

Regulatory Committee Public Agenda - 22 May 2023

Council Chambers
Waipā District Council
101 Bank Street
Te Awamutu



Chairperson
ML Gower

Members
LE Brown, RDB Gordon, CS St Pierre, EM Stolwyk

22 May 2023 10:00 AM

Agenda Topic	Presenter	Time	Page
1. Apologies	Chairperson	10:00 AM-10:01 AM	2
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6. Quarterly Report 1 March 2023 to 8 May 2023	Quentin Budd	10:05 AM-10:15 AM	11
7. Civil Defence Emergency Management Quarterly Report for 1 March to 8 May 2023	David Simes	10:15 AM-10:25 AM	17
8. Request to determine number of Environmental Benefit Lot Entitlements for 333 Roto O Rangi Road	Hayley Thomas	10:25 AM-10:35 AM	33
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APOLOGIES



DISCLOSURE OF MEMBERS' INTERESTS

Members are reminded to declare and stand aside from decision making when a conflict arises between their role as an elected member and any private or other external interest they may have.



LATE ITEMS

Items not on the agenda for the meeting require a resolution under section 46A of the Local Government Official Information and Meetings Act 1987 stating the reasons why the item was not on the agenda and why it cannot be dealt with at a subsequent meeting on the basis of a full agenda item. It is important to note that late items can only be dealt with when special circumstances exist and not as a means of avoiding or frustrating the requirements in the Act relating to notice, agendas, agenda format and content.



CONFIRMATION OF ORDER OF MEETING

Recommendation

That the order of the meeting be confirmed.



To: The Chairperson and Members of the Regulatory Committee
From: Governance
Subject: **CONFIRMATION OF MINUTES**
Meeting Date: 22 May 2023

1 EXECUTIVE SUMMARY – WHAKARĀPOPOTOTANGA MATUA

The local authority, its committees, subcommittees and any local and community boards must keep minutes of their proceedings. These minutes must be kept in hard or electronic copy, authorised by a Chairperson’s manual or electronic signature once confirmed by resolution at a subsequent meeting. Once authorised the minutes are the prima facie evidence of the proceedings they relate to.

The only topic that may be discussed at a subsequent meeting, with respect to the minutes, is their correctness.

2 RECOMMENDATION – TŪTOHU Ā-KAIMAHI

That the open minutes of the Regulatory Committee meeting held on 22 March 2023, having been circulated, be taken as read and confirmed as a true and correct record of that meeting.

3 ATTACHMENTS - ĀPITITANGA

Regulatory Committee Open Minutes – 22 March 2023.

COMMITTEE MINUTES



Committee: Regulatory Committee
Time: 10.00am
Date: Wednesday 22 March 2023
Venue: Council Chambers
101 Bank Street
Te Awamutu

PRESENT

Chairperson
M Gower

Members
LE Brown, RDB Gordon, CS St Pierre, EM Stolwyk

1 APOLOGIES

There were no apologies.

2 DISCLOSURE OF MEMBERS' INTERESTS

Nil

3 LATE ITEMS

Nil

4 CONFIRMATION OF ORDER OF MEETING

RESOLVED

4/23/01

That the order of the meeting be confirmed.

Councillor Stolwyk / Councillor St Pierre

COMMITTEE MINUTES



5 CONFIRMATION OF MINUTES

RESOLVED

4/23/02

That the open minutes of the Regulatory Committee meeting held on 12 December 2022, having been circulated, be taken as read and confirmed as a true and correct record of that meeting.

Councillor St Pierre / Councillor Gordon

6 QUARTERLY REPORT TO 1 DEC 2022 TO 28 FEB 2023

The purpose of this report was to provide the Committee with an update on activities related to the Committee's purpose of managing the regulatory aspects of Council's business.

Consents Team Leader, Quentin Budd advised the Committee that there was a minor error in the cover report which stated no hearings had been required under the Resource Management Act, this was incorrect. There was a hearing held on 22nd February 2023 in relation to artificial shelters for a Kiwi Fruit Orchard.

No hearings were required under the:

- Reserves Act 1977
- Fencing of Swimming Pools Act 1987
- Building Act 2004
- Part II of the Health Act 1956
- Impounding Act 1955
- Land Drainage Act 1908
- Litter Act 1979

RESOLVED

4/23/03

That the Regulatory Committee receive the report of Quentin Budd, Consents Team Leader titled Quarterly Report 1 Dec 2022 to 28 Feb 2023 [ECM 10974974];

Councillor St Pierre / Councillor L Brown

COMMITTEE MINUTES



7 CIVIL DEFENCE EMERGENCY MANAGEMENT REPORT FOR 1 OCTOBER 2022 TO 28 FEBRUARY 2023

The purpose of this report was to provide the Committee with an update on matters relating to Civil Defence Emergency Management (Civil Defence Emergency Management) in the Waipā District. This included matters arising at national, regional and district levels including emergency management activities under the shared service arrangement between Waipā, Ōtorohanga and Waitomo District Councils.

This report was provided for information purposes and did not require any decision-making on the part of Elected Members.

RESOLVED

4/23/04

That the Regulatory Committee receives the report of David Simes, Emergency Management Operations Manager titled Civil Defence Emergency Management Report for 1 October 2022 to 28 February 2023 (ECM 10976271).

Councillor Gordon / Councillor L Brown

8 RESOLUTION TO EXCLUDE THE PUBLIC

RESOLVED

4/23/05

THAT the public be excluded from the following parts of the proceedings of this meeting.

The general subject of the matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
9. Confirmation of Public Excluded Minutes – 12 December 2022	Good reason to withhold exists under section 7 Local Government Official Information and Meetings Act 1987	Section 48(1)(a)

COMMITTEE MINUTES



*10. Objection to
Notice of
Disqualification
from dog
ownership*

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act, or Sections 6, 7 or 9 of the Official Information Act 1982, as the case may be, which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, are as follows:

Item No.	Section	Interest
9,10	Section 7(2)(a)	To protect the privacy of natural persons, including that of deceased natural persons.

Councillor Stolwyk / Councillor St
Pierre

The meeting went into Public Exclusion at 10.20am

There being no further business the meeting closed at 10.38am

CONFIRMED AS A TRUE AND CORRECT RECORD

CHAIRPERSON:

.....

DATE:

.....

COMMITTEE REPORT



INFORMATION ONLY

To: The Chairperson and Members of the Regulatory Committee
From: Quentin Budd, Consents Team Leader
Subject: **Quarterly Report 1 March 2023 to 8 May 2023**
Meeting Date: Monday, 22 May 2023

1 EXECUTIVE SUMMARY – WHAKARĀPOPOTOTANGA MATUA

The purpose of this report is to provide the Committee with an update on activities related to the Committee's purpose of managing the regulatory aspects of Council's business.

No hearings were required under the:

- Resource Management Act 1991
- Reserves Act 1977
- Fencing of Swimming Pools Act 1987
- Building Act 2004
- Part II of the Health Act 1956
- Impounding Act 1955
- Land Drainage Act 1908
- Litter Act 1979

The following appendix accompany this report:

- Appendix 1 – Major consents list

2 RECOMMENDATION – TŪTOHU Ā-KAIMAHI

That the Regulatory Committee receive the report of Quentin Budd, Consents Team Leader titled Quarterly Report 1 March 2023 to 8 May 2023 [ECM 11009681];

3 COMMENTARY - KŌRERO

RESOURCE CONSENT DECISIONS BY HEARING COMMISSIONER

No decisions on applications have been made by Hearing Panels.

RESOURCE CONSENT DECISIONS BY INDEPENDENT COMMISSIONERS

A decision to non-notify a resource consent application relating to the construction of artificial shelters for a kiwifruit orchard at 383 Parallel Road was made by independent commissioner Rob van Voorthuysen on 27 April 2023. The application is an updated replacement application following the Judicial Review proceedings filed in relation to another granted consent relating to establishing artificial structures for the kiwifruit orchard on the property. The Judicial Review proceedings are scheduled for a date in the High Court on 31 May 2023.

No other decisions on applications have been made by Independent Commissioners.

ENVIRONMENT COURT APPEALS UPDATE

A notice of appeal against the decisions to grant the two limited notified resource consent applications for artificial structures for kiwifruit orchard at 582 Parallel Road was filed with the Environment Court by the submitters N & V Jennings on 28 March 2023. No mediation or court dates have been set.

RESOURCE CONSENTS

A total of 70 landuse and subdivision applications were processed during this period (1 March – 8 May). All consents have been processed within statutory timeframe.

NATIONAL DIRECTIONS RELATING TO CONSENT PROCESSES

There are no current updates.

HEARING COMMISSIONER POOL

There are no current updates.

DOG CONTROL HEARINGS

There was dog control hearings for an objection to a disqualification from dog ownership at the Regulatory Committee meeting on 22 March 2022. The committee terminated the disqualification, meaning the dog owner is able to keep the dogs without restrictions.

4 APPENDIX - ĀPITITANGA

No:	Appendix Title
1	Major Resource Consents List



Prepared by: Quentin Budd
CONSENTS TEAM LEADER



Reviewed by: Tony Quickfall
MANAGER DISTRICT PLAN & GROWTH



Approved by: Wayne Allan
GROUP MANAGER DISTRICT GROWTH & REGULATORY SERVICES

APPENDIX 1

CURRENT MAJOR RESOURCE CONSENT APPLICATIONS IN PROCESS *Updated 1 May 2023*

LODGED & IN PROGRESS (public information)					
No.	Applicant / Agent	Address	Proposal	Status/Key points	Planning / Engineering Contacts
LU/0020/22	Rukuhia Land Company Limited Mitchell Daysh	3558 Ohaupo Road RD 2 Ohaupo 3882	Proposal to operate a sand Quarry in the Rural Zone	Processing - yet to make a notification determination	Victoria Gorter
LU/0100/22	Beacon Hill Contracting Mitchell Daysh	599 Oreipunga Road	Unlawfully operating sand Quarry in the Rural Zone	On-hold – Request for further information issued	Louise Cowan – 4Sight
LU/0147/22	Kiwifruit Investments Ltd Barker Associates	582 Parallel Road RD 3 Cambridge	Retrospective land use consent to construct vertical and horizontal (overhead) artificial kiwifruit shelter	Environment Court Appeal –No mediation or hearing date set	Quentin Budd
LU/0252/22	Kiwifruit Investments Ltd Barker Associates	582 Parallel Road RD 3 Cambridge	Land Use consent to establish Cryptomeria shelterbelts	Environment Court Appeal –No mediation or hearing date set	Quentin Budd
LU/0259/22	GDP Orchards Limited Barker & Associates	383 Parallel Road RD 3 Cambridge	Construct vertical and horizontal (overhead) artificial shelter and Cryptomeria shelterbelts breaching setbacks and site coverage requirements in the Rural Zone	Processing – Non-notified decision made by Independent Commissioner.	Christina Walker – 4Sight
LU/0323/21	Global Contracting Solutions Limited	401 Racecourse Road Te Awamutu 3800	Construct and operate plant to generate power through combustion of refuse derived fuel	On-hold - Decision made that public notification is required. A date for notification has not been set.	Todd Whittaker – Planning Works Ltd
LU/0239/19	Taotaoroa Quarry	Buckland Road (MMP DC)/ Taotaoroa Road (WDC)	Extension of pit area and overburden area to expand quarry for 35 years	On Hold at Applicant Request S37 Issued	Hayley Thomas

LODGED & IN PROGRESS (public information)					
No.	Applicant / Agent	Address	Proposal	Status/Key points	Planning / Engineering Contacts
				Concurrent application Waikato Regional Council and Matamata-Piako DC	
SP/0155/22 & LU/0249/22	Saddleback Planning Ltd	33 Abergeldie Way Cambridge 3493	Subdivide one lot into 87 residential lots, 2 access lots and a road to vest undertaken as two stages and a concurrent landuse consent (LU/0249/22) to undertake bulk earthworks and compact housing (24 dwellings) dispensing with multiple Residential Zone performance standards	On Hold - Section 92 further information request sent	Hayley Thomas
SP/0153/22 & LU/0247/22	Barker & Associates	26 Sheehan Street Kihikihi Te Awamutu 3800	Subdivide one lot into 12 undertaken in three stages and a concurrent landuse consent (LU/0247/22) for infill housing and to dispense with multiple Residential Zone performance standards	On Hold at Applicant Request	Victoria Gorter
SP/0165/22 & LU/0275/22	JPW Consulting Ltd	1 Taylor Street Cambridge 3434	Subdivide one lot into 34 residential lots, road to vest and utility lot and concurrent landuse (LU/0275/22) for compact housing development	On Hold - Section 92 further information request sent	Hayley Thomas
LU/0023/23	Ingham Motor Group BCD Group	26 Lake Street, Cambridge	Establish a car dealership, showroom and workshop within the Cambridge B Character Precinct Area dispensing with various Commercial Zone and	In process - yet to make a notification determination	Chris Dawson - Bloxam Burnett & Olliver

LODGED & IN PROGRESS (public information)					
No.	Applicant / Agent	Address	Proposal	Status/Key points	Planning / Engineering Contacts
			Transportation performance standards		
LU/0030/23	Arvida Group Ltd Bloxham Burnett & Olliver	151 Maungatautari Road, Cambridge	Establish and operate retirement village consisting of 130 standalone villas and 20 serviced apartments in the Rural Zone	In process - yet to make a notification determination	Hayley Thomas
LU/0052/23	Ngāti Koroki-Kahukura Trust Sigma Consultants Ltd	Westlea Road, Maungatautari.	Proposed Papakāinga development	In process - yet to make a notification determination	Hayley Thomas

COMMITTEE REPORT



INFORMATION ONLY

To: The Chairperson and Members of the Regulatory Committee
From: Emergency Management Operations Manager
Subject: **Civil Defence Emergency Management Report for 1 March to 8 May 2023**
Meeting Date: 22 May 2023

1 EXECUTIVE SUMMARY – WHAKARĀPOPOTOTANGA MATUA

The purpose of this report is to provide the Committee with an update on matters relating to Civil Defence Emergency Management (Civil Defence Emergency Management) in the Waipā District. This includes matters arising at national, regional and district levels including emergency management activities under the shared service arrangement between Waipā, Ōtorohanga and Waitomo District Councils.

This report is provided for information purposes and does not require any decision-making on the part of Elected Members.

2 RECOMMENDATION – TŪTOHU Ā-KAIMAHI

That the Regulatory Committee receives the report of David Simes, Emergency Management Operations Manager titled Civil Defence Emergency Management Report for 1 March to 8 May 2023 (ECM 11008901).

3 COMMENTARY - KŌRERO

3.1 NATIONAL OVERVIEW

CYCLONE GABRIELLE RECOVERY

National Cyclone Recovery Unit

Cyclone Recovery Unit is working alongside the Cyclone Recovery Taskforce and other Government agencies to support the worst affected regions to recover from the impacts of the North Island floods and Cyclone Gabrielle.

Update from the National Task Force

Work continues with councils and insurance companies to confirm confidence levels around the risk status of areas. This is important for decision makers to have confidence in the information as a foundation for community discussions on options to address risks.

The journey ahead remains a team effort. Local and regional councils together with central government, will work closely with communities to ensure their needs and priorities are reflected in the region's recovery planning.

Different councils are at different stages, but all involved recognise the need to provide certainty as soon as possible – even if that certainty is clarity around what next steps look like. We acknowledge the uncertainty and the impact that this has on people, and also the need to ensure that decisions are carefully thought through, supported by evidence, and informed by community engagement.

As well as locally impacted communities in the Hawke's Bay and Auckland, the Taskforce is engaging with the banking sector, insurance sector, and infrastructure in order to ensure local, iwi, and business voices have input into decision making, and to align the economic and infrastructure recovery efforts.

NEW THIS WEEK (8 MAY 2023)

Nationwide Emergency Mobile Alert System Test

The National Emergency Management Agency have advised that there will be a nationwide test of the Emergency Mobile Alert System is taking place on the evening of Sunday 28 May 2023, between 6-7pm. National Emergency Management Agency's Deputy Chief Executive, John Price, advised the Civil Defence Emergency Management Group Controllers around the country of the test.

The test will be followed by the Annual Disaster Preparedness Survey which will contain questions about receiving an emergency mobile alert.

The National Emergency Management Agency will run a nationwide awareness campaign for two weeks in the lead up to the test. The campaign will ensure people in our community understand why they are receiving the message and to increase understanding of how the system is used as a life-saving tool in an emergency.

Civil Defence Emergency Management Professionals and Communications teams, have been asked to engage with stakeholders to ensure people in our communities are aware of the test and can avoid getting an unnecessary fright during the test. The National Emergency Management Agency will be providing key messages and campaign material for use on our channels, internal intranet, newsletters, website, email, social media etc.

You can find more information about the Emergency Mobile Alert system at <https://getready.govt.nz/emergency-mobile-alert/>.

Support for silt and debris removal in Hawke's Bay and Tairāwhiti

This week it was announced that \$102 million has been allocated to help councils process and dispose of all the debris coming from residential properties, and to deal with sediment on council-land to make it available to the public again.

There is also \$70 million for commercial properties (including farmers and growers) to help clean up their land and return to profit, and there is funding for debris and sediment removal from whenua Māori

This latest funding will help councils manage the cost of the post cyclone clean-up. This includes collection, processing, removal, and disposal of sediment and debris, it's estimated there's 700,000 cubic metres of sediment needs to be cleared.

Based on official advice, within the funding for councils and commercial properties, \$133.2 million has been allocated for Hawke's Bay and \$38.8 million for Tairāwhiti.

Support for Māori

Te Puni Kōkiri is distributing \$9m of the \$15m allocated to support Māori recover from Cyclone Gabrielle through the **Cyclone Gabrielle Māori Communities Response Fund** providing:

- Capacity support such as relief staffing, clean-up expenses, generators and communication equipment.
- Recovery planning and co-ordination funds.
- Marae infrastructure and support funds such as securing temporary storage for taonga and food.

At the end of April 2023, \$7.84m has been committed, is being processed or is under discussion across affected regions of Ikaroā-Rāwhiti – Takitimu, Ikaroā-Rāwhiti – Tairāwhiti, Te Tai Tokerau, Tāmaki-Makarau and Waikato-Waiariki.

Te Puni Kōkiri kaimahi are also helping whānau identify and connect into other recovery focused government funds. The Ministry has an important role in times like these, to support other agencies to understand and reflect the needs of whānau Māori in their recovery approaches.

RECENT ANNOUNCEMENTS

Property categorisation

The Cyclone Recovery Minister has outlined the three categorisations of property in areas affected by the severe weather events earlier this year.

Three categories have been settled on under which the future of flood and landslide affected properties will be assessed.

Communities will be consulted before any final decisions are made about which category properties are placed into, those discussions will begin as soon as assessments are completed, and quality assurance is done.

Initial risk categories and definitions:

Category	Definitions	Examples
1	Repair to previous state is all that is required to manage future severe weather event risk.	Minor flood damage to repair but no need for significant redesign/retrofitting.
2C	Community level interventions are effective in managing future severe weather event risk.	Local government repairs and enhances flood protection schemes to adequately manage the risk of future flooding events in the face of climate change effects.
2P	Property level interventions are needed to manage future severe weather event risk, including in tandem with community level interventions.	Property specific measures are necessary e.g., improved drainage, raising houses is necessary. Benefits accrue to property owners but some may face affordability issues.
2A	Potential to fall within 2C/2P but significant further assessment required.	Interventions may be required / possible but insufficient information to provide initial categorisation (these may subsequently move between "2" categories or to categories 1 / 3).
3	Future severe weather event risk cannot be sufficiently mitigated. In some cases, some current land uses may remain acceptable, while for others there is an intolerable risk of injury or death.	In the face of enhanced climate risk, the property may face unacceptable risk of future flooding. Other property could be subject to unstable land that poses an ongoing risk.

AVAILABLE SUPPORT

Communities

A comprehensive list of social support is still available for those who are affected by the impacts of extreme weather and Cyclone Gabrielle.

The Temporary Accommodation Service is scaling up their operation to support those who have been displaced. Find out more at www.mbie.govt.nz.

The Ministry of Business, Innovation and Employment has launched the New Zealand Claims Resolution Service to advise and support homeowners to resolve residential insurance issues. This can include legal, engineering and wellbeing support. More details at www.nzcrs.govt.nz.

Business

In April Government announced it will provide an additional \$25 million, in addition to the initial \$50 million, to help more businesses in the clean-up from the damage caused by Cyclone Gabrielle affected regions and get them back on their feet—this has been split four ways between Northland (\$2.5 million), Waikato (\$4.5 million), Tairāwhiti (\$5.4 million) and Hawke’s Bay (\$12.6 million).

More than 3500 small businesses have been approved for grants to support their recovery. Businesses can apply for a grant of up to \$40,000 to help them keep operating, maintain cashflow and position them for a successful recovery.

Government support to date

- An initial \$250 million for Waka Kotahi and local councils to assess and fix roads.
- \$74 million for affected farmers and growers to clean up and re-establish their businesses.
- \$75 million for businesses with immediate costs and clean-up – to be distributed by local delivery partners in the affected regions.
- \$5 million to Mayoral Relief Funds.
- More than \$65.8 million in Civil Defence Payments.
- Inquiry announced into forestry slash and land use after Cyclone Gabrielle.
- A new Recovery Visa created to help bring in additional specialist workers.
- Temporary Accommodation Service activated in affected regions.
- Cyclone Gabrielle Appeal Fund Launched along with a special Lotto Draw on Saturday 18 March.
- \$15 million short-term relief package to support Māori communities.
- A further \$17.5 million to support communities and community providers.
- \$3.25 million to support the immediate mental wellbeing needs of people impacted by Cyclone Gabrielle.
- \$15 million for councils to remove rubbish.

3.2 REGIONAL OVERVIEW

WAIKATO CIVIL DEFENCE EMERGENCY MANAGEMENT GROUP JOINT COMMITTEE

The latest meeting of the Joint Committee was held 27 March 2023. The unconfirmed minutes are included as Appendix 1.

3.3 WESTERN WAIKATO SHARED SERVICE

Council staff from Waipā and Waitomo attended a Lifelines Infrastructure workshop on 7 March 2023 to identify and provide input and feedback to the New Zealand Transport Agency Consultant on priority roads within the Region. This work is being undertaken as part of the Regional Risks identification that will fall into the new Group Plan.

Staff attended a Infrastructure workshop on 28 March 2023 which confirmed the earlier workshop for Critical routes within the Region.

Council staff from Waipā, Ōtorohanga and Waitomo attended a Regional Hazards workshop at the Group Office in Hamilton on Friday 28th April 2023. Information and data established at this workshop contributes to the Group Plan which is currently under review.

3.4 REDUCTION

The Western Waikato Council's partnership with Waikato District Council and TOA Consulting, Jim Tetlow and Natasha Blundell, to provide Response and Resilience Plans for the four Districts is progressing well. Regular meetings have been held and good progress has been made with the writing of the initial stages of the plan. The next phase will be to have workshops with key stakeholders and these will be scheduled in the near future.

3.5 READINESS

ONGOING DEVELOPMENT WITH WAIPĀ, ŌTOROHANGA AND WAITOMO COUNCIL / CIVIL DEFENCE EMERGENCY MANAGEMENT STAFF

Training in this reporting period, 9 staff were trained in Foundation, 5 in Intermediate, 1 in Public Information Management, 4 in Incident Management Team and 4 in Lifelines Utilities Training including two from The Lines Company.

Three staff have enrolled in the Controller, Recovery Manager and Response Manager process and course which is a series of 7 online modules and assessment along with a 5 day residential course. Two people have just completed the 5-day residential course and are still to do the assessment and will then be qualified.

Local Welfare Manager's also attended the Group Welfare Manager's meeting and the Waikato Welfare Co-ordinating Group meeting where the focus was on Cyclone Gabrielle and the use of Here2HelpU for the needs assessment process.

COMMUNITY ENGAGEMENT

Updating of existing Community Response Plans continues along with new plans being prepared with the Waitomo Village and Arohena Village.

Initial work has commenced with Iwi Māori regarding Marae Preparedness as part of the Welfare Civil Defence Emergency Management-Māori framework.

The Cambridge St John's Cadets invited staff to participate in addressing the Cadets for their Civil Defence Badge. There were 18 cadets ranging in age from 8 – 17 and participated in hazards identification, Get Ready Get Through preparation, What's the Plan Stan family planning and "What would you do" exercises.

3.6 RESPONSE

ALERTS & WARNINGS

National and Regional Alerts were received as below which required advisory action in and initial attendance at accordance with the appropriate response protocols. Regional Council hazard/flood response plans were met, and Flood Room meetings were attended. No further action was required:

Date	Event
9 th May 2023	National alert NEMA NCC activated. Severe weather heavy rain event Nth Island. Potential Tornado's lower Waitomo.
4 th May 2023	Severe Weather Watch (Yellow): Heavy Rain, Waitomo, Ōtorohanga, Waipā.
18 April 2023	Heavy Rain watch and severe Gales (Yellow) Waitomo.
20 to 24 November 2022	Severe weather – heavy rain (yellow watch) and thunderstorms across Waipā, Waitomo and Ōtorohanga.

3.7 RECOVERY

Recovery work continued through this period in Waipa (Wind damage – Cyclone Gabrielle), Otorohanga and Kawhia (Flood damage – Cyclone Gabrielle) and Land subsidence (Auckland Anniversary weekend State of Emergency - severe weather and rain event).

Full summary of National Recovery Actions as per '3.1' above.

4 APPENDIX - ĀPITITANGA

No:	Appendix Title
1	Waikato Civil Defence Emergency Management Group Joint Committee unconfirmed minutes from 27 March 2023.

