthetic coherence of the northern Waverley landscape from a wide range of vantage areas. Again, this reflects the highly modified nature of most of the visible site and its wider setting.

Although the turbines would alter the character and identity / sense of place associated with this landscape to a greater degree, the reality remains that the proposed wind farm would not generate any significant nuisance effects and the introduction of a wind energy landscape to the Kohi site would have less effect than if it were to be located instead in a more valued and sensitive landscape.

Having made these points, it is also important to note that further investigation is required in relation to the effects of the wind farm on five dwellings located on three properties, at:

7 Monk Road;

717 Kohi Road; and

1 Ngamotu Road

All five dwellings are located within 670m to 800m of proposed turbines that attain a height of over 200m all up. Such proximity has the potential to create effects that might be described as potential 'nuisance effects' – derived from visual over-dominance, shadow flicker, and fundamental changes to the pleasantness and aesthetic coherence of the landscape enjoyed from each property. Although all five dwellings are screened from the surrounding landscape to varying degrees – mainly by existing vegetation – the effects on each of them could be high, and this matter required more detailed investigation.

# 5. Statutory Review

In Section 3 of this report, key provisions from the Taranaki Regional Policy Statement and South Taranaki District Plan are identified, and at Section 3.3 it is stated that a number of matters need to be addressed in this regard, pertaining to the degree to which the Kohi Wind Farm proposal would adversely affect:

- 1. The amenity enjoyed by Waverley's residential population;
- 2. The amenity values of other local residents who live around the wind farm site and somewhat unusually those living within its bounds who are not part of the project;
- 3. The landscape character and amenity values appreciated from public places, including SH3 (which passes through Waverley) and local roads.

The following are brief summaries in relation to these matters:

#### The Amenity Enjoyed By Waverley's Residential Population

#### Commentary:

The proposed wind farm would typically have a Moderate level of effect in relation to Waverley's amenity values. For the most part, this would be derived from changes to the perceived rural character of the environment around the town, its modified aesthetic character, and its reduced aesthetic coherence — notwithstanding the limited degree of direct visual interaction with the wind farm from within the body of the town. In effect, the identity of Waverley would be altered, irrespective of the level of visibility that the project's turbines have, but such effects would still be tempered by that low level of interaction, the limited appeal of the existing landscape and even the degree of interest that the proposed wind farm would introduce to it.

#### The Amenity Values Of Other Local Residents Who Live Within & Around The Wind Farm Site

#### **Commentary**:

The matters just outlined, together with the wide-spread involvement of those living within the Kohi site in the project, also limits the level of impact that the proposal would have on other farm and residential properties in its general vicinity. However, as indicated above, five residential properties require more detailed examination in this regard - at:

7 Monk Road;

717 Kohi Road; and

1 Ngamotu Road

The proximity of those dwellings to a number of proposed turbines has the potential to result in levels of visual over-dominance, shadow flicker, and changes to the pleasantness and aesthetic coherence of the landscape around them, that give rise to a high level of adverse effect. Consequently, more site-specific assessment needs to be undertaken for each property before any conclusions can be definitively reached in this regard.

#### The Landscape Character And Amenity Values Appreciated From Public Places

#### **Commentary**:

For the reasons set out under Table 2 above (Landscape and Amenity Effects, including cumulative effects), it is considered that the Kohi Project's effects on the landscape and amenity values of SH3 and other public places would be quite limited and typically of a Very Low to Low-Moderate order.

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# 6. Conclusions

It is anticipated that the Kohi Wind Farm would become part of the rural production landscape that is already spread across the broad mantle of Waverley's coastal plain and the terraces north of that township. It would have no appreciable impact on that landscape's biophysical values and a typically low to moderate level of impact on its perceived character, values, and associative / amenity values – 'topping out at a moderate-high level for a few specific locations. For the most part, this is because of the project's location within a landscape that is far from natural and that is mainly notable for its high levels of modification. However, its effects would also be reduced by the gently rising nature of the site terrain and surrounding areas, the atypically low profile of the turbines arising from this together with low viewing angles to the wind farm, and the large-scale 'buy-in' of local farmers to the project – which means that most effects in relation to the actual site can be largely discounted. Consequently, any changes to the landscape and amenity values of the wider landscape around the Kohi site would be quite limited, including those in relation to the township of Waverley.

A such, the proposal is considered to be generally acceptable and appropriate from a landscape standpoint.

Having said this concern remains about its potential effects on three properties and five dwellings within the bounds of the site, as discussed in Sections 4.7, 4.8 and 5 above. It is considered that the potential effects of the wind farm on these residential properties need to be examined in more detail as part of any consenting process.

Lastly, it is important to note that this assessment and its findings are 'preliminary', employing turbine siting and heights that are indicative at this stage. The sites remain subject to further evaluation and fine-tuning, while the turbines' proposed hub and tip heights could also change by 5-10% in the future. Inevitably, this will necessitate detailed re-examination of the project if and when NZ Wind Farms proceeds with a resource consent application for the proposed wind farm.

#### **Stephen Brown**

BTP, Dip LA, FNZILA



# Appendix G – Preliminary Ecological Assessment

[Enclosed as separate attachment due to file size]

# Desktop assessment of ecological values and constraints for the proposed Kohi Wind Farm, South Taranaki

Contract Report No. 7205

Providing outstanding ecological services to sustain and improve our environments





# Desktop assessment of ecological values and constraints for the proposed Kohi Wind Farm, South Taranaki

#### **Contract Report No. 7205**

April 2024

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#### 1.0 Introduction

New Zealand Windfarms Ltd propose to develop the Kohi Wind Farm (the 'Site'), located about four kilometres north of Waverley, in South Taranaki District (see Figure 1). The proposed layout of the wind farm has been described in a recent feasibility assessment (Aurecon 2024). Aurecon New Zealand Ltd, on behalf of NZ Windfarms Ltd, commissioned Wildland Consultants to provide a desktop assessment of the ecological constraints associated with the proposed wind farm site.

This report outlines the findings of the desktop assessment and provides:

- Maps and descriptions of the vegetation and habitat types present.
- Descriptions of the fauna present (or likely to be present).
- An assessment of the ecological values and constraints.
- Descriptions of the potential ecological effects resulting from the proposed works.
- Opportunities to avoid, minimise, or mitigate potential adverse ecological effects.
- Possible future monitoring requirements.

# 2.0 Overview of proposed development works

The following information has been gleaned from sources provided by the client and Aurecon (2024). The general positioning and size of the 61 proposal wind turbines (WT) at Kohi Wind Farm are as follows:

- Proposed locations for each of the 61 turbines are shown in Figure 1.
- There is a 200 metre diameter 'flexibility area' around each of these locations for micro-siting decisions to be made.
- Maximum blade tip height 220 metres.

The proposed development will involve the following activities:

- Identification of micro-sites within the 200 metre 'flexibility area' for each turbine (based on further investigation of constraints, e.g. geotechnical, visual, and ecological).
- Earthworks and onsite concreting to establish turbine foundations and pads for each turbine.
- Works to establish new turbine component haulage and general access tracks, including culverts (note that existing access roads and tracks will be used where feasible).
- Installation of temporary construction laydown areas, blade lift-fingers at turbine pads, and site office.
- Installation of a new permanent operations and maintenance facility.
- Works to construct and operate associated infrastructure including hardstand areas, borrow pits, underground electrical and communication cables, substation installation, and grid connection equipment including a new pylon or pi-pole transmission line across an unconfirmed connection corridor.
- Associated works including cut and fill earthworks and vegetation clearance.

Areas that will be directly included in the proposed development works, for example cut and fill earthworks for access roads and/or microsites, will hereafter be referred to the 'development footprint'.



## 3.0 Methods

#### 3.1 Existing reports on the general environment

The following existing reports and publications were compiled and evaluated to provide an indication of the potential ecological values within the proposed site and the surrounding landscape:

- Manawatu Plains Ecological District: Survey Report for the Protected Natural Areas Programme (Ravine 1995).
- Key Native Ecosystem inventory documents (Taranaki Regional Council 2020-2021; unpublished¹).
- A recent feasibility assessment of the proposed wind farm (Aurecon 2024).

#### 3.2 Vegetation and habitat mapping

Land Information New Zealand (LINZ)<sup>2</sup> aerial imagery and Land Cover Database (LCDB - Version 5; Landcare Research 2020) mapping were used to map broad vegetation and habitat types at the proposed wind farm site. The area mapped included a 100 metre buffer around the development footprint, which includes access roads. At the proposed location of wind turbines, a 100 metre radius buffer circle (centred on the proposed turbine location) which forms the turbine microsite was also mapped. The total area mapped is hereafter referred to the 'buffer' zone.

The existing information sources listed above (Section 3.1) were used to obtain general vegetation information, but the more in-depth information on the composition of vegetation types cannot be determined without a site visit. Potential wetlands, in particular, especially seepage wetlands, cannot be reliably delineated or classified using aerial imagery.

#### 3.3 Flora and fauna records

The following databases were used to search for records of indigenous plants, freshwater fauna, avifauna, bats, herpetofauna, and terrestrial invertebrates in proximity to the site:

#### **Flora**

Existing reports listed in Section 3.1 were searched for records of Threatened and At Risk species within five kilometres of the site, along with plant lists available on the New Zealand Plant Conservation Network (NZPCN) website.

#### **Avifauna**

Information of bird use of the wind farm, and nearby areas, was sourced from a range of sources.

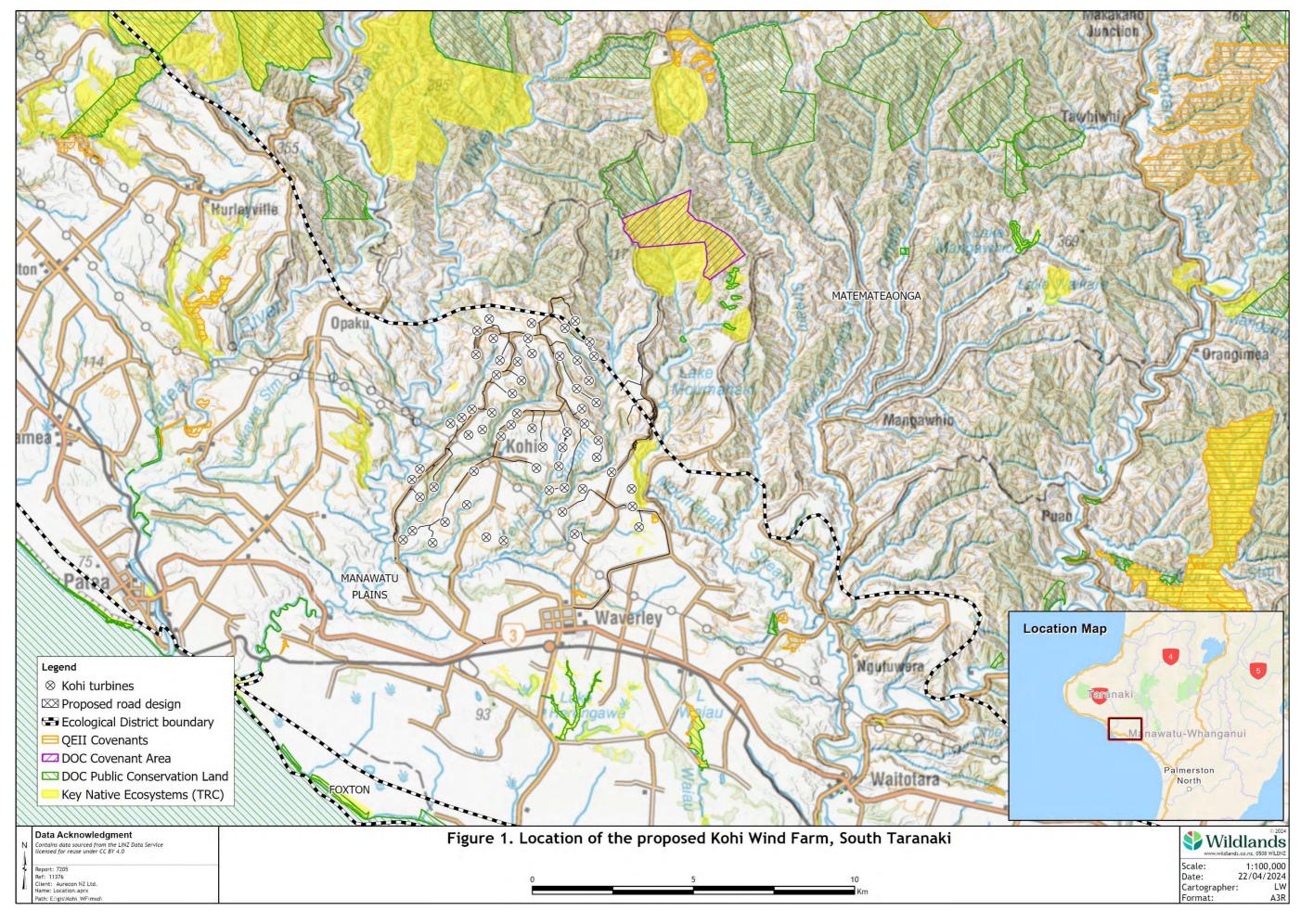
 Avifauna records within 15 kilometres of the proposed Kohi Wind Farm site have been compiled from eBird (ebird.org, records accessed 10 April 2024) and iNaturalist. Dates for the eBird records range from 2021 to 2024, while those on iNaturalist are all since 2012.

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<sup>&</sup>lt;sup>1</sup> Available online at https://maps.trc.govt.nz/LocalMapsViewer/

<sup>&</sup>lt;sup>2</sup> LINZ Taranaki 0.25m Rural Aerial Photos (2021-2022) were used as the basemaps.





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- The New Zealand Bird Atlas maintained by Cornell University, which holds bird records in  $10 \times 10$  kilometre grid squares within New Zealand (accessed online 16 April 2024).
- Any birds listed in the key Native Ecosystem Inventory Documents (Taranaki Regional Council 2020-21, Unpublished).
- Records listed in Boffa Miskell (2022 and 2023) at the nearby coastal Waipipi Wind Farm, including birds reported in 2011 and 2012 surveys prior to its construction. It should be noted that this coastal environment is not similar to the Kohi Wind Farm.

The authors' knowledge was used to compile a list of any species that may have been missing from the survey data that was available. Two species were noted, California quail and ruru/morepork.

#### **Bats**

• The Department of Conservation bat database (most recent update – August 2023) for bat records.

#### Herpetofauna

The Department of Conservation Bioweb Herpetofauna database (most recent update – August 2023) for records of lizards and frogs.

#### Freshwater Fauna

• The New Zealand Freshwater Fish Database<sup>1</sup> (NZFFD, Stoffels 2022) was accessed for records of freshwater fish (indigenous and exotic) and freshwater invertebrates within the Whenuakura Stream catchment.

#### **Terrestrial Invertebrates**

• iNaturalist was searched for records of Mollusca, Arachnida, and Insecta within 2-5 kilometres of the site<sup>2</sup>.

The most recent species threat classifications were used for indigenous bats (O'Donnell *et al.* 2023), birds (Robertson *et al.* 2021), vascular plants (de Lange *et al.* 2018), freshwater fish (Dunn *et al.* 2018), freshwater invertebrates (Grainger *et al.* 2018), reptiles (Hitchmough *et al.* 2021), and spiders (Sirvid *et al.* 2020).

# 4.0 Statutory Context

#### 4.1 National Policy Statements and Environmental Standards

The National Policy Statement for Freshwater Management 2020 (NPS-FM) and the National Environmental Standards for Freshwater 2020 (NES-F) are both ecologically-relevant statutory documents that are applicable to the proposed wind farm development. The NPS-FM provides objectives and policies on how local authorities should manage freshwater under the Resource Management Act 1991. The NES-F, which sits under the NPS-FM, provides standards to regulate

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<sup>&</sup>lt;sup>1</sup> https://nzffdms.niwa.co.nz/search Accessed 22 August 2023.

<sup>&</sup>lt;sup>2</sup> iNaturalist NZ <a href="https://inaturalist.nz/observations">https://inaturalist.nz/observations</a>. Accessed 17 April 2024.



activities that pose risks to the health of freshwater ecosystems such as streams, rivers, and natural inland wetlands.

#### National Policy Statement for Freshwater Management 2020

The National Policy Statement for Freshwater Management (NPS-FM) defines a 'natural inland wetland' as a wetland (as defined in the Act) that is not:

- (a) in the coastal marine area; or
- (b) a deliberately constructed wetland, other than a wetland constructed to offset impacts on, or to restore, an existing or former natural inland wetland; or
- I a wetland that has developed in or around a deliberately constructed water body, since the construction of the water body; or
- (d) a geothermal wetlanl(e) a wetland that:
  - (i) is within an area of pasture used for grazing; and
  - (ii) has vegetation cover comprising more than 50% exotic pasture species (as identified in the National List of Exotic Pasture Species using the Pasture Exclusion Assessment Methodology (see clause 1.8)); unless
  - (iii) the wetland is a location of a habitat of a threatened species identified under clause 3.8 of this National Policy Statement, in which case the excllon (e) does not apply.

Policy 9 of the NPS-FM provides for the protection of habitats of indigenous freshwater species.

#### 4.2 Taranaki Regional Council

The Kohi Wind Farm site is entirely within the Taranaki Region. The Taranaki Regional Policy Statement identifies policies and implementation methods for maintaining and enhancing indigenous biodiversity in the Region. The identification of key native ecosystems (KNE) gives effect to this. Ten KNE identified in Taranaki Regional Council's Inventory of Key Native Ecosystems are located within five kilometres of the buffer zone (see Section 5.3).

#### 4.3 South Taranaki District Council

The site is entirely within the South Taranaki District, and is zoned as 'rural' in the operative South Taranaki District Plan. The District Plan includes provisions for the protection of significant indigenous vegetation and significant habitats of indigenous fauna within the District. Two significant natural areas (SNA) identified in the District Plan are located within five kilometres of the buffer zone (see Section 5.3).

# 5.0 Ecological Context

#### 5.1 General

The site is about seven kilometres from the coast at the closest point and about 15 kilometres at its most inland extent. Turbine sites extend inland from about two kilometres northwards of the township of Waverley.

The Kohi Wind Farm site is mostly situated low-sloping to moderately-steep terrain over an elevational range of *c*.70-300 metres above sea level (asl). Geology beneath the site mostly comprises uplifted marine terraces (Middle Pleistocene shoreline deposits) of the Ngarino Formation, which are



c.186,000-245,000 years old (Townsend *et al.* 2008). The site is situated in the Whenuakura River catchment that lies to the north of Waverley.

The proposed Kohi Wind Farm is located *c.*7 kilometres northeast of the consented and now operational Waipipi Wind Farm. Waipipi Wind Farm comprises 31 Siemens SWT130 wind turbines, which have a 130 metre rotor diameter and a 95 metre hub height, positioned within a coastal strip of sand-mined surfaces but also includes grazed pasture-scrub mosaics, sand flats (bare sand with dispersed shrubs/grasses), and pockets of pine plantation (Boffa Miskell 2022).

#### 5.2 Catchment context

The entire site is within the catchment of the Whenuakura River, a relatively large river that originates in the Matemateonga Ranges and discharges into the Pacific Ocean between Patea and Waverley.

The catchment is 'typical' of other rivers in Matemateonga Ecological District and has a dendritic drainage pattern which has developed due to the relatively homogeneous sedimentary parent material. The major rivers all flow towards the southeast, which was the dip slope of the original land surface following uplift. Major rivers have low gradients with characteristically slow-moving water and small terraces, while tributaries are deeply incised, without terraces, suggesting a continuing process of uplift and associated incision (Ravine 1996).

Most of the site is on low relief interfluves in the catchment of the Kohi Stream, with part of the site in smaller side stream catchments to the north. The Kohi Stream flows into the Whenuakura River about six kilometres from the coast.

#### 5.3 Ecological districts

The Kohi Wind Farm site is located at the boundary of two Ecological Districts<sup>1</sup>: Manawatū Plains and Matemateaonga (see Figure 1). Nearly all of the site is within Manawatū Plains Ecological District, with a small area within Matemateaonga Ecological District. Overviews of both Ecological Districts are provided below.

#### 5.3.1 Manawatū Plains Ecological District

Manawatū Plains Ecological District (c.313,995 ha), comprises low-lying uplifted marine terraces or alluvial terraces created by rivers. Large areas of this district historically supported harakeke/flax (*Phormium tenax*) swamps and semi-swamp forest dominated by kahikatea (*Dacrycarpus dacrydiodies*) and pukatea (*Laurelia novae-zelandiae*). On freer-draining and lower rainfall areas, tōtara (*Podocarpus totara* var. *totara*) forest was more common, while mixed podocarp forest, including rimu (*Dacrydium cupressinum*), mataī (*Prumnopitys taxifolia*), tōtara, kahikatea, occurred on parts of the plains and terraces east of Manawatū River. There also were large areas of open land including grassland and shrubland (McEwen 1987).

Only about 3.5% of the Manawatū Plains Ecological District retains indigenous vegetation cover or habitats (LCDBv5.0; Landcare Research 2020), including small, isolated areas of harakeke/flax swamp and forest, locally characteristic tōtara forest, and some black beech (*Fuscospora solandri*) forest

<sup>&</sup>lt;sup>1</sup> Ecological Districts have been delineated through the spatial identification of topographic, climatic, soil, and biological factors that produce a characteristic landscape and range of biological communities that differ from those present in neighbouring Districts (McEwen 1987).



(McEwen 1987a). Of the remaining indigenous vegetation and habitats in the Ecological District, c.1.6% indigenous forest, c.1.5% broadleaved indigenous hardwoods, and c.0.5% mānuka and/or kānuka comprise the total landcover (LCDBv5.0; Landcare Research 2020). Ravine (1995) reported similar findings, noting that existing reserves were mostly small, covering a total of c.1,600 ha (0.51% of the Ecological District), and identified recommended areas for protection (RAPs) covering c.1,000 ha (0.32% of the Ecological District).

#### 5.3.2 Matemateaonga Ecological District

The following information was sourced and adapted from Ravine (1996).

Matemateaonga Ecological District is characterised by dissected upland with a repeating pattern of predominantly narrow ridges, steeply sloping valleys, and deeply entrenched streams and rivers, with limited floodplains. The underlying geological formation is a series of Tertiary marine sedimentary terraces deposited between 38 million and one million years ago that slope gently (3.8°) toward the southeast. These sediments were deposited under shallow seas during periods of sinking of the Whanganui Basin, with the older sediments being in the north. The site lies at the approximate border of two late Miocene formations; the older Urenui Siltstone occurs in the upper Whangamomona River catchment north of Aotuhia, while the slightly younger Matemateaonga Sandstone occurs in the lower catchment. Urenui Siltstone is siltstone with abundant mica and several conglomerate bands and pebbles which are in part Tertiary mudstones and in part Mesozoic quartzites. Matemateaonga Sandstone is a thick series of shallow water sandstone and lesser mudstone with numerous conglomeratic shell beds and a few concretions.

The soils of Matemateaonga Ecological District are characterised by skeletal steepland yellow-brown earths derived from sedimentary rocks and overlying andesitic volcanic ash, and yellow-brown loams derived from alluvium and andesitic ash. Local soil pattern is strongly influenced by parent material, rainfall, and topography.

As Matemateaonga Ecological District contains some of the largest tracts of indigenous forest remaining in the North Island, the Ecological District provides habitat for significant populations of forest and stream-dwelling indigenous fauna. For examples, indigenous bird species<sup>1</sup> known or thought to be present include, whio (*Hymenolaimus malacorhynchos*; Threatened-Nationally Vulnerable), tītitipounamu (*Acanthisitta chloris granti*; At Risk-Declining), toutouwai (*Petroica longipes*; At Risk-Declining), kākā (*Nestor meridionalis septentrionalis*; At Risk-Recovering), North Island brown kiwi-nui (Not Threatened<sup>2</sup>), and kārearea (*Falco novaeseelandiae ferox*; Threatened-Nationally Increasing).

More than half the Ecological District has been cleared of its original vegetation, but much of this has now reverted to secondary forest and scrub. Today, almost half of Matemateaonga Ecological District is covered in indigenous forest (47%), followed by high producing exotic grassland (21%), mānuka and/or kānuka (12%), exotic forest (6.4%), broadleaved indigenous hardwoods (6.6%), and low producing grassland (5.7%) (New Zealand Land Cover Database, v5.0; Landcare Research 2020).

#### 5.4 Threatened Environment Classification

The Threatened Environment Classification is a geospatial mapping database that provides an indication of the amount of indigenous vegetation remaining within a given area and/or the proportion

<sup>&</sup>lt;sup>1</sup> All indigenous bird species national threat rankings are as per Robertson et al. (2021).

<sup>&</sup>lt;sup>2</sup> Assessed as Not Threatened but conservation dependent.



of remaining indigenous vegetation which is legally protected. Table 1 lists the Threatened Environment categories underlying the Kohi Wind Farm mapped buffer zone.

**Table 1** – Threatened Environment categories within the Kohi Wind Farm mapped buffer.

Threatened Environment	Critarian	Kohi Wind Farm Mapped Buffer	
Category	Criterion	Area (ha) Percenta Buffe	
Acutely Threatened	<10% indigenous cover remaining.	1,184.1	77.1
Chronically Threatened	10-20% indigenous cover remaining.	0.2	<0.1
At Risk	20-30% indigenous cover remaining.	203.3	13.2
Critically Under protected	>30% indigenous cover remaining and <10% legally protected.	0.0	0.0
Under Protected	>30% indigenous cover remaining and 10- 20% legally protected.	0.0	0.0
Less Reduced and Better Protected	>30% indigenous cover and >20% legally protected.	147.0	9.6

#### 5.5 Protected areas

Various legislative and planning instruments exist for the purpose of protecting indigenous biodiversity on private land. These include QEII Open Space Covenants, Ngā Whenua Rāhui kawenata, and Department of Conservation Covenants, as well as local government instruments such as SNA and KNE. Public conservation areas are also protected by Acts such as the Conservation Act 1987. Areas protected by one or more of the instruments mentioned above that are located within five kilometres of the proposed Kohi Wind Farm site are listed below in Table 2 and mapped in Figure 1<sup>1</sup>:

**Table 2** – Protected areas located within five kilometres of the Kohi Wind Farm site.

Protected Area Name	Protected Area Type	Protected Area Identifier	Proximity
Ben Murphy's Bush Farm	KNE (Taranaki Regional Council)	• BD/9767	c.2.5 kilometres northeast of Braemore Road end.
Condon's Bush	<ul><li>SNA (South Taranaki District Council)</li><li>KNE (Taranaki Regional Council)</li></ul>	<ul><li>SNA 30</li><li>BD/9407</li></ul>	c.100 metres of WT112.
Ihupuku Swamp Wildlife Management Reserve	<ul> <li>Wildlife Management Reserve (Department of Conservation)</li> <li>KNE (Taranaki Regional Council)</li> </ul>	• BD/0906)	c.4 kilometres south of WT124.
Lake Beds Conservation Area	<ul> <li>Conservation Area (Department of Conservation)</li> </ul>	N/A	c.1 kilometres southeast of Braemore Road end.
Lake Oturi	KNE (Taranaki Regional Council)	BD/0943	c.4.5 kilometres south of WT091.
Matuku Bush	<ul><li>SNA (South Taranaki District Council)</li><li>KNE (Taranaki Regional Council)</li></ul>	<ul><li>SNA 13</li><li>BD/9424</li></ul>	c.1.5 kilometres west of WT071.

<sup>&</sup>lt;sup>1</sup> South Taranaki District Council SNA have not been mapped in Figure 1.



Protected Area Name	Protected Area Type	Protected Area Identifier	Proximity
McKenzie Wetland	KNE (Taranaki Regional Council)	BD/9681	c.0.9km northwest of WT061.
Monk Road (including Monk Road Bush)	<ul> <li>QEII Open Space Covenant ('Monk Road Bush' only)</li> <li>KNE (Taranaki Regional Council)</li> </ul>	<ul><li>5-07-616</li><li>BD/9705</li></ul>	c.75 metres of WT118.
Morrison's Bush	<ul><li>KNE (Taranaki Regional Council)</li><li>QEII Open Space Covenant</li></ul>	<ul><li>BD/9504</li><li>5-06-358</li></ul>	c.4.8 kilometres southwest of WT085.
Moumahaki Lakes and catchment	KNE (Taranaki Regional Council)	BD/0905	c.2.0 kilometres east of Braemore Road end.
Mt Hiwi Conservation Covenant	<ul><li>Conservation Covenant (Department of Conservation)</li><li>KNE (Taranaki Regional Council)</li></ul>	BD/9590	c.2.5 kilometres northeast of Braemore Road end.
N/A	QEII Open Space Covenant	• 5-07-595	c.1.8 kilometres south of WT124
Whenuakura Stream Marginal Strip	<ul> <li>Marginal Strip (Department of Conservation)</li> </ul>	• N/a	c.3.5 kilometres southwest of WT085

# 6.0 Site description

Most of the site is currently pastoral farmland, primarily used for intensive dairy farming. Areas of open farm land are divided by deeply-incised gullies, which mostly comprise indigenous forest and scrub which provide riparian buffering for tributaries of the Whenuakura River. Planted farm shelterbelts and small stands of exotic plantation forest are common across this landscape. A number of tenanted dwellings, ancillary agricultural sheds, milking sheds, and stockyards are interspersed throughout the various properties which are within the site.

Land surrounding the site can also be characterised as mostly pastoral farmland, with some larger tracts of indigenous forest and scrub are located just north of the site.

# 7.0 Vegetation and habitats

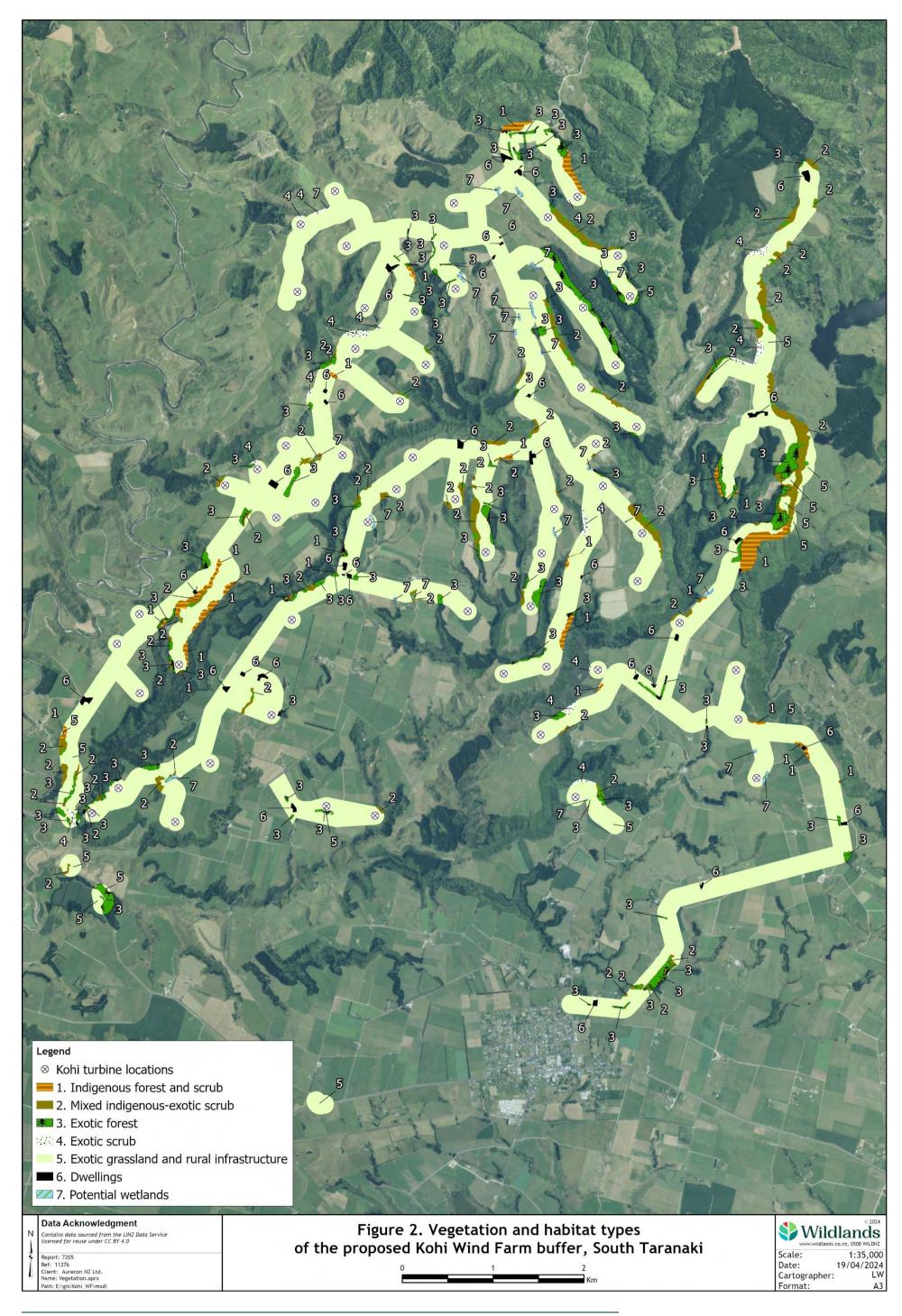
#### 7.1 Overview

Seven broad vegetation and habitat types are present within the proposed Kohi Wind Farm buffer:

- Indigenous forest and scrub
- 2. Mixed indigenous-exotic scrub
- 3. Exotic forest
- 4. Exotic scrub
- 5. Exotic grassland and rural infrastructure
- 6. Dwellings
- 7. Potential wetlands

These types are described further below and mapped in an overview map in Figure 2. A higher scale (1:15,000) map series of the same vegetation and habitat type mapping is provided in Appendix 1.







The vegetation and habitat types located between the following proposed wind turbine locations and the existing public road network have been mapped additionally, although it should be noted that the client-provided shapefile does not include a proposed accessway from the public road network to the proposed wind turbine locations<sup>1</sup>:

- WT111 and WT112 (access from Monk Road).
- WT065 and WT064 (access from Karahaki Road).
- WT081 (access from Medlicott Road).
- WT090 and WT091 (from Kohi Road).

#### 7.2 Type descriptions

#### 7.2.1 Vegetation Type 1: Indigenous forest and scrub

This type includes areas that are mapped in LCDB (Version 5) as 'indigenous forest', 'broadleaved indigenous hardwoods', and 'mānuka and/or kānuka', as well as small fragments that were identified based aerial imagery. Indigenous plant species form most of the vegetation cover of this type.

Small and fragmented and/or margin areas of this vegetation type typically comprise common early successional indigenous species such as mānuka (*Leptospermum scoparium* agg.), kānuka (*Kunzea robusta*), māhoe (*Melicytus ramiflorus* subsp. *ramiflorus*), kawakawa (*Piper excelsum* var. *excelsum*), and mamaku (*Sphaeropteris medullaris*). Margins are likely to include scattered exotic pest plant species such as gorse (*Ulex europaeus*) and pampas (*Cortaderia selloana*), as well as rank pasture species such as Yorkshire fog (*Holcus lanatus*), and tall fescue (*Lolium arundinaceum* subsp. *arundinaceum*).

Larger and higher quality examples of this vegetation and habitat type typically comprise indigenous secondary forest on the margins dominated by taller stature species, such as kānuka, māhoe, and rewarewa (*Knightia excelsa*), which transitions to mature modified forest away from margins. These areas of modified forest typically comprise mature tawa (*Belischmiedia tawa*) and porokaiwhiri (*Hedycarya arborea*). Species that are also likely to be present, although less frequently, include regenerating kahikatea, kapuka (*Griselinia littoralis*), and pukatea, as well nīkau (*Rhopalostylis sapida*) and karaka (*Cornycarpus laevigatus*) present in forest remnants closer to the coast.