Prepared by:



David Simes

EMERGENCY MANAGEMENT OPERATIONS MANAGER



Approved by Wayne Allan

GROUP MANAGER DISTRICT GROWTH AND REGULATORY SERVICES

APPENDIX 1

Waikato Civil Defence Emergency Management Group Joint Committee unconfirmed minutes from 27 March 2023 (*document number 11010713*).



Waikato Civil Defence and Emergency Management Group Joint Committee OPEN MINUTES

Date: Monday 27 March 2023, 10.00am

Location: Council Chambers
Level 1, 160 Ward Street, Hamilton

Members Present: Cr Anna Park - Taupō District Council - Chair
Cr Lou Brown - Waipā District Council - Deputy Chair
Cr Emma Pike - Hamilton City Council
Cr Phillip Buckthought - Hauraki District Council
Cr Russell Smith - Matamata-Piako District Council
Deputy Mayor Allan Goddard - Waitomo District Council
Cr Thomas Lee - South Waikato District Council (virtually via Teams)
Cr Mich'eal Downard - Waikato Regional Council
Cr Kandi Ngataki - Waikato District Council
Cr Kit Jefferies - Ōtorohanga District Council (from 10.20am)
Cr John Grant - Thames-Coromandel District Council

Staff Present: Neville Williams – Director - Customer, Community and Services
Julian Snowball – Group Manager/Controller
Irving Young - Team Leader – Resilience and Recovery
Mark Bang – Team Leader – Partnerships
Jess Hood - Democracy Advisor
William Wilkinson - Democracy Advisor

The contents of these minutes meet all legal requirements and include a full set of decisions. An audio-visual recording of the meeting is available on Waikato Regional Council's public website.

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

1. Karakia Timatanga

Item commenced in open recording, at 15 seconds.

Cr Anna Park opened the meeting with a karakia.

2. Apologies

Item commenced in open recording, at 49 seconds.

WCDEM23/01

Moved by: Cr Phillip Buckthought

Seconded by: Cr Kandi Ngataki

Resolved (Section A under delegated authority)

That the apologies of Deputy Mayor Annette Williams, Mayor Jacqui Church and Cr Tipa Mahuta for absence be accepted.

carried

3. Introduction of the Coordinating Executive Group (CEG) - Chair appointment

Item commenced in open recording, at 1 minute 9 seconds.

This item will be tabled at the next meeting due to apologies being received from the Coordinating Executive Group Chair (Susan Law).

4. Confirmation of Agenda

Item commenced in open recording, at 1 minute 39 seconds.

WCDEM23/02

Moved by: Cr Lou Brown

Seconded by: Cr Emma Pike

Resolved (Section A under delegated authority)

That the agenda of the Waikato Civil Defence Emergency Management Joint Committee of 27 March 2023, as circulated be confirmed as the business for the meeting.

carried

5. Disclosures of Interest

Item commenced in open recording, at 1 minute 54 seconds.

Cr Kandi Ngataki declared an interest in Item 16.1 Appointment of Local Controller. She had sat on the panel conducting interviews for the controller position.

6. Confirmation of Minutes - 12 December 2022

Item commenced in open recording, at 2 minutes 33 seconds.

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

WCDEM23/03

Moved by: Cr John Grant

Seconded by: Deputy Mayor Allan Goddard

Resolved (Section A under delegated authority)

That the minutes of the Waikato Civil Defence and Emergency Management Joint Committee meeting held on 12 December 2022, be confirmed as a correct record.

carried

7. Iwi/Māori Strategic Priorities Proposal

Item commenced in open recording, at 2 minutes 57 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/04

Moved by: Cr Mich'eal Downard

Seconded by: Cr Lou Brown

Resolved (Section A under delegated authority)

1. That the report *Iwi/Māori Strategic Priorities Proposal* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.
2. That the Waikato Civil Defence Emergency Management Group Joint Committee approves the proposal that the Waikato Civil Defence Emergency Management Group, via the Coordinating Executive Group, engages with local Iwi to co-design a strategic work programme that sits outside the current Group Plan.
3. That the Waikato Civil Defence Emergency Management Group Joint Committee approves the proposal that the Waikato Civil Defence Emergency Management Group invite the Waikato Region Iwi chairs (or their governance delegates) to sit on the Joint Committee for the purpose of providing governance and oversight of any agreed strategic work programmes.

carried

8. Operational Readiness fixed term role

Item commenced in open recording, at 18 minutes 12 seconds.

10.20am - Cr Kit Jefferies entered the meeting.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/05

Moved by: Deputy Mayor Allan Goddard

Seconded by: Cr Phillip Buckthought

Resolved (Section A under delegated authority)

1. That the report *Budget for Operational Readiness Team fixed term role* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

- 2. That the Waikato Civil Defence Emergency Management Group Joint Committee approves unbudgeted (reserve) funds of \$113,000 be allocated to fund salary and overhead costs for an extension of an Operational Readiness Team fixed term role.**

carried

9. Disaster Relief Fund

Item commenced in open recording, at 26 minutes 39 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/06

Moved by: Cr Lou Brown

Seconded by: Cr Russell Smith

Resolved (Section A under delegated authority)

That the report *Disaster Relief Fund* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

carried

10. Coordinating Executive Group update

Item commenced in open recording, at 57 minutes 51 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/07

Moved by: Cr Kandi Ngataki

Seconded by: Cr Mich'eal Downard

Resolved (Section A under delegated authority)

That the report *Summary of Coordinating Executive Group Meeting* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

carried

11. Submission Subgroup

Item commenced in open recording, at 59 minutes 50 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/08

Moved by: Cr Phillip Buckthought

Seconded by: Cr John Grant

Resolved (Section A under delegated authority)

That the report *Submission Subgroup – submissions undertaken* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

carried

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

12. Group Work Plan

Item commenced in open recording, at 1 hour 1 minute 7 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/09

Moved by: Deputy Mayor Allan Goddard

Seconded by: Cr Kandi Ngataki

Resolved (Section A under delegated authority)

That the report *Group Work Plan and Covid After Action Report - Prioritised Goals* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

carried

13. Local Welfare Manager appointments

Item commenced in recording, at 1 hour 4 minutes 35 seconds.

Presented by the Group Manager/Controller (Julian Snowball).

WCDEM23/10

Moved by: Cr Lou Brown

Seconded by: Cr Mich'eal Downard

Resolved (Section A under delegated authority)

That the report *Local Welfare Manager appointments* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.

carried

14. Ministry for Primary Industries Presentation

Item commenced in open recording, at 1 hour 7 minutes 7 seconds.

Presented by the Manager, Readiness, Biosecurity New Zealand (Catherine Duthie)

WCDEM23/11

Moved by: Cr Mich'eal Downard

Seconded by: Cr Kandi Ngataki

Resolved (Section A under delegated authority)

- 1. That the report *Ministry for Primary Industries presentation* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.**
- 2. That the Committee thanks Catherine Duthie of Biosecurity New Zealand for her presentation.**

carried

15. Resolution to Exclude the Public

Item commenced in open recording, at 1 hour 42 minutes 56 seconds.

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

WCDEM23/12

Moved by: Cr Lou Brown

Seconded by: Cr John Grant

Resolved (Section A under delegated authority)

That in accordance with section 48(1) of the Local Government Official Information and Meetings Act 1987 (Act) and the interest or interests protected by section 6 or 7 of that Act, the public is excluded from the following parts of this meeting. The general subject of the matters to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds for excluding the public are set out below:

Meeting Item No. and subject	Reason for excluding the public	Grounds for excluding the public
16.1 – Appointment of Local Controller	Protect the privacy of natural persons, including that of deceased natural persons (section 7(2)(a) of the Act).	Section 48(1)(a)(i) of the Act – the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 7 of the Act.
16.2 – Appointment of Local Controller Thames Coromandel	Protect the privacy of natural persons, including that of deceased natural persons (section 7(2)(a) of the Act).	Section 48(1)(a)(i) of the Act – the public conduct of the relevant part of the proceedings of the meeting would be likely to result in the disclosure of information for which good reason for withholding would exist under section 7 of the Act.

carried

11.43am – The meeting moved into Public Excluded session.

11.49am – The meeting moved back into open session.

During the public excluded session, items that were moved into open are attached in Appendix One.

17. Karakia Whakamutunga

Due to a recording error, the item commenced in public excluded recording at 4 minutes 28 seconds.

Cr Anna Park closed the meeting with a karakia.

11.49am - The meeting closed.

Open minutes of the Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023

Appendix One: Decisions made in public excluded session reported into open

WCDEM23/13

Moved by: Cr Mich'eal Downard

Seconded by: Cr Lou Brown

Resolved (Section A under delegated authority)

1. That the report *Appointment of Local Controller* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.
2. That as per the Waikato Civil Defence Emergency Management Group *Controller Policy* the Waikato Civil Defence Emergency Management Group Joint Committee approves the appointment of Kurt Abbot as a Tier 3 Local Controller for Waikato District Council area.
3. That the report and decision be reported into the open session of this meeting; and that the attachment remains publicly excluded.

carried

WCDEM23/14

Moved by: Cr John Grant

Seconded by: Cr Phillip Buckthought

Resolved (Section A under delegated authority)

1. That the report *Appointment of Local Controller* (Waikato Civil Defence Emergency Management Group Joint Committee, 27 March 2023) be received.
2. That as per the Waikato Civil Defence Emergency Management Group *Controller Policy* the Waikato Civil Defence Emergency Management Group Joint Committee approves the appointment of Brian Carter as a Tier 3 Local Controller for Thames-Coromandel District Council area
3. That the report, attachment and decision be reported into the open session of this meeting.

carried

COMMITTEE REPORT



To: The Chairperson and Members of the Regulatory Committee

From: Hayley Thomas – Project Planner

Subject: **Request to determine number of Environmental Benefit Lot Entitlements for 333 Roto O Rangi Road**

Meeting Date: 22 May 2023

File Reference: PG/0022/23

APPLICANT:	Browne Pastoral Enterprises
PROPERTY ADDRESS:	333 Roto O Rangi Road, Leamington, Cambridge
LEGAL DESCRIPTION:	Lot 2 DP 392193 [RT 369648]
SITE AREA:	154.15ha
DISTRICT PLAN:	Rural Zone, Visually Sensitive Hill Country Policy Overlay, High Voltage Electricity Transmission Lines, Significant Natural Areas (WP641, WP642 and WP382), and Protected Tree (#134)
PROPOSAL:	Request to determine seven Environmental Benefit Lot Entitlements
AGENT:	Cogswell Surveys Ltd – Rebecca Steenstra

1 PURPOSE – TAKE

- 1.1 The purpose of this report is to determine the number of Environmental Benefit Lot entitlements that Browne Pastoral Enterprises are eligible for in exchange for the protection of identified forest areas on their property at 333 Roto O Rangi Road, Leamington, Cambridge.

2 EXECUTIVE SUMMARY – WHAKARĀPOPOTOTANGA MATUA

- 2.1 The Waipā District Plan provides for Environmental Benefit Lots ('EBL') as an incentive to secure the protection of key areas where a strategic benefit to indigenous

biodiversity values of the public good can be achieved, while limiting the extent of the subdivision incentives so as to manage the District's future growth.

- 2.2 Council has established an informal process to enable applicant's to apply for confirmation of how many EBL's they would be eligible for if they protected identified areas in advance of making a subdivision application. This process is not defined under the Resource Management Act 1991.
- 2.3 The Chief Executive, Group Manager - District Growth and Regulatory Services, and Consent's Team Leader hold delegations in the Delegations Register to provide decisions to applicants on the number of EBL's up to a total of five. Any EBL requests greater than five must be approved by Council's Regulatory Committee.
- 2.4 The process does not seek confirmation of the way in which the EBL's will be utilised. Separate subdivision consent applications will need to be made to utilise the EBL's either on site or transferred to other properties.
- 2.5 Cogswell Surveys Ltd, on behalf of their client Browne Pastoral Enterprises, have applied for confirmation of the number of EBL entitlements for the property located at 333 Roto O Rangi Road, Leamington. Four forest remnant areas have been identified and assessed by Bluewattle Ecology in support of the application.
- 2.6 Council's Planning Team, including Council's Consultant Ecologist from Boffa Miskell, have reviewed the application and concur that a total of seven EBL entitlements should be provided, subject to the ongoing protection and management of the remnant areas.
- 2.7 As the request is for more than five EBL entitlements, this report seeks the Regulatory Committees approval to grant the seven entitlements.

3 RECOMMENDATION – TŪTOHU Ā-KAIMAHI

3.1 That the Regulatory Committee:

- a) **RECEIVE** the report 'Request to determine number of Environmental Benefit Lot Entitlements for 333 Roto-o-Rangi Road' (document number 10998127) prepared by Hayley Thomas – Project Planner; and
- b) **CONFIRM** under delegated authority from Waipā District Council that seven Environmental Benefit Lot entitlements are allocated to the property at 333 Roto O Rangi Road, legally described as Lot 2 DP 392193 [RT 369648]; and
- c) **CONFIRM** under delegated authority from Waipā District Council the eligibility for Environmental Benefit Lot entitlements is subject to the following matters being addressed in a future corresponding subdivision application:
 - i) Evidence to be provided at time of a subdivision application being applied for that the forest remnants areas 1, 2, 3, and 4 identified in the Bluewattle Ecology report, titled 'Browne Pastoral Enterprises, Ecological Assessment of Forest Remnants at 333 Roto-o-Rangi Road, Waipā District' referenced

BPE00700 and dated 14/03/2023, will be protected in perpetuity using an appropriate legal mechanism/s registered to the respective title/s.

- ii) *Management recommendations in the Bluewattle Ecology report, titled 'Browne Pastoral Enterprises, Forest Remnant Restoration & Management Plan 333 Roto-o-Rangi Road, Waipā District' referenced BPE.00700, Version: Final 2.1 dated 30/04/23, will be undertaken for the forest remnants, including (but not limited to): fencing, animal pest control, pest plans, planting requirements, and management requirements. Consent conditions on any corresponding future subdivision will reflect these requirements.*
- d) **CONFIRM** *under delegated authority from Waipā District Council that the entitlements are available for a period of five years following the date of this decision. After such time a new application shall be presented to Waipā District Council, if the entitlements have not been utilised.*

3.2 Reasons for Decision:

- a) *A combined total of seven Environmental Benefit Lot entitlements are considered to be appropriate for the protection of 22.53ha (subject to survey) of forest remnant areas 1, 2, 3, and 4 as identified in the Bluewattle Report, titled 'Browne Pastoral Enterprises, Ecological Assessment of Forest Remnants at 333 Roto-o-Rangi Road, Waipā District' referenced BPE00700 and dated 14/03/2023.*
- b) *The allocation of seven Environmental Benefit Lot entitlements in exchange for the protection of the four identified areas aligns with the relevant objectives and policies of the Waipā District Plan.*
- c) *The Environmental Benefit Lot entitlements are reliant on the ongoing protection of the forest remnant areas identified. If the holding (or part of the holding) was sold, or subdivided then a separate Environmental Benefit Lot assessment may be required.*

3.3 Advisory Note:

- a) *The Environmental Benefit Lots could potentially be utilised on the subject site or transferred to another site not located in a sensitive location. However, it is noted that any future corresponding subdivision application(s) will be assessed on their own merits and area subject to an approved subdivision consent. This recommendation does not constitute subdivision approval.*

4 THE SITE

- 4.1 The subject site is located on the western side of Roto O Rangi Road, approx. 3km south of Leamington, Cambridge. The site has road frontage in three locations, two either side of 329 Roto O Rangi Road, and one south of 337 Roto O Rangi Road. Spanning over 154ha, the site is rolling hill country with portions of flat areas, ridges and gullies. Within the eastern portion of the site are pockets of identified forest areas. Refer to Diagram 1.

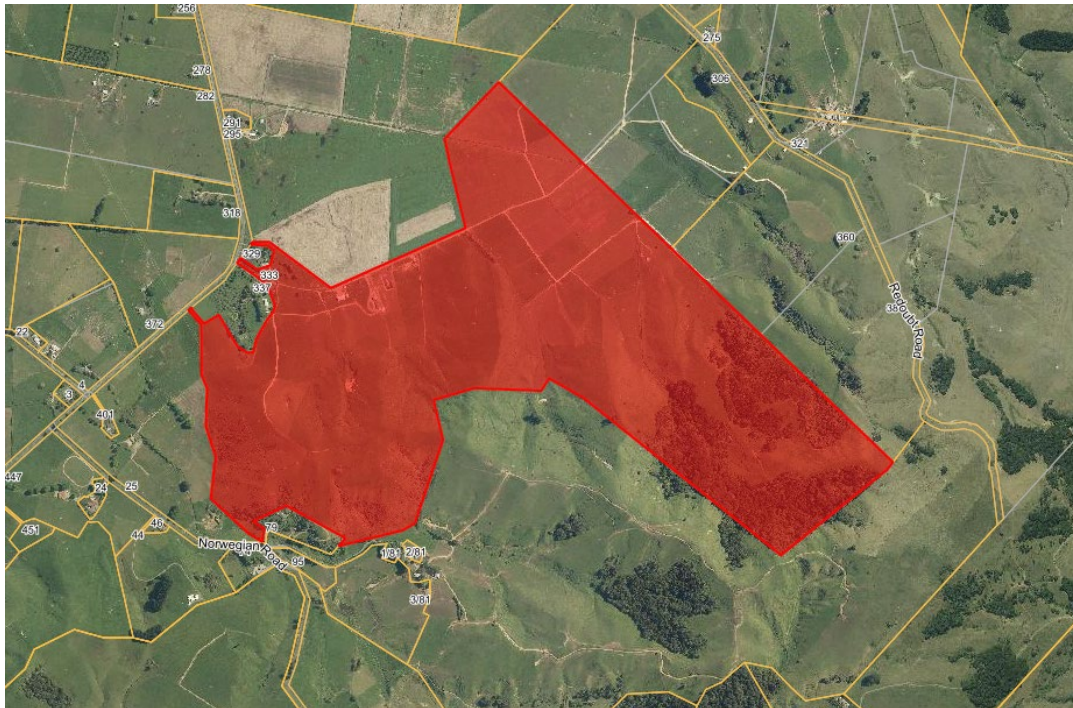


DIAGRAM 1: SITE LOCATION (SITE SHOWN IN RED)

- 4.2 Under the Waipā District Plan, the site is within the Rural Zone and subject to the following policy overlay areas:
- Visually Sensitive Hill Country Policy Overlay;
 - High Voltage Electricity Transmission Lines;
 - Significant Natural Areas (WP641, WP642 and WP382); and
 - Protected Tree (#134).
- 4.3 Refer to Diagram 2 below. The pink shaded area denotes the Visually Sensitive Hill Country, white denotes Rural Zone, black dashed lines identify the High Voltage Electricity Transmission Lines, magenta tree identifies the protected tree, and the green stripes denote the significant natural areas.

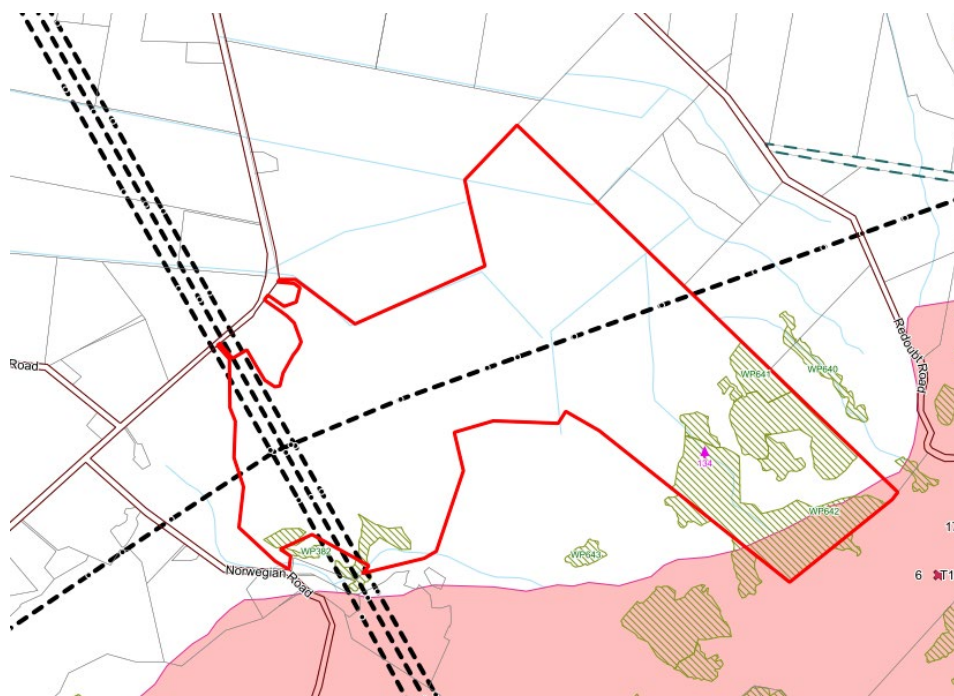


DIAGRAM 2: DISTRICT PLAN ZONE AND POLICY OVERLAYS MAP (SITE OUTLINED IN RED)

4.4 With regard to the Significant Natural Areas, these are described within the District Plan as follows:

- WP382: Norwegian Road unprotected scrubland: A pair of regenerating manuka/kanuka fragments located on sloping farmland off Norwegian Road to the north-west of Maungatautari Ecological Island. This unprotected site contains secondary scrublands which are under-represented in the Hamilton ED and is therefore ranked as locally significant.



DIAGRAM 3: SIGNIFICANT NATURAL AREA WP382

- WP641: Unprotected margins of protected Pukekura Hill remnants: Marginal, often degraded, unprotected remnant vegetation of tawa forest and secondary regeneration around protected site WP642. While some of the areas may be fenced to exclude livestock, most of the site appears open to grazing. An example of an under-represented forest type, that forms a buffer to a regionally significant site.

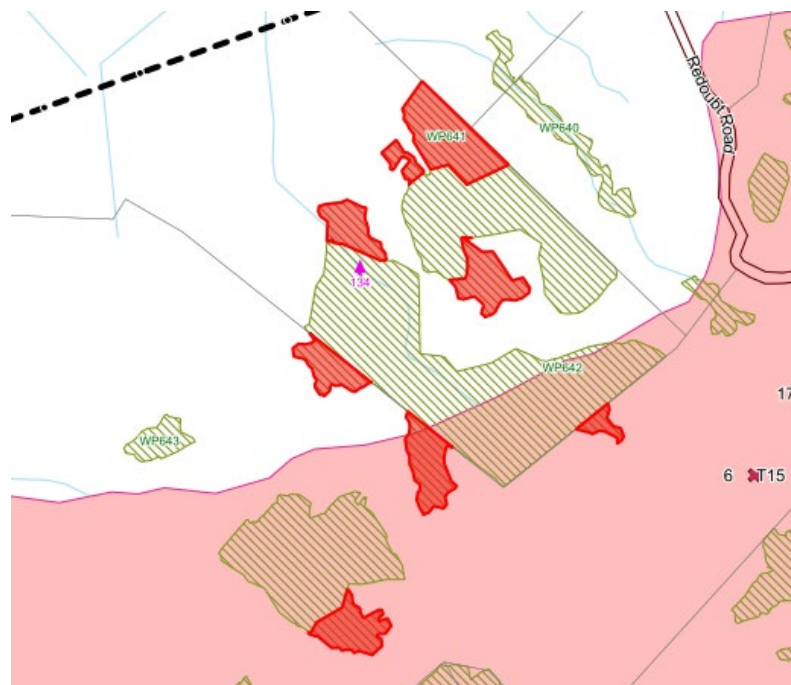


DIAGRAM 4: SIGNIFICANT NATURAL AREA WP641

- WP642: Protected Pukekura Hill Remnants: A series of five medium sized (5 - 12.5 ha), protected, tawa forest remnants, including some areas of secondary regeneration. The most south-westerly of the remnants has been protected since 1998, and would be expected to include well-developed subcanopy. A protected, likely healthy example of an under-represented forest type, that is likely to form part of a corridor between Maungatautari Ecological Island and north-western foothill remnants.

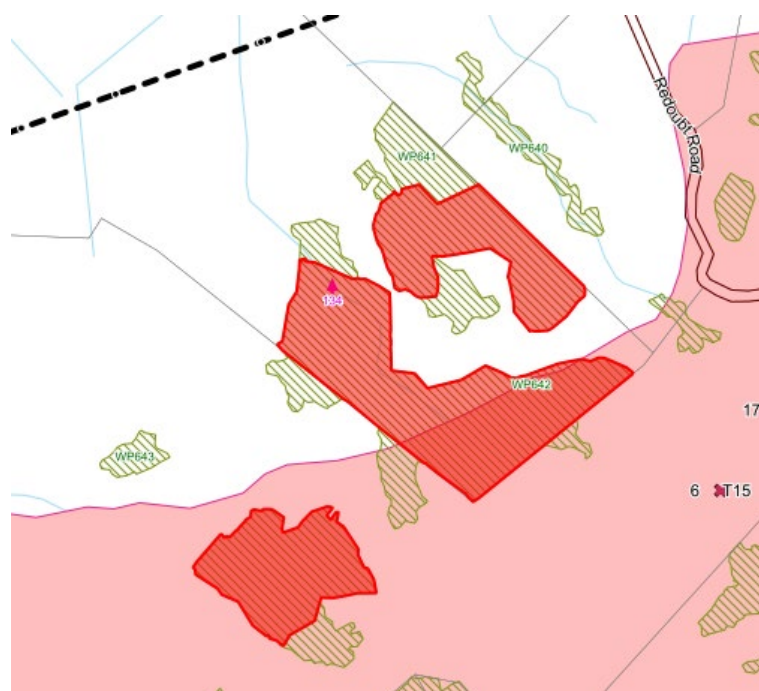


DIAGRAM 5: SIGNIFICANT NATURAL AREA WP642

- 4.5 The site is also partially within the 'Indigenous Forest Corridor' as shown within brown stripes in Diagram 6 below.