#### 7.2.2 Vegetation Type 2: Mixed indigenous-exotic scrub

This type often occurs in areas that have either undergone historic vegetation disturbance, and more recently have been retired from grazing. These areas appear to be regenerating towards an indigenous-dominant canopy, but currently have less species diversity and fewer strata than Vegetation Type 1. Vegetation cover typically includes a mix of early successional indigenous species and common exotic species including pest plants. It includes areas that are mapped in LCDB as 'broadleaved indigenous hardwoods' that based on assessment of aerial imagery, are younger than secondary vegetation identified as Type 1.

Canopy cover typically comprises gorse, pampas, mamaku, māhoe, and kawakawa. Minor canopy components include woolly nightshade (*Solanum mauritianum*), blackberry (*Rubus fruticosus* agg.), and planted and/or naturalised conifers such as radiata pine (*Pinus radiata*), maritime pine (*Pinus pinaster*), and macrocarpa (*Cupressus macrocarpa*).

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<sup>&</sup>lt;sup>1</sup> The proposed location of these wind turbines is outside of the 100 metre buffer applied to all roads provided in the client provided shapefile.



#### 7.2.3 Vegetation Type 3: Exotic forest

This type includes areas that are mapped in LCDB as 'exotic Forest' and 'forest – harvested'. The dominant vegetation cover is most often plantation radiata pine, which typically varies by site in height and age class. Common indigenous broadleaved species and tree ferns, such as mamaku, māhoe, and kawakawa, are likely to be present in the understorey. This vegetation type also includes areas of planted macrocarpa, Mexican cypress (*Cupressus lusitanica*), and naturalised willow (*Salix* spp.). Amenity plantings and shelterbelts of the aforementioned species, as well as other exotic species, are also included.

#### 7.2.4 Vegetation Type 4: Exotic scrub

This type includes some areas mapped as 'gorse and/or broom' in the LCDB. These areas have been broadly described as 'exotic scrub' as the extent and species composition of scrub habitats may change frequently as a result of plantation and pasture management. This type is mostly present in areas that have undergone recent plantation radiata pine harvesting. Overall, this type is of similar species composition to Vegetation Type 2, although indigenous species are infrequent. Canopy cover typically comprises gorse and pampas, with occasional woolly nightshade, blackberry, and naturalised conifers such as radiata pine, maritime pine, and macrocarpa.

#### 7.2.5 Vegetation Type 5: Exotic grassland and rural infrastructure

Most areas of the buffer are mapped as 'high producing exotic grassland' in the LCDB which is also visible in aerial imagery. 'High producing exotic grassland' is described as being intensively managed for grazing, typically comprising clover (*Trifolium* sp.), ryegrass (*Lolium perenne*), and cocksfoot (*Dactylis glomerata*). Although no apparent areas of 'low producing exotic grassland' are within the mapped buffer, this LCDB class is likely to be present. 'Low producing exotic grassland' is described as "exotic sward grassland and indigenous short tussock grassland" for low-intensity grazing or non-agricultural use, being typically dominated by browntop (*Agrostis capillaris*), sweet vernal (*Anthoxanthum odoratum*), danthonia (*Rytidosperma* sp.), fescue (*Festuca* sp.), and Yorkshire fog (*Holcus lanatus*).

Rural public roads, including sealed and unsealed roads, farm access tracks, and ancillary farm buildings have been included in this vegetation type.

#### 7.2.6 Vegetation Type 6: Dwellings

Numerous dwellings are present are within the Kohi Wind Farm buffer, many of which are of rural character. Included in this type are gardens, lawns, and/or shelterbelts that may surround the dwelling. Nearby sheds which appear to be associated with the dwelling have also been included.

#### 7.2.7 Vegetation Type 7: Potential wetlands

Aerial imagery was used to identify areas of potential wetland (Figure 2) within the Kohi Wind Fam buffer. Some of these potential wetlands are likely to predominantly comprise exotic pasture species and would therefore not qualify as 'natural inland wetland' under the National Policy Statement for Freshwater Management (NPS-FM 2020). Areas with indigenous dominant hydrophytic vegetation could meet the criteria of 'natural inland wetland.'

Common indigenous wetland species that could be present in these areas include raupō (*Typha orientalis*), rautahi (*Carex geminata* agg.), wīwī (*Juncus edgariae*), mānuka, and harakeke. Common exotic wetland species that could be present in these areas include soft rush (*Juncus effusus* var. *effusus*), willow, and water pepper (*Persicaria hydropiper*).



# 8.0 Flora

The existing information sources listed in Section 3.1, as well as New Zealand Plant Conservation Network plant lists<sup>1</sup> were reviewed to identify Threatened or At Risk indigenous plant species (as per de Lange *et al.* 2018) that could be present within the buffer, or within five kilometres of the buffer.

Three indigenous plant species with threat rankings as per de Lange *et al.* (2018), mānuka (At Risk-Declining), kānuka (Threatened Nationally-Vulnerable), and aka (*Metrosideros perforata*; Threatened-Nationally Vulnerable) have been recorded within five kilometres of the buffer and are likely to be present within indigenous forest and scrub in the buffer. However, the threat ranking of these species has been elevated since 2017 due to the threat of myrtle rust. These species are otherwise widespread and common in Manawatū Plains Ecological District.

## 9.0 Avifauna

A total of 52 indigenous species and 20 introduced species have been recorded within, or near to the proposed Kohi Wind Farm site (see Table 6 in Appendix 2). Many of the species listed in Table 6 are of limited relevance from a conservation perspective, such as introduced species and visiting indigenous species that are very rarely present. Hybrid complexes (all with one parent introduced species) such as mallard  $\times$  grey duck hybrids were not assessed in the total counts for Aotearoa New Zealand status but none of these are of ecological concern.

Two additional specie - California quail (*Callipepla californica*) and ruru (*Ninox novaeseelandiae novaeseelandiae*; Not Threatened - were not recorded in databases, but are also likely to be present. Several oceanic and coastal species were also recorded in Boffa Miskell (2022 and 2023), but these were all either oceanic and coastal species, or a rare visitor (Cape Barren Goose, *Cereopsis novaehollandiae*) and are not relevant to the Kohi Wind Farm site.

All indigenous species were assessed for potential use of the wind farm site (see Table 7 in Appendix 2). Twenty-one species were identified as being of a high likelihood of been regularly present at the wind farm, with four species present having a moderate likelihood of being present. The other species are either relatively rare, mostly present in habitat that will not be affected by the proposed wind farm, or are vagrants in the survey area.

# 10.0 Bats

It is likely that long-tailed bats (*Chalinolobus tuberculatus*; Threatened-Nationally Critical) utilise the proposed Kohi Wind Farm site. There are numerous long-tailed bat records within Whanganui National Park and vegetation contiguous with the site. The closest record is only *c*.2.5 kilometres northeast of the site.

The following records are available within 25 kilometres:

- 241 records of long-tailed bats: 1993-2020.
- Two unknown bat species: 1981 and 2002.
- 118 records with no bats detected.

<sup>&</sup>lt;sup>1</sup> Accessed from https://www.nzpcn.org.nz/publications/plant-lists/plant-lists-by-region/taranaki/



The nearest record of central lesser short-tailed bat (*Mystacina tuberculata*; At Risk-Declining) is c.29 kilometres northeast of the site. Short-tailed bats have not been detected in the forest between that record and the site, despite several bat surveys having been undertaken in this area. As such, it is possible, but very unlikely, that short-tailed bats utilise the site.

# 11.0 Herpetofauna

Few lizard surveys have been undertaken near the proposed Kohi Wind Farm site. The only records of indigenous herpetofauna within 10 kilometres of the site, undertaken in the last 20 years, are for Kupe skink (*Oligosoma* aff. *Infrapunctatum* "southern North Island"; Threatened-Nationally Critical as per Hitchmough *et al.* 2021). All records for Kupe skink are located along the coast, therefore given the rarity of this species and that the site is located *c.*7-15 kilometres inland, it is unlikely to be present at the site.

Ten additional indigenous lizard species are known to occur within the Manawatū Plains and Matemateaonga Ecological Districts (Table 3). Eight of these species have a threat ranking of either Threatened or At Risk as per Hitchmough *et al.* (2021). Due to the lack of nearby surveys, the likelihood of these species occurring within the Kohi wind farm site is based on potential habitat availability.

No indigenous frog species have been recorded within 10 kilometres of the site.

**Table 3** – Indigenous lizard species that could be present within the Kohi Wind Farm site. Species with threat rankings as per Hitchmough *et al.* (2021) are shown in **bold**.

Species	Common Name	Threat Status	Preferred Habitat	Likelihood of Presence
Dactylocnemis pacificus	Pacific gecko	Not Threatened	Indigenous swamp, scrub, and forest, rocky coast, dunes, rocky outcrops	Low
Mokopirirakau granulatus	Forest gecko	At Risk- Declining	Indigenous forest, scrub, and treeland	Low
Naultinus punctatus	Barking gecko	At Risk- Declining	Indigenous scrub, mānuka/kānuka shrubland, lowland forest	Moderate
Oligosoma aeneum	Copper skink	At Risk- Declining	Leaf-litter, dense understorey vegetation, rank grass, woody debris, rocks	Moderate
Oligosoma ornatum	Ornate skink	At Risk- Declining	Indigenous forest, shrubland, and grassland, damp leaf litter, rock/log piles, dense ground vegetation	Moderate
Oligosoma polychroma	Northern grass skink	Not Threatened	Rock piles, grassland, flaxland, shrubland, forest margin	Moderate
Oligosoma aff. Infrapunctatum "southern North Island"	Kupe skink	Threatened- Nationally Critical	Dunes, shrubland, scrub, grassland, boulderfields, open forest	Very Low
Oligosoma striatum	Striped skink	At Risk- Declining	Indigenous forest, scrub, treeland, rank grass, pampas, woody debris	Low
Oligosoma zelandicum	Glossy brown skink	At Risk- Declining	Boulder beaches/riverbeds, grasslands, wetlands, scrub, damp indigenous or mixed indigenous-exotic forests, residential gardens	Moderate
Woodworthia chrysosiretica	Goldstripe gecko	At Risk- Declining	Indigenous forest, scrub, and treeland, and harakeke	Low
Woodworthia maculata	Raukawa gecko	Not Threatened	Coastal habitats, rocky outcrops, flaxland, kānuka, indigenous or mixed indigenous- exotic shrubland, regenerating scrub, forest	Moderate



# 12.0 Freshwater habitats and species

The New Zealand Freshwater Fish Database (Stoffels 2022) holds 18 records for the Whenuakura River catchment (accessed April, 2024). Twelve species of freshwater fish and invertebrates (not including the unidentified fish listed in Table 4 below) have been recorded in the Whenuakura River catchment. Three of the 12 indigenous species are classified as At Risk-Declining and one as Threatened-Nationally Vulnerable. The headwaters of the Whenuakura and its tributaries retain freshwater habitats with high ecological values for fish and invertebrate species.

**Table 4** – New Zealand Freshwater Fish Database records for the Whenuakura Stream catchment. Species with a threat ranking as per Dunn *et al.* (2017) and Grainger *et al.* (2018) are shown in **bold**.

Scientific Name	Common Name	Threat Ranking	Number of Occurrences in the NZFFD
Anguilla	Unidentified eel	N/a	7
Anguilla australis	Shortfin eel	Not Threatened	2
Anguilla dieffenbachii	Longfin eel	At Risk-Declining	13
Cheimarrichthys fosteri	Torrentfish	At Risk-Declining	1
Galaxias maculatus	Īnanga	At Risk-Declining	4
Galaxias postvectis	Shortjaw kōkopu	Threatened-Nationally Vulnerable	1
Gobiomorphus	Unidentified bully	N/a	7
Gobiomorphus basalis	Crans bully	Not Threatened	5
Gobimorphus aff. Breviceps	Kaharore bully	Not Threatened	1
Gobiomorphus cotidianus	Common bully	Not Threatened	7
Gobiomorphus huttoni	Redfin bully	Not Threatened	7
Paranephrops	Kōura	Not Threatened	10
Paratya curvirostris	Freshwater shrimp	Not Threatened	6
Perca fluviatilis	Perch	Introduced and naturalised	1
Retropinna retropinna	Common smelt	Not Threatened	6
Salmo trutta	Brown trout	Introduced and naturalised	3

# 13.0 Terrestrial invertebrates

A range of indigenous invertebrates are likely to be present at the proposed Kohi Wind Farm site, particularly within the remnants of indigenous forest and scrub. Most of the species present are likely to be common and widespread within surrounding indigenous forest fragments and the wider rural landscape. Only one species – graceful-legs Lynx (*Oxyopes gracilipes*; Not Threatened as per Sirvid *et al.* 2020) – has been recorded within 2-5 kilometres of the site in iNaturalist<sup>1</sup>. The lack of records is likely to be an artefact of low sampling effort.

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<sup>&</sup>lt;sup>1</sup> Accessed 17 April 2024 on iNaturalist <a href="https://inaturalist.nz/observations">https://inaturalist.nz/observations</a>



# 14.0 Ecological values and constraints

#### 14.1 Vegetation and habitats

#### Overview

The vegetation and habitat types listed in Table 5 are present within the buffer zone mapped at the site

Table 5 – Vegetation and habitat types mapped within the  $K\bar{o}hi$  Wind Farm buffer. Overall ecological values of each vegetation type and the area of each vegetation type within the buffer and the development footprint are also included.

Vegetation and Habitat Type	Likely Ecological Value	Area Within Buffer (hectares)	Area Within Development Footprint (hectares)
1. Indigenous forest and scrub	Moderate to high	32.7	2.1
2. Mixed indigenous-exotic scrub	Moderate to high	73.4	6.6
3. Exotic forest	Low	68.9	9.0
4. Exotic scrub	Low	11.9	0.7
5. Exotic grassland and rural infrastructure	Low	1,332.9	224.1
6. Dwellings	Very low	11.6	0.1
7. Potential wetlands	Low to high	4.9	0.9
Total	-	1,535.7	243.5

Type 1: Indigenous forest and scrub

Areas of Vegetation and Habitat Type 1 are potentially of **moderate to high ecological value**, overall. These areas of secondary indigenous forest and scrub and/or modified forest are representative of indigenous tall forest which has been greatly reduced in extent in Manawatū Plains Ecological District since the arrival of humans to Aotearoa New Zealand, mostly due to the historic clearance of indigenous forest for the development of pastoral farmland. The LCDB classes 'indigenous forest', 'broadleaved indigenous hardwoods', and 'mānuka and/or kānuka', which Vegetation Type 1 is representative of, have been reduced to *c*.3.5% of the total vegetation cover of the Ecological District. Prior to the arrival of humans, indigenous tall forest would have covered almost the entirety of the Ecological District.

#### Type 2: Mixed indigenous-exotic scrub

Areas of Vegetation and Habitat Type 2 are likely to be of **moderate ecological value** overall, but could be of **high ecological value** if these areas provide habitat for Threatened or At Risk indigenous plants and/or fauna.

#### Types 3-6

Vegetation and Habitat Types 3, 4, 5, and 6 are likely to be of **low ecological value** overall. Areas of grazing and crop land, and exotic forest, which are included in these Vegetation Types, are likely to provide habitat for indigenous plants and fauna, however the indigenous species likely to be present are likely to be common and widespread in the Ecological District and wider Taranaki Region. However,



the presence of Threatened or At Risk species within Vegetation Types 3-6 could potentially elevate ecological values from low to high.

#### Type 7: Potential wetlands

Vegetation and Habitat Type 7 provides an indication of areas that could meet the criteria of 'natural inland wetland' as per the NPS-FM 2020. Natural inland wetlands at the site could be of **high to very high ecological value** depending on the indigenous species present and vegetation cover. Earthworks or vegetation clearance undertaken in close proximity to natural inland wetlands, along with inadequate mitigation measures, could have significant adverse effects by altering wetland hydrology. Hydrology changes could affect indigenous wetland vegetation present, and subsequently harm indigenous fauna present that utilise wetland habitat. It should be noted that a field inspection will be required to formally assess the hydrology, soils, and vegetation of these areas in order confirm whether or not these areas meet the criteria for 'natural inland wetland' under the NPS-FM 2020.

#### Summary

Removal of **moderate to high ecological value** vegetation and habitat types could have adverse effects on indigenous plants and fauna, including any species that have threat rankings. As shown in Table 5, the following vegetation types potentially of **moderate to high ecological value** are located within the proposed development footprint and could be removed during the construction process:

- Indigenous forest and scrub c.2.1 hectares (11 discrete areas).
- Mixed indigenous-exotic scrub c.6.6 hectares (28 discrete areas).
- Potential wetlands c.0.9 hectares (three discrete areas).

#### 14.2 Flora

Three indigenous plant species with threat rankings (as per de Lange *et al.* 2018) have been recorded within five kilometres of the buffer that are likely to be present within indigenous forest and scrub in the buffer (see Section 8). However, the threat rankings for these species has been elevated since 2017 due to the threat of myrtle rust. These species, as well as the other species mentioned in Section 7, are widespread and common in Manawatū Plains Ecological District.

It is possible that other indigenous plant species with a threat ranking (as per de Lange *et al.* 2018) are also present within the buffer but a field survey is required to identify these species.

#### 14.3 Avifauna

The proposed Kohi Wind Farm is located between about seven and 15 kilometres from the coast. Nineteen of the 26 species which are moderately or highly likely to be present in the vicinity of the proposed wind farm are classified as Not Threatened (as per Robertson *et al.* 2021), such as pūtangitangi, kererū, spur-winged plover, welcome swallow, and tūī (see Table 7 in Appendix 2). As these are Not Threatened species, occasional bird strike is very unlikely to result in population-level effects.

Vegetation clearance during and following construction, and collisions with turbine blades during operation, are the most likely adverse effects of the proposed wind farm development on avifauna. Vegetation clearance during the breeding season (August to March) could disturb nesting forest birds and destroy eggs or chicks of many species.