DIAGRAM 6: INDIGENOUS FOREST CORRIDOR OVERLAY (SUBJECT SITE HIGHLIGHTED IN RED)

5 THE PROPOSAL

- 5.1 Cogswell Surveys Ltd, have applied on behalf of their client Browne Pastoral Enterprises, for confirmation of the number of Environmental Benefit Lot entitlements for the property at 333 Roto O Rangi Road, Leamington, Cambridge.
- 5.2 Accompanying the application was an Ecological Assessment undertaken by Bluewattle Ecology, dated 14 March 2023. Refer to Appendix 1. The Ecological Assessment has described the ecological context of the site, noting there are four distinct forest remnant areas totalling 22.53ha (subject to survey), to be protected. Each area is shown below in Diagram 7 and further described in the following paragraphs.
- 5.3 The Ecological Assessment also includes assessment of the fauna and threats observed at the sites. With regard to fauna it notes a variety of birds, including kereru, tui, grey warbler, shining cuckoo, fantail, silvereye and sacred kingfisher, and fish and stream invertebrates are present. In terms of threats, the assessment notes animals (i.e. possums, rabbits, etc), livestock and weeds.
- 5.4 Section 4 of the Ecological Assessment has considered each of the remnants and their ecological value and qualification for an environmental benefit lot. Using the Waikato Regional Council Policy Statement Criteria, each remnant meets at least four of the criteria.

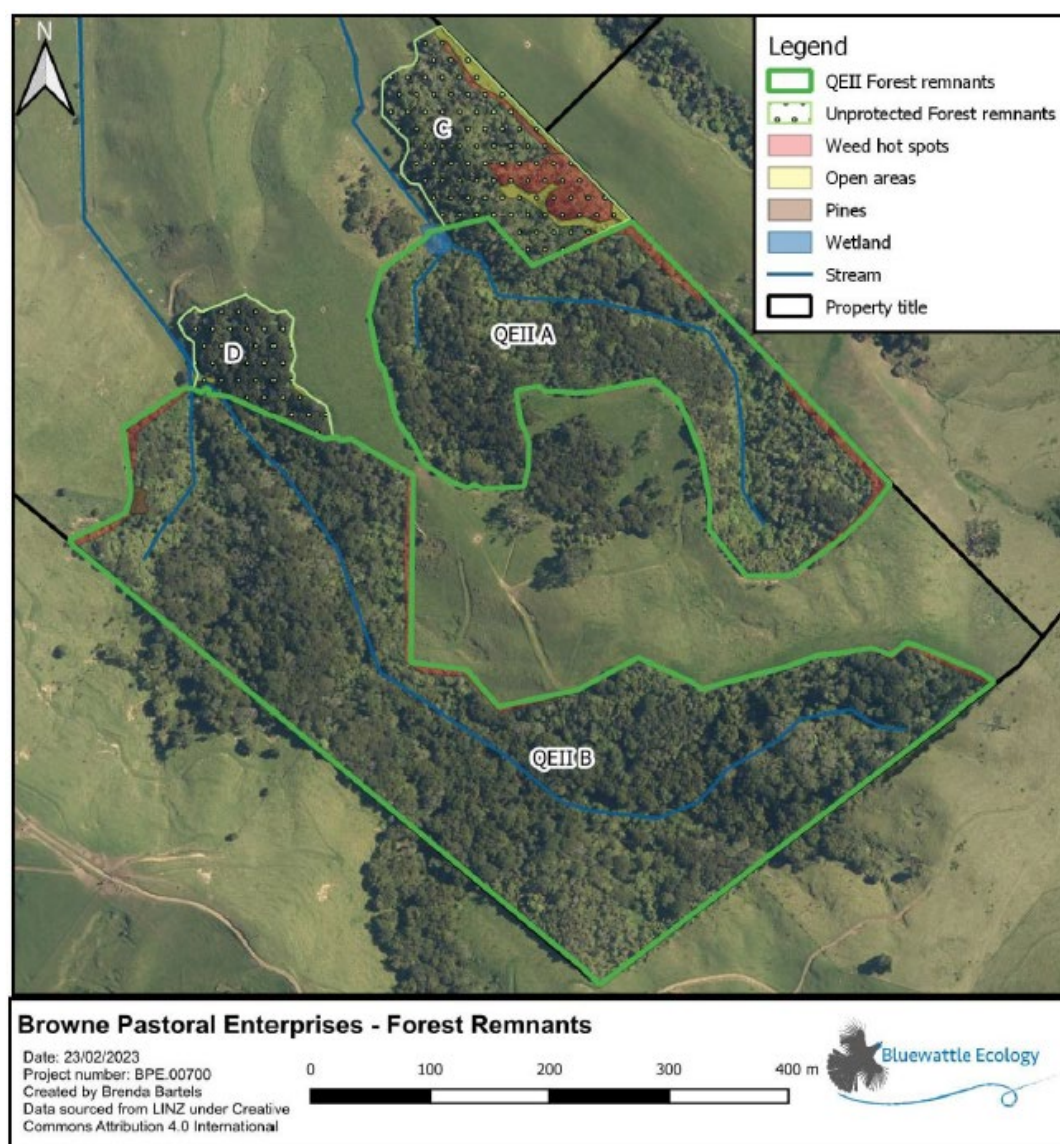


DIAGRAM 7: FOREST REMNANT AREAS (DIAGRAM TAKEN FROM ECOLOGICAL ASSESSMENT)

AREA A

- 5.5 Area A is the “smaller of the protected forest remnants is located on the north facing side of a gently rolling hill”, containing a total of 6.38ha, and consists of regenerating secondary forest, dominated by kanuka. Other species, including but not limited to mahoe, wheki, kawakawa, hangehange, tawa, mangeao, mapou, tree privet, lemonwood, and cabbage tree are all present in this remnant with regeneration of a number of other species being observed. “At the northern extent of the forest remnant, where two gully arms converge is a wetland area that is dominated by cutty grass (rautahi)”. The wetland area is approx. 300m².
- 5.6 Area A is currently vested as a Queen Elizabeth II National Trust Open Space Covenant.
- 5.7 Refer to Diagrams 8 to 10 below as taken from the Bluewattle Assessment.



DIAGRAM 8: CANOPY OF REMNANT LOOKING IN A NORTH-WESTERLY DIRECTION



DIAGRAM 9: DENSE GROWTH OF KAWAKAWA BENEATH A CANOPY OF MAHOE IN THE GULLY BORDERING THE STREAM



DIAGRAM 10: WETLAND AREA AT THE NORTH-WESTERN EXTENT OF THE FOREST REMNANT

AREA B

- 5.8 Area B is described as the “larger of the two protected forest remnants”, stretching from “580 m in its longest axis and is 115 m wide at its narrowest point” totalling 13.37ha. “This forest remnant protects the headwaters of the Mangawhero Stream, which is a cobble bottomed stream which flows east to west through the centre of the forest remnant.” The remnant has a diverse canopy with tawa and kanuka, mangeao, emergent rewarewa, tanekaha, kahikatea, pukatea and totara all present. “Nikau, titoki, pigeonwood, mangeao, kawakawa, mahoe and pate were also present in the understorey”. Regeneration and seedlings are also noted as being common in this remnant.
- 5.9 Area B is also currently vested as Queen Elizabeth II National Trust Open Space Covenant.

5.10 Refer to Diagrams 11 to 14 below as taken from the Bluewattle Assessment.



DIAGRAM 11: A CLUSTER OF TOTARA TREES AT THE NORTHEASTERN TIP OF THE REMNANT

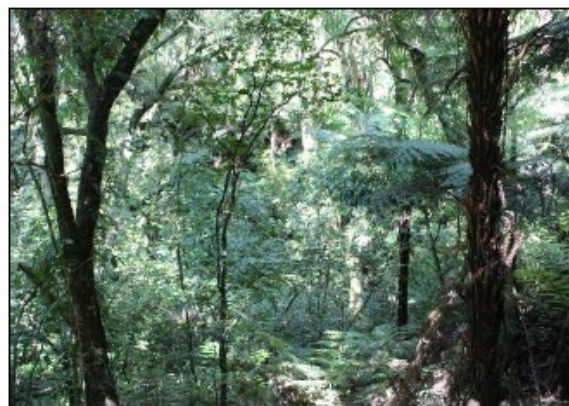


DIAGRAM 12: UNDERSTOREY OF QEII FOREST REMNANT B

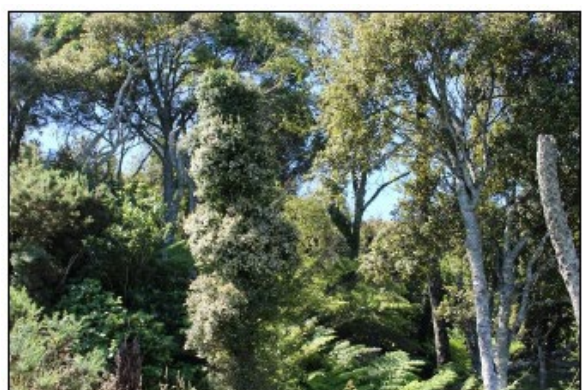


DIAGRAM 13: WHITE RATA IN FLOWER



DIAGRAM 14: HEADWATER OF THE MANGAWHERO STREAM

AREA C

5.11 Area C is directly adjacent to Area A, contains an area of 1.97ha, and currently unprotected (i.e. not part of the QEII covenant areas). *"The remnant has a relatively diverse species assemblage, including kanuka, tawa, wheki, tanekaha (c.40-50 cm DBH), mahoe, rimu, mapou and totara. Kanuka is common on the steeper hillslope to the south, with mahoe, cabbage tree and wheki present."* With the remnant is a large open area where a stock drinking trough and a formed track is located. This area is noted as being particularly weedy, and requiring restoration planting. Refer Diagram 15.



DIAGRAM 15: OPEN FLAT AREA NEAR THE NORTHERN BOUNDARY OF THE REMNANT WITH A FORMED TRACK AND LARGE TANEKAHA IN THE CENTER BORDERED BY TOTARA, TREE PRIVET AND BARBERRY

AREA D

- 5.12 Area D is the smallest of the four areas containing 0.805ha, located adjacent to Area B. “The canopy in this area is intact with the hill slopes dominated by kanuka with clusters of kahikatea trees on the flat area near the stream, which flows along the western boundary of the remnant. Other canopy trees present include mahoe, mapou, tanekaha and totara.” The Bluewattle Assessment notes the understorey and groundcover are bare and would benefit from fencing to enable natural regeneration to occur. Refer to Diagram 16 and 17.

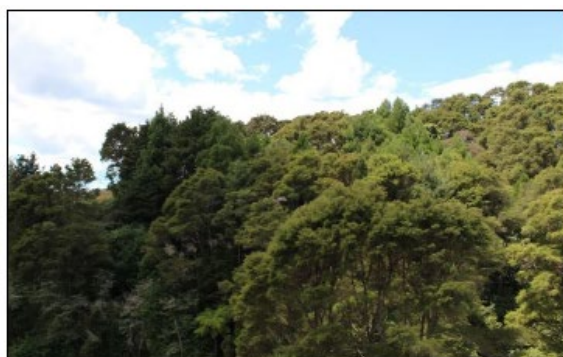


DIAGRAM 16: CANOPY OF FOREST REMNANT D WITH KANUKA IN THE FOREGROUND AND KAHIKATEA BEHIND



DIAGRAM 17: SUBCANOPY OF FOREST REMNANT D

CONCLUSION

- 5.13 The Ecological Assessment concludes that “Following management, enhancement and protection as described in the accompanying Management Plan, we consider that seven EBL entitlements would be appropriate when considering the ecological value of the site following enhancement, which is within a mapped biodiversity corridor, and in close proximity to Maungatautari Ecological Sanctuary as well as other nearby natural areas. This includes two EBL entitlements for QEII A, three EBL entitlements for QEII B, and one each areas C and D.”

6 EXTERNAL CONSULTANT COMMENTS – BOFFA MISKELL

- 6.1 Council’s Ecology Consultant, Mr Andrew Blayney from Boffa Miskell, has reviewed the letter of request, and the above-mentioned Ecological Assessment prepared by Bluewattle Ecology. Mr Blayney’s review is summarised below with the full report attached in Appendix 2.
- **“EBL eligibility:** A scoring against the ecological criteria for providing guidance and awarding EBL entitlements was provided by Bluewattle Ecology. This information is provided below in Table 1 for the areas that are proposed to be protected.
 - **Ecology report notes:** The assessment described two forest remnants, of which both contain a portion already protected by QEII covenants, and an area of forest not currently legally protected. The two existing areas of QEII covenant have a total area of 19.75 ha (A = 6.38 ha and B = 13.37 ha). The additional, non-legally protected, forest remnants have a total of 2.775 ha (C = 1.97 ha and D = 0.805 ha). This totals to a total area of 22.53ha.
 - **Methodology:** Methods outlined follow best practice and suitable for assessment of ecological values for EBL assessments.
 - **Ecological Context:** Section is well written and detailed.
 - **Vegetation Classification & Forest Vegetation:** These sections are well detailed and high quality detailing the composition of the proposed protection areas.
 - **Fauna:** Detailed appropriately and I agree with the assumptions made regarding the presence of the several at-risk and threatened species identified.
 - **Threats - Animal Pests:** Detailed appropriately and covers all aspects relevant to the proposed protection blocks.
 - **Threats - Livestock:** The summary of fencing status of the four areas across the two fragments is useful in understanding the current pressures of livestock on all of the area. The wording of “Currently both stock and sheep...” in the sixth paragraph of Section 3.5.2. I have read as cattle and sheep, with this understanding the recommendation for 7 wire post and batten fencing is appropriate.

- **Threats – Weeds:** Detailed appropriately and covers all aspects relevant to the proposed protection blocks.
- **Assessment Using Waikato Regional Council RPS Criteria:** I consider the significance assessment provided is accurate and I agree with the assessment.
- **Qualification for Environment Benefit Lots:** I agree all remnants qualify for EBL entitlements. I also agree that the protection of the entirety of the two forest remnants (split into four blocks) should qualify for seven EBL entitlements. While there is relatively little precedent at this larger size of proposed protection (22.53ha), this is consistent and within the range of entitlements awarded to previous examples of 20-30ha of protection.
- *In line with the precondemning letter (R. Steenstra dated 17 March 2023) I also agree with a potential to split/stage the entitlements over stages and agree with Bluewattle Ecology's summation of "two EBL entitlements for QEII A, three EBL entitlements for QEII B, and one each areas C and D.". Note: Table 5 of the assessment states three EBL entitlements for QEII A and two for QEII B. I have corrected this in Table 1 included below.*
- **Overview:** Overall, the assessment is of a high quality and at a level of detail to allow an assessment of the EBL entitlements against the EBL entitlement criteria. ... I agree with the authors that the protection of the four blocks split across two forest fragments should be awarded seven EBL entitlements."

6.2 In summary Mr Blayney agrees with the applicants request that the protection of the four blocks should be awarded seven EBL entitlements, subject to ongoing restoration and management as outlined in the Ecological Management Plan. Mr Blayney has reviewed the Ecological Management Plan, which for completeness, is attached as Appendix 3.

7 WAIPĀ DISTRICT PLAN

DISTRICT PLAN OBJECTIVES AND POLICIES

7.1 The objective and policies of the Waipā District Plan relevant to Environmental Benefit Lot entitlements are as follows:

Objective - Integrated development: environmental enhancement

15.3.7 *Maintain and enhance the District's natural environment, including the natural functioning of the environment, natural features and landscapes, and significant natural areas.*

Policy - Achieving the permanent protection of the natural environment

15.3.7.4 *To achieve the permanent protection of identified significant natural areas, Maungatautari Ecological Island, ecological features, lakes and water bodies, the Te Awa Cycleway route and any Incentivised Cycleway, through the incentive of an environmental benefit lot.*

Objective - Managing effects on district wide indigenous biodiversity

24.3.1 *To maintain and enhance the existing level of biodiversity within the District.*

Policies - Non-regulatory methods

24.3.1.8 *To encourage planting of indigenous vegetation to enhance indigenous biodiversity values.*

24.3.1.9 *To ensure stock and pests are appropriately managed.*

24.3.1.10 *To promote enhancement of indigenous biodiversity in the District through a range of both regulatory and non-regulatory methods.*

Objective - Significant natural areas and bush stands

24.3.3 *To protect the indigenous biodiversity values and the existing level of indigenous biodiversity within the significant natural areas listed in Appendix N5 and bush stands listed in Appendix N8.*

Policy - Limiting indigenous vegetation removal and other activities within identified significant natural areas and bush stands.

24.3.3.1 *To protect the ecological sustainability, indigenous biodiversity values and characteristics of significant natural areas including wetlands, and bush stands by ensuring that:*

(a) *The removal of indigenous vegetation or habitat of indigenous species is discouraged and:*

(i) *Only occurs in sustainable quantities in significant natural areas of local significance; and*

(ii) *Only occurs in limited circumstances within internationally, nationally or regionally significant natural areas and bush stands.*

(b) *The health and functioning of significant natural areas including wetlands, and bush stands is maintained through appropriate land use practices.*

7.2 The abovementioned objectives and policies seek to ensure indigenous biodiversity is protected, maintained and enhanced across the District. The policies encourage the use of both regulatory and non-regulatory methods in doing so. The granting of Environmental Benefit Lot entitlements, subject to appropriate management and restoration being undertaken, is one such method to achieve the outcomes sought in the District Plan. In this manner, the proposal meets the objectives and policies of the District Plan.

DISTRICT PLAN RULES

7.3 Rule 15.4.2.52 - Environmental Benefit Fit Lots: significant natural areas of features, of the District Plan states that: "Significant Natural Areas (SNA) and significant natural

features identified on the Planning Maps or established using the Criteria for Determining Significance of Indigenous Biodiversity, Section 11A in the Regional Policy Statement, may be eligible for environmental benefit lots where the area or feature is protected in perpetuity”.

7.4 Areas or features that may qualify for one environmental benefit lot include:

- Significant Natural Areas in identified Biodiversity (Indigenous Forest) Corridors on Planning Map 49 with a minimum area of 5,000m² which are permanently protected and supported by a specialist ecologist report accepted by Council; and
- Significant Natural Features being wetlands and/or kahikatea stands which are permanently protected and supported by a specialist ecologist report accepted by Council that demonstrates that the site is a self-sustaining ecosystem.

7.5 The Bluewattle Ecologist Assessment notes “Under Rule 15.4.2.51(c) of the Waipā District Plan (see Appendix I) an area or feature may qualify for one Environmental Benefit Lot (EBL) if it is a Significant Natural Area in an identified Biodiversity (Indigenous Forest) Corridors on Planning Map 49 with a minimum area of 5,000 m² which is permanently protected and supported by a specialist ecologist report accepted by Council. Applying these criteria, all forest remnants are significant natural areas which total an area of about 22.53 ha.” Council’s Ecology Consultant, Mr Andrew Blayney, has agreed with this assessment.

SUMMARY OF DISTRICT PLAN ASSESSMENT

7.6 The above assessment has considered the proposal against the requirements of the District Plan, in particular noting the objectives and policies relevant to protection of indigenous biodiversity. Based on the assessment above, and the advice provided by both the applicant’s ecologist and Council’s Ecologist, this proposal is considered to align with the District Plan.

8 CONCLUSION

- 8.1 The Waipā District Plan provides for Environmental Benefit Lots as an incentive to secure protection of key areas where a strategic benefit to indigenous biodiversity values of the public good can be achieved, while limiting the extent of subdivision incentives so as to manage the Waipā Districts future growth.
- 8.2 Based upon the information provided by the applicant, and comments from Council’s Consultant Ecologist, it is recommended that a maximum of seven (7) Environmental Benefit Lot entitlements be granted in exchange for the restoration and protection of the forest remnant areas illustrated in Diagram 7 and described in Section 5 of this report.

9 APPENDICES - ĀPITITANGA

No:	Appendix Title
1	Environmental Benefit Lot Assessment and Management Plan Approval Request from Cogswell Surveys Ltd
2	Boffa Miskell Environmental Benefit Lot Ecological Advisory Guidance
3	Bluewattle Ecology Browne Pastoral Enterprises Forest Remnant Restoration & Management Plan

Prepared by:

Hayley Thomas
PROJECT PLANNER

Reviewed by:

Quentin Budd
CONSENTS TEAM LEADER

Approved by:

Wayne Allan
GROUP MANAGER DISTRICT GROWTH & REGULATORY SERVICES

APPENDIX 1 - ENVIRONMENTAL BENEFIT LOT ASSESSMENT AND MANAGEMENT PLAN APPROVAL REQUEST FROM COGSWELL SURVEYS LTD

Including Bluewattle Ecological Assessment Report [ECM# 10983210]



COGSWELL SURVEYS
SURVEYING | ENGINEERING | PLANNING

5 Millicich Place, Cambridge
PO Box 156, 3450 P: 07 827 5071
www.cogswellsurveys.co.nz

17 March 2023

Quentin Budd
Consents Team Leader
Waipā District Council

Digitally Delivered – info@waipadc.govt.nz; Quentin.budd@waipadc.govt.nz

Dear Quentin,

Re: Environmental Benefit Lot Assessment and Management Plan Approval

We have attached an Ecological Assessment undertaken by a suitably qualified ecologist at Blue Wattle Ecology which assessed the forest remnants on our client's property at 333 Roto-o-Rangi Road. The report determined that:

All four of the forest remnants at the Browne Pastoral Enterprises property are ecologically significant under section 6(c) of the Resource Management Act 1991 in accordance with the WRC RPS criteria at present. The forest areas total 22.53 ha (subject to survey). The indigenous vegetation provides habitat and food sources for a range of indigenous species including Nationally Critical long-tailed bats and a range of bird species including some with a national threat status. The headwaters of the Mangawhero Stream provide good water and habitat quality and are likely to support the At Risk declining longfin eel and giant kokopu.

The remnants are within the Waipā District Plan Biodiversity Corridor (Map 49) and identified Ecological Policy Corridor' priority zone for restoration providing value as a natural biodiversity corridor and ecological linkage. These forest remnants are part of a mosaic of similar remnants which provide a "stepping stone" biodiversity corridor for mobile indigenous bird species and long-tailed bats, as well as providing important upper catchment habitat for a number of native fish species.

In terms of restoration and management, fencing is required for forest remnants C and D. The two QEII forest remnants (A and B) are currently fenced although some repairs are required. Pest animal and control measures will be required in all remnants with weed pressure particularly high on the northern edge of the forest remnants as well as within forest remnants A and C. Some restoration planting will be required in open areas and where weeds have been controlled. With ongoing management and surveillance, the forest remnants will be self-sustaining in the long term. A separate ecological ERMP has been prepared for this proposal which should be read in conjunction with this report.

When assessed against the Waipā District Council Environmental Benefit Lot Assessment we consider that seven EBL entitlements would be appropriate under the provisions of Rule 15.4.2.51(c) of the Waipā District Plan (Table 5).

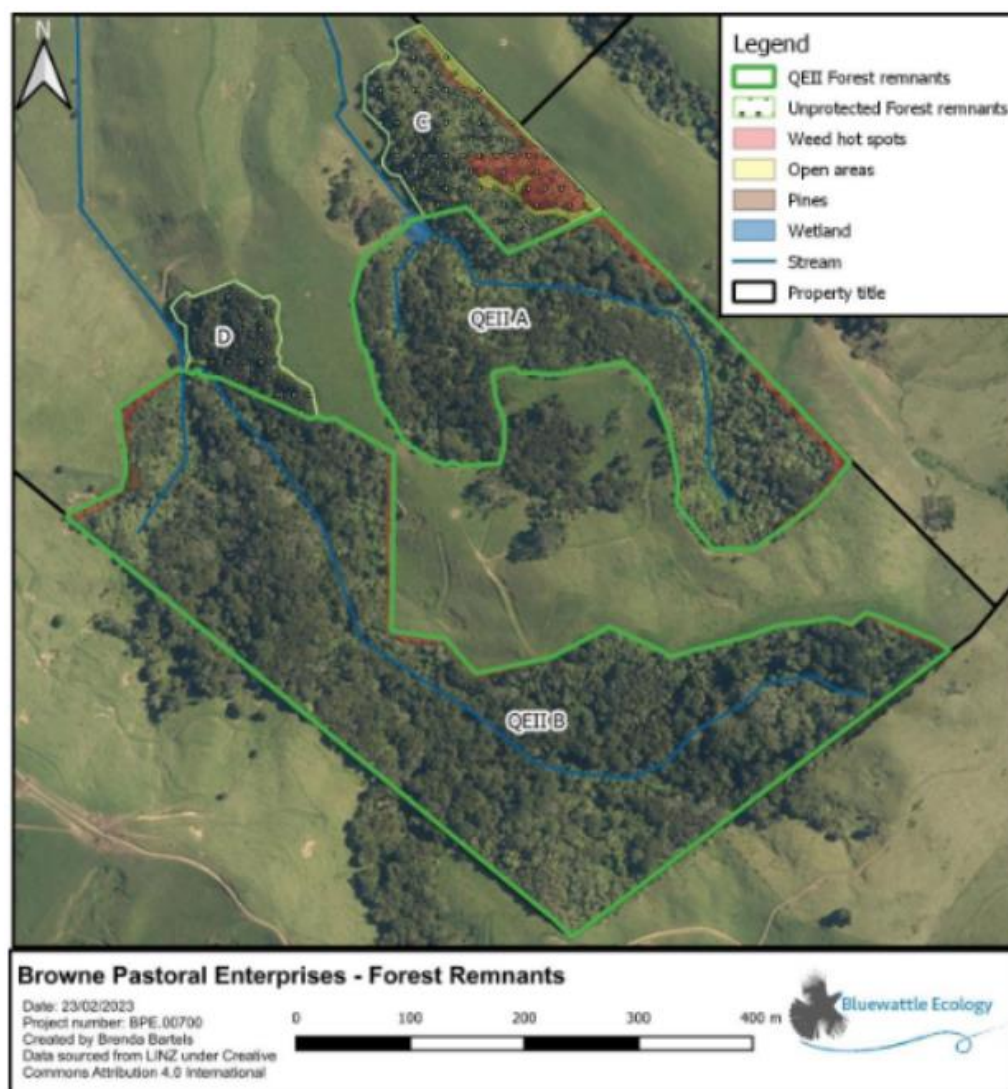


Figure 2: Forest remnants present at 333 Roto-o-Rangi Road

Management Plan

A detailed monitoring regime is critical to the success of this restoration programme and to satisfy Council that the restoration areas have reached a sufficient level of ecological structure, function and resilience to meet the WRPS ecological significance criteria at the end of the restoration process, and that eligibility for EBL entitlement has been achieved.

Prior to EBL release, the restoration and management works for the release the EBL entitlements include:

1. *Forest remnants C and D must be legally protected by covenants in perpetuity.*
2. *Ensure all covenant areas are securely fenced and stock excluded.*
3. *Control of invasive plant pests to a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration of covenant areas (Section 3.3).*

4. *Formalisation and implementation of pest animal management practices as described above, and a map of the trap and bait station locations will need to be provided (this is a requirement before the granting of any EBLs but can be undertaken under the guidance of this management plan, without an inspection) (see Section 3.2).*
5. *Planting needs to be undertaken in the restoration areas with a minimum survival rate of 90% of the original density and species. The stems per hectare native plant density should be no less than 1 plant per 2 square metres for indigenous forest (as per the planting requirements in Section 2.4). Canopy closure is not required prior to granting the EBL entitlement but shall be monitored via the recommendations in this Management Plan.*

The entitlements can be released per remnant, or all at one time, provided that each area has completed points one to five and had clearance from a suitably qualified Ecologist. Because restoration of some areas may take longer than others it is likely that not all EBLs will be granted at the same time.

We request that the attached ecological report be forwarded to the appropriate person for their assessment and advice on the number of entitlements able to be utilised pursuant to Rule 15.4.2.47 of the Waipa District Plan. **This request is also for the approval of the Management Plan.**

Yours faithfully,



Rebecca Steenstra
Planning Manager

Browne Pastoral Enterprises

Ecological Assessment of Forest Remnants at 333 Roto-o-Rangi Road, Waipa District



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Prepared by: Brenda Bartels – Senior Ecologist

Reviewed by: Gerry Kessels – Principal Ecologist

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1 INTRODUCTION

1.1 SCOPE & OBJECTIVES

Browne Pastoral Enterprises has commissioned Bluewattle Ecology to undertake an ecological assessment of native forest remnants at 333 Roto-o-Rangi Road. This report details the ecological investigation of four native forest remnants regarding their suitability for additional future subdivision potential under the rules relating to Environmental Benefit Lots (EBLs) within the Waipa District. Two of the forest remnants are unprotected and two are vested as Queen Elizabeth II National Trust Open Space Covenants (QEII). Potentially Significant Natural Areas (SNAs) on the property may enable subdivision under rules relating to EBLs, if supported by a specialist ecological report accepted by Waipa District Council (WDC).

The objectives of this report are to provide an ecological assessment of the proposed EBL areas and broad restoration measures including:

- 1 A description of the existing ecological values of the forest remnants;
- 2 An assessment of those existing ecological values against criteria for determining significance of indigenous biodiversity within Section 11A of the Waikato Regional Policy Statement (WRPS);
- 3 An assessment of qualification for additional lot subdivision under Rule 15.4.2.51 of the Waipa District Plan (Appendix I); and
- 4 Recommendations for restoration measures required for future management of the forest areas which will inform a detailed Ecological Restoration and Management Plan (ERMP) for the site.

1.2 SITE LOCATION & CHARACTERISTICS

The site is positioned in the Maungatautari Ecological District (ED), within the Waipa District, and approximately 6.5 km north-west of the Maungatautari Ecological Sanctuary. The assessed areas consist of four forest remnants with a combined total area of 22.53 ha. The two larger forest remnants are existing QEII covenants with a combined area of 19.75 ha (A=6.38 ha and B=13.37 ha). Two smaller unprotected forest remnants are present adjacent to the protected QEII covenants, and total 2.775 ha (C=1.97 ha and D=0.805 ha).

The site contains hilly to rolling land which ranges in altitude from approximately 100 to 230 m asl. The gully floors support headwater streams of the Mangawhero Stream. The property is located within Indigenous Forest Corridor layer on the Waipa District Council maps.

Both of the QEII forest remnants (Appendix II) have been fenced from stock for many years and natural regeneration is occurring. Forest remnant A is described as secondary regenerating broadleaf forest which is dominated by kanuka. Forest remnant B is a much larger and more established tawa podocarp broadleaf forest. The unprotected remnants have some fencing present, though a depauperate understorey and groundcover indicate that stock are still able to access these remnants.

The locality has a number of discrete forest remnants ranging in size from less than a ha to 50 ha or more, extending into farmland west of the Maungatautari Ecological Sanctuary down to the flat farmland of Roto-o-Rangi. The property's two protected forest remnants and adjacent unfenced forest



remnants are identified as potential Significant Natural Areas (SNAs) in the Waipa District Plan. The description of the WRC identified SNAs on this property are provided below (Deichmann & Kessels, 2013):

- SNA number “WP642” – **Protected Pukekura Hill remnants:** “A series of five medium sized (5 - 12.5 ha), protected, tawa forest remnants, including some areas of secondary regeneration. The most south-westerly of the remnants has been protected since 1998, and would be expected to include well-developed subcanopy ...An example if an (1) protected, likely (9) healthy example of an (4) under-represented forest type, that is likely to form part of a (11) corridor between Maungatautari Ecological Island and north-western foothill remnants.”
- **Unprotected margins of protected Pukekura Hill remnants** - SNA number 641 “Marginal, often degraded, unprotected remnant vegetation of tawa forest and secondary regeneration around protected site WP642. While some of the areas may be fenced to exclude livestock (RAC_CLNSTRM), most of the site appears open to grazing.”

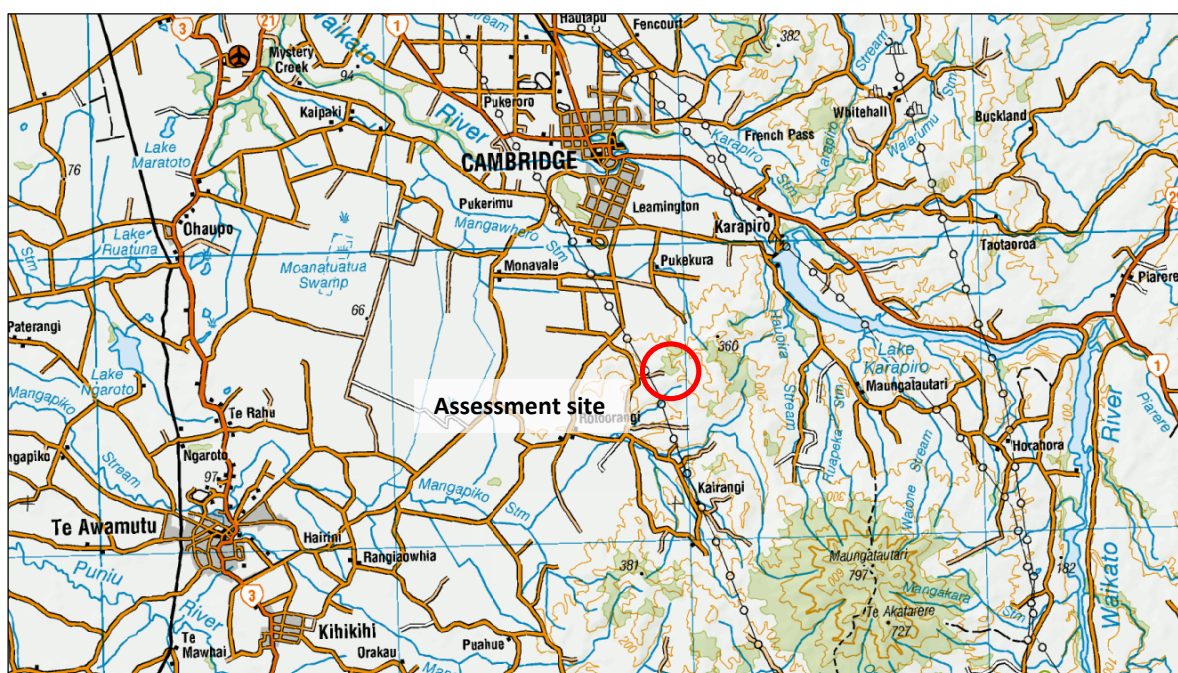


Figure 1: Location of the proposed covenant areas at 333 Roto-o-Rangi Road.



2 METHODOLOGY

2.1 DESKTOP REVIEW

A desktop literature review was undertaken to determine the ecological context of the site. Resources reviewed included:

- Threatened Environment Classification (Walker et al., 2015)
- The New Zealand Freshwater Fish Database (NZFFD)¹;
- The BioWeb Database², and the National Bat database³; and,
- iNaturalist⁴ and New Zealand Birds online⁵ and NZ Bird Atlas⁶.

2.2 SITE ASSESSMENT

The ecological assessment of this site was undertaken by a site walkover on 16 January 2023. Information recorded within the remnants was used to supplement existing desktop information, and included:

- The general condition of the remnants, including stock and/or pest damage;
- Composition and extent of broad vegetation types;
- A list of indigenous and exotic plant species observed;
- A list of fauna observed and/or heard incidentally on-site including birds, reptiles, mammals, invertebrates and fish, with suitable habitat for each noted; and
- Aspects of the current management of the remnants.

All vascular plant and fauna species encountered during the site visit were recorded and vegetation composition and plant communities described. Common plant names are used in the site descriptions below, where available. For botanical names refer to the plant list in Appendix III.

2.3 ASSESSMENT OF ECOLOGICAL SIGNIFICANCE

The assessment of the ecological significance of the natural areas was undertaken using the regional criteria for assessing sites of significant indigenous vegetation and habitats of indigenous fauna as detailed in Table 11-1, Section 11A of the WRPS⁷.

Determination of ecological significance and value was undertaken in accordance with the WRC Draft Guidelines (Wildlands, 2021 in prep).

A recommendation to the potential number of EBL entitlements the natural areas could yield has been undertaken in accordance with the criteria in 'Environmental benefit lot assessment framework Guidelines for awarding multiple environmental benefit lot entitlements' (Boffa Miskell 2018).

¹ The New Zealand Freshwater Fish Database (NZFFD) administered by the National Institute of Water and Atmospheric Research (NIWA) accessed 16 March 2022.

² BioWeb Database. Administered by the Department of Conservation (DOC).

³ National Bat Database. Administered by DOC.

⁴ <https://www.inaturalist.org/observations>

⁵ <http://nzbirdsonline.org.nz/>

⁶ <http://ebird.org>

⁷ Section 11A and Table 11-1 Criteria for determining significance of indigenous biodiversity: Waikato Regional Policy Statement (<https://www.waikatoregion.govt.nz/Council/Policy-and-plans/Regional-Policy-Statement/RPS2016/Part-B/11/A/>).



3 DESCRIPTION OF ECOLOGICAL FEATURES

3.1 ECOLOGICAL CONTEXT

The Maungatautari Ecological District has largely been cleared of its original vegetation for agricultural purposes, though 16.5% of the District (8195 ha) remains in indigenous forest (Leathwick et al. 1995). Much of this (c. 3360 ha) is in the Maungatautari Ecological Sanctuary, with the bulk of the remainder on three smaller volcanic remnants to the north: Te Tapui, Maungakawa and Maungatapu. Little forest remains on land below 300 m asl.

In terms of fauna, the Maungatautari ED provides habitat for a range of wildlife. The ongoing restoration of the Maungatautari Ecological Sanctuary is leading to an increase in sightings of mobile indigenous birds outside the reserve's predator-proof fenceline (Fitzgerald et al. 2019). Tui, bellbird, and kereru are already abundant on Maungatautari, and other species such as kaka (*Nestor meridionalis*, 'At Risk – Recovering'), kārearea (*Falco novaeseelandiae*, 'At Risk – Recovering') and yellow-crowned parakeet are establishing themselves. These are all highly mobile species which could be expected to visit the forest remnants in future if they are not already doing so.

Long-tailed bats/ pekapeka-tou-roa (*Chalinolobus tuberculatus* - Threatened - Nationally Critical; O'Donnell 2018) are present in the surrounding landscape.

Restoration priorities recommended by Deichmann & Kessels (2013) for the Maungatautari ED are:

- Logged tawa and podocarp forest and kanuka scrubland surrounding the lower slopes of Maungatautari as well as in the vicinity of Te Miro and Whitehall and Buckland.
- The riparian margins scrublands, backwater wetlands and regenerating forest of the Waikato River and its tributaries.

The Browne Pastoral Enterprises property is within the identified Ecological Policy Corridor' priority zone for restoration (Kessels 2010)⁸, which has subsequently been scheduled as such in the Operative Waipa District Plan.

3.2 VEGETATION CLASSIFICATION

The vegetation in the forest remnants, was classified by the methodology of Atkinson (1985), and according to the typing of Singers and Rogers (2014) (Table 1).

QEII A is secondary regenerating forest, which is dominated by kanuka, mahoe and wheki scrub/forest which by the typing criteria of Singers and Rogers (2014) would be classified as Kanuka scrub/forest (VS2). These ecosystems general formed after large-scale disturbance (for example fire/volcanic activity (Singers and Rogers 2014) or land clearance.

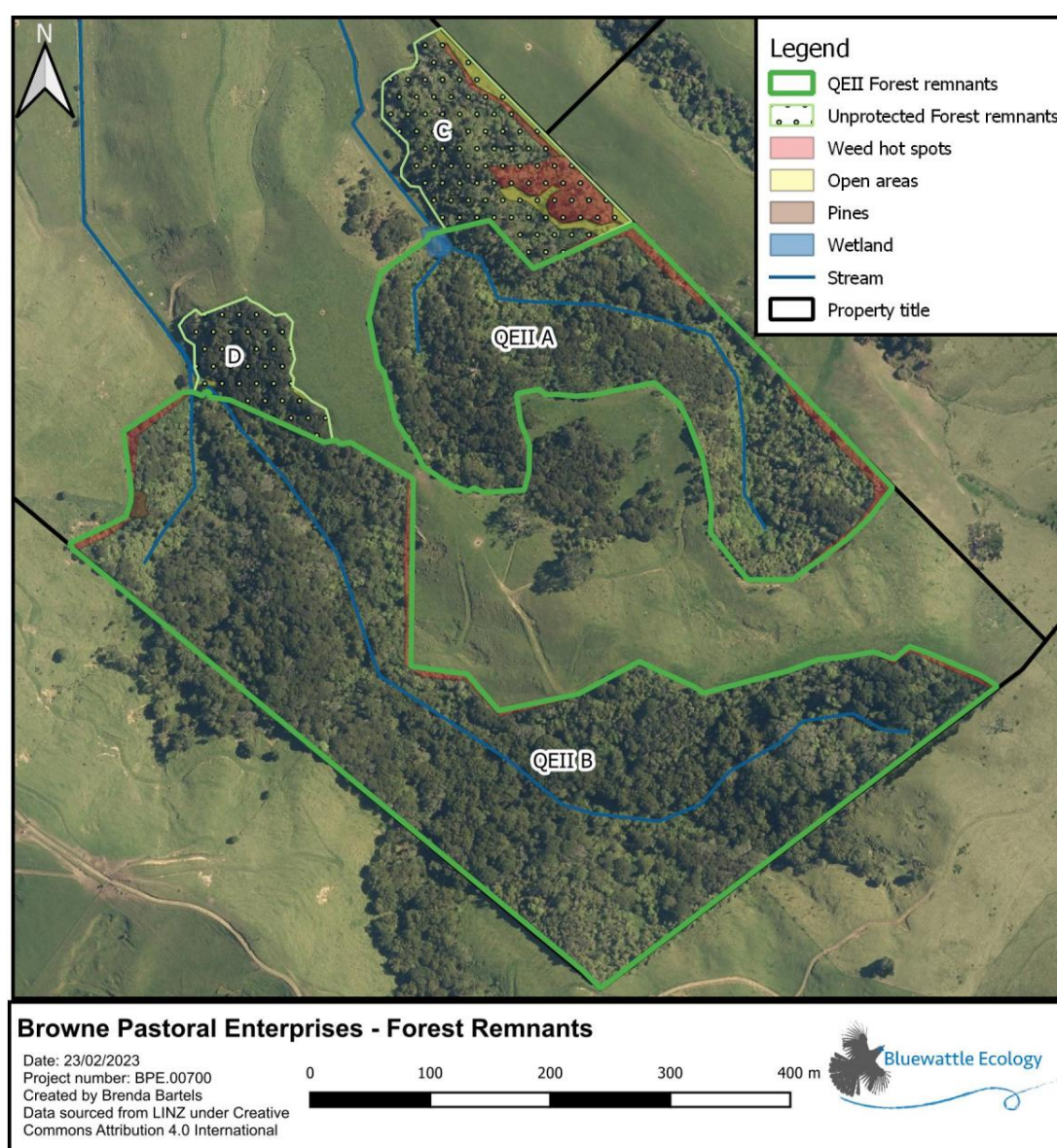
The largest of the forest remnants on the property, QEII B, has a central area of mature forest which by the typing criteria of Singers and Rogers (2014) would be classified as Tawa-Pukatea-Podocarp forest (MF7.3).

⁸ Kessels, G. 2010. Waipa District Council Policy Analysis of Indigenous Habitats & Biodiversity. Unpublished technical report for Waipa District Council; Kessels & Associates Ltd.



Table 1:. Atkinson and Singers vegetation classification.

Vegetation Type by Atkinson (1985) classification		Size (Ha)	Singers Vegetation type	Percentage Remaining in Maungatautari ED
QEII Forest remnant A - Secondary regenerating forest	Kanuka-Mahoe -(Wheki)	6.38	VS2	
QEII Forest remnant B - Tawa podocarp broadleaved forest	Tawa-Kanuka-(Rewarewa)-[Mangeao]-[Tanekaha]-[Totara]-[Kahikatea]	13.3a	MF7.3	11%
Forest remnant C - Secondary regenerating forest	Kanuka – (Mahoe) – [Mapou]-[Tanekaha]- [Totara]	1.97	MF7.3 and VS2	11%
Forest remnant D - Podocarp broadleaved forest and secondary forest	Kanuka-(tawa)-(Kahikatea)-(Mahoe)-(Mapou)-[Tanekaha]-[Totara]	0.805	MF7.3 and VS2	11%
Total		22.53		

**Figure 2: Forest remnants present at 333 Roto-o-Rangi Road**

3.3 FOREST VEGETATION

Two protected forest remnants are present on the property, both were fenced greater than 17 years ago (covenanted in 2005) and are regenerating. The vegetation in QEII Forest remnant A is dominated by regenerating species in particular kanuka and mahoe, although other forest species are present in places. QEII Forest remnant B has a more diverse canopy with tawa, mangeao and emergent rewarewa common along with kanuka on the hill slopes. Some mangeao dieback is present in the forest remnants.

Two unprotected forest remnants are also present adjoining the larger protected QEII forest remnants. These unprotected forest remnants have been partially fenced but grazing pressure is evident with a depauperate understorey and groundcover.

3.3.1 QEII FOREST REMNANT A – 6.38 HA

The smaller of the protected forest remnants is located on the north facing side of a gently rolling hill at an altitude ranging from 100 to 190 m asl. This forest remnant was comprised of regenerating secondary forest with the canopy dominated by kanuka (Photo 1). Mahoe, wheki and tree privet were also common amongst the canopy, with some mapou. Several of the large tree privets were flowering at the time of the site visit. Other canopy forming forest trees were fairly uncommon although tawa, rewarewa, kahikatea and totara, including large specimens, were occasionally observed.

While kanuka overwhelmingly dominated most of the canopy and in particular the elevated hillslopes. Mahoe and wheki were more common as canopy species in the low-lying damper gully areas, with dense growths of kawakawa and hangehange in places bordering the stream (Photo 2).

For most of the forest remnant the understorey was dominated by kawakawa or small (c.5 cm DBH) tawa with mangeao, mapou, tree privet, lemonwood, wheki and cabbage tree all relatively common.

Epiphytes were present including kiekie, tank lillies, hanging spleenwort and hounds tongue. The groundcover contains a number of ferns, sedges, grasses and herbs including bamboo grass, forest sedge, shaken brake and gully fern.

Regeneration is occurring here with seedlings of titoki, rewarewa, pigeonwood, tawa, mapou and mangeao observed. Privet seedlings were also common.

Weeds were common along the fenceslines of this protected forest remnant, except for the southern fenceline where very few weeds were observed. Common weeds included tree and Chinese privet, gorse, inkweed, with some barberry and blackberry in places. A few wilding pines were noted along the southern edge of the remnant.

At the northern extent of the forest remnant, where two gully arms converge is a wetland area that is dominated by cutty grass (rautahi) with some Yorkshire fog, watercress and penny royal present (Photo 3). The wetland totals an area of c.300 m².





Photo 1: Canopy of QEII forest remnant A looking in a north-westerly direction. Gorse in the foreground is from the adjacent paddock.

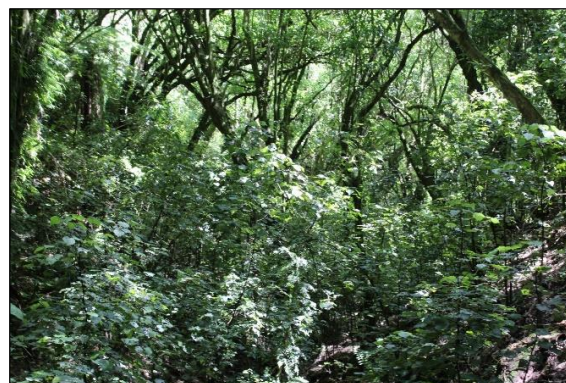


Photo 2 Dense growth of kawakawa beneath a canopy of mahoe in the gully bordering the stream.



Photo 3: Wetland area at the north-western extent of the forest remnant.



3.3.2 QEII FOREST REMNANT B – 13.37 HA

The larger of the two protected forest remnants is located on the north-western slope of an area of gently rolling farmland. The remnant ranges from 100 to 230 m asl. This remnant stretches 580 m in its longest axis and is 115 m wide at its narrowest point. This forest remnant protects the headwaters of the Mangawhero Stream, which is a cobble bottomed stream which flows east to west through the centre of the forest remnant.

The forest remnant has a more established and diverse canopy than QEII Forest remnant A, with tawa and kanuka dominating the canopy in the gully and hillslopes respectively, and mangeao and emergent rewarewa common. Other species present include tanekaha, kahikatea, pukatea and totara (Photo 4). The subcanopy contained several tree ferns including silverfern, wheki and mamaku as well as tawa, mahoe, mapou and rewarewa. Nikau, titoki, pigeonwood, mangeao, kawakawa, mahoe and pate were also present in the understorey (Photo 9).

Epiphytes and climbers were present and included white rata (Photo 6), supplejack, kiekie, leather-leaf fern, thread fern and hounds tongue. Epiphytes include bush flax, tank lily, and sickle spleenwort. Ferns were present amongst the groundcover and were particularly common bordering the stream at the base of the gully and included hen and chicken fern, shaking brake, thread fern, shining spleenwort, nini, and gully fern. Supplejack and nikau were also common bordering the stream (Photo 7).

Seedlings were common on the forest floor and included species such as rewarewa, tawa, titoki, nikau, mangeao and pigeonwood. In areas where tree fall had created a light well/gap in the canopy seedling regeneration was particularly common.

Weeds were common along the perimeter fenceslines of the forest remnant, particularly the northern fenceslines where inkweed, gorse, privet and pampas were observed. The occasional wilding pine was observed with a patch of pine trees near the western boundary (Figure 2).



Photo 4: A cluster of totara trees at the north-eastern tip of the remnant.

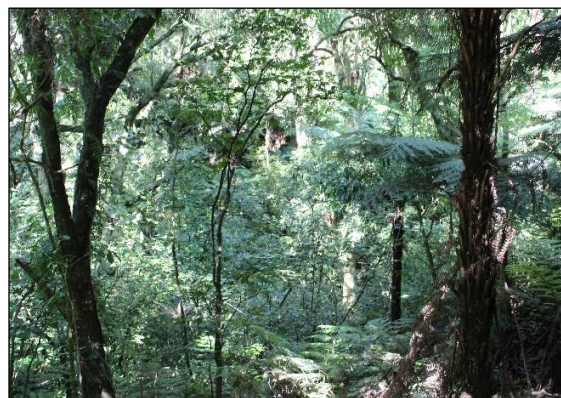


Photo 5: Understorey of QEII forest remnant B.





Photo 6: White rata in flower.



Photo 7: Headwater of the Mangawhero Stream.