Of the species with a high or moderate likelihood of being present at the Kohi Wind Farm site, kāhu, kārearea (Threatened-Nationally Increasing), kererū, kōtare, pīpīwharauroa, pīwakawaka, riroriro, tūī,



pōpokotea, and korimako have been identified as being vulnerable to blade strike when flying above the canopy during courtship displays, hunting/foraging, or seasonal movements (Powlesland 2009). Of these species, kāhu is the most likely to be struck by turbines due to their soaring flight behaviour. Exotic birds known to have collided with turbines in Aotearoa New Zealand include Australian magpie, European greenfinch, European goldfinch, chaffinch, yellowhammer, Eurasian skylark, and mallard (Bull *et al.* 2013).

Six species ranked in Robertson *et al.* 2022 that were identified as being highly or moderately likely to be present at the wind farm site are discussed below:

#### Weweia/New Zealand dabchick (Threatened-Nationally Increasing)

This species may occasionally utilise open water habitats, such as farm ponds, near the proposed wind farm site and may be at risk when flying between preferred open water habitats. Movement of this species is poorly understood. It is believed that weweia mostly move between preferred habitats at night but this is not readily observed. However, due to tracked movements, it is known that birds can cover considerable distances including Cook Strait. The estimated population of this species in Heather and Robertson (2015) of 1900-2000 birds is likely an underestimate as the birds have expanded their range in recent years into the South Island where they had become extinct.

#### Pūweto/spotless crake (At Risk-Declining)

This species may occasionally utilise wetlands near the proposed wind farm and may be at risk when flying between preferred open water habitats. Similar to weweia, the movements of this species are poorly understood as it is believed that they mostly move between preferred habitats at night and this is not readily observed.

#### Kawaupaku/little shag and māpunga/black shag (both At Risk-Relict)

The main risk to shag species would be collision with turbine blades when flying between preferred habitat types, and observations of shags elsewhere show that they can regularly fly at heights that would be at risk of blade collision.

#### <u>Kārearea/New Zealand 'bush' falcon (Threatened-Nationally Increasing)</u>

Kārearea may potentially breed at the proposed wind farm site on an occasional basis. They are certainly present near Waverley and have been reported on a regular, albeit uncommon basis in South Taranaki. Whilst kārearea are a relatively maneuverable species and are thought to be able to avoid wind farm structures, they are known to become 'prey fixed' when in pursuit. Therefore, if kārearea were hunting within the wind farm during turbine operation, there would be the potential for them to collide with blades (Seaton 2007). In addition, fledgling raptors, due to their naivety and poor flying skills, may also be prone to blade strike (Powlesland 2009). Collision risk monitoring undertaken at another wind farm in New Zealand estimated that the potential collision rate of kārearea to turbines could be as high as one collision approximately every 4-5 years (Golder Associates 2012).

Transmission lines to be constructed as part of the wind farm infrastructure may adversely affect kārearea as electrocution has been recorded as a major problem in areas where many un-insulated power lines are present (Seaton and Hyde 2013). This can be prevented by ensuring that lines are hung below the isolators to reduce the potential for birds coming into contact with active lines.

Despite the fact that no known kārearea fatalities have been recorded as a result of wind farm operation, this species has been recorded flying at turbine blade height at other proposed wind farms (e.g. Wildland Consultants 2019). Additionally, they have been recorded as being present throughout the year and in a variety of habitat types nearby the proposed wind farm site. This species should be



considered to have a moderate risk of blade strike fatalities, and therefore require measures to avoid, remedy, or mitigate potential impacts.

#### Koroātito/North Island fernbird (At Risk-Declining)

This species may occasionally utilise wetlands near the proposed wind farm and may be at risk when flying between preferred open water habitats. However, this species is often a weak flier so blade strike is unlikely. Movement of this species is poorly understood as it is believed that they mostly move between preferred habitats at night and this is not readily observed.

#### Pīhoihoi/New Zealand pipit (At Risk-Declining)

Pīhoihoi are most likely to utilise open habitats, along roads and within pastoral and shrubland habitats in the vicinity of the proposed Kohi Wind Farm and are likely to be a relatively common species in the area. Whilst pīhoihoi rarely fly more than 10 metres above the ground, they are known to occasionally fly at heights of more than 40 metres during courtship or long-distance movements (Powlesland 2009). This species may be at low risk of collision with turbine blades.

Pīhoihoi may nest within grazed pasture grassland, although this is not their preferred nesting habitat, along gravel road and track margins in rank grass, and other open habitats within the wind farm. This means that construction of the wind farm in open and more pastoral habitats may temporarily affect the success of pipit nests, especially if construction activities occur during the pipit nesting season of August-March (Beauchamp 2013).

#### 14.4 Bats

It is likely that long-tailed bats (Threatened-Nationally Critical) utilise the proposed Wind Farm site, but it is very unlikely that central lesser short-tailed bat (At Risk-Declining) utilise the site.

Bats can potentially be adversely affected by the construction and operation of wind farms if they roost or forage nearby, with blade strike a risk to bats during wind farm operation. A review of bird and bat mortality at 180 wind farms overseas by Hötker *et al.* (2006) found that turbines in woodland sites caused more bat mortality than turbines in open areas, but it is unknown whether the results of this overseas study are applicable to bats in Aotearoa New Zealand. Bats have also been shown to be killed by barometric effects where a rapid air-pressure reduction produced by rotating turbine blades causes barotrauma and subsequent bat mortality.

Bats are absolutely protected under the Wildlife Act (1953) and it is an offence to injure or kill any bats without a Wildlife Act Authority.

A full spring-Autumn survey (1 November-30 April) for bats could be undertaken to help attain a better indication of bat use of the site.

## 14.5 Herpetofauna

Eleven indigenous lizard species known to occur within the Manawatū Plains and Matemateaonga Ecological Districts could potentially be present and six of those species have a moderate likelihood of occurring within the proposed wind farm site, with four of those species being classified as At Risk by Hitchmough *et al.* (2021).

Indigenous forest and scrub (Vegetation Type 1) and mixed indigenous-exotic scrub (Vegetation Type 2) provide suitable habitat for indigenous lizard species. Therefore areas of these two vegetation



types are of **high ecological value** because indigenous lizards, including species with threat rankings as per Hitchmough *et al* (2021), may be present within these habitats.

As mentioned in Section 14.1 above, approximately 2.1 hectares of indigenous forest and scrub (Vegetation Type 1) and c.6.6 hectares of mixed indigenous-exotic scrub (Vegetation Type 2) could be removed as part of the construction of the proposed Wind Farm. Removal of these vegetati—n types - which provide habitat suitable for indigenous lizards could adversely affect lizards, if present.

Lizards are absolutely protected under the Wildlife Act (1953) therefore it is an offence to injure or kill any lizards present without a Wildlife Act Authority.

## 14.6 Freshwater habitats and species

The following four indigenous freshwater fish species with threat rankings (as per Dunn et al. 2018), have been recorded within tributaries of the Whenuakura River:

- Longfin eel (At Risk-Declining).
- Torrentfish (At Risk-Declining).
- Īnanga (At Risk-Declining).
- Shortjaw kōkōpu.

Waterways within the wind farm site, such as Kohi Stream, are likely to provide important habitat for these species, therefore these waterways are of **high ecological value**. Freshwater systems are sensitive to sedimentation and altered hydrology caused by earthworks and/or vegetation clearance, which could result in adverse effects on indigenous freshwater fish and invertebrate species.

It should be noted that the proposed development footprint appears to directly cross waterways at two points, which could interfere with fish passage, however development works at these two crossings may be restricted to upgrades/modifications of existing culverts or bridge structures. The balance of the earthworks and construction associated with the proposed development footprint, which includes almost the entirety of the development footprint, will not directly affect existing waterways.

### 14.7 Terrestrial invertebrates

Indigenous invertebrates present within the proposed development footprint will be adversely affected by the disturbance and/or removal of vegetation, particularly indigenous vegetation and habitat types. As shown in Table 5, c.2.1 hectares of indigenous forest and scrub and c.6.6 hectares of mixed indigenous-exotic scrub are located within the development footprint. These may be important habitats for indigenous invertebrate biodiversity.

# 15.0 Measures to address potential ecological effects

## 15.1 Vegetation and habitats

### Ground-truthing

A field survey is required to 'ground-truth' the vegetation and habitat types that are potentially of moderate to high ecological value i.e indigenous forest and scrub (Vegetation Type 1) and mixed indigenous-exotic scrub (Vegetation Type 2) that are within the proposed development footprint. Ground-truthing will determine the extent of the vegetation and habitat types present, and the species



and structral composition of these types, which will further inform the evaluation of relative ecological values.

### **Potential Wetlands**

Potential wetland areas (Vegetation Type 7) within 100 metres of the proposed development footprint will also require 'ground-truthing', with areas meeting the criteria for 'natural inland wetland' under the NPS-FM 2020 requiring delineation. Vegetation clearance and earthworks outside of, but within a 10 metre setback from, a natural inland wetland, or earthworks outside of, but within a 100 metre setback from, a natural inland wetland are *non-complying activities* under the NES-F. However, it should be noted that specified infrastructure has a *discretionary activities* pathway under the NES-F.

### **Potential Footprint Effects**

Repositioning the proposed roading network and microsites (i.e the development footprint) to directly avoid areas of indigenous forest and scrub, mixed indigenous-exotic scrub, and potential wetlands is suggested and may be feasible. As most of the proposed road network will utilise areas of low ecological value i.e existing public roads and grazing land within the site, altering the development footprint to avoid areas of moderate to high ecological value may be feasible. Repositioning of the construction footprint so that there is an additional buffer between 'natural inland wetlands' and any part of the proposed development footprint is also suggested and may also be feasible.

### 15.2 Flora

The 'ground-truthing' surveys mentioned in Section 15.1 above will provide an opportunity to identify any Threatened and/or At Risk indigenous plant species in Vegetation Types 1, 2, and 7, which will also inform the assessment of the ecological values of these areas. Repositioning of the proposed development footprint to directly avoid vegetation types that hold Threatened and/or At Risk indigenous plant species is suggested. As most of the proposed development footprint will utilise areas of low ecological value, altering the development footprint to avoid areas of moderate to high ecological value may be feasible.

### 15.3 Avifauna

Construction and operation of wind turbines will potentially adversely effect birds that utilise the site. It is unlikely that adverse effects on birds can be avoided, however it is possible that adverse effects can be mitigated.

Baseline avifauna surveys are needed to determine which bird species utilise the site. Depending on which bird species are recorded, and if any those recorded species have a Threatened or At Risk ranking as per Robertson *et al.* (2021), an avifauna management plan will be needed to determine what actions are required to mitigate effects of the wind farm on birds.

Surveys are needed to more accurately assess what bird species utilise habitats at the site, or migrate through the site, as migration paths and flight altitude is largely unknown for many species and no bird surveys have taken place within the proposed wind farm site.

There are likely to be fewer species of ecological concern at risk of turbine blade strike compared with some other proposed and existing wind farm sites that are located in important bird habitat such as coastal sites. The most imporant species to consider in terms of collision at this site are Threatened or At Risk species such as kārearea, weweia, pūweto, kawaupaku, and māpunga, and to a lesser extent koroātito and pīhoihoi and and a wide range of more common indigenous bird species typical of woody habitats such as kererū and kāhu.



If any significant wetlands are found in the field surveys, these wetland areas should be surveyed for matuku-hūrepo/Australsian bittern. Indigenous forest birds may nest in woody habitats within the proposed development footprint. Adverse effects on these species can be mitigated by avoiding clearance and construction during the breeding season (September–March) and checking for nests prior to any clearance. Based on the current knowledge of the avifauna, and the proximity to other wind farm sites, this site has considerable advantages from the preservation of avifauna on a nationwide basis for a wind farm site.

### 15.4 Bats

Operation of wind turbines could potentially adversely affect any bats that utilise the site. It is unlikely that adverse effects on bats can be avoided, but it is likely that adverse effects can be mitigated.

Baseline acoustic bat surveys are needed to determine if bats are present, and if bats are detected, roost site surveys and a Bat Management Plan (BMP) will be required. A BMP will be needed to comprehensively determine what actions are required to mitigate, offset, or compensate for the adverse effects of the wind farm on bats. Management actions could include operational avoidance of bats, and site management (habitat enhancement, pest management, monitoring) at specific sites. A BMP should be prepared and implemented by a qualified bat ecologist, to ensure that appropriate wildlife management actions are implemented.

Repositioning of some proposed wind turbine locations may be required to address potential effects on bats.

## 15.5 Herpetofauna

The 'ground-truthing' vegetation surveys mentioned in Section 15.1 above will provide an indication of the habitat values for indigenous lizards of Vegetation Types 1 and 2 within the proposed development footprint. As legally protected lizard species have been identified as being potentially present, targeted surveys are required in order to confirm whether indigenous lizards are present within areas of Vegetation Types 1 and 2 within the proposed development footprint. As also mentioned above in Section 15.1, repositioning the proposed development footprint to avoid areas of Vegetation Types 1 and 2 could be considered.

If lizards are identified as being present and adverse effects on them are unavoidable, a Lizard Management Plan (LMP) and associated Wildlife Act Authority (permit) will be required. A LMP should provide a comprehensive plan that clearly avoids, mitigates, offsets or compensates for the losses of lizard populations and their habitats. Management actions could include avoidance and/or relocation of lizards, and site management (habitat enhancement, pest management, monitoring) at specific sites. A LMP must be prepared and implemented by a qualified and permitted ecologist/herpetologist, to ensure the appropriate management actions are implemented.

For any Not Threatened or At Risk species that are present, adverse effects can likely be mitigated by undertaking a lizard salvage operation. If any Threatened lizards are found, avoidance of these populations and their habitat will be required. If no lizards are detected during targeted surveys, a Lizard Discovery Protocol can be developed as part of a LMP if there are incidental lizard discoveries during construction.

## 15.6 Freshwater habitats and species

Although almost the entirety of earthworks and construction associated with the development footprint is outside of existing waterways, a robust sediment management plan will be required to avoid sedimentation of streams or waterbodies within and surrounding the site. Areas of the proposed



development footprint that are to cross any streams within the site must allow for sufficient fish passage as per the NES-F 2020. A vegetation buffer – preferrably 20 metres—or more - around natural waterways is also beneficial, to ensure that streams remain shaded, thereby retaining suitable instream conditions for indigenous freshwater fish and invertebrates.

### 15.7 Terrestrial invertebrates

Due to the limitations of a desktop survey, a field survey is required before measures to address effects can be suggested. However, repositioning the proposed development footprint to avoid vegetation types of moderate to high ecological value that are likely to provide habitat for indigenous invertebrate species is suggested. As most of the proposed development footprint will utilise areas of low ecological value, altering the development footprint to avoid areas of moderate to high ecological value may be feasible.

# 16.0 Surveys, monitoring, and reporting

The following monitoring is likely to be required if the proposed Kohi Wind Farm is consented:

### Avifauna

- Development of a construction and post-construction survey and monitoring plan.
- Implementation of construction and post-construction monitoring, including bird mortality monitoring.

### <u>Bats</u>

- Development of a construction and post-construction survey and monitoring plan.
- Implementation of construction and post-construction monitoring, including bat mortality monitoring.

### Freshwater Fish and Invertebrates

- Development of construction and post-construction freshwater environmental monitoring plan.
- Implementation of construction and post-construction freshwater enivironmental monitoring.

# 17.0 Mitigation and offsetting

Subject to the footprint effects of a final layout design on indigenous vegetation, habitats, and species, a Mitigation and Offset Plan may be required to address adverse effects and ensure that there is no net ecological loss of indigenous biodiversity. Such a plan could address the protection and enhancement of indigenous vegetation and habitats in the gullies present on the wind farm site.

# 18.0 Conclusion

Most of the proposed wind farm site has a cover of exotic pasture used for grazing, which is of low ecological value. Indigenous forest and scrub – of moderate to high ecological value – is predominantly located in gullies and relatively small areas could potentially be affected. Indigenous-dominant vegetation and habitat types require ground-truthing and it may be feasible to avoid some areas that are currently within the proposed development footprint.



Although there are few indigenous fauna records for the wider site, it is likely that indigenous fauna utilise habitats within the proposed development footprint. Site visits are required to undertake surveys for Threatened and/or At Risk plants, avifauna, bats, and lizards. Wetland delineation is also required for wetlands that meet the definition of 'natural inland wetland' as per the NPS-FM 2020 that are within 100 metres of the proposed development footprint.

The construction and the post-construction operational phases of the wind farm are likely to have some adverse effects on indigenous vegetation and habitat types, avifauna, bats, lizards, freshwater fish and invertebrates, and terrestrial invertebrates. Management of adverse ecological effects will also likely require the development of survey, monitoring, and management plans for bats, lizards, and avifauna. It may also be necessary to develop an Ecological Mitigation and Offsetting Plan to address any residual ecological effects.

Overall, the proposed Kohi Wind Farm site has relatively few ecological constraints to the establishment and operation of a wind farm.