3.3.3 FOREST REMNANT C – 1.97 HA

Forest remnant C is an unprotected remnant which is located at the north-western tip of QEII Forest remnant A. This forest remnant is located on the southern facing slope of a gully, with the headwater stream of the Mangawhero Stream flowing near the southern boundary. The remnant has a relatively diverse species assemblage, including kanuka, tawa, wheki, tanekaha (c.40-50 cm DBH), mahoe, rimu, mapou and totara. Kanuka is common on the steeper hillslope to the south, with mahoe, cabbage tree and wheki present.

The elevated flat area of the forest remnant (toward the northern boundary) has a large open area around a stock drinking trough and a formed track to the north-eastern corner of the remnant. (Photo 8). This elevated area is very weedy, with dense growths of barberry, tree privet and sprayed gorse. Tree privet is present throughout this remnant. Following the control of the weedy areas restoration planting will be required to reduce ongoing weed pressure. The understory is relatively sparse due to grazing pressure with grass common in open areas and bare earth with occasional grass and herbs in denser areas to the south.

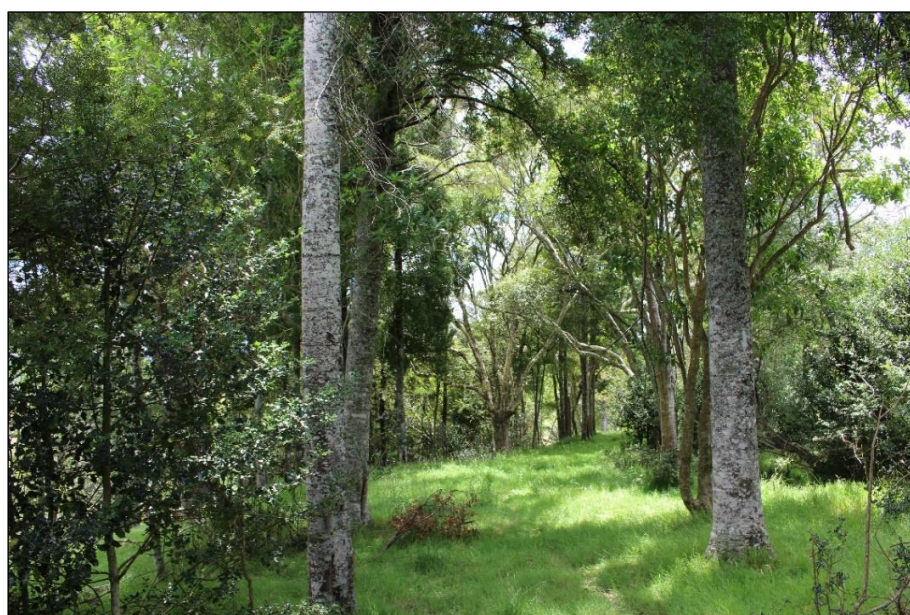


Photo 8: Open flat area near the northern boundary of the remnant with a formed track. With large tanekaha in the center bordered by totara, tree privet and barberry.



3.3.4 FOREST REMNANT D – 0.805 HA

Forest remnant D is a small, unprotected forest remnant connected to QEII Forest remnant B. This remnant is located at an elevation of 100 m asl, which is relatively uncommon as much of these low elevation forest remnants have previously been converted to farmland. The canopy in this area is intact with the hill slopes dominated by kanuka with clusters of kahikatea trees on the flat area near the stream (Photo 9), which flows along the western boundary of the remnant. Other canopy trees present include mahoe, mapou, tanekaha and totara.

The subcanopy includes mahoe and mapou with some silver fern and wheki (Photo 10). The understory and groundcover are bare as a result of grazing pressure and this remnant would benefit from secure fencing to aid in natural regeneration. Epiphytes are present with white rata, leather-leaf fern and hounds tongue observed.

Weed pressure is relatively low with some inkweed and gorse noted.



Photo 9: Canopy of Forest remnant D. With kanuka in the foreground with kahikatea behind.



Photo 10: Subcanopy of Forest remnant D.

3.4 FAUNA

3.4.1 BIRDS

Birds common to forest and open country were recorded during the site visit (Table 2). A kereru was observed in QEII Forest remnant B during the site visit and tui were commonly heard. Other indigenous forest species present were grey warbler, shining cuckoo, fantail, silvereye and sacred kingfisher. New Zealand falcon (*Falco novaeseelandiae*, At Risk – Recovering) have been observed on the property (*pers comm with the landowner*). Kaka (*Nestor meridionalis*, At Risk-Recovering) are present on Maungatautari Ecological Sanctuary c. 6.5 km to the east and the surrounding area (DoC Bioweb; iNaturalist) and given their high mobility are likely to visit here.



Table 2: Birds recorded during the site visit.

Common name	Scientific name	Conservation threat status (Robertson et al 2017)
Swamp Harrier	<i>Circus approximans</i>	Not threatened
Ring-necked Pheasant	<i>Phasianus colchicus</i>	Introduced and Naturalised
Sacred Kingfisher	<i>Todiramphus sanctus</i>	Not threatened
Kereru	<i>Hemiphaga novaeseelandiae</i>	Not threatened
Eastern Rosella	<i>Platycercus eximius</i>	Introduced and Naturalised
Shining Cuckoo	<i>Chrysococcyx lucidus</i>	Not threatened
Grey Warbler	<i>Gerygone igata</i>	Not threatened
Myna	<i>Acridotheres tristis</i>	Introduced and Naturalised
Silvereye	<i>Zosterops lateralis</i>	Not threatened
Tui	<i>Prothemadera novaeseelandiae</i>	Not threatened
Song Thrush	<i>Turdus philomelos</i>	Introduced and Naturalised
Blackbird	<i>Turdus merula</i>	Introduced and Naturalised
Skylark	<i>Alauda arvensis</i>	Introduced and Naturalised
New Zealand Fantail	<i>Rhipidura fuliginosa</i>	Not threatened
Chaffinch	<i>Fringilla coelebs</i>	Introduced and Naturalised
House Sparrow	<i>Passer domesticus</i>	Introduced and Naturalised
Australian Magpie	<i>Gymnorhina tibicen</i>	Introduced and Naturalised

3.4.2 FISH AND STREAM FAUNA

Headwater tributaries of the Mangawhero Stream, flow through both protected forest remnants, and Forest remnant D and along the southern boundary of Forest remnant C. The streams are rocky bottom, though with some siltation in the lower reaches, with clear, fast flowing water. There is a diverse range of microhabitats with several good-sized pools, and it appears to provide good fish habitat. Stream invertebrates were common and the species present, notably mayflies, indicate good water quality.

Several fish species have been recorded in the Mangawhero Stream near the Browne Pastoral Enterprises property including; both longfin and shortfin eel, Cran's bully and giant kokopu (Table 3) (FFDB)¹. Both Longfin eel and giant kokopu have a threat status of At Risk – Declining (Dunn et al., 2018). All these fish species could potentially be located within the forest remnants, although giant kokopu prefer slower flowing lowland streams and would therefore be restricted to the lower sections of the waterway within the remnants if present at all.



Table 3: Fish and koura recorded in the upper catchment of the Karapiro Stream (FFDB).

Common name	Scientific name	Conservation threat status (Dunn et al. 2018)
Longfin eel	<i>Anguilla dieffenbachii</i>	At Risk - Declining
Shortfin eel	<i>Anguilla australis</i>	Not threatened
Cran's bully	<i>Gobiomorphus basalis</i>	Not threatened
Giant kokopu	<i>Galaxias argenteus</i>	At Risk - Declining

3.4.3 HERPTOFAUNA

Lizards were searched for briefly by rolling logs and other cover that appeared potentially suitable; however, none were found. The property does nonetheless appear to provide appropriate habitat for copper skinks (*Oligosoma aeneum*, At Risk - Declining), and it is likely that they occur. Several other reptile species, whose presence is also possible, have been identified in nearby Waikato forests, namely forest gecko (*Mokopirirakau granulatus*, At Risk - Declining), Pacific gecko (*Dactylocnemis pacificus*, – Not threatened) and Auckland green gecko (*Naultinus elegans*, At Risk - Declining) (Hitchmough et al. (2021). All these species are highly cryptic and confirming their presence would be difficult.

3.4.4 BATS

Long-tailed bats (*Chalinolobus tuberculatus* Threatened - Nationally Critical) have been recorded within the wider landscape with multiple records approximately 4 km away (Bioweb Database)² and are likely to be present here.

Long-tailed bats are the only mammal endemic to New Zealand and are small, weighing 8-11 grams. Bats are aerial insectivores and use low frequency echo-location calls to navigate. Bat's reach reproductive maturity at an age of two to three years and are believed to only produce one pup a year.

Recently, the long-tailed bat has been reclassified from nationally vulnerable to nationally critical⁹, due to on-going habitat loss, predation from introduced mammalian pests, and an increased threat from vespid wasps¹⁰.

Long-tailed bats use edge habitat to forage and commute, and preferentially roost in cavities, splits and holes that form in large old trees – exotic or native.

3.5 THREATS

3.5.1 ANIMAL PESTS

Exotic mammalian pest species including possums, rabbits, hedgehogs, ship rats, mice, and stoats are likely to be present. Control of these species would aid the recovery of vegetation and indigenous

⁹ O'Donnell, CFJ; Borkin, KM; Christie, JM; Lloyd, B; Parsons, S; and Hitchmough, RA. 2018. Conservation status of New Zealand bats, 2017. New Zealand Threat Classification Series 21. Published by the Department of Conservation, Wellington, NZ. 4 p



fauna (see accompanying ERMP). There was evidence of larger browsing mammals namely deer with several groups of individuals as well as browse observed.

3.5.2 LIVESTOCK

Both QEII forest remnants A and B are fenced around their entirety with a number of different fence types, which have been shown in the plan in Appendix II.

QEII forest remnant A has been fenced with an 8-wire post and batten fence around the perimeter. In places the fence line is not visible due to dense growths of weeds. A short section of wooden rails is present across the wetland at the north-western extent of the forest remnant. The fences appear to be in good order, with one small gap noted where a headwater tributary flows into the forest remnant (Photo 11).

QEII forest remnant B is fenced with mesh with a single electric wire along most of the northern property boundary. A 17-wire post and batten fence is present along the property boundary to the south and east: here the standard fence appears to have been extended to exclude deer (Photo 12). An 8-wire fence protects the western boundary of the remnant. The fence requires maintenance along the northern mesh fence where wires have loosened (Photo 13) and southern boundary where trees have fallen onto the fence (Photo 14).

Forest remnant C is fenced with an 8-wire post and batten fence to the north and east along the boundary with QEII Forest remnant A (although much of this fence line could not be observed due to dense growths of weeds, predominantly gorse).

Forest remnant D is fenced along the boundary with QEII Forest remnant B and is fenced with a single electric wire around the remainder of the remnant.

Currently both stock and sheep are present on the property. The existing fences are suitable to exclude livestock for the most part, however, repairs are required and a thorough check of the entire existing fence is recommended, and any necessary repairs should be carried out and gaps closed.

Where secure fencing is required around forest remnants C and D, this should be a good quality 7-wire post and batten fence line.



Photo 11: Gap where the stream flows beneath the fence in QEII A.



Photo 12: Seventeen wire fence along the southern property boundary of QEII B.





Photo 13: A large gap in the mesh and single electric wire fence on the northern boundary of QEII B.

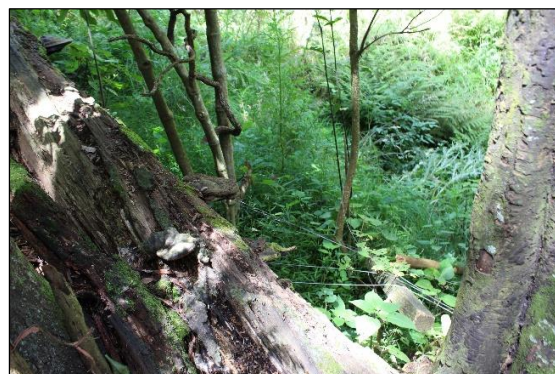


Photo 14: Treefall on southern property boundary fence QEII B.

3.5.3 WEEDS

Weed pressure was high in places along the fence lines of the forest remnants, particularly along the northern boundaries, with weed hot spots identified in Figure 2. Weed densities were highest in the open areas near the northern boundary of Forest remnant C (particularly in the north-eastern corner where the remnant joins QEII Forest remnant A). Here gorse, tree privet and barberry were common. These weeds were also common along the entire northern boundary of QEII Forest remnant A and also included inkweed, thistles and a small amount of black nightshade (Photo 15). Both Chinese and tree privet were present with large tree privet observed flowering within the central parts of the remnant (Photo 16).

Some weed pressure was also observed along the northern boundary of QEII Forest remnant B, with a similar species composition as well as a single pampas observed. Few weeds were observed in and around Forest remnant D.



Photo 15: Weeds along the northern boundary of QEII A. Showing inkweed, gorse and tree privet.

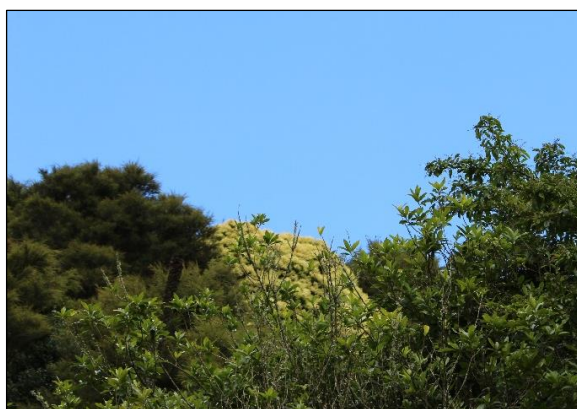


Photo 16: Large flowering tree privet within QEII A.



4 ECOLOGICAL SIGNIFICANCE ASSESSMENT

4.1 ASSESSMENT USING WAIKATO REGIONAL COUNCIL POLICY STATEMENT CRITERIA

Table 4 assesses the remnants against the WRPS Criteria for assessing ecological significance. To be identified as significant an area needs to meet one or more of the criteria. The remnants meet at least four (and up to six) of the 11 WRPS criteria. They are therefore considered to be ecological significant.

4.2 QUALIFICATION FOR ENVIRONMENT BENEFIT LOTS

Under Rule 15.4.2.51(c) of the Waipa District Plan (see Appendix I) an area or feature may qualify for one Environmental Benefit Lot (EBL) if it is a Significant Natural Area in an identified Biodiversity (Indigenous Forest) Corridors on Planning Map 49 with a minimum area of 5,000 m² which is permanently protected and supported by a specialist ecologist report accepted by Council. Applying these criteria, all forest remnants are significant natural areas which total an area of about 22.53 ha. These areas can be described as tawa podocarp broadleaf forest as well as secondary regenerating forest, at an altitude ranging from 100 to 230 m asl, which is unusual as few relatively large intact forest remnants remain below 300 m asl.

Much of the forest remnant area is already protected in perpetuity through the vestment in QEII National Trust Open Space covenants (19.75 ha). These areas have already been fenced although some fence maintenance and repair will be required. The smaller unprotected forest remnants will require secure fencing. In addition to this pest plant and animal control measures are required, as well as additional planting in open areas and where weeds are controlled.

Following management, enhancement and protection as described in the accompanying Management Plan, we consider that **seven** EBL entitlements would be appropriate when considering the ecological value of the site following enhancement, which is within a mapped biodiversity corridor, and in close proximity to Maungatautari Ecological Sanctuary as well as other nearby natural areas. This includes two EBL entitlements for QEII A, three EBL entitlements for QEII B, and one each areas C and D.



Table 4: Assessment of the proposed EBL areas against Waikato Regional Council RPS Criteria for Significant Indigenous Ecosystems.

Previously assessed site		1. QEII Forest Remnant A	2. QEII Forest Remnant B	3. Forest Remnant C	4. Forest Remnant D
1.	It is indigenous vegetation or habitat for indigenous fauna that is currently, or is recommended to be, set aside by statute or covenant or by the Nature Heritage Fund, or Nga Whenua Rahui committees, or the Queen Elizabeth the Second National Trust Board of Directors, specifically for the protection of biodiversity, and meets at least one of criteria 3-11.	YES	YES	NO	NO
Ecological values					
2A	In the coastal environment, it is indigenous vegetation or habitat that has reduced in extent or degraded due to historic or present anthropogenic activity to a level where the ecological sustainability of the ecosystem is threatened.	NO	NO	NO	NO
3.	It is vegetation or habitat for indigenous species or associations of indigenous species that are: <ul style="list-style-type: none"> • classed as threatened or at risk, or • endemic to the Waikato region 	YES – Long-tailed bats are highly likely to be present, longfin eel and giant kokopu also likely present.	YES – Long-tailed bats are highly likely to be present, longfin eel and giant kokopu also likely present.	YES Long-tailed bats are highly likely to be present.	YES – Long-tailed bats are highly likely to be present, longfin eel and giant kokopu also likely present.
4.	It is indigenous vegetation or habitat type that is under-represented (20% or less of its known or likely original extent remaining) in an Ecological District, or Ecological Region, or nationally	NO – Regenerating secondary forest.	YES – about 15.2% of original forest remaining in Maungatautari ED.	YES – about 15.2% of original forest remaining in Maungatautari ED.	YES – about 15.2% of original forest remaining in Maungatautari ED.
5.	It is indigenous vegetation or habitat that is, and prior to human settlement was, nationally uncommon such as geothermal, chenier plain, or karst ecosystems, hydrothermal vents or cold seeps.	NO	NO	NO	NO
6.	It is wetland habitat for indigenous plant communities and/or indigenous fauna communities (excluding exotic rush/pasture communities) that has not been created and subsequently maintained for or in connection with: <ul style="list-style-type: none"> • waste treatment; • wastewater renovation; • hydro electric power lakes (excluding Lake Taupō); • water storage for irrigation; or • water supply storage; unless in those instances they meet the criteria in Whaley et al. (1995).	YES	NO	YES	NO
7.	It is an area of indigenous vegetation or naturally occurring habitat that is large relative to other examples in the Waikato region of similar habitat types, and which contains all or almost all indigenous species typical of that habitat type. Note this criterion is not intended to select the largest example only in the Waikato region of any habitat type.	NO	NO	NO	NO
8.	It is aquatic habitat (excluding artificial water bodies, except for those created for the maintenance and enhancement of biodiversity or as mitigation as part of a consented activity) that is within a stream, river, lake, groundwater system, wetland, intertidal mudflat or estuary, or any other part of the coastal marine area and their margins, that is critical to the self sustainability of an indigenous species within a catchment of the Waikato region, or within the coastal marine area. In this context “critical” means essential for a specific component of the life cycle and includes breeding and spawning grounds, juvenile nursery areas, important feeding areas and migratory and dispersal pathways of an indigenous species. This includes areas that maintain connectivity between habitats.	YES – streams provide very good fish habitat likely to support several indigenous species, including longfin eel.	YES – streams provide very good fish habitat likely to support climbing species such as longfin eel.	NO	YES – streams provide very good fish habitat likely to support climbing species such as longfin eel.
9.	It is an area of indigenous vegetation or habitat that is a healthy and representative example of its type because: <ul style="list-style-type: none"> • its structure, composition, and ecological processes are largely intact; and • if protected from the adverse effects of plant and animal pests and of adjacent land and water use (e.g. stock, discharges, erosion, sediment disturbance), can maintain its ecological sustainability over time. 	YES – Remnant is fenced and with pest plant and animal control should be self-sustaining.	YES – Remnant is fenced and with pest plant and animal control should be self-sustaining.	NO – but would likely be if fencing and pest animal and plant control were undertaken.	NO – but would likely be if fencing and pest animal and plant control were undertaken.
10.	It is an area of indigenous vegetation or habitat that forms part of an ecological sequence, that is either not common in the Waikato region or an ecological district, or is an exceptional, representative example of its type.	NO	NO	NO	NO
Role in protecting ecologically significant area					
11.	It is an area of indigenous vegetation or habitat for indigenous species (which habitat is either naturally occurring or has been established as a mitigation measure) that forms, either on its own or in combination with other similar areas, an ecological buffer, linkage or corridor and which is necessary to protect any site identified as significant under criteria 1-10 from external adverse effects.	YES – Indigenous vegetation that is part of Waipa District Indigenous Forest Corridor and forms a stepping stone between nearby remnants.	YES – Indigenous vegetation that is part of Waipa District Indigenous Forest Corridor and forms a stepping stone between nearby remnants.	YES – Indigenous vegetation that is part of Waipa District Indigenous Forest Corridor and forms a stepping stone between nearby remnants.	YES – Indigenous vegetation that is part of Waipa District Indigenous Forest Corridor and forms a stepping stone between nearby remnants.



5 CONCLUSIONS

All four of the forest remnants at the Browne Pastoral Enterprises property are ecologically significant under section 6(c) of the Resource Management Act 1991 in accordance with the WRC RPS criteria at present. The forest areas total 22.53 ha (subject to survey). The indigenous vegetation provides habitat and food sources for a range of indigenous species including Nationally Critical long-tailed bats and a range of bird species including some with a national threat status. The headwaters of the Mangawhero Stream provide good water and habitat quality and are likely to support the At Risk declining longfin eel and giant kokopu.

The remnants are within the Waipa District Plan Biodiversity Corridor (Map 49) and identified Ecological Policy Corridor' priority zone for restoration providing value as a natural biodiversity corridor and ecological linkage. These forest remnants are part of a mosaic of similar remnants which provide a "stepping stone" biodiversity corridor for mobile indigenous bird species and long-tailed bats, as well as providing important upper catchment habitat for a number of native fish species.

In terms of restoration and management, fencing is required for forest remnants C and D. The two QEII forest remnants (A and B) are currently fenced although some repairs are required. Pest animal and control measures will be required in all remnants with weed pressure particularly high on the northern edge of the forest remnants as well as within forest remnants A and C. Some restoration planting will be required in open areas and where weeds have been controlled. With ongoing management and surveillance, the forest remnants will be self-sustaining in the long term. A separate ecological ERMP has been prepared for this proposal which should be read in conjunction with this report.

When assessed against the Waipa District Council Environmental Benefit Lot Assessment we consider that **seven EBL entitlements** would be appropriate under the provisions of Rule 15.4.2.51(c) of the Waipa District Plan (Table 5).



Table 5: Scoring of the proposed environmental protection lot on the Browne Pastoral Enterprises property against the Whaley Criteria and the Waipa District Council Environmental Benefit Lot Assessment Framework (after Boffa Miskell 2018)

Site	Ecological significance value:					Management criteria			Size (ha)	Riparian protection ¹	Ecological district/s	Status of protection	# of EBLs recommended.	Waipa Operative plan context	Notes
	Representativeness	Diversity and pattern	Rarity and special features	Naturalness	Ecological context	Long-term ecological viability ² .	Fragility and threat ³ .	Management input ⁴ .							
Browne Pastoral Enterprises – QEII Forest remnant A	Medium – Regenerating secondary forest dominated by kanuka, mahoe and whēki with few large canopy forming trees. This area provides medium contribution to indigenous ecosystems in the natural landscape.	Medium-Remnant is fenced and regenerating is occurring. Missing several canopy species due to selective logging in the area.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium – Stock have been excluded which protects this area of regenerating forest. Natural regeneration is occurring.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium - Intact forest canopy dominated by regenerating species. Invasive plant pressure is moderate.	Medium- Securely fenced. Dominated by indigenous vegetation.	Medium – Mammalian pest control required and minimal pest plant control required. Restoration planting will be required following pest plant control.	6.38 ha	400m-0m-N 130m-0m-N	Maungatautari	QEII SNA within indigenous forest corridor	3	QEII SNA within indigenous forest corridor between Maungatautari Scenic Reserve and Te Tapui Scenic Reserve.	
Browne Pastoral Enterprises – QEII Forest remnant B	High – tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging.	Low - Medium – This remnant is fenced and regeneration is occurring. Remnant has moderate to low diversity in the canopy, sub canopy and groundcover.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium - High-Canopy composition and understorey have a diverse assemblage of indigenous species. Podocarps are present but some selective logging has also occurred	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	High - Medium-Intact forest canopy with little invasive plant pressure in the forest interior (with pest plant species common on the northern fence boundary).	Medium- Resilient forest ecosystem with natural succession occurring.	Medium - Mammalian pest control required, some weed control and restoration planting.	13.37 ha	730m-0m-N 220m-0m-N	Maungatautari	QEII SNA within indigenous forest corridor	2		
Browne Pastoral Enterprises – Forest remnant C	High - Medium – Contains areas of tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging. Secondary regenerating forest which provides medium contribution to indigenous ecosystems in the natural landscape	Low - Medium – Unfenced remnants have low sub canopy and groundcover diversity, and canopy species diversity is moderate.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident.	Medium – Stock access has degraded fragments and prevented regeneration.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium -Low – Invasive pest plant pressure is moderate to high (including within the canopy in places). Fencing and pest plant and animal control measures are required to protect the remnants long-term viability	Medium - High – Resilient intact canopy is present and with protection by way of fencing regeneration will occur.	Medium-High – Mammalian pest control required, weed control required with high weed pressure in places. Restoration planting required in open areas and following weed control.	1.97 ha			SNA within indigenous forest corridor	1		



Brown Pastoral Enterprises – Forest remnant D	High – tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging.	Low - Medium – Unfenced remnants have low sub canopy and groundcover diversity, and canopy species diversity is good.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium – Stock access has degraded fragments and prevented regeneration.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium – Indigenous canopy is intact. Fencing and pest plant and animal control measures are required to protect the remnants long-term viability.	Medium - High – Pest plants are common, particularly along the northern section of the remnant, but also present throughout. Fencing is required along with buffer planting.	Medium - Mammalian pest control required, weed pressure is low. Some restoration planting is required in open areas.	0.805 ha	c.30m-0m-Y		SNA within indigenous forest corridor	1		
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¹"m of both side" - "m of one side only" Y=previous to application stock access. N=previous to application no stock access.