# Acknowledgments

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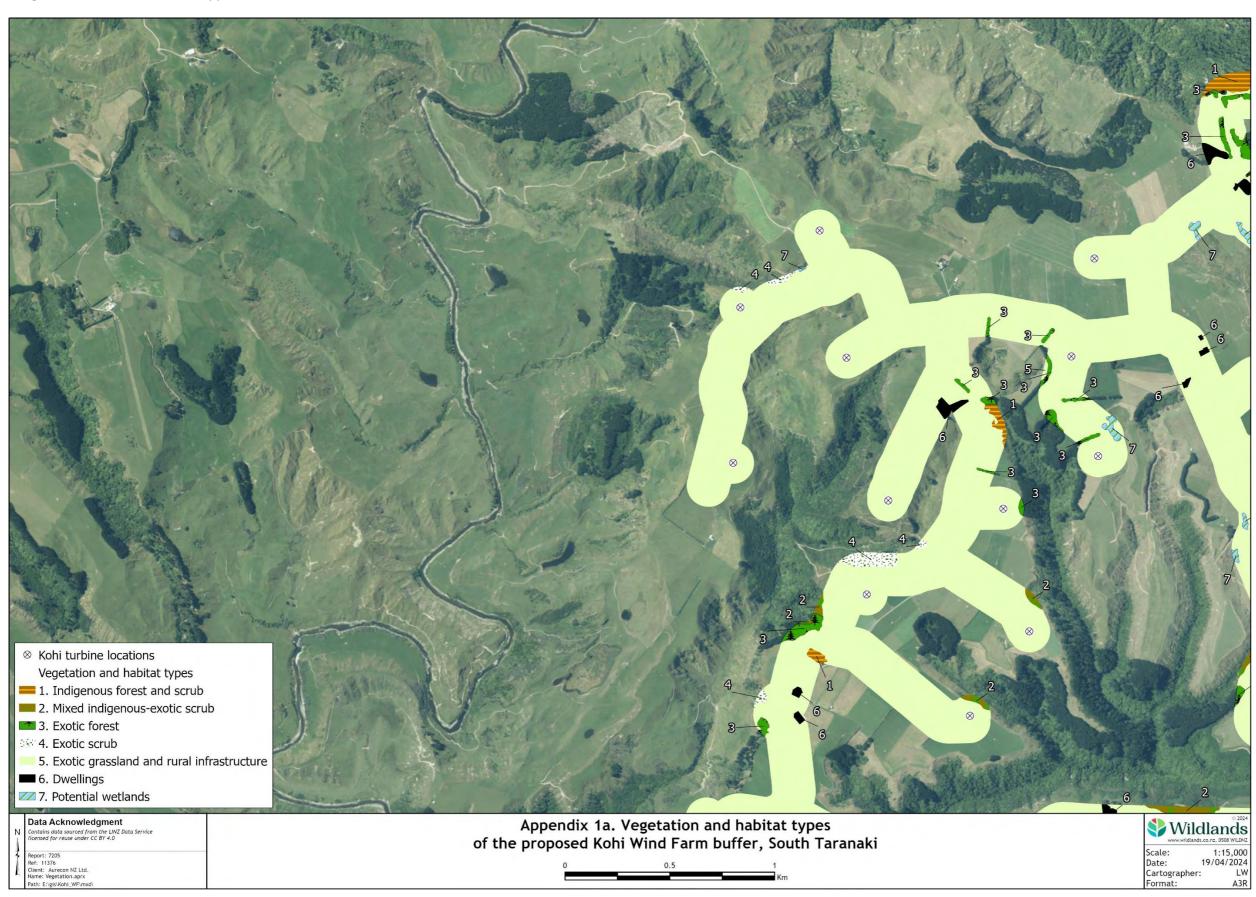


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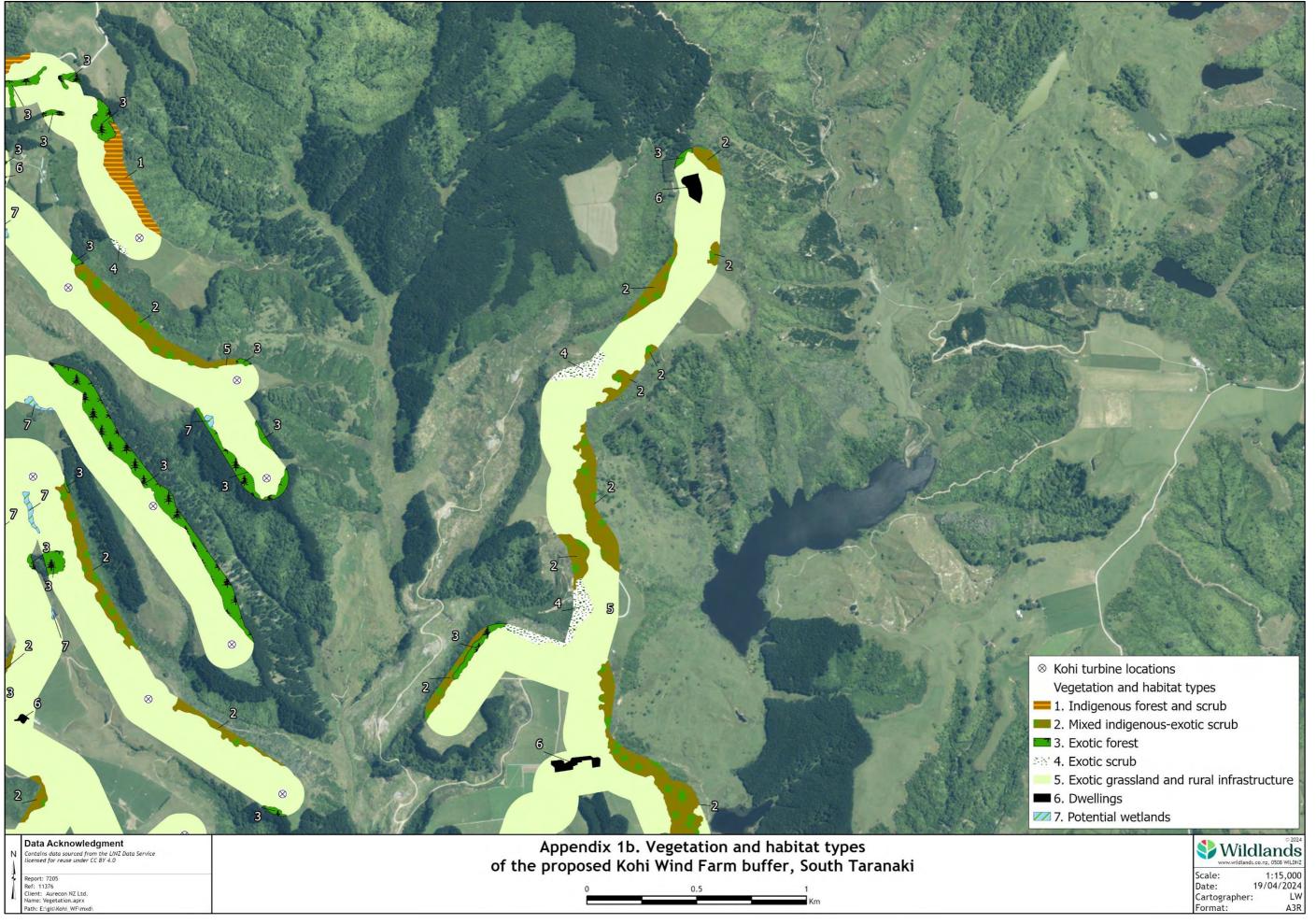
<sup>&</sup>lt;sup>1</sup> Available online at https://maps.trc.govt.nz/LocalMapsViewer/