²**High** = likely to continue to retain ecological health and values with minimal management input. (good) **Low** = likely to lose ecological health and value over time with minimal management input. (bad)

³**High** = very fragile (bad) **Low** = very resilient (good)

⁴**High** = A lot of input required (bad) **Low** = minimal input required (good)



REFERENCES & BIBLIOGRAPHY

- Atkinson IAE 1985. Derivation of vegetation mapping units for an ecological survey of Tongariro National Park, North Island, New Zealand. *New Zealand Journal of Botany* 23: 361–378.
- Boffa Miskell Ltd. (2018). Environmental benefit lot assessment framework: Guidelines for awarding multiple environmental benefit lot entitlements (Report No. H18008). Prepared by Boffa Miskell Ltd for Waipa District Council.
- de Lange, P.J.; Rolfe, J.R.; Barkla, J.W.; Courtney, S.P.; Champion, P.D.; Perrie, L.R.; Beadel, S.M.; Ford, K.A.; Breitwieser, I.; Schonberger, I.; Hindmarsh-Walls, R.; Heenan, P.B.; Ladley, K. 2018: Conservation status of New Zealand indigenous vascular plants, 2017. *New Zealand Threat Classification Series* 22. Department of Conservation, Wellington. 82 p.
- Deichmann, B; & Kessels, G. 2013. Significant Natural Areas of the Waipa District: Terrestrial and wetland ecosystems. Kessels & Associates Ltd for Waikato Regional Council, WRC ref : TR 2013/16.DOC DM-131465. Department of Conservation, Wellington.
- Dunn NR, Allibone RM, Closs GP, Crow SK, David BO, Goodman JM, Griffiths M, Jack DC, Ling N, Waters JM, Rolfe JR 2018. Conservation status of New Zealand freshwater fishes, 2017. *New Zealand Threat Classification Series* 24. Wellington, Department of Conservation.
- Hitchmough, R.A., Barr, B., Knox, C., Lettink, M., Monks, J.M., Patterson, G.B., Reardon, J.T., van Winkel, D., Rolfe, J., Michel, P. 2021. *New Zealand Threat Classification Series* 35. Department of Conservation, Wellington. 15 p
- Leathwick, J. R., Clarkson, B.D, Whaley, P. 1995. Vegetation of the Waikato Region. Client report, Landcare Research, Hamilton, New Zealand.
- Robertson, H.A.; Baird, K., Dowding, J.E., Elliott, G.P., Hitchmough, R.A., Miskelly, C.M., McArthur, N., O'Donnell, C.F.J.; Sagar, P.M.; Scofield, R.P.; Taylor, G.A. 2017: Conservation status of New Zealand birds, 2016. *New Zealand Threat Classification Series* 19. Department of Conservation, Wellington. 23 p
- Singers, N.J.D.; Rogers, G.M. 2014: A classification of New Zealand's terrestrial ecosystems. *Science for Conservation* 325. Department of Conservation, Wellington. 87 p
- O'Donnell, C.F.J.; Borkin, K.M.; Christie, J.E.; Lloyd, B.; Parsons, S.; Hitchmough, R.A. 2018: Conservation status of New Zealand bats, 2017. *New Zealand Threat Classification Series* 21. Department of Conservation, Wellington. 4 p
- Overdyk, E . 2020. Nationally threatened and regionally uncommon species of the Waikato Region. Waikato Regional Council Technical Report 2019/28. Waikato Regional Council, Hamilton. 60pp
- Whaley, K.J., Clarkson, B.D., Leathwick, J.R. 1995. Assessment of criteria used to determine 'significance' of natural areas in relation to section 6(c) of the Resource Management Act (1991). Landcare Research Contract Report LC9596/021 to Environment Waikato. 34 pp.
- Wildland Consultants Ltd. 2019. Updated guidelines for determining areas of significant indigenous vegetation and habitats of indigenous fauna in the Waikato Region. Waikato Regional Council Technical Report 2019 (draft)



APPENDIX I EBL RULE 15.4.2.51 WAIPA DISTRICT PLAN

Rules - Environmental benefit lots: significant natural areas or features

15.4.2.51 Significant natural areas and significant natural features identified on the Planning Maps or established using the Criteria for Determining Significance of Indigenous Biodiversity, Section 11A in the Regional Policy Statement, may be eligible for environmental benefit lots where the area or feature is protected in perpetuity by a legal mechanism provided that:

- (a) Lots created through this mechanism that are located in a sensitive area as identified in Rule 15.4.2.43, must utilise the Transferable Development Right provisions of Rules 15.4.2.41 to 15.4.2.49.
- (b) Holdings that have one feature, located over two titles that are located within significant natural areas shall only qualify for a Transferable Development Right if the titles are amalgamated so that the identified feature is held in one title following the subdivision.

The areas or features that may qualify for one environmental benefit lot are:

- (c) Significant natural areas in identified Biodiversity (Indigenous Forest) Corridors on Planning Map 49 with a minimum area of 5,000m² which are permanently protected and supported by a specialist ecologist report accepted by Council.
- (d) Significant natural features being wetlands and/or kahikatea stands which are permanently protected and supported by a specialist ecologist report accepted by Council that demonstrates that the site is a self sustaining ecosystem.
- (e) Land within a Peat Lake Catchment identified as a significant natural area that provides a Whole Farm Management Plan at the time of subdivision which demonstrates that the new land uses can enhance or improve the peat lake significant natural area.

Advice Note: Additional lots may be considered if permanent protection is being achieved for the priority areas or features for protection, listed in Policy 15.3.6.6.

Activities which fail to comply with Rule 15.4.2.51(a) will require a resource consent for a non-complying activity.

Activities that fail to comply with Rules 15.4.2.51(b) to 15.4.2.51(e) will require a resource consent for a discretionary activity.

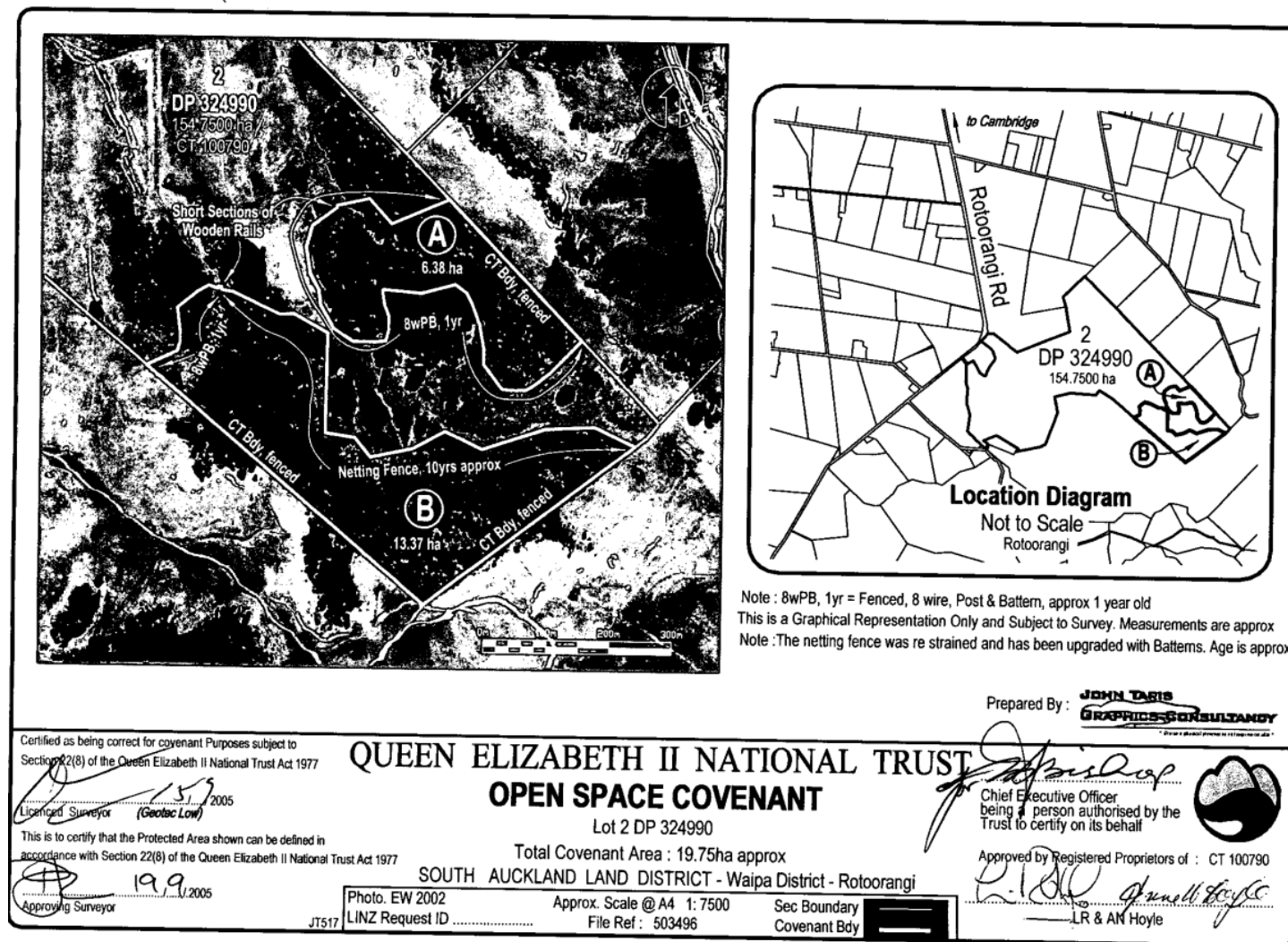
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APPENDIX II QEII OPEN SPACE COVENANT



APPENDIX III BOTANICAL SPECIES LIST

Trees, Shrubs and Climbers

Titoki	<i>Alectryon excelsa</i>
Tawa	<i>Beilschmiedia tawa</i>
Kanono	<i>Coprosma autumnalis</i>
Karamu	<i>Coprosma robusta</i>
Cabbage tree	<i>Cordyline australis</i>
Kahikatea	<i>Dacrycarpus dacrydioides</i>
Rimu	<i>Dacrydium cupressinum</i>
Kiekie	<i>Freycinetia banksii</i>
Hangehange	<i>Geniostoma rupestre</i>
Puka	<i>Griselinia lucida</i>
Pigeonwood	<i>Hedycarya arborea</i>
Rewarewa	<i>Knightia excelsa</i>
Kanuka	<i>Kunzea robusta</i>
Pukatea	<i>Laurelia novae-zelandiae</i>
Manuka	<i>Leptospermum scoparium*</i>
Mangeao	<i>Litsea calicularis</i>
Kawakawa	<i>Macropiper excelsa</i>
Mahoe	<i>Melicytus ramiflorus</i>
White rata	<i>Metrosideros diffusa</i>
Mapou	<i>Myrsine australis</i>
Tanekaha	<i>Phyllocladus trichomanoides</i>
Lemonwood	<i>Pittosporum eugenioides</i>
Kohuhu	<i>Pittosporum tenuifolium</i>
Totara	<i>Podocarpus totara</i>
Lancewood	<i>Pseudopanax crassifolius</i>
Supplejack	<i>Ripogonum scandens</i>
Nikau	<i>Rhopalostylis sapida</i>
Pate	<i>Schefflera digitata</i>

Ferns & Fern Allies

Drooping spleenwort	<i>Asplenium flaccidum</i>
Shining spleenwort	<i>Asplenium oblongifolium</i>
Sickle spleenwort	<i>Asplenium polyodon</i>
Nini	<i>Blechnum chambersii</i>
Thread fern	<i>Blechnum filiforme</i>
Kiokio	<i>Blechnum novae-zelandiae</i>
Gully tree fern	<i>Cyathea cunninghamii</i>
Ponga	<i>Cyathea dealbata</i>
Mamaku	<i>Cyathea medullaris</i>
Wheki	<i>Dicksonia squarrosa</i>
Houndstongue	<i>Microsorium pustulatum</i>
Gully fern	<i>Pneumatopteris pennigera</i>
Leather-leaf fern	<i>Pyrrosia elaeagnifolia</i>



Monocots, Orchids & Herbs

Bush flax	<i>Astelia fragrans</i>
Tank lily	<i>Astelia hastata</i>
Bush rice grass	<i>Microlaena avenacea</i>
Basket grass	<i>Oplismenus hirtellus</i> var. <i>imbecillus</i>
Cutty grass (rautahi)	<i>Carex geminata</i>
Carex sp.	<i>Carex dissita</i>

Adventive Species

Barberry	<i>Berberis glaucocarpa</i>
Thistle	<i>Cirsium</i> sp.
Cocksfoot	<i>Dactylis glomerata</i>
Canadian fleabane	<i>Erigeron canadensis</i>
Musk storksbill	<i>Erodium moschatum</i>
Tall fescue	<i>Festuca arundinacea</i>
Cleavers	<i>Galium aparine</i>
Yorkshire fog	<i>Holcus lanatus</i>
Tree privet	<i>Ligustrum lucidum</i>
Chinese privet	<i>Ligustrum sinense</i>
Pennyroyal	<i>Mentha pulegium</i>
Watercress	<i>Nasturtium officinale</i>
Inkweed	<i>Phytolacca octandra</i>
Radiata pine	<i>Pinus radiata</i>
Creeping buttercup	<i>Ranunculus repens</i>
Blackberry	<i>Rubus fruticosus</i> agg
Sheep's sorrel	<i>Rumex acetosella</i>
Broad-leaf dock	<i>Rumex obtusifolius</i>
Black nightshade	<i>Solanum nigrum</i>
Gorse	<i>Ulex europaeus</i>



Browne Pastoral Enterprises

Forest Remnant Restoration & Management Plan 333 Roto-o-Rangi Road, Waipa District



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1 INTRODUCTION

Bluewattle Ecology was commissioned by Browne Pastoral Enterprises to undertake an ecological assessment and Ecological Restoration and Management Plan (ERMP) for four forest remnants at 333 Roto-o-Rangi Road, within the Waipa District (Figure 1). The assessment has been undertaken to determine its suitability for additional future subdivision potential under the rules relating to Environmental Benefit Lots (EBLs) within the Waipa District. This ERMP supports the Ecological Assessment (EcA) Report and should be read in conjunction with that report.

The EcA report identified four ecologically significant forest remnants with a combined total of 22.53 ha on the property. This plan provides restoration and management measures required for these remnants. The remnants are set at an elevation ranging from 100-230 m asl and protect the headwaters of the Mangawhero Stream. The two larger forest remnants have been protected for c.17 years by way of Queen Elizabeth II National Trust Open Space Covenants (QEII) and are comprised of secondary regenerating forest and tawa podocarp broadleaved forest respectively (QEII Forest remnants A and B). Two unprotected forest remnants (Forest remnants C and D) are also present adjoining the larger protected QEII forest remnants. These unprotected forest remnants have been partially fenced and secure perimeter fencing is required.

The protected forest remnants are regenerating, and the unprotected remnants are expected to regenerate following secure fencing. Pest plant and animal control will be required, especially along the northern boundary of the forest remnants including the north-eastern corner of Forest remnant C where weed pressure is high. Some additional restoration planting will be required following pest plant control and in the identified open areas.

For full details on the ecological features of the property see the accompanying EcA report. A guide to restoration of native remnants in the Maungatautari Ecological District has been prepared by Waikato Regional Council which provides helpful advice on how these areas may be restored: <https://www.waikatoregion.govt.nz/environment/natural-resources/biodiversity/planting-guides/what-to-plant-in-maungatautari-ecological-district/>

1.1 RESTORATION AND MANAGEMENT OBJECTIVES

This plan outlines the objectives and implementation methods required to meet those objectives for the restoration and management of the property's forest remnants. The key objectives are to create largely self-sustaining habitats where animal and plant pests are largely controlled to zero density and indigenous flora and fauna dominate the forest and stream ecosystems. In order to achieve this, the following key management measures are required:

- i. The forest remnants must be legally protected by covenants, securely fenced and stock excluded in perpetuity.
- ii. Maintenance shall continue until plantings have reached sufficient maturity to be largely self-sustaining, and have reached 80% canopy closure for all ecosystem types. The survival rate shall ensure a minimum 90% of the original density and species.
- iii. Plant replacement maintenance shall be undertaken for a minimum of 5 years, including the ongoing replacement of plants that do not survive so that stems per hectare native plant density is no less than 1 native plant per square metre in wetland habitats, and no less than 1 plant per 2 square metres for indigenous forest habitats.



- iv. All pest plants shall be controlled at a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration from all covenant areas.
- v. Animal pest control shall occur in perpetuity at the rate indicated within this management plan.

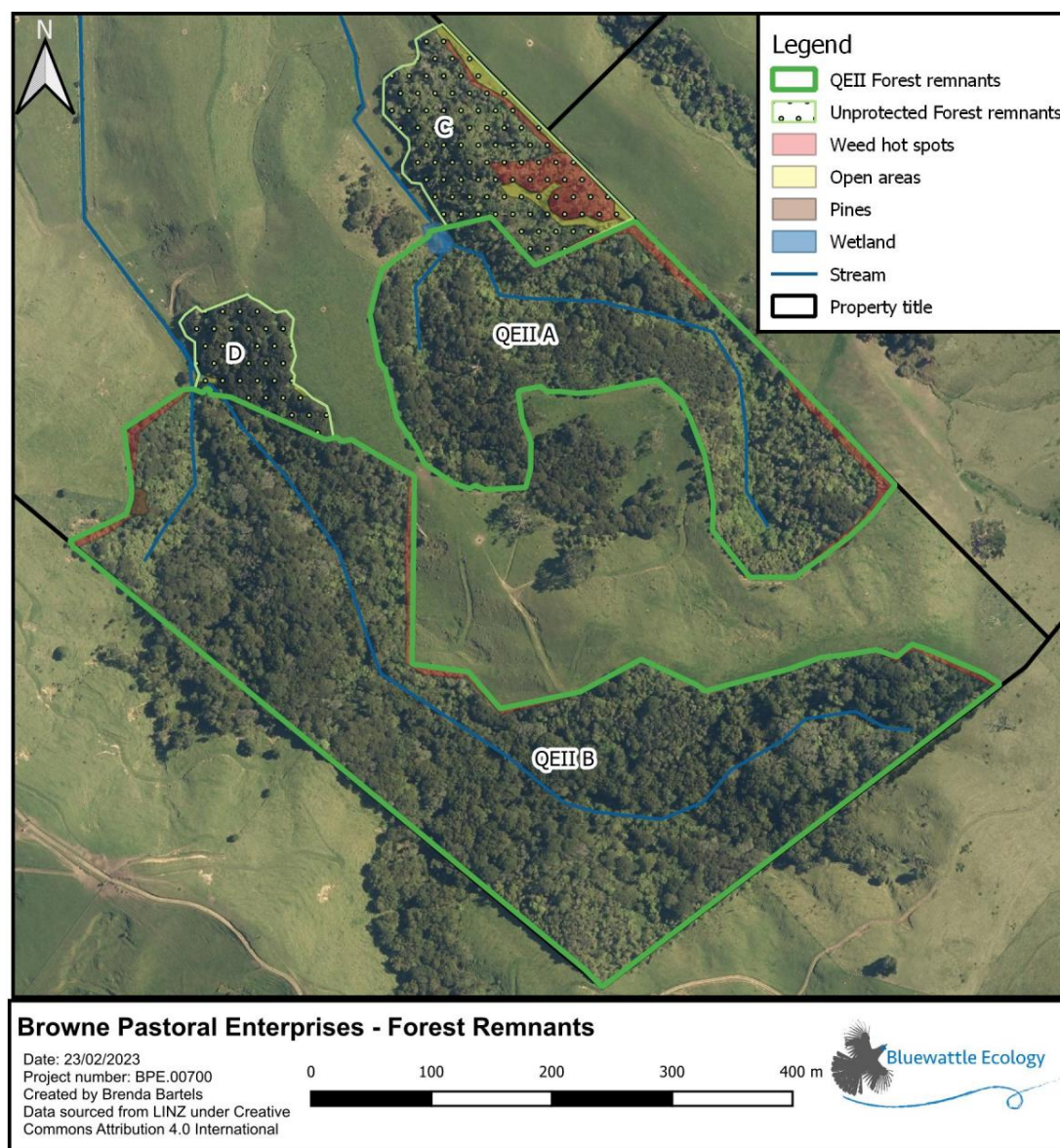


Figure 1: Forest remnants at 333 Roto-o-Rangi Road, for contribution to the WDC Environmental Benefit Lot (EBL) rule.



2 DETAILED RESTORATION AND MANAGEMENT ACTIONS

2.1 FENCING

Both QEII forest remnants A and B are fenced around their entirety with several different fence types.

The fence for QEII Forest remnant A appear to be in good order although in places along the northern and western fence lines it was not visible due to dense weed growth. One small gap was noted where a headwater tributary flows into the forest remnant (Photo 1), this requires repair.

QEII Forest remnant B is fenced with mesh with a single electric wire along most of the northern property boundary. A 17-wire post and batten fence is present along the property boundary to the south and east: here the standard fence appears to have been extended to exclude deer. The fence requires maintenance along the northern mesh fence where wires have loosened (Photo 2). Repairs are also required along the southern boundary where trees have fallen onto the fence.

Forest remnant C is fenced with an 8-wire post and batten fence to the north and east along the boundary with QEII forest remnant A (although much of this fence line could not be observed due to dense growths of weeds, predominantly gorse).

Forest remnant D is fenced along the boundary with QEII forest remnant B and is fenced with a single electric wire around the remainder of the remnant.

Secure fencing is required around forest remnants C and D, this should be a good quality 7-wire post and batten fence line.

Currently, both stock and sheep are present on the property. The existing fences are suitable to exclude livestock for the most part, however, repairs are required and a thorough check of the entire existing fence is recommended, and any necessary repairs should be carried out and gaps closed. If goats are to be stocked on the adjoining land then fences should have an electric outrigger added and must have no gaps across dips and nothing that can be used to aid climbing, such as corner post stays.

To extend the life of the existing fences and ensure the ongoing protection of all the forest remnants, we suggest the following fence maintenance regime:

- Carry out regular checks for fallen debris, particularly following severe weather;
- Remove fallen branches and repair fences as soon as practical after damage occurs;
- Trim vegetation so it does not come into direct contact with fences;
- Maintain wire tension; and
- Regularly check the power supply for electric fences.



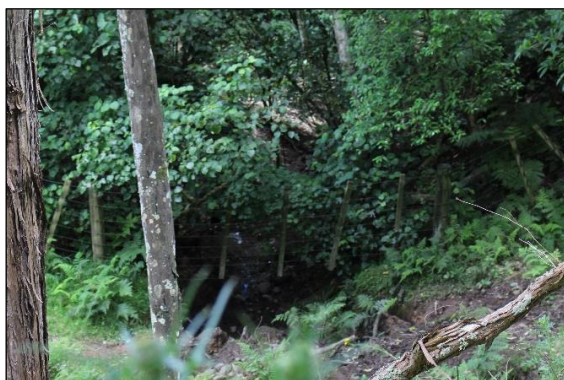


Photo 1: Gap where the stream flows beneath the fence in QEII A.



Photo 2: A large gap in the mesh and single electric wire fence on the northern boundary of QEII B.

2.2 ANIMAL PEST CONTROL

Control of animal pests is required by the District Plan Environmental Lot rules. For this site it is recommended that possum, rat, and mustelid control is carried out. Most pest control supplies including traps and poison can be obtained from rural supply stores such as Farmlands.

Ongoing control is recommended as possums, rabbits and hares browse native vegetation. Hares can severely browse planted seedlings. Rats eat seeds and fruit as well as preying on birds and their eggs along with invertebrates and lizards. Mustelids (stoats, ferrets, and weasels) and cats may hunt in this area, and these predators can be particularly harmful to ground-nesting birds.

There was evidence of larger browsing mammals namely deer with several groups of individuals as well as browse observed.

2.2.1 RAT AND POSSUM CONTROL

An animal pest control plan shall be implemented to keep rats and possums at low levels. This may comprise chemical (e.g. bait stations) and/or manual control (e.g. traps and shooting) as detailed below. Note that these requirements cover all restoration areas.

2.2.1.1 CHEMICAL CONTROL

Rats and possums can be controlled with bait stations containing pindone, brodifacoum (Pestoff®) or cholecalciferol. The Philproof® bait station is suitable for possums and rats. Place bait stations around forest margins, spaced 50 m apart (Table 1). Fill stations with suitable/safe toxin once and refill four weeks later. This is called 'pulse feeding' – because these baits are slow-acting, possums will consume more than is necessary if stations are refilled more often. Baiting can be done throughout the year, but possums are hungrier in winter. Four pulses per year are recommended (Aug, Nov, Jan and April). These can be deployed on the inside of posts along the fence line.

'Pulsing' bait fill in stations will maximise bait take and lower pest animal densities enough for birds and other fauna to thrive. This means filling them 3-4 times over a 4-6 week period (depending on bait take). Pulsing before and after winter, when other food sources in the environment are low, is key to restricting opportunities for pests to breed.

Take extra care using poisons if you have pet or working dogs free-ranging on the property.



2.2.1.2 MANUAL CONTROL

Kill traps can be used to control pest mammals but require more regular checking and re-setting than bait stations. Single set traps will need to be checked and rebaited weekly at first (especially for rats) until the catch rate comes down significantly. Following this initial blitz, trapping intervals can be extended to fortnightly during the spring and summer months and at least monthly for the rest of the year. An increase in catch rates indicates the need for more frequent trapping.

Rat traps shall be placed at a density of two per hectare, spaced at 50 m intervals. Possum traps shall be placed at a density of one per hectare, spaced at 100 m intervals. Bait for manual traps should be species-specific and replaced regularly. Rat traps can be baited with peanut butter while possum traps are most effective when baited with a mix of cinnamon, icing sugar and flour. Goodnature® (A12s and A24s) or NZ Auto Traps (AT220s) self-resetting traps can be used to minimise the effort required. The AT220's work very well however their initial set-up cost is higher than bait stations and other types of kill trap.

2.2.2 MUSTELID CONTROL

The best time to trap mustelids is during late spring and summer. Mustelids often follow pre-existing tracks or natural linear features with low vegetation, such as stock tracks, or along stream banks. Mustelids will investigate any tunnels and burrows encountered while hunting, and trap tunnels or covers should be used to cover the set traps. This will also prevent the capture of non-target birds and animals.

The DOC 150® and DOC 200® series traps are well proven in trapping small mustelids and rats. The larger DOC 250® is also able to trap larger ferrets. A self-setting alternative for trapping small mustelids (stoats and weasels) is the Goodnature A24® rat and stoat trap. Allow a minimum of one mustelid trap per hectare (Table 1). Setting appropriately spaced bait lines that run through the area of indigenous vegetation is another alternative setup. Bait traps with fresh fish, poultry, rabbit or an egg for mustelids. Never wash traps after they have caught a mustelid, as the scent left by the captured animal will attract others, acting as a natural lure. Check and re-bait traps fortnightly during summer and monthly during winter.

2.2.3 FERAL CATS

Cats are cautious by nature and not easily trapped. Where feral cats appear to be frequenting these areas live capture box traps may be used to capture feral cats these need to be checked daily for legal purposes. Any captured cats should be humanly euthanised as soon as possible. Baits such as fresh fish, poultry, rabbit, or simply cat food may be used to lure feral cats into the live capture trap. This may however lead to other mammals being caught as well, and repeated attempts may be required. Live capture traps are legally required to be checked no more than 12 hours after sunrise each day.

2.2.4 DEER

Shooting is likely the most effective way to control deer, and as this is private land, spot-light hunting will be the most effective as deer tend to be most active in the evenings and early morning.



Table 1: Approximate number of bait stations and traps per management/vegetation area.

Restoration Areas	Number of bait stations	Mustelid traps
Forest remnant QEII A	26	6
Forest remnant QEII B	45	13
Forest remnant C	7	2
Forest remnant D	4	1
Total	82	22

2.3 PEST PLANTS

Pest plants can outcompete, smother, and inhibit the growth of native species, typically by competing for space and resources. Weed pressure was high in places along the fence lines of the forest remnants, particularly along the northern boundaries, with weed hot spots identified in Figure 1.

Weed densities were highest in the open areas near the northern boundary of Forest remnant C (particularly in the north-eastern corner where the remnant joins QEII Forest remnant A). Here gorse, tree privet and barberry were common. These weeds were also common along the entire northern boundary of QEII Forest remnant A and also included inkweed, thistles and a small amount of black nightshade (Photo 3). Both Chinese and tree privet were present with large tree privet observed flowering within the central parts of the remnant (Photo 4).

Some weed pressure was also observed along the northern boundary of QEII Forest remnant B, with a similar species composition as well as a single pampas observed.

Few weeds were observed around Forest remnant D.



Photo 3: Weeds along the northern boundary of QEII A. Showing inkweed, gorse and tree privet.

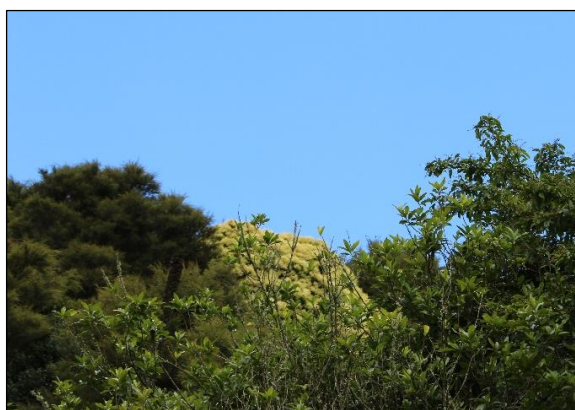


Photo 4: Large flowering tree privet within QEII A.

Table 2 presents information on the pest plants observed during the visit, other potential plant pest species which could inhabit these areas once stock are removed, as well as priorities for control. The Waikato Regional Pest Management Plan (WRPMP) 2022 - 2032¹ outlines the regional council's

¹ Waikato Regional Council 2022: Waikato Regional Pest Management Plan 2022-2032, Hamilton, 203 p.



priorities and strategies in managing invasive, exotic plant species. Those plant species listed in the WRPMP have been classified based on their actual or potential adverse impacts on the environment.

The priority for pest plant control is to remove those species that have the potential to alter or disturb natural processes in established native vegetation or prevent establishment of native vegetation. Priorities for weed control have been provided in Table 2.

Control methodologies described in Table 2 and are based on general best practice for minimal ecological impact. The control method depends on the species and the extent of infestation, with spraying limited to the control of dense and large infestations only. Chemical and manual weed control should be carried out in accordance with NZS8409:2004 Management of Agrichemicals as stated in Section 19 Rule 19.4.2.4(c) of the Waipa District Plan. For further information on control methodologies see weedbusters.org.nz.

Control practices shall aim to reduce weed species to low levels. Weed control is far more effective during summer months and should be carried out when no significant rainfall is predicted for the following days. Once pest plant control is started it is important that regular checks are made (every 3-6 months) to monitor the effectiveness of the control and to look for new invasions.

2.3.1 HERBICIDE USE

When working with herbicides always follow manufacturer's instructions regarding mixing and application and ensure that any additives are compatible with the herbicide used. Always apply herbicides correctly and safely to prevent any health hazards. Note that only herbicides certified for use over water should be used near stream or wetland habitat.

Note that residual herbicides containing metsulfuron-methyl, picloram or aminopyralid (i.e. Tordon Brushkiller XT) should be avoided in close proximity to desirable plant species. Care will need to be taken to protect new plantings or naturally regenerating plants from herbicides by covering them, adding a marker dye and spraying during calm weather.



Table 2: Pest plant species and priorities and methods for control.

Common name	Botanical name	RPMS Designation	Location & notes	Control priority	Control method
Barberry	<i>Berberis glaucocarpa</i>	Not listed in WRPMP	Common in Forest remnant C and the northern fence line of QEII A.	High	Spray spring-autumn with glyphosate (10ml/L). Cut or frill and saturate immediately with glyphosate (200ml/L) or metsulfuron-methyl 600g/kg (5g/L + penetrant)
Tree and Chinese privet	<i>Ligustrum lucidum</i> <i>L.sinense</i>	Site-led (Wetlands) – Chinese privet only	Present on the boundary of remnants and within the interior of QEII A and Forest remnant C.	High	Small seedlings and saplings can be hand pulled. For larger specimens cut and paint stump with metsulfuron-methyl 600g/kg (1g/L) or 25% 360g/L glyphosate solution.
Blackberry	<i>Rubus fruticosus</i> agg.	Site-led – Wetland Prevent spread and minimise impacts on high biodiversity sites	Occasional blackberry pant observed in QEII A. Plant will quickly establish and smother plantings once stock are excluded. Regrowth can occur from rhizomes and ongoing monitoring is required.	High	Small patches (year round): Either dig out root crowns and rhizomes, or cut stems and apply glyphosate (400 ml/L) to stumps. Dispose of plant material appropriately. Large patches (summer - autumn): Spray with metsulfuron-methyl (7.5 g/15 L) or triclopyr (60 ml/15 L). Be aware that spraying is only effective before leaves become brittle. Spray at least six months before planting to allow adequate time for the residual herbicide to break down.
Pampas	<i>Cortaderia selloana</i> ,	Not listed in WRPMP	One specimen was seen on the northern fenceline of QEII B.	Medium-High	Spray with glyphosate or haloxyfop (e.g. gallant) at label rates.
Inkweed	<i>Phytolacca octandra</i>	Not listed in WRPMP	Northern boundary of QEII A and B and Forest remnant C. Ongoing surveillance.	Low-Medium	Pull small plants or cut stems at ground level and paint the stumps with metsulfuron-methyl 600g/kg (1g/L)
Black nightshade	<i>Solanum nigrum</i>	Not listed in WRPMP	Occasional plant observed and ongoing surveillance required.	Low	Doesn't usually cause a problem in natural areas. It is an annual and can be pulled before it sets berries and left to rot down onsite.
Gorse	<i>Ulex europaeus</i>	Containment (occupier control): must be controlled within 20 m of a boundary	The occasional gorse does not usually hinder restoration efforts. However, dense growths were present in Forest remnant C and the edge of QEII B and these require control to a level that does not suppress native regeneration is recommended.	Medium-High	Individual plants: Cut stem and swab stump with glyphosate (250 ml/ L). Frilling or injection with Tordon Brushkiller XT ® is also recommended as a control method. Large patches: Spray with triclopyr 600 EC (20 ml/10 L) during summer - autumn, or during late autumn - winter with metsulfuron-methyl (5 g/10 L+ penetrant, based on using a knapsack). Cannot tolerate shade so will eventually be outcompeted.



2.4 PLANTING REQUIREMENTS

Restoration planting is required in all remnants to infill open areas and following weed control to prevent re-establishment and aid regeneration. Most of the restoration areas will be located around the fence lines, particularly the northern fence lines.

The total open area for restoration planting for all remnants is approximately 9,550 m² (Table 3). Restoration of these areas will require the planting of approximately 1,923 indigenous pioneer plants.

Table 3: Total areas for restoration planting in the forest remnants.

Forest Remnant	Open area to be planted (m ²)*	The approximate number of pioneer plants required
QEII Forest remnant A	2,150	1,095
QEII Forest remnant B	2,570	1,310
Forest remnant C	5,620	2,860
Forest remnant D	145	72
Total	9,550	1,923

*Includes weedy areas that will need to be planted following weed control to prevent re-establishment.

2.4.1 SPECIES SELECTION

Table 4 shows a range of suitable indigenous plants for restoration planting in the open areas. Light-demanding pioneer or primary species such as manuka, kanuka, makomako, karamu and koromiko should be planted into the open areas of pasture grass and areas where weed control has been undertaken. This shrubland can be supplemented by secondary colonisers, which include mahoe, ribbonwood and mapou (Table 4).

Once pioneer or primary species have established, supplementary planting of the forest remnants to establish canopy species which are in low density in the remnants. Recommended species include; rimu, miro, matai, totara and kahikatea. These species should be planted in sheltered gaps within restoration plantings in all forest remnants as well as lightwells within QEII Forest remnant A and Forest remnant C (Table 5).

Table 4: Plants to be planted in the open areas within the forest remnants.

Botanical Name	Common name	Abundance	Plant grade (pot size)
<i>Aristotelia serrata</i>	wineberry	10%	1L, PB2
<i>Cordyline australis</i>	cabbage tree	5%	1L
<i>Coprosma robusta</i>	karamu	15%	1L, PB2
<i>Dodonaea viscosa</i>	akeake	5%	1L
<i>Knightia excelsa</i>	rewarewa	5%	1L
<i>Kunzea robusta</i>	kanuka	10%	1L, PB2



<i>Leptospermum scoparium</i>	manuka	15%	1L, PB2
<i>Melicactus ramiflorus</i>	mahoe	5%	1L, PB2
<i>Myrsine australis</i>	mapou	10%	1L, PB2
<i>Pittosporum eugenioides</i>	lemonwood	5%	1L, PB2
<i>Pittosporum tenuifolium</i>	Black matipo	10%	1L
<i>Veronica (Hebe) stricta</i>	koromiko	5%	1L

Table 5: Late-stage canopy enhancement tree species.

Botanical Name	Common name	% of mix	Plant grade (pot size)
<i>Dacrydium cupressinum</i>	rimu	20%	1.5L
<i>Dacrycarpus dacrydioides</i>	kahikatea	20%	1.5L
<i>Laurelia novae-zelandiae</i>	pukatea	15%	1L, PB2
<i>Podocarpus totara</i>	totara	15%	1.5L
<i>Prumnopitys ferruginea</i>	miro	10%	1.5L
<i>Prumnopitys taxifolia</i>	matai	10%	1.5L
<i>Phyllocladus trichomanoides</i>	tanekaha	10%	1.5L

2.4.2 PLANTING TECHNIQUES

Planting should ideally be done in autumn when there is sufficient soil moisture and soil temperatures are still high enough to promote root growth. Planting can be done right through winter until around September.

Plants should be bought from a reputable grower, should be from a local seed source (Maungatautari Ecological District), and should be healthy and robust. Plants grown from natural populations in neighbouring districts are preferred to non-eco-sourced plants. If planting any myrtle species, such as kānuka and rātā (*Metrosideros* spp.), nursery stock shall be checked for signs of myrtle rust prior to planting. Identifying features of myrtle rust can be found on the Department of Conservation website².

In the open restoration areas, plants are to be planted at a density of one plant every 0.5 to 1.5 m (approximately 4,500/ha to 3,000/ha) in groups of three or more. Large canopy forming trees should be spaced approximately 10-15 m apart (approximately 115/ha to 50/ha), within the areas already planted. Smaller trees and shrubs can be scattered throughout. Spot-spraying with a glyphosate herbicide should be carried out to control weed and grass growth 28 to 14 days prior to planting. Spots should be approximately 0.3 x 0.3 m in area and spaced according to the required planting density (e.g. 1.5 m centre to centre).

If specified plants are not available it is preferable to increase the proportion of another plant in the list rather than substitute another species which may not be suitable for the site.

² <https://www.doc.govt.nz/nature/pests-and-threats/diseases/myrtle-rust/>, accessed 16/10/2019



In areas where soil has been compacted as the result of previous land uses, the soil can be loosened to a depth of 0.5 m using a crowbar or trenching spade. After planting, the soil level against the stem should be the same as before planting. Staking is recommended so that plants are more easily located.

The plant is to be secured in the ground by filling the space surrounding the roots with soil and lightly compressing it. Soil compression will fill any voids that might be present around the roots avoiding damage caused by water accumulation. Initial watering after planting is required.

Optimal plant stock will be used in the planting which has the following attributes:

- Healthy, vigorous, and free from obvious signs of disease and pests;
- Planter bag or pot size RRTT, PB3 - PB5;
- Of at least average size for the specified pot/planter bag size;
- Well-developed root system with high amount of new root growth; and
- Not root bound.

2.4.3 PLANTING MAINTENANCE

Planted areas should be regularly maintained to keep them weed-free and plants should be released at least three times in the first year after planting and one or two times in the subsequent four years. This involves clearing competing vegetation from around each plant, which gives them the best chance of survival and maximises growth rates. Releasing can be done with a non-residual herbicide such as glyphosate, with a brush-cutter, or manually.

It is normal to expect a mortality rate of at least 10%. Additional plants should be planted in the spaces where other plants died.

2.4.4 TIMELINE

Weed control and releasing of plants should be carried out four times per year for three years following completion of planting. This involves removing weeds and competing vegetation from around each plant (releasing) by either spraying or mechanical means (brush cutter). Grasses can be quickly cleared by hand if preferred. Regular releasing is very important and promotes fast growth which minimises time to canopy closure. The plantings should be inspected three months after planting and any dead or dying plants removed and replaced with the same species.

Table 6 shows the recommended timeline for restoration planting and weed control.

Table 6: Approximate timeline of restoration planting, weed control and plant release.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pre-planting weed control												
Planting												
Plant release/weed control (year 1)												
Plant release/weed control (years 2 – 5)												



3 SUMMARY AND MANAGEMENT REQUIREMENTS

Four forest remnants are proposed for restoration, management and protection on the Browne Pastoral Enterprises property at 333 Roto-o-Rangi Road. These forest remnants have a combined protection lot area of 22.53 ha and are ecologically significant under Section 6(c) of the Resource Management Act 1991 in accordance with the WRC RPS criteria.

This plan outlines the ecological management process for the forest remnants. The protected QEII forest remnants A and B have been fenced for several years and some repair and ongoing maintenance of the fence is required. Forest remnants C and D require secure fencing around their perimeter to meet council requirements and allow protection in perpetuity. Animal and plant pest control measures are also required. Restoration planting is required in all remnants to fill open spaces and following weed control to prevent re-establishment and aid regeneration. Once the pioneer plants have been established supplementary planting with large canopy species can be undertaken. The restoration and supplementary planting will promote the natural succession of indigenous plants.

Once the requirements of this management plan have been implemented, the remnants will require minimal ongoing management apart from yearly animal and plant pest control, as well as fence maintenance.

3.1 PERFORMANCE STANDARDS

A follow-up visit by a suitably qualified ecologist will be required to assess the property against the following performance standards prior to granting the EBL entitlement. A staged release of the EBL entitlements can occur as per Table 7.

Performance standards include the following:

1. Forest remnants C and D must be legally protected by covenants in perpetuity.
2. Ensure all covenant areas are securely fenced and stock excluded.
3. Control of invasive plant pests to a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration of covenant areas (Section 3.3).
4. Formalisation and implementation of pest animal management practices as described above, and a map of the trap and bait station locations will need to be provided (this is a requirement before the granting of any EBLs but can be undertaken under the guidance of this management plan, without an inspection) (see Section 3.2).
5. Planting needs to be undertaken in the restoration areas with a minimum survival rate of 90% of the original density and species. The stems per hectare native plant density should be no less than 1 plant per 2 square metres for indigenous forest (as per the planting requirements in Section 2.4). Canopy closure is not required prior to granting the EBL entitlement but shall be monitored via the recommendations in this Management Plan.



Table 7: Summary vegetation types, management requirements and EBL entitlement recommendations.

Vegetation areas	Size (ha)	Restoration and management actions	Recommended EBLs
QEII forest remnant A	6.38	<ul style="list-style-type: none"> Fenced with 8 wires around the perimeter. In places the fence line is not visible due to dense growths of gorse/privet. Control weeds – Chinese and tree privet, with large trees observed flowing within the central parts of the remnant. Gorse is present along the fence line as well as inkweed and some barberry. Pest animal control - 26 bait stations in total required and 6 mustelid traps Restoration planting will be required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	2
QEII forest remnant B	13.37	<ul style="list-style-type: none"> Fenced with mesh with a single electric wire along most of the northern boundary. A 17 wire fence is present along the property boundary to the south and east – the standard fence appears to have been extended to exclude deer. Eight wire fence along the western boundary (see QEII certification). Fence requires maintenance along the northern and southern boundaries where trees have fallen or wires have loosened. Control weeds – Chinese privet, pampas, gorse, barberry and inkweed present along the northern fence line. Pest animal control - 45 bait stations in total required and 13 mustelid traps. Restoration planting will be required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	3
Forest remnant C	1.97	<ul style="list-style-type: none"> Fencing required around approximately half of the remnant; secure fencing around entire perimeter is required. Weed pressure is high with dense growths of barberry, gorse and privet in places (particularly in the northeastern corner where the remnant joins QEII A). Pest animal control - 7 bait stations in total required and 2 mustelid traps. Restoration planting will be required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	1
Forest remnant D	0.805	<ul style="list-style-type: none"> Currently fenced with a single electric wire, secure fencing required. Weed pressure is relatively low, some privet and gorse along northern boundary. Pest animal control – 4 bait stations and 1 mustelid trap. Restoration planting required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	1
Total area	22.53		7



APPENDIX 2 - BOFFA MISKELL ENVIRONMENTAL BENEFIT LOT ECOLOGICAL ADVISORY GUIDANCE

[ECM# 10998127]

Level 3
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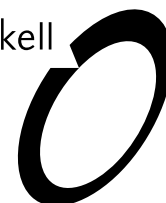
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Boffa Miskell



Waipa Planning Team

Environmental benefit lot ecological advisory guidance – PG-0022-23 – 333 Rotorangi Road, Waipa District.

As described within the scope provided on 28 March 2023, I have assessed the ecological report and relevant information submitted as part of this Environmental Benefit Lot (EBL) application. This letter provides advisory guidance on the number of EBLs that may be awarded.

Below is a short outline of the application's ecological weighting with regards to ecological values and previous EBL entitlement recommendations with final advice on the appropriate quantum of entitlements available. This assessment is based on assessment guidelines developed for Waipa District Council on granting multiple EBL entitlements¹.

Ecological values are described in one ecological report:

- Bluewattle Ecology (2022) Browne Pastoral Enterprises Ecological Assessment of Forest Remnants at 333 Roto-o-Rangi Road, Waipa District.

EBL eligibility:

A scoring against the ecological criteria for providing guidance and awarding EBL entitlements was provided by Bluewattle Ecology. This information is provided below in Table 1 for the areas that are proposed to be protected.

Ecology report notes:

The assessment described two forest remnants, of which both contain a portion already protected by QEII covenants, and an area of forest not currently legally protected. The two existing areas of QEII covenant have a total area of 19.75 ha (A = 6.38 ha and B = 13.37 ha). The additional, non-legally protected, forest remnants have a total of 2.775 ha (C = 1.97 ha and D = 0.805 ha). This totals to a total area of 22.53ha.

Methodology: Methods outlined follow best practice and suitable for assessment of ecological values for EBL assessments.

¹ Boffa Miskell Limited 2018. Environmental benefit lot assessment framework: Guidelines for awarding multiple environmental benefit lot entitlements. Report prepared by Boffa Miskell Limited for Waipa District Council.

Ecological Context: Section is well written and detailed.

Vegetation Classification & Forest Vegetation: These sections are well detailed and high quality detailing the composition of the proposed protection areas.

Fauna: Detailed appropriately and I agree with the assumptions made regarding the presence of the several at-risk and threatened species identified.

Threats - Animal Pests: Detailed appropriately and covers all aspects relevant to the proposed protection blocks.

Threats - Livestock: The summary of fencing status of the four areas across the two fragments is useful in understanding the current pressures of livestock on all of the area. The wording of “Currently both *stock* and *sheep*...” in the sixth paragraph of Section 3.5.2. I have read as *cattle* and *sheep*, with this understanding the recommendation for 7 wire post and batten fencing is appropriate.

Threats – Weeds: Detailed appropriately and covers all aspects relevant to the proposed protection blocks.

Assessment Using Waikato Regional Council RPS Criteria: I consider the significance assessment provided is accurate and I agree with the assessment.

Qualification for Environment Benefit Lots: I agree all remnants qualify for EBL entitlements. I also agree that the protection of the entirety of the two forest remnants (split into four blocks) should qualify for seven EBL entitlements. While there is relatively little precedent at this larger size of proposed protection (22.53ha), this is consistent and within the range of entitlements awarded to previous examples of 20-30ha of protection.

In assessing the potential appropriate entitlement against previous precedent, I have also considered:

- the valuable ecological context of the site’s proximity to Maungatautari Ecological Sanctuary,
- the ecological benefit of the protection of the head waters of the catchments protected,
- the large size, and resilience, of the two distinct fragments,
- QEII covenant status, and
- Long-term, previous to application, stock exclusion and subsequent regeneration within the QEII blocks.

In line with the precondemning letter (R. Steenstra dated 17 March 2023) I also agree with a potential to split/stage the entitlements over stages and agree with Blue Wattle Ecology’s summation of “two EBL entitlements for QEII A, three EBL entitlements for QEII B, and one each areas C and D.”. Note: Table 5 of the assessment states three EBL entitlements for QEII A and two for QEII B. I have corrected this in Table 1 included below.

Overview

Overall, the assessment is of a high quality and at a level of detail to allow an assessment of the EBL entitlements against the EBL entitlement criteria. I do not consider further information or correction is necessary unless the applicant considers it useful to provide further support or information that they may consider would change the outcome of the assessment.

I agree with the authors that the protection of the four blocks split across two forest fragments should be awarded seven EBL entitlements. This entitlement recommended should be subject to the

development of a detailed Ecological Management Plan. I note this plan has been provided and will be reviewed shortly.

Supplementary information for comparison between this proposed protection lot and those previously assessed is available on request. This table has been removed from the advice letter due to the continually increasing size of the information package.

Yours faithfully

BOFFA MISKELL LTD



Andrew Blayney
Ecologist – Principal
Certified Environmental Practitioner



Table 1: Table of scoring against assessment criteria for areas proposed to be protected - EBL entitlements. Scoring and categories based on Environmental benefit lot assessment framework. Scoring follows guidance provided by Davis, Head, Myers, & Moore (2016)²

Site	Ecological significance value					Management criteria			Size (ha)	Riparian protection ³	Ecological district/s	Status of protection	# of EBLs requested	# of EBLs recommended.	Waipa Operative plan context	Notes
	Representativeness	Diversity and pattern	Rarity and special features	Naturalness	Ecological context	Long-term ecological viability ⁴ .	Fragility and threat ⁵ .	Management input ⁶ .								
PG/0022/23 – 333 Rotorangi Road, Waipa District. Browne Pastoral Enterprises – QEII Forest remnant A	Medium – Regenerating secondary forest dominated by kanuka, mahoe and wheki with few large canopy forming trees. This area provides medium contribution to indigenous ecosystems in the natural landscape.	Medium-Remnant is fenced and regenerating is occurring. Missing several canopy species due to selective logging in the area.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium – Stock have been excluded which protects this area of regenerating forest. Natural regeneration is occurring.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium - Intact forest canopy dominated by regenerating species. Invasive plant pressure is moderate.	Medium- Securely fenced. Dominated by indigenous vegetation.	Medium – Mammalian pest control required and minimal pest plant control required. Restoration planting will be required following pest plant control.	6.38 ha	400m-0m-N 130m-0m-N	Maungatautari	QEII	2	Seven for the total 22.53ha. I agree with the breakdown of entitlements is accessed in a staged matter.	SNA within indigenous forest corridor	Scoring provided by Blue Wattle. Ecology. Minor tweaks to align commentary with rows (Waipa Operative Plan context)
PG/0022/23 – 333 Rotorangi Road, Waipa District. Browne Pastoral Enterprises – QEII Forest remnant B	High – tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging.	Low - Medium – This remnant is fenced and regeneration is occurring. Remnant has moderate to low diversity in the canopy, sub canopy and groundcover.	High – Highly likely to be utilised by longtailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium - High- Canopy composition and understorey have a diverse assemblage of indigenous species. Podocarps are present but some selective logging has also occurred	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	High - Medium- Intact forest canopy with little invasive plant pressure in the forest interior (with pest plant species common on the northern fence boundary).	Medium- Resilient forest ecosystem with natural succession occurring.	Medium - Mammalian pest control required, some weed control and restoration planting.	13.37 ha	730m-0m-N 220m-0m-N	Maungatautari	QEII	3		SNA within indigenous forest corridor	Scoring provided by Blue Wattle. Ecology. Minor tweaks to align commentary with rows (Waipa Operative Plan context)
PG/0022/23 – 333 Rotorangi Road, Waipa District. Browne Pastoral Enterprises – Forest remnant C	High - Medium – Contains areas of tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging. Secondary regenerating forest which provides medium contribution to indigenous ecosystems in the natural landscape	Low - Medium – Unfenced remnants have low sub canopy and groundcover diversity, and canopy species diversity is moderate.	High – Highly likely to be utilised by long-tailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident.	Medium – Stock access has degraded fragments and prevented regeneration.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium -Low – Invasive pest plant pressure is moderate to high (including within the canopy in places). Fencing and pest plant and animal control measures are required to protect the remnants long-term viability	Medium - High – Resilient intact canopy is present and with protection by way of fencing regeneration will occur.	Medium-High – Mammalian pest control required, weed control required with high weed pressure in places. Restoration planting required in open areas and following weed control.	1.97 ha		Maungatautari	Proposed	1		SNA within indigenous forest corridor	Scoring provided by Blue Wattle. Ecology. Minor tweaks to align commentary with rows (Waipa Operative Plan context)
PG/0022/23 – 333 Rotorangi Road, Waipa District. Brown Pastoral Enterprises – Forest remnant D	High – tawa-podocarp broadleaf forest remnants fragments are under-represented in the Ecological District despite selective logging.	Low - Medium – Unfenced remnants have low sub canopy and groundcover diversity, and canopy species diversity is good.	High – Highly likely to be utilised by long-tailed bats. Also likely utilised by falcon, kaka and hihi from Maungatautari or resident. Longfin eels may be present.	Medium – Stock access has degraded fragments and prevented regeneration.	High - in area of a large number of SNAs and close to Maungatautari Ecological Sanctuary. Within Waipa District Biodiversity Corridor.	Medium – Indigenous canopy is intact. Fencing and pest plant and animal control measures are required to protect the remnants long-term viability.	Medium - High – Pest plants are common, particularly along the northern section of the remnant, but also present throughout. Fencing is required along with buffer planting.	Medium - Mammalian pest control required, weed pressure is low. Some restoration planting is required in open areas.	0.805 ha	c.30m-0m-Y	Maungatautari	Proposed	1		SNA within indigenous forest corridor	Scoring provided by Blue Wattle. Ecology. Minor tweaks to align commentary with rows (Waipa Operative Plan context)

² Davis, M., Head, N. J., Myers, S. C., & Moore, S. H. (2016). Department of Conservation guidelines for assessing significant ecological values (Science for Conservation No. 327). Wellington: Department of Conservation.³ "m of both side" - "m of one side only" Y= previous to application stock access. N= previous to application no stock access.⁴ **High** = likely to continue to retain ecological health and values with minimal management input. (good) **Low** = likely to lose ecological health and value over time with minimal management input. (bad)⁵ **High** = very fragile (bad) **Low** = very resilient (good)⁶ **High** = A lot of input required (bad) **Low** = minimal input required (good)

APPENDIX 3 - BLUEWATTLE ECOLOGY BROWNE PASTORAL ENTERPRISES FOREST REMNANT RESTORATION & MANAGEMENT PLAN

[ECM# 11005420]

Browne Pastoral Enterprises

Forest Remnant Restoration & Management Plan 333 Roto-o-Rangi Road, Waipa District



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Prepared by: Brenda Bartels

Reviewed by: Gerry Kessels

Version: Final 2.1 30/04/23

PWF Ref: BPE.00700

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1 INTRODUCTION

Bluewattle Ecology was commissioned by Browne Pastoral Enterprises to undertake an ecological assessment and Ecological Restoration and Management Plan (ERMP) for four forest remnants at 333 Roto-o-Rangi Road, within the Waipa District (Figure 1). The assessment has been undertaken to determine its suitability for additional future subdivision potential under the rules relating to Environmental Benefit Lots (EBLs) within the Waipa District. This ERMP supports the Ecological Assessment (EcA) Report and should be read in conjunction with that report.

The EcA report identified four ecologically significant forest remnants with a combined total of 22.53 ha on the property. This plan provides restoration and management measures required for these remnants. The remnants are set at an elevation ranging from 100-230 m asl and protect the headwaters of the Mangawhero Stream. The two larger forest remnants have been protected for c.17 years by way of Queen Elizabeth II National Trust Open Space Covenants (QEII) and are comprised of secondary regenerating forest and tawa podocarp broadleaved forest respectively (QEII Forest remnants A and B). Two unprotected forest remnants (Forest remnants C and D) are also present adjoining the larger protected QEII forest remnants. These unprotected forest remnants have been partially fenced and secure perimeter fencing is required.

The protected forest remnants are regenerating, and the unprotected remnants are expected to regenerate following secure fencing. Pest plant and animal control will be required, especially along the northern boundary of the forest remnants including the north-eastern corner of Forest remnant C where weed pressure is high. Some additional restoration planting will be required following pest plant control and in the identified open areas.

For full details on the ecological features of the property see the accompanying EcA report. A guide to restoration of native remnants in the Maungatautari Ecological District has been prepared by Waikato Regional Council which provides helpful advice on how these areas may be restored: <https://www.waikatoregion.govt.nz/environment/natural-resources/biodiversity/planting-guides/what-to-plant-in-maungatautari-ecological-district/>

1.1 RESTORATION AND MANAGEMENT OBJECTIVES

This plan outlines the objectives and implementation methods required to meet those objectives for the restoration and management of the property's forest remnants. The key objectives are to create largely self-sustaining habitats where animal and plant pests are largely controlled to zero density and indigenous flora and fauna dominate the forest and stream ecosystems. In order to achieve this, the following key management measures are required:

- i. The forest remnants must be legally protected by covenants, securely fenced and stock excluded in perpetuity.
- ii. Maintenance of plantings shall continue until plantings have reached sufficient maturity to be largely self-sustaining, and have reached 80% canopy closure for all ecosystem types. The survival rate shall ensure a minimum 90% of the original density and species.
- iii. Plant replacement maintenance shall be undertaken for a minimum of 5 years, including the ongoing replacement of plants that do not survive so that stems per hectare native plant density is no less than 1 native plant per square metre in wetland habitats, and no less than 1 plant per 2 square metres for indigenous forest habitats.



- iv. All pest plants shall be controlled at a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration from all covenant areas.
- v. Animal pest control shall occur in perpetuity at the rate indicated within this management plan.

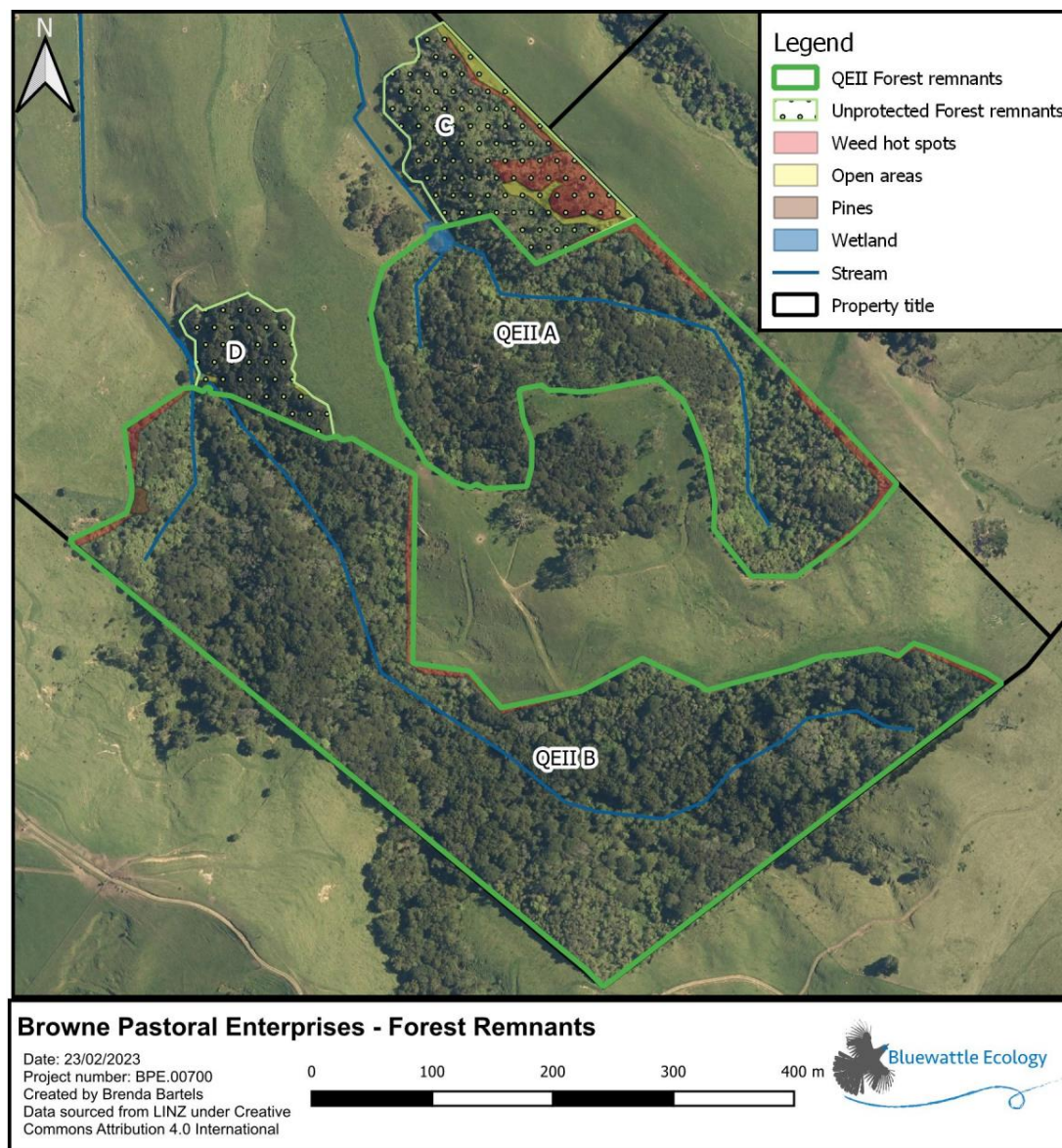


Figure 1: Forest remnants at 333 Roto-o-Rangi Road, for contribution to the WDC Environmental Benefit Lot (EBL) rule.



2 DETAILED RESTORATION AND MANAGEMENT ACTIONS

2.1 FENCING

Both QEII forest remnants A and B are fenced around their entirety with several different fence types.

The fence for QEII Forest remnant A appear to be in good order although in places along the northern and western fence lines it was not visible due to dense weed growth. One small gap was noted where a headwater tributary flows into the forest remnant (Photo 1), this requires repair.

QEII Forest remnant B is fenced with mesh with a single electric wire along most of the northern property boundary. Along the property boundary to the south and east is a standard post and batten fence with 8 wires which has been extended to exclude deer and (with a total of 17 wires present). The fence requires maintenance along the northern mesh fence where wires have loosened (Photo 2). Repairs are also required along the southern boundary where trees have fallen onto the fence.

Forest remnant C is fenced with an 8-wire post and batten fence to the north and east along the boundary with QEII forest remnant A (although much of this fence line could not be observed due to dense growths of weeds, predominantly gorse).

Forest remnant D is fenced along the boundary with QEII forest remnant B and is fenced with a single electric wire around the remainder of the remnant.

Secure fencing is required around forest remnants C and D, this should be a good quality 7-wire post and batten fence line.

Currently, both stock and sheep are present on the property. The existing fences are suitable to exclude livestock for the most part, however, repairs are required and a thorough check of the entire existing fence is recommended, and any necessary repairs should be carried out and gaps closed. If goats are to be stocked on the adjoining land then fences should have an electric outrigger added and must have no gaps across dips and nothing that can be used to aid climbing, such as corner post stays.

To extend the life of the existing fences and ensure the ongoing protection of all the forest remnants, we suggest the following fence maintenance regime:

- Carry out regular checks for fallen debris, particularly following severe weather;
- Remove fallen branches and repair fences as soon as practical after damage occurs;
- Trim vegetation so it does not come into direct contact with fences;
- Maintain wire tension; and
- Regularly check the power supply for electric fences.



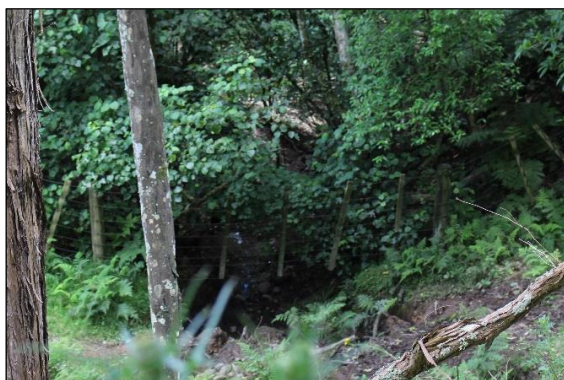


Photo 1: Gap where the stream flows beneath the fence in QEII A.

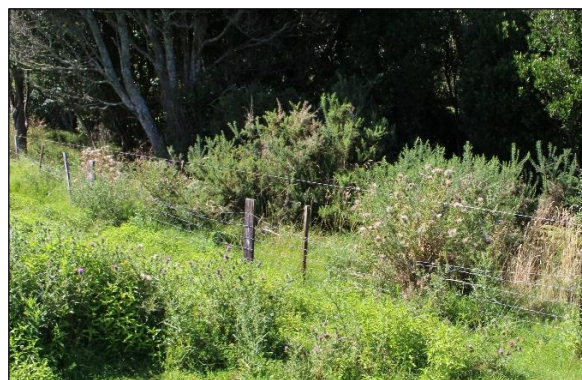


Photo 2: A large gap in the mesh and single electric wire fence on the northern boundary of QEII B.

2.2 ANIMAL PEST CONTROL

Control of animal pests is required by the District Plan Environmental Lot rules. For this site it is recommended that possum, rat, and mustelid control is carried out. Most pest control supplies including traps and poison can be obtained from rural supply stores such as Farmlands.

Ongoing control is recommended as possums, rabbits and hares browse native vegetation. Hares can severely browse planted seedlings. Rats eat seeds and fruit as well as preying on birds and their eggs along with invertebrates and lizards. Mustelids (stoats, ferrets, and weasels) and cats may hunt in this area, and these predators can be particularly harmful to ground-nesting birds.

There was evidence of larger browsing mammals namely deer with several groups of individuals as well as browse observed.

2.2.1 RAT AND POSSUM CONTROL

An animal pest control plan shall be implemented to keep rats and possums at low levels. This may comprise chemical (e.g. bait stations) and/or manual control (e.g. traps and shooting) as detailed below. Note that these requirements cover all restoration areas.

2.2.1.1 CHEMICAL CONTROL

Rats and possums can be controlled with bait stations containing pindone, brodifacoum (Pestoff®) or cholecalciferol. The Philproof® bait station is suitable for possums and rats. Place bait stations around forest margins, spaced 50 m apart as well as a singular bait line through the centre of the larger forest remnants (Table 1). Fill stations with suitable/safe toxin once and refill four weeks later. This is called 'pulse feeding' – because these baits are slow-acting, possums will consume more than is necessary if stations are refilled more often. Baiting can be done throughout the year, but possums are hungrier in winter. Four pulses per year are recommended (Aug, Nov, Jan and April). These can be deployed on the inside of posts along the fence line.

'Pulsing' bait fill in stations will maximise bait take and lower pest animal densities enough for birds and other fauna to thrive. This means filling them 3-4 times over a 4-6 week period (depending on bait take). Pulsing before and after winter, when other food sources in the environment are low, is key to restricting opportunities for pests to breed.

Take extra care using poisons if you have pet or working dogs free-ranging on the property.



2.2.1.2 MANUAL CONTROL

Kill traps can be used to control pest mammals but require more regular checking and re-setting than bait stations. Single set traps will need to be checked and rebaited weekly at first (especially for rats) until the catch rate comes down significantly. Following this initial blitz, trapping intervals can be extended to fortnightly during the spring and summer months and at least monthly for the rest of the year. An increase in catch rates indicates the need for more frequent trapping.

Rat traps shall be placed at a density of two per hectare, spaced at 50 m intervals. Possum traps shall be placed at a density of one per hectare, spaced at 100 m intervals. To ensure adequate coverage of control devices, these should be placed both around the perimeter as well as centrally throughout the forest remnants. Bait for manual traps should be species-specific and replaced regularly. Rat traps can be baited with peanut butter while possum traps are most effective when baited with a mix of cinnamon, icing sugar and flour. Goodnature® (A12s and A24s) or NZ Auto Traps (AT220s) self-resetting traps can be used to minimise the effort required. The AT220's work very well however their initial set-up cost is higher than bait stations and other types of kill trap.

2.2.2 MUSTELID CONTROL

The best time to trap mustelids is during late spring and summer. Mustelids often follow pre-existing tracks or natural linear features with low vegetation, such as stock tracks, or along stream banks. Mustelids will investigate any tunnels and burrows encountered while hunting, and trap tunnels or covers should be used to cover the set traps. This will also prevent the capture of non-target birds and animals.

The DOC 150® and DOC 200® series traps are well proven in trapping small mustelids and rats. The larger DOC 250® is also able to trap larger ferrets. A self-setting alternative for trapping small mustelids (stoats and weasels) is the Goodnature A24® rat and stoat trap. Allow a minimum of one mustelid trap per hectare (Table 1). Setting appropriately spaced bait lines that run through the area of indigenous vegetation is another alternative setup. Bait traps with fresh fish, poultry, rabbit or an egg for mustelids. Never wash traps after they have caught a mustelid, as the scent left by the captured animal will attract others, acting as a natural lure. Check and re-bait traps fortnightly during summer and monthly during winter.

2.2.3 FERAL CATS

Cats are cautious by nature and not easily trapped. Where feral cats appear to be frequenting these areas live capture box traps may be used to capture feral cats these need to be checked daily for legal purposes. Any captured cats should be humanly euthanised as soon as possible. Baits such as fresh fish, poultry, rabbit, or simply cat food may be used to lure feral cats into the live capture trap. This may however lead to other mammals being caught as well, and repeated attempts may be required. Live capture traps are legally required to be checked no more than 12 hours after sunrise each day.

2.2.4 DEER

Shooting is likely the most effective way to control deer, and as this is private land, spot-light hunting will be the most effective as deer tend to be most active in the evenings and early morning.



Table 1: Approximate number of bait stations and traps per management/vegetation area.

Restoration Areas	Number of bait stations	Mustelid traps
Forest remnant QEII A	26	6
Forest remnant QEII B	45	13
Forest remnant C	7	2
Forest remnant D	4	1
Total	82	22

2.3 PEST PLANTS

Pest plants can outcompete, smother, and inhibit the growth of native species, typically by competing for space and resources. Weed pressure was high in places along the fence lines of the forest remnants, particularly along the northern boundaries, with weed hot spots identified in Figure 1.

Weed densities were highest in the open areas near the northern boundary of Forest remnant C (particularly in the north-eastern corner where the remnant joins QEII Forest remnant A). Here gorse, tree privet and barberry were common. These weeds were also common along the entire northern boundary of QEII Forest remnant A and also included inkweed, thistles and a small amount of black nightshade (Photo 3). Both Chinese and tree privet were present with large tree privet observed flowering within the central parts of the remnant (Photo 4).

Some weed pressure was also observed along the northern boundary of QEII Forest remnant B, with a similar species composition as well as a single pampas observed.

Few weeds were observed around Forest remnant D.



Photo 3: Weeds along the northern boundary of QEII A. Showing inkweed, gorse and tree privet.

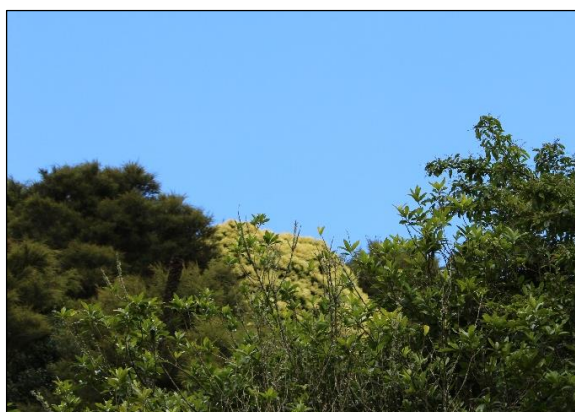


Photo 4: Large flowering tree privet within QEII A.

Table 2 presents information on the pest plants observed during the visit, other potential plant pest species which could inhabit these areas once stock are removed, as well as priorities for control. The Waikato Regional Pest Management Plan (WRPMP) 2022 - 2032¹ outlines the regional council's

¹ Waikato Regional Council 2022: Waikato Regional Pest Management Plan 2022-2032, Hamilton, 203 p.



priorities and strategies in managing invasive, exotic plant species. Those plant species listed in the WRPMP have been classified based on their actual or potential adverse impacts on the environment.

The priority for pest plant control is to remove those species that have the potential to alter or disturb natural processes in established native vegetation or prevent establishment of native vegetation. Priorities for weed control have been provided in Table 2.

Control methodologies described in Table 2 and are based on general best practice for minimal ecological impact. The control method depends on the species and the extent of infestation, with spraying limited to the control of dense and large infestations only. Chemical and manual weed control should be carried out in accordance with NZS8409:2004 Management of Agrichemicals as stated in Section 19 Rule 19.4.2.4(c) of the Waipa District Plan. For further information on control methodologies see weedbusters.org.nz.

Control practices shall aim to reduce weed species to low levels. Weed control is far more effective during summer months and should be carried out when no significant rainfall is predicted for the following days. Once pest plant control is started it is important that regular checks are made (every 3-6 months) to monitor the effectiveness of the control and to look for new invasions.

2.3.1 HERBICIDE USE

When working with herbicides always follow manufacturer's instructions regarding mixing and application and ensure that any additives are compatible with the herbicide used. Always apply herbicides correctly and safely to prevent any health hazards. Note that only herbicides certified for use over water should be used near stream or wetland habitat.

Note that residual herbicides containing metsulfuron-methyl, picloram or aminopyralid (i.e. Tordon Brushkiller XT) should be avoided in close proximity to desirable plant species. Care will need to be taken to protect new plantings or naturally regenerating plants from herbicides by covering them, adding a marker dye and spraying during calm weather.



Table 2: Pest plant species and priorities and methods for control.

Common name	Botanical name	RPMS Designation	Location & notes	Control priority	Control method
Barberry	<i>Berberis glaucocarpa</i>	Not listed in WRPMP	Common in Forest remnant C and the northern fence line of QEII A.	High	Spray spring-autumn with glyphosate (10ml/L). Cut or frill and saturate immediately with glyphosate (200ml/L) or metsulfuron-methyl 600g/kg (5g/L + penetrant)
Tree and Chinese privet	<i>Ligustrum lucidum</i> <i>L.sinense</i>	Site-led (Wetlands) – Chinese privet only	Present on the boundary of remnants and within the interior of QEII A and Forest remnant C.	High	Small seedlings and saplings can be hand pulled. For larger specimens cut and paint stump with metsulfuron-methyl 600g/kg (1g/L) or 25% 360g/L glyphosate solution.
Blackberry	<i>Rubus fruticosus</i> agg.	Site-led – Wetland Prevent spread and minimise impacts on high biodiversity sites	Occasional blackberry pant observed in QEII A. Plant will quickly establish and smother plantings once stock are excluded. Regrowth can occur from rhizomes and ongoing monitoring is required.	High	Small patches (year round): Either dig out root crowns and rhizomes, or cut stems and apply glyphosate (400 ml/L) to stumps. Dispose of plant material appropriately. Large patches (summer - autumn): Spray with metsulfuron-methyl (7.5 g/15 L) or triclopyr (60 ml/15 L). Be aware that spraying is only effective before leaves become brittle. Spray at least six months before planting to allow adequate time for the residual herbicide to break down.
Pampas	<i>Cortaderia selloana</i> ,	Not listed in WRPMP	One specimen was seen on the northern fenceline of QEII B.	Medium-High	Spray with glyphosate or haloxyfop (e.g. gallant) at label rates.
Inkweed	<i>Phytolacca octandra</i>	Not listed in WRPMP	Northern boundary of QEII A and B and Forest remnant C. Ongoing surveillance.	Low-Medium	Pull small plants or cut stems at ground level and paint the stumps with metsulfuron-methyl 600g/kg (1g/L)
Black nightshade	<i>Solanum nigrum</i>	Not listed in WRPMP	Occasional plant observed and ongoing surveillance required.	Low	Doesn't usually cause a problem in natural areas. It is an annual and can be pulled before it sets berries and left to rot down onsite.
Gorse	<i>Ulex europaeus</i>	Containment