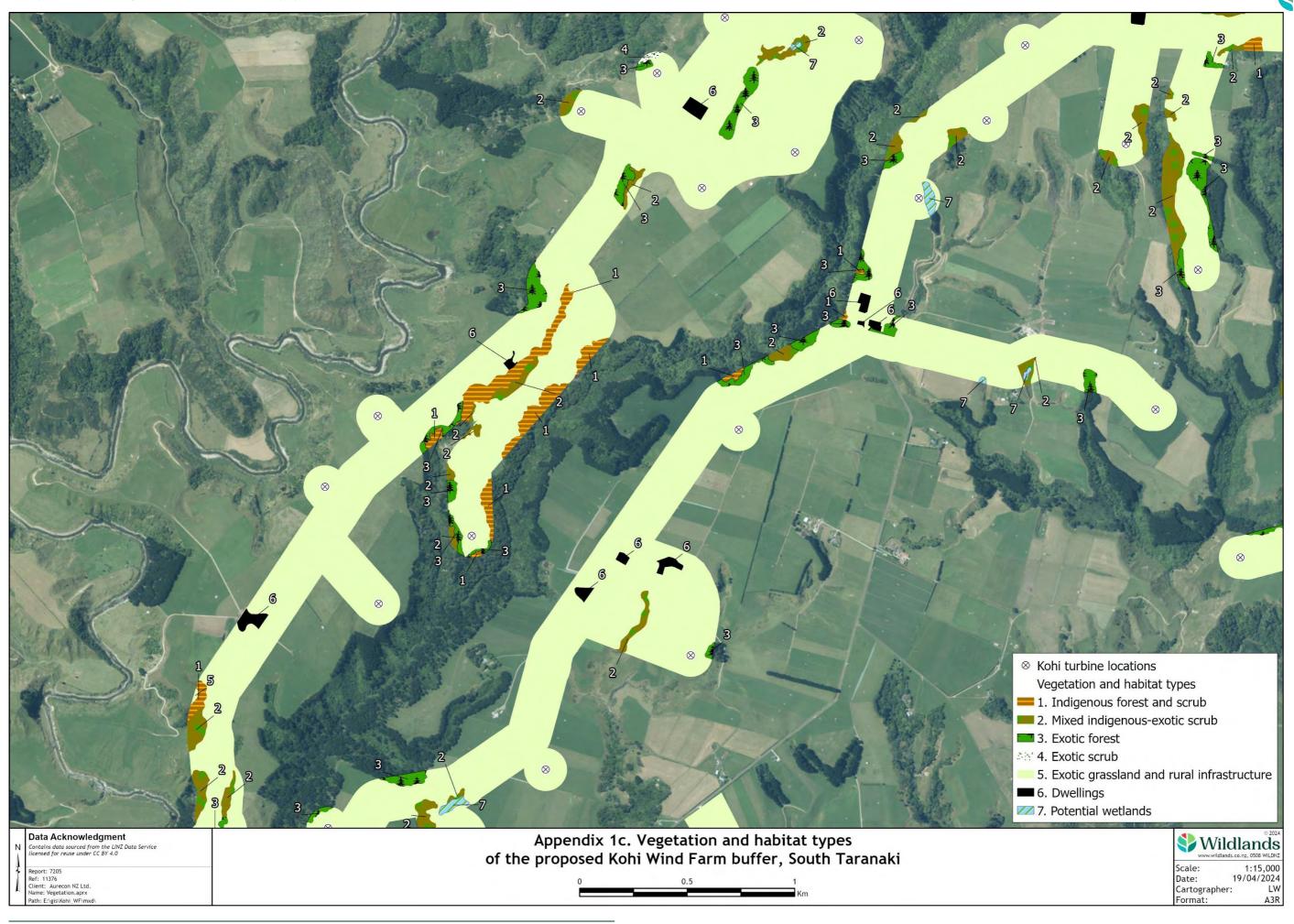
# Appendix 1

Vegetation and habitat types within the Kohi Wind Farm buffer, South Taranaki

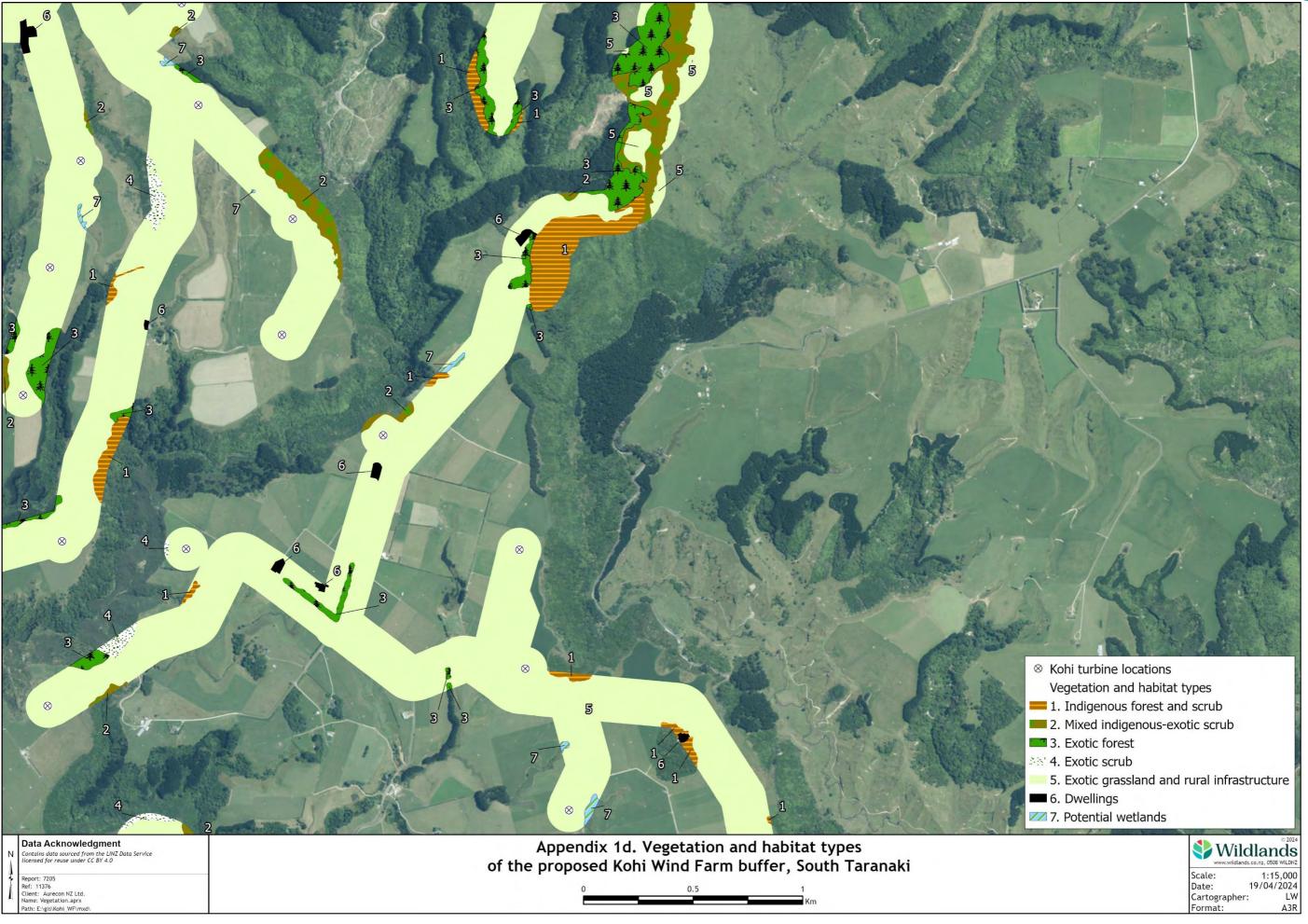




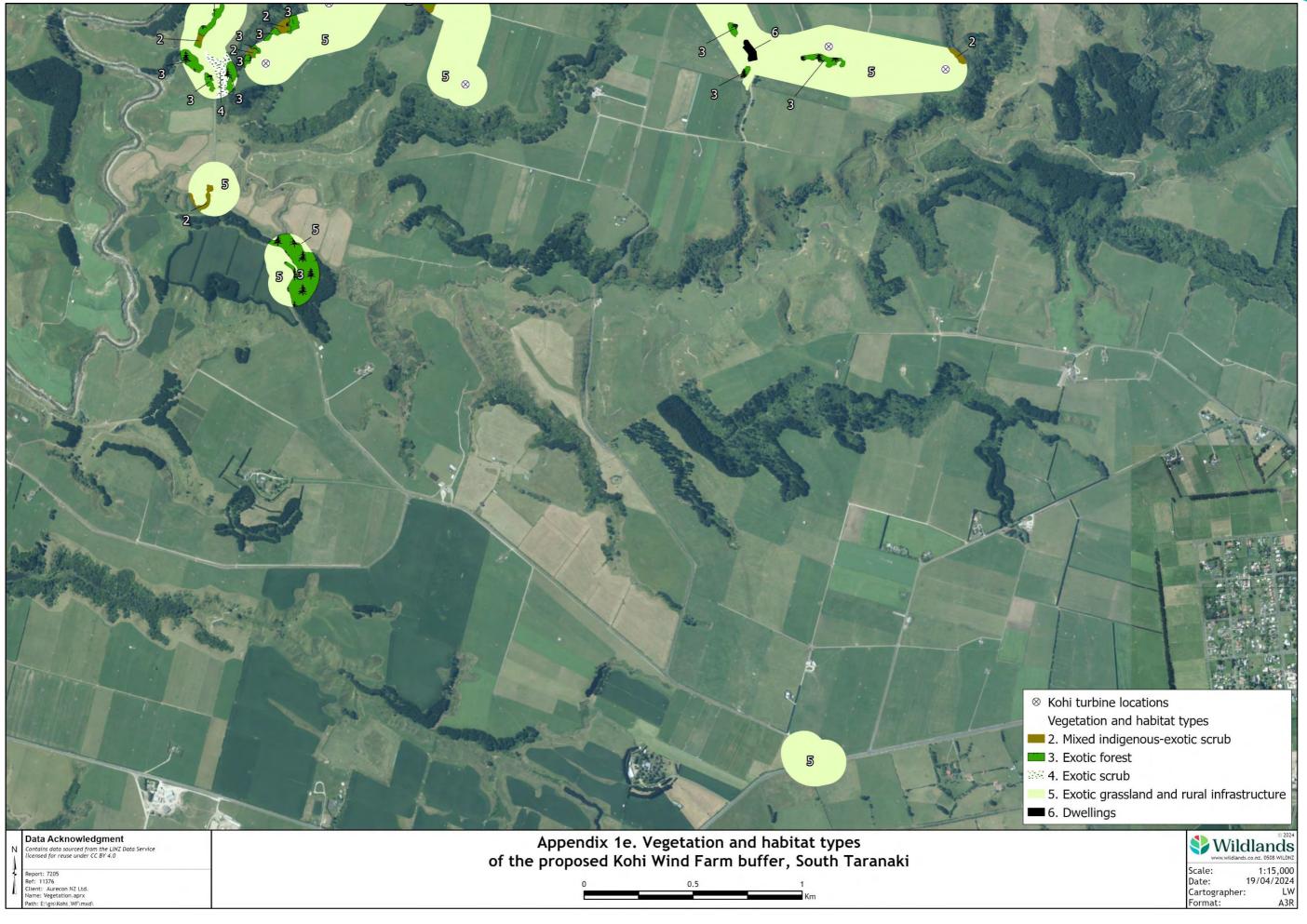




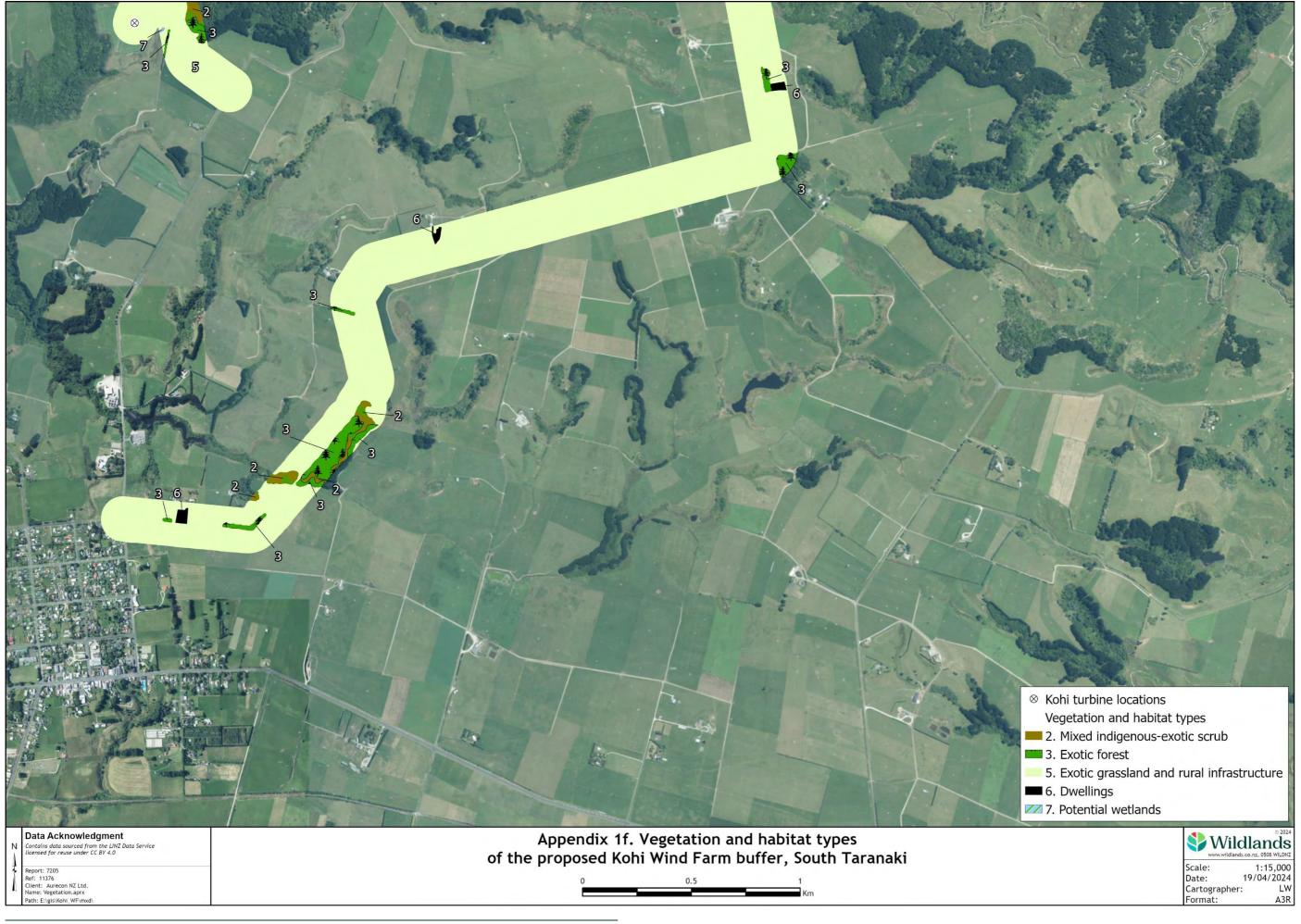














# Appendix 2

# Bird species records

Table 6 – Avifauna recorded in eBird or iNaturalist within 15 kilometres, or recorded within the four adjacent grid squares in the New Zealand Bird Atlas project (June 2019 to March 2024), or from other records, within or near the proposed Kohi wind farm site. Birds are listed by taxonomic Order. Y denotes presence.

Common Name	Species	Within 15 km	ВН65	вн66	BI65	B166	Not Recorded, but Likely to be Present
Number of checklists: 1 June 2019-12 April 202	4		16	15	79	305	
Swans, Ducks, Geese (Anseriformes)							
Kakīānau/black swan	Cygnus atratus	Υ			Υ	Υ	
Canada goose	Branta candensis	Υ	Υ		Υ	Υ	
Pūtangitangi/paradise shelduck	Tadorna variegata	Υ	Υ	Υ	Υ	Υ	
Tētē-moroiti/grey teal	Anas gracilis	Υ			Υ	Υ	
Rakiraki/mallard	Anas playrhynchos	Υ	Υ		Υ	Υ	
Pārera/grey duck	Anas superciliosa				Υ	Υ	
Mallard × grey duck hybrid		Υ				Υ	
Kuruwhengi/Australasian shoveler	Spatula rhynchotis	Υ			Υ	Υ	
Pāpango/New Zealand scaup	Aythya novaeseelandiae	Υ			Υ	Υ	
Quails, pheasants and turkeys (Galliformes)							
Tīkaokao/California quail	Callipepla californica						Υ
Pīkao/Peafowl	Pavo cristatus			Υ		Υ	
Common pheasant	Phasianus colchicus	Υ		Υ	Υ	Υ	
Grebes (Podicepiformes)							
Weweia/New Zealand dabchick	Poliocephalus rufopectus	Υ			Υ	Υ	
Pigeons and doves (Columbiformes)							
Kererū Aropari/Rock pigeon	Columba livia	Υ	Υ	Υ	Υ	Υ	
Kererū/New Zealand pigeon	Hemiphaga novaeseelandiae	Υ		Υ		Υ	
Cuckoos (Cuculiformes)							
Pīpīwharauroa, shining cuckoo	Chrysococcyx lucidus lucidus		Υ			Υ	
Adzebills, rails and cranes (Gruiformes)							
Pūweto/spotless crake	Zapornia tabuensis					Υ	
Pūkeko	Porphyrio melanotus melanotus	Υ	Υ		Υ	Υ	
Australian coot	Fulica atra australis					Υ	

Common Name	Species	Within 15 km	BH65	ВН66	BI65	BI66	Not Recorded, but Likely to be Present
Waders, skuas, gulls and terns (Charadriifo	rmes)			'		•	<u>'</u>
Tōrea pango/variable oystercatcher	Haematopus unicolor	Υ			Υ	Υ	
Tōrea/South Island pied oystercatcher	Haematopus finschi				Υ	Υ	
Poaka/pied stilt	Himantopus himantopus leucocephalus	Υ			Υ	Υ	
Pohowera/banded dotterel	Charadrius bicinctus bicinctus					Υ	
Ngutu pare/wrybill	Anarhynchus frontalis					Υ	
Spur-winged plover	Vanellus miles novaehollandiae	Υ		Υ	Υ		
Kuaka, eastern bar-tailed godwit	Limosa lapponica baueri	Υ			Υ	Υ	
Huahou/red knot	Calidris canutus rogersi					Υ	
Tarāpunga/red-billed gull	Chroicocephalus novaehollandiae scopulinus	Υ				Υ	
Tarāpuka/black-billed gull	Chroicocephalus bulleri–						Y - Boffa Miskell (2022)
Karoro/southern black-backed gull	Larus dominicanus dominicanus	Υ	Υ	Υ	Υ	Υ	
Taranui/Caspian tern	Hydroprogne caspia	Υ				Υ	
Tara/white-fronted tern	Sterna striata striata	Υ				Υ	
Penguins (Sphenisciformes)							
Kororā/little penguin	Eudyptula minor minor	Υ					
Albatrosses, petrels, and shearwaters (Pro-	cellariiformes)						
Pakahā/fluttering shearwater	Puffinus gavia	Υ					
Tītī/Sooty shearwater	Ardenna grisea	Υ					
Frigatebirds, gannets, darters, and cormora	ants (Phalacrocoracidae)						
Tākapu/Australasian gannet	Morus serrator	Υ				Υ	
Kawaupaka/little shag/little pied shag	Microcarbo melanoleucos brevirostris	Υ			Υ	Υ	
Māpunga/black shag	Phalacrocorax carbo novaehollandiae	Υ		Υ	Υ	Υ	
Kāruhiruhi/pied shag	Phalacrocorax varius varius	Υ				Υ	
Kawau tūī/little black shag	Phalacrocorax sulcirostris	у				Υ	
Pelicans, herons, and ibises (Pelecaniforme	es)						
Cattle egret	Bubulcus ibis coromandus					Υ	
Matuku moana/white-faced heron	Egretta novaehollandiae	Υ			Υ	Υ	
Matuku-hūrepo/Australasian bittern	Botaurus poiciloptilus	Υ				Υ	
Kōtuku ngutupapa/royal spoonbill	Platalea regia	Υ				Υ	
Kites, Hawks, and Eagles (Accipitriformes)							
Kāhu/swamp harrier	Circus approximans	Υ	Υ	Υ	Υ		
Owls (Strigiformes)							
Ruru/morepork	Ninox novaeseelandiae novaeseelandiae						Υ

		Mark to					Net Described but
Common Name Species		Within 15 km	BH65	ВН66	BI65	BI66	Not Recorded, but Likely to be Present
Rollers and kingfishers (Coraciiformes)	<u>'</u>						
Kōtare/New Zealand kingfisher	Todiramphus sanctus vagans		Υ	Υ	Υ	Υ	
Falcons (falconiformes)							
Kārearea/bush falcon	Falco novaeseelandiae ferox			Υ			
Parrots (Psittaciformes)							
Kākā/North Island kākā	Nestor meridionalis septentrionalis	Υ					
Kākā uhi whero/Eastern rosella	Platycercus eximius		Υ		Υ	Y	
Perching birds (Passeriformes)							
Korimako/bellbird	Anthornis melanura melanura			Υ		Υ	
Tūī	Prosthemadera novaeseelandiae novaeseelandiae		Υ	Y		Υ	
Riroriro/grey warbler	Gerygone igata	Υ		Υ	Υ	Υ	
Pīwakawaka/North Island fantail	Rhipidura fuliginosa placabilis	Υ	Υ	Υ	Υ	Υ	
Makipai/Australian magpie	Gymnorhina tibicen	Υ	Υ	Υ	Υ	Υ	
Miromiro/North Island tomtit	Petroica macrocephala toitoi	Υ					
Toutouwai/North Island robin	Petroica longipes	Υ					
Kairaka/Eurasian skylark	Alauda arvensis	Υ	Υ	Υ	Υ	Υ	
Koroātito/North Island fernbird	Poodytes punctatus vealeae	Υ				Y	
Warou/welcome swallow	Hirundo neoxena neoxena	Υ	Υ	Υ	Υ	Υ	
Tauhou/silvereye	Zosterops lateralis lateralis	Υ	Υ	Υ	Υ	Y	
Tāringi/common starling	Sturnus vulgaris	Υ	Υ	Υ		Υ	
Maina/common myna	Acridotheres tristis	Υ		Υ		Y	
Manu pango/Eurasian blackbird	Turdus merula merula	Υ	Υ	Υ	Υ	Υ	
Manu kai-hua-raku/song thrush	Tudus philomelos	Υ	Υ	Υ	Υ	Υ	
Dunnock	Pruella modularis	Υ	Υ		Υ	Υ	
Tiu/house sparrow	Passer domesticus	Υ	Υ	Υ	Υ	Υ	
Pīhoihoi/New Zealand pipit	Anthus novaeseelandiae novaeseelandiae	Υ			Υ		
Pahirini/chaffinch	Fringilla coelebs	Υ	Υ	Υ	Υ	У	
European greenfinch	Chloris chloris	Υ	Υ	Υ	Υ	Υ	
Common redpoll	Acanthis flammea					Υ	
Kōurarini/European goldfinch	Careduelis carduelis britannica	Υ	Υ	Υ	Υ	Υ	
Hurukōwhai/yellowhammer	Emberiza citrinella	Υ	Υ	Υ	Υ	Y	



Several additional species were recorded (some relate to 2011 and 2012 records) from the Waipipi Wind Farm site in a coastal environment in Boffa Miskell (2022, 2023). These are mostly rare or coastal or oceanic species and are not of relevance to the Kohi Point Wind Farm. These include the following species.

- Cape Barren goose (Introduced) relatively rare in Aotearoa NZ.
- Pāteke/brown teal (Anas chlorotis; At Risk-Recovering) no other nearby records, and unlikely to be permanently present in the vicinity of the proposed Kohi Wind Farm site.
- Northern New Zealand dotterel (Charadrius obscurus; At Risk-Recovering) coastal species, unlikely to utilise inland habitats near the Kohi Point Wind Farm.
- Tarapirohe/black-fronted tern (Chlidonias albostriatus; Threatened-Nationally Endangered) usually only found in coastal sites in the North Island outside of breeding season.
- Several oceanic birds including Arctic skua (Stercorarius parasiticus; migrant), kuaka/common diving petrel (Pelecanoides urinatrix; At Risk-Relict), ōi/grey-faced petrel (Pterodroma gouldi; Not Threatened), and broad-billed prion (Pachyptila vittata; At Risk-Relict).



Table 7 – Assessment of potential habitat use and likelihood of use of the wind farm site for indigenous birds listed in Table 6 of relevance to the proposed Kohi Wind Farm site. . Threat rankings are as per Robertson et al. (2021). Habitat usage and range/migration information is from New Zealand Birds Onine, eBird and Heather and Robertson (2015), and wider literature. Birds are listed by taxonomic Order.

Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence at Wind Farm Site
Swans, ducks, geese (Anseriform	es)			
Kakīānau/black swan	Not Threatened	Open water, farmland	Will travel at night and over land. May occasionally utilise farm ponds and adjacent pasture in the area. Potenital occasional impacts with wind farm infrastructure, but a common and widespread species in Aotearoa New Zealand.	Moderate
Pūtangitangi/paradise shelduck	Not Threatened	Wetlands, open habitat, farmland	Utilises diverse habitats such as farm ponds, wetlands, and farmland. Few records in the hill country near Waverley, but this is probably a lack of survey effort. Likely to be occasional impacts with wind farm infrastucture, but a common non-threatened indigenous species. Internationally, wind farm fatalities are known for other species of shelduck.	High
Tētē-moroiti/grey teal	Not Threatened	Open water	Highly mobile, no records in the hill country near Waverley, but this is likely to be a lack of survey effort. Likely to be present on farm ponds.	Low
Pārera/grey duck	Threatened - Nationally Vulnerable	Open water	Pure birds are now very rare and limited suitable habitat. No records from Hill Country near Waverley. Likely to be occasionally present in farm ponds, forested headwater catchments.	Low- due to rarity
Kuruwhengi/Australasian shoveler	Not Threatened	Open water	No records on the hill country near Waverley, but this may be related to lack of survey effort. May be present on farm ponds.	Low
Pāpango/New Zealand scaup	Not Threatened	Open water	Usually open water habitat only, and otherwise flying between these areas. No records on their hill country near Waverley. May occasionally use farm ponds.	Low
Grebes (Podicepiformes)				
Weweia/New Zealand dabchick	Threatened - Nationally Increasing	Open water	Open water species. May occasionally utilise farm ponds in the vicinity of the wind farm. It is also listed for McKenzie Wetland in the key native ecosystem inventory (Taranaki Regional Council, 2020-21, unpublished). Movements between preferred habitats are poorly understood, but are thought to be mostly undertaken at night.	Moderate
Pigeons and doves (Columbiform	es)			
Kererū/New Zealand pigeon	Not Threatened	Forests (indigenous and exotic), shelterbelts, and preferred trees and shrubs amongst pasture.	A few records in hill country near Waverley, indicates the use of the site by this species, but there are few bird records from the immediate wind farm site. Known to regularly fly between preferred food sources. Engage in flight displays up to 50m above canopy. Kererū are highly dispersive when searching for seasonal food and may be at risk from bird strike during flight displays. Wildland Consultants (2019) reports that they were observed occasionally flying at turbine height at Turitea, although this was mainly restricted to indigenous forest habitats that are unlikely to be present at turbine at Kohi.	High

		•		
Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence a Wind Farm Site
Cuckoos (Cuculiformes)				
Pīpīwharauroa, shining cuckoo	Not Threatened	Forest	A few records on eBird show seasonal use of the hill country near Waverley. Migration routes and flight altitudes unknown, but migration is probably mostly at night (Higgins 1999). They are generally present in spring, summer, and autumn only in Aotearoa New Zealand. Only rare records of overwintering birds. Migrations are probably mostly at night time with most departures probably January to April, and arrivals a range of dates from June to November, peaking in October with considerably variation related to weather patterns (e.g. Higgins 1999, Gill 1983). Known to be vulnerable to window-collisions. Migrating pīpīwharauroa/shining cuckoo could be at risk of collision, especially in bad weather or at night.	High
Adzebills, rails and, cranes (Gruif	ormes)			
Pūweto/spotless crake	At Risk – Declining	Wetlands	Recorded from Tapuarau Lagoon near the Waitōtara River mouth. It is also listed for McKenzie Wetland in the key native ecosystem inventory (Taranaki Regional Council, 2020-21, unpublished). Could potentially be present in any suitable wetlands if present, particularly those with raupō ( <i>Typha orientalis</i> ). Movements between preferred sites are poorly understood.	High
Pūkeko	Not Threatened	Wetlands, open habitats such as farmland.	Utilises diverse habitats, overland flights mostly at night. Have been recorded by the authors in farmland near the wind farms site. Occasionally recorded making long-distance flights at night. This is mainly a wetland species, whereas most of the turbines are located on the ridgetops.	High
Australian coot	At Risk – Naturally Uncommon	Open water	May occasionally utilise farm ponds in the vicinity of the wind farm. There are no records of Australian coot in the hill country near Waverley.	Low
Waders, skuas, gulls, and terns (	Charadriiformes)			
Tōrea pango/Variable oystercatcher	At Risk - Recovering	Mostly a coastal species.	Mostly a coastal species, unlikely to utilise habitats near the proposed wind farm.	Low
Törea/South Island pied oystercatcher	At Risk - Declining	Mostly coastal in non- breeding season, but also present in open country such as farmland and sports fields.	Migration routes unknown but generally travel along west coast of North Island, well away from the wind farm. One record of birds on the flat land near Waverley (although the report indicates migrating birds at sea), but no records from the hill country near the proposed wind farm. In the North Island generally a coastal species.	Low
Poaka/pied stilt	Not Threatened	Wetlands, braided rivers, wet farmland.	Migratory routes are thought to be mostly coastal. Around 50% of population migrates along west coast of North Island. No records in the hill country near Waverley in the last five years, but are likely to be present in suitable wet farmland habitats near the proposed wind farm.	Moderate
Pohowera/banded dotterel	At Risk - Declining	Riparian	North Island populations migrate along riparian and coastal habitats; all records in the vicinity of the proposed wind farm in the last five years are near the Waitōtara River mouth and nearby coast. No recent records of this species from the Waverley hill county, or inland sites in South Taranaki.	Low

Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence at Wind Farm Site
Wrybill	Threatened - Nationally increasing	Coastal, rivers	In the North Island restricted to coastal estuarine habitats. Not likely to be present in inland hill country in South Taranaki.	Low
Spur-winged plover/masked lapwing	Not Threatened	Wetlands, open habitat such as farmland, sports fields and river flats.	Utilise riparian, and pasture habitats and open urban habitats. Likely to be abundant in the wind farm site, but few records due to lack of survey effort.  Wildland Consultants (2019) recorded occasionally flying at turbine height at Turitea, particularly when disturbed. Not a threatened species, therefore turbine blade strike is unlikely to cause population effects	High
Kuaka/eastern bar-tailed godwit	At Risk-Declining	Coastal, estuarine and beaches. Roost on terrestrial margin habitat.	Coastal species, very unlikely to be present at an inland hill country site.	Low
Huahou/red knot	At Risk-Declining	Coastal, estuarine and beaches. Roost on terrestrial margin habitat.	Coastal species, very unlikely to be present at an inland hill country site.	Low
Tarāpunga/red-billed gull	At Risk - Declining	Coastal, riparian, developed landscapes	Mostly a coastal species in South Taranaki. Almost all records in the vicinity of the widen farm are near Palmerston North. A gull species more typical of coastal habitats and larger inland lakes.	Low
Tarāpuka/black-billed gull	At Risk - Declining	Riparian and developed landscapes	Very few records in south Taranaki.	Low due to few records from the lower North Island axial ranges.
Karoro/southern black-backed gull	Not Threatened	Coastal, rivers, open habitat, farmland, open developed sites, open water	A relatively abundant species near Waverley. Wildland Consultants (2019) reported karoro flying occasionally within the rotor zone across a wind farm site near Palmerston North. Not a threatened species, therefore turbine blade strike is unlikely to cause population effects.	High
Taranui/Caspian tern	Threatened - Nationally Vulnerable	Coastal, riparian and larger inland open water bodies	Likely to be mostly a coastal species in South Taranaki, and unlikely to be present on a regular basis near the proposed Kohi Wind Farm.	Low
Tara/white-fronted tern	At Risk-Declining	Coastal, pelagic	A coastal species that rarely utilises inland habitats.	Low
Penguins (Sphenisciformes)				
Kororā/little penguin	At Risk - Declining	Coastal, pelagic	A coastal species that will never travel far inland.	No likelihood
Albatrosses, petrels, and shearwa	•	•		
Pakahā/fluttering shearwater	At Risk-Relict	Pelagic	Pelagic species, rarely flies inland.	Low
Tītī/sooty shearwater Frigatebirds, gannets, darters, and	At Risk-Declining	Pelagic	Dead bird recorded from beach. Pelagic species, rarely flies inland.	Low
Tākapu/Australasian gannet	Not Threatened	<u> </u>	A nalagic species that rarely flies inland	Low
Kawaupaka/little shag	At Risk - Relict	Pelagic Rivers, open water	A pelagic species that rarely flies inland  Most records are from the lower altitude flat land near Waverley, but may be present in farm ponds. Can occasionally nest in gorges inland, but more abundant	High

Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence at Wind Farm Site
			in other habitats. If birds are moving between preferred breeding zone, this species often flies within the potential turbine collision zone.	
Māpunga/black shag	At Risk - Relict	Rivers, open water	Regularly flies over land between roosting and foraging sites. Some records near Waverley in the last five years and a few near the proposed wind farm site.	High
Kāruhiruhi/pied shag	At Risk - Recovering	Rivers, open water	More of a coastal species than inland species, but occasionally is present at larger inland freshwater lakes. No records near the wind farm site.	Low
Kawau tūī/little black shag	At Risk - Naturally Uncommon	Rivers, open water	No records in the hill country near the wind farm site. The habitats for this species are generally more suited to the lower flat lands than the hill country near Waverley.	Low
Pelicans, herons, ibises (Pelecan	iformes)		·	
Eastern cattle egret	Migrant	Wetlands, rivers	Rare visitor to the region, and not internationally threatened.	Low
Matuku moana/white-faced heron	Not Threatened	Rivers, open water, farmland	Utilises diverse wetland and open habitats. A few records near Waverley, but many more near the flat country and farmland. Birds could potentially fly between preferred habitats in the impact zone of the wind farm turbines, although based on abundances this is likely to be a relatively rare event.	Moderate
Matuku-hūrepo/Australasian bittern	Threatened - Nationally Critical	Wetlands	Several coastal records > 5 kilometres from the wind farm site. McKenzie Wetland may provide suitable habitat and should be surveyed for so any management issues can be addressed. Movements between preferred habitats in this region are poorly understood, but is probably relatively rare in this region.	Low due to no inland records near the proposed wind farm.
Kōtuku ngutupapa/royal spoonbill	At Risk - Naturally Uncommon	Open water	Most records are near the Waitōtara River and Patea River mouths. Will travel long distances between coastal foraging sites; but no records in the hill country near Waverley	Low
Kites, Hawks, and Eagles (Accipi	triformes)			
Kāhu/swamp harrier	Not Threatened	Open habitat, hunts over wide parts of the landscape on the wing	Soaring flight, hunts over open habitats. Likely to be abundant throughout the hill country near Waverley. International evidence indicates harriers which fly by soaring and gliding may be vulnerable to collisions with turbines. Known to have previously been killed on wind farms in NZ.	High
Owls (Strigiformes)				
Ruru/morepork	Not Threatened	Forest, open habitats with shelter belts.	No records near the proposed wind farm site at Waverley, but this is probably a lack of nocturnal bird survey effort. Utilises indigenous and exotic forest habitats and can hunt in open habitats such as those near the proposed wind farm. Internationally, owl species are known to collide with turbine blades. Not a threatened species, therefore turbine blade strike is unlikely to cause population effects.	High
Rollers and kingfishers (Coraciife	ormes			
Kōtare/New Zealand sacred kingfisher	Not Threatened	Forest, open habitat	Likely to be abundant in the proposed wind farm area. Known to utilise indigenous forest and exotic forestry and a wide range of open developed habitats. There appears to be altitudinal movement in winter between inland higher country and forest habitats to lowland farms the coast (McKinlay 2013). Known to frequently use elevated perches, including artificial structures such as powerlines and posts, and at least one kōtare/kingfisher has been a collision fatality at a New Zealand	High

Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence a Wind Farm Site
		•	wind farm. Not a threatened species, therefore turbine blade strike is unlikely to cause population effects.	
Falcons (falconiformes)				
Kārearea/bush falcon	Threatened - Nationally Increasing	Forest	One record in the last five years near Waverley, but the low reporting may be due to survey effort. Scattered observations are present throughout South Taranaki. There are no confirmed reports of kārearea being killed by wind farms (Wildland Consultants 2019).	High
Parrots (Psittaciformes)				
Kākā/North Island kākā	At Risk - Recovering	Forest	Based on an assessment of observations on eBird in South Taranaki, probably a rare visitor to the region with most observations near Bushy Park Sanctuary.	Low, due to the rarity in the hill country near Waverley. Conspicuous species.
Perching birds (Passeriformes)				
Korimako/bellbird	Not Threatened	Forest (indigenous and plantation) shelter belts, parks and gardens	Occasional records near Waverley, indicate that and the inland hill country behind the wind farm indicating that it may at least be seasonally present. Known to move between preferred habitats seasonally. Unlikely to fly high above forest habitats and be a risk of turbine collision.	High
Tūī	Not Threatened	Forest (indigenous and plantation) shelter belts, parks and gardens	Fly high above canopy during courtship displays and seasonal movements; numerous records within site and surrounding area. Several records in the vicinity of the proposed wind farm in the last five years. Not a threatened species, thus bird strike unlikely to cause population effects.	High
Riroriro/grey warbler	Not Threatened	Forest, scrub, farmland, shelterbelts and gardens	Occur widely in forest and scrub; records within site and surrounding area. Birds probably mostly keep below the turbine risk flight zone.	High
Pīwakawaka/North Island fantail	Not Threatened	Forest, shrubland, scrub, farmland with shelterbelts, gardens and parkland	Likely to be abundant in the proposed wind farm site. Occur widely in forest and shrubland habitats. Good avoidance abilities and a relatively common species.	High
Miromiro/North Island tomtit	Not Threatened	Forest, scrub, shrubland and farmland with shelterbelts.	Likely present with a low abundance at the proposed wind farm site. Utilises indigenous and exotic forest habitats. Unlikely to fly much above the forest canopy into the turbine strike zone.	Moderate
Toutouwai/North Island robin	At Risk - Declining	Forest	Likely present with a low abundance at the proposed wind farm site. Utilises indigenous and exotic forestry habitats; with many records inland of the proposed wind farm site. Unlikely to fly much above the forest canopy into the turbine strike zone.	Low
Warou/welcome swallow	Not Threatened	Wetlands, rivers, open habitat, farmland	Likely abundant at the proposed wind farm site. Utilise pasture and riparian habitats; numerous records within site and surrounding area. Highly manoeuvrable aerial feeder. However, mortality has been reported from overseas wind farms (Kingsley and Whittam 2005).	High

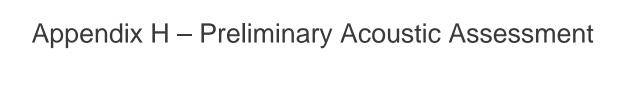
Common Name	Threat Status	Habitat Type(s)	Habitat Usage and Range/Migration	Likelihood of Species Presence at Wind Farm Site
Koroātito/North Island fernbird	At Risk-Declining	Wetlands, shrubland, scrub.	Recorded from McKenzie Wetland (Taranaki Regional Council 2020-2021). Unlikely to fly high enough to be adversely affected by wind turbines. Movements between sites are not well understood.	High
Tauhou/silvereye	Not Threatened	Diverse range of habitats from forest to farmland with shelterbelts, and parks and gardens, and wetlands.	Follow seasonal food resources but migration paths unknown; numerous records within site and surrounding area. Previous bird strike deaths have been recorded for this species. Not a threatened species, thus bird strike unlikely to cause population effects	High
Pīhoihoi/New Zealand pipit	At Risk - Declining	Open habitat	Fly at turbine height during courtship displays and long-distance movements, utilise pasture habitats; Many records in hill country near Palmerston North including the wind farm site. Most records near Waverley are coastal, but this may be due to lack of survey effort.	High

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### **MEMO**



Project:	Kohi Wind Farm	Document No.:	Mm	001 R01	
То:	New Zealand Windfarms Ltd	Date:	pril 2024		
Attention:	Adam Radich	Cross Reference:			
Delivery:	by email	Project No.:	20230955		
From:	Miklin Halstead	No. Pages:	6	Attachments:	No
Subject:	Feasibility Overview				

We have reviewed the design for the Kohi wind farm, proposed to be built near Waverly township. We have modelled revision 2 of the wind farm, involving 69 turbines which we have modelled as Vestas V162 turbines, with un-serrated blades. We note that the proposed layout has since been reduced, deleting the eight turbines which are highlighted in yellow in Figures 1 and in Appendix A. The noise levels have not been changed to reflect these deletions, so our conclusions are conservative in regard to the northeast of the site.

The typical sound power level of these turbines is 107 dBA at full power; we have added 2 dB to this value to represent warrantable sound power levels. Other turbines are available with sound power levels 3 to 5 dB quieter, so this is a conservative, envelope assessment which would allow a relatively broad scope for turbine selection. If acoustic constraints limit development potential, a more restricted range of turbine options could reduce noise levels by 3-5 decibels relative to this assessment.

### **Calculated Sound Levels**

The noise contours relating to this design are shown in Figure 1. Note that the compliance limit for "external properties" is 40 dBA. For involved properties higher noise levels may be acceptable – we would consider that 45 dBA would likely be acceptable for those receiving compensation for turbines on their property; up to 50 dBA could be acceptable in limited circumstances - this would represent a trade-off of normal acoustic amenity in sleeping areas.

We note also that the requirement to carry out significant noise effects assessments occurs inside the 35 dBA noise contour.

In this case the Waverley township is not inside the 35 dBA contour, which avoids significant noise impacts on dense areas of population. A significant number of dwellings are inside the 35 dBA contour which may be "external" to the project. The dwellings amongst the higher noise level contours are likely involved, and as a general comment the feasibility of this project depends on contracting with those owners and occupiers.





Figure 1 – Kohi Rev 2 Noise Contours

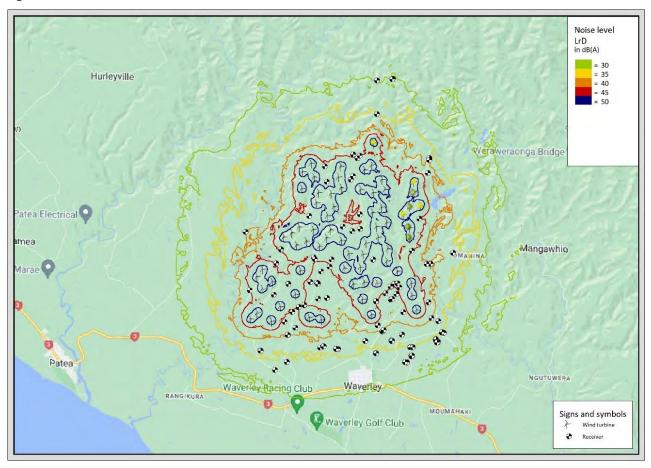




Table 1 classifies the identified dwellings by the degree of contractual involvement that is likely to achieve consent for the Rev 2 design. Failure to engage parties classified as "involvement necessary" could still result in a feasible project, albeit with further reductions to the number of turbines.

The designation "Inv" or "NI" relates to these dwellings' status as involved or not involved as relayed to us originally. The level of involvement required is indicated by colour – dwellings which need not be engaged are black; dwellings which require some engagement are blue; dwellings which would need to be contracted to accept significant noise intrusion are red.

Table 1 – Dwelling Noise Levels

Receiver	Noise Level (dBA)	Receiver	Noise Level (dBA)	Receiver	Noise Level (dBA)	Receiver	Noise Level (dBA)
Inv 1	47	Inv 31	39	Inv 61	35	Inv 91	46
Inv 2	46	Inv 32	45	Inv 62	35	Inv 92	46
Inv 3	46	Inv 33	46	Inv 63	35	NI 1	41
Inv 4	47	Inv 34	45	Inv 64	45	NI 2	41
Inv 5	44	Inv 35	40	Inv 65	43	NI 3	42
Inv 6	46	Inv 36	45	Inv 66	33	NI 4	38
Inv 7	48	Inv 37	37	Inv 67	38	NI 5	38
Inv 8	46	Inv 38	38	Inv 68	40	NI 6	40
Inv 9	48	Inv 39	37	Inv 69	45	NI 7	33
Inv 10	48	Inv 40	38	Inv 70	40	NI 8	37
Inv 11	39	Inv 41	40	Inv 71	33	NI 9	37
Inv 12	45	Inv 42	42	Inv 72	43	NI 10	35
Inv 13	49	Inv 43	45	Inv 73	43	NI 11	35
Inv 14	44	Inv 44	38	Inv 74	33	NI 12	34
Inv 15	47	Inv 45	37	Inv 75	35	NI 13	37
Inv 16	46	Inv 46	45	Inv 76	44	NI 14	37
Inv 17	46	Inv 47	45	Inv 77	32	NI 15	37
Inv 18	45	Inv 48	43	Inv 78	35	NI 16	37
Inv 19	48	Inv 49	44	Inv 79	46	NI 17	37
Inv 20	43	Inv 50	42	Inv 80	34	NI 18	35
Inv 21	45	Inv 51	47	Inv 81	34	NI 19	35
Inv 22	45	Inv 52	33	Inv 82	34	NI 20	34
Inv 23	44	Inv 53	40	Inv 83	34	NI 21	35
Inv 24	43	Inv 54	33	Inv 84	37	NI 22	46
Inv 25	48	Inv 55	33	Inv 85	34	NI 23	32
Inv 26	45	Inv 56	43	Inv 86	35	NI 24	32
Inv 27	47	Inv 57	40	Inv 87	34	NI 25	30
Inv 28	43	Inv 58	43	Inv 88	34	NI 26	32
Inv 29	47	Inv 59	43	Inv 89	34	NI 27	45
Inv 30	43	Inv 60	32	Inv 90	45		

Figures are provided in Appendix A which indicates the location of each identified dwelling. Many dwelling numbers appear to be overlapped, so the total number of dwellings may be less than tabled, or many of these could be sheds or outbuildings.



### **Cumulative Effects**

The adjacent Waipipi wind farm is in operation, and has first rights to the noise limits on any properties that would receive noise from both farms – the responsibility would fall to the newcomer to the environment to limit noise production such that the noise limits are met at each dwelling.

We have not carried out a detailed model which includes both farms, but would recommend this be done as part of an ongoing investigation. A statement that cumulative effects have been considered and addressed in conditions would be expected as part of the effects noise report.

We have made a preliminary consideration of cumulative effects by noting that the noise contours presented in the public effects assessment for Waipipi indicate that the 30 dBA noise contour from that wind farm lies entirely to the south of SH3. To cause the cumulative noise level to exceed the 40 dBA noise limit, the Waipipi 30 dBA contour would need to intersect the Kohi 39 dBA contour, which does not happen at any location. It is remotely possible that some properties may be shifted from outside to inside the 35 dBA contour due to cumulative noise effects, which could slightly add to the burden of consent reporting.

It is also possible that cumulative effects could be raised in submissions as a more subjective matter — possibly relating to hearing a wind farm more often. However our experience at the Waipipi wind farm is that the noise from that farm is largely masked by surf and highway noise — it is unlikely that the effected properties around Kohi will receive significant noise from Waipipi.

### **CONCLUSIONS**

- The proposed Kohi Wind Farm avoids significant noise impacts on dense areas of population, but does have a large number of dwellings inside its noise footprint.
- The ability to consent this project depends heavily on achieving contractual agreements with these land owners and occupiers, as in most cases it would not be possible to comply with the NZS6808 noise limits at these properties.
- It is possible that this dependency can be reduced by restricting the project to quieter turbines committing to serrated blades and possibly limiting the opportunity for competition between turbine suppliers. If a turbine can be chosen with a guaranteed sound power level of 104 dBA, all of the "blue" properties in Table 1 would then be compliant with the noise limits and would not need to be contracted.



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Figure A-1 – North Dwelling Detail

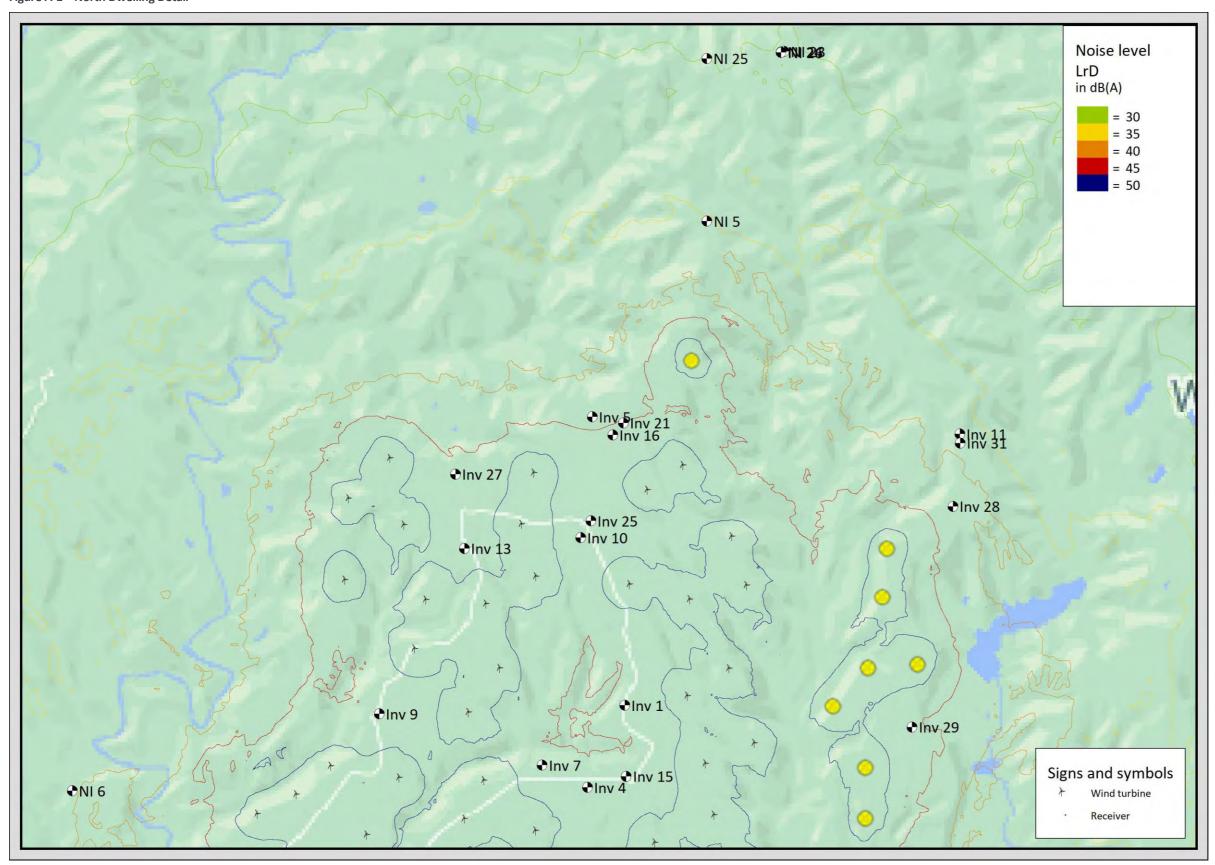
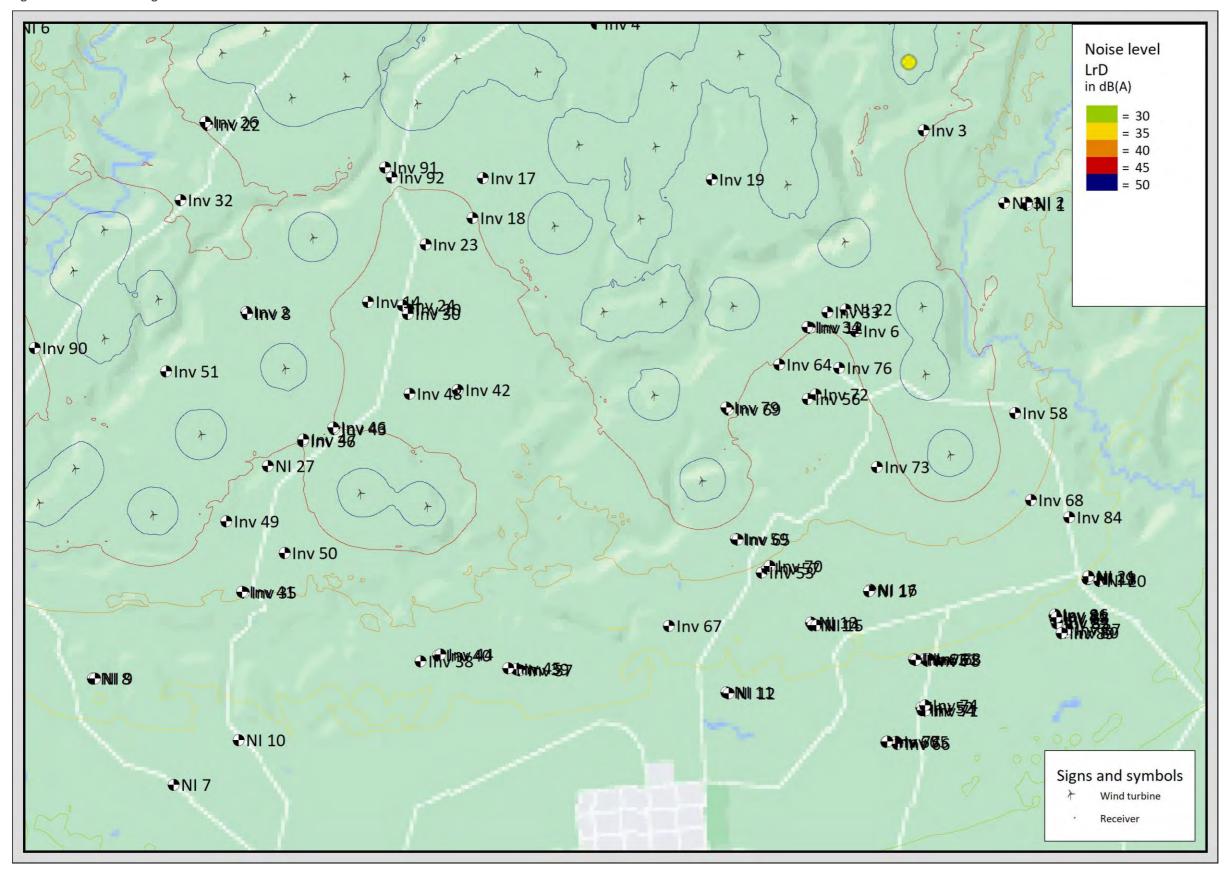






Figure A-2 – South Dwelling Detail



# Appendix I – Detailed NPS & NES Policy Assessment

### NPS on Freshwater Management 2020

The NPS FM came into effect on 3 September 2020 and replaced the NPS for Freshwater Management 2014 (as amended in 2017). The NPS FM provides further national direction for local authorities on how to manage freshwater under the RMA. The NPS FM sets out the objectives and policies for freshwater management, centred around the concept of Te Mana o te Wai.

Te Mana o te Wai is a concept that refers to the fundamental importance of water and recognises that protecting the health of freshwater protects the health and wellbeing of the wider environment. Through providing for Te Mana o te Wai, the NPS FM aims to restore and preserve the balance between water, the wider environment, and the community.

Engagement with relevant local Iwi / Hapū is required to ensure Policy 1 can be met. Early consultation has been summarised in response to Section 3 of this application and further engagement is ongoing with parties that wish to be involved in the Project.

An ecological assessment of wetlands and streams will be undertaken to demonstrate consistency with the direction of the NPS FM, however alignment with the delivery of renewable generation activities is clear at the national level. Provided the Project is designed appropriately, to avoid streams and wetlands where possible, and best practice environmental controls are implemented, it is not anticipated that there would be significant impacts on freshwater quality, or that the NPS FM would create a barrier to consenting the Project.

### **NPS on Renewable Electricity Generation 2011**

The NPS REG was formally gazetted in April 2011. The NPS REG recognises (in the preamble) that New Zealand's energy demand will continue to grow and that there are two major challenges;

"The first is to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of energy. The second is to deliver clean, secure, affordable energy while treating the environment responsibly".

The NPS REG acknowledges that renewable energy generation developments can have effects at many scales, with a risk of adverse local effects but positive national effects, and that the benefits can also compete with matters of national importance (section 6 of the RMA) and matters to which decision makers are to have particular regard (section 7 of the RMA).

Natural resources from which renewable electricity is generated may coincide with areas or features with significant natural or cultural values, and there may also be effects on the relationship of lwi and Hapū with taonga and on their role as kaitiaki. The NPS REG seeks to provide consistency in addressing competing values associated with renewable electricity development and provide greater certainty to anyone involved in the consenting process for renewable electricity proposals.

The primary Objective of the NPS REG is;

"to recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation."

A formal review of the NPS REG is underway with consultation on the proposed changes now closed. An updated NPS REG is impending release. Amendments proposed include stronger and more directive policy in relation to the important role of renewable electricity generation activities in achieving emission reduction targets and mitigation of climate change. In addition, the proposed NPS REG seeks to provide further direction on amenity effects, including allowing activities where there are potential adverse effects on local amenity values, so long as effects are avoided, remedied, or mitigated to the extent practicable. Of relevance to the

Project Site, the proposed NPS REG introduces new policy direction, recognising and providing for Māori interests, including early, meaningful engagement and supporting tangata whenua aspirations.

While the updated NPS REG is not formally in place, this provides an understanding of the future national direction proposed and the additional support likely to be afforded renewable energy development in the near future. In particular, the new NPS-REG is expected to include more enabling rules for large scale wind farms (which would override potentially more restrictive local plan rules).

The current NPS REG seeks to enable the sustainable management of renewable electricity generation under the RMA and to provide for the development and operation of new and existing renewable electricity generation activities in order to meet the Government's national target for renewable electricity generation.

Overall, it is considered that the Project will be consistent with both the current and updated NPS REG. Further assessment against specific provisions will be provided in the resource consent application.

## **NPS on Electricity Transmission 2008**

The NPS ET came into force on 10 April 2008. The NPS ET was developed to acknowledge the national significance of the National Grid and guide the balanced consideration of the national benefits and the local effects of electricity transmission.

The objective of the NPS ET is:

"To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- 1. Managing the adverse environmental effects of the network; and
- 2. Managing the adverse effects of other activities on the network.

Transpower's assets are afforded recognition by the NPS ET which effectively permits the growth and upgrade of the National Grid network subject to limited considerations or controls. It is acknowledged that further consultation and engagement needs to be undertaken with Transpower to ensure that the Project is undertaken in a manner that does not impact Transpower assets, and a connection application process has already been commenced by NZ Windfarms.

Similar to the NPS REG, the NPS ET is currently undergoing review, with consultation closing on 1 June 2023. Of relevance to the Proposal, the proposed NPS ET seeks to broaden the scope of the NPS to apply to all high voltage electricity networks, not just Transpower assets, which may include consideration for new private grid connection assets where these are primarily funded and constructed at the developer level.

Overall, it is considered that the Project, subject to further engagement with Transpower, will be consistent with the policy direction of the NPS ET.

### **NPS for Highly Productive Land 2022**

The NPS HPL came into effect on 17 October 2022. The NPS HPL provides guidance to improve the way highly productive land is managed. The NPS HPL has been developed to ensure the availability of NZ's most favourable soils for food and fibre production, now and for future generations.

Highly Productive Land is considered to be land that;

- Is in a general rural zone or rural productive zone; and
- Is predominately LUC 1, 2 or 3 land; and
- Forms a large and geographically cohesive area.

The majority of the Project Site varies between land use classes LUC1, LUC2 and LUC3 under the broad NZLRI mapping scale which falls into the highly productive land category for the purpose of the NPS HPL.

Any wind farm activities that do take place on this highly productive land will have a limited footprint, are expected to rehabilitate temporarily disturbed surfaces following construction, and will generally allow productive land uses to continue.

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Further, the NPS-HPL provides that where there is a functional need to be on such land, and it is for the expansion of specified infrastructure (the wind farm would likely fall within this definition for the reasons noted above), the land use would not be considered inappropriate.

Recent legal opinions provided to Expert Consenting Panel's under the Covid-19 Recovery (Fast-track Consenting) Act 2020 have expressed the view that while 'construction' is not expressly stated as falling within the specified infrastructure exclusions to HPL occupation, the ambit of the wording is broad enough to include these activities and accordingly such activities are supported by the NPS HPL.

Publications by the Ministry for the Environment late-2023 confirm the NPS HPL is under review to specifically include this wording (industry-level consultation has closed) and the changes will be sent to Cabinet mid-2024. No further amendments have been released at this stage however based on the Cabinet timeframes it is expected that these amendments will be posted before or at the same time as the Select Committee recommendations on the Fast-track Approvals Bill.

For the above reasons, and considering the national importance given to renewable electricity activities under other national policies, it is not expected the NPS HPL would create a barrier to consenting the Project.

### NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2011

The NES CS came into effect on 1 January 2012. The NES CS provides a set of nationally consistent planning controls and soil contaminant values and ensures that land affected by contaminants in soil is appropriately identified, assessed and if necessary remediated, before it is developed. The NES CS applies to any piece of land on which an activity or industry described in the current HAIL schedule is being undertaken, has been undertaken, or is more likely than not to have been undertaken.

As discussed above, it is anticipated based on a desktop review and background understanding of existing land uses, one or more of the following activities is being, or is more than likely to have been undertaken:

- A17: Storage tanks or drums for fuel, chemicals, or liquid waste associated with above-ground fuel storage tanks.
- E1: Asbestos products manufacture or disposal including sites with buildings containing asbestos
  products known to be in a deteriorated condition, primarily associated with degraded potential
  asbestos containing material on old cowshed and calf rearing buildings;
- G3: Landfill sites associated with farm dumps, potential uncontrolled fill; and
- I: Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment, associated with degradation of lead paint and zinc roof coatings on any current and former buildings, tyre stockpiles (associated with sileage), burn piles, cadmium accumulation from repeated applications of superphosphate and potential intensive agriculture (rowed pasture).

A Detailed Site Investigation will be progressed to confirm there are no prior or current land uses identified through historical aerial photography that may bring the NES CS into play, to identify (through intrusive testing) whether contaminant hotspots exist at certain historic use locations, and to otherwise confirm whether accidental discovery and remediation protocols employed at hot spot locations will be a suitable solution (to be subject to consent conditions).

### **NES for Freshwater 2020**

The NES FW came into effect on 3 September 2020 and contains, amongst other matters, a series of regulations to manage the potential effects of new culverts on the passage of fish as well as earthworks and vegetation clearance within or adjacent to natural wetlands.

The NES FW aims to ensure that the relevant regional council, in this instance Taranaki Regional Council, obtains any relevant information on the design and performance of new structures in relation to the passage of fish, or regulates this through consenting these activities.

The placement of culverts is restricted by standards contained in Regulation 70. It is likely consent will be required for any installation of culverts (potentially required for the upgrading of the site access), particularly

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at localised wetland crossings and ephemeral streams that act as tributaries to the Whenuakura River and Kohi Stream. Further assessment will be required once detailed design has been undertaken and a detailed ecological assessment for the Project Site has been completed.

A 'natural wetland' is a subset of the 'wetland' definition in the NPS FM and excludes most artificial wetlands, all geothermal wetlands and some areas of improved pasture. Activities involving the disturbance of natural wetlands or removal within, or within 100m of these sites ordinarily require resource consent as a Non-Complying Activity, with the exception of specified infrastructure which is afforded a Discretionary pathway under the NES regulations. For this reason, it is important to identify and avoid impacts on any wetlands on the Site. Wetlands can only be properly identified on site by an ecologist. If an ecologist determines the presence of natural wetlands within the Site, and works are proposed within or within a 100m vicinity of these areas, consideration of NES FW regulations will be required.

It is considered that the Proposal will meet the definition of specified infrastructure<sup>3</sup>, qualifying under (a) lifeline utility and/or (b) regionally significant infrastructure. Under such circumstances, resource consent can be sought for a range of soil and vegetation disturbance works, drainage and water take and use within or adjacent to a natural inland wetland under the Discretionary pathway available in the NES FW.



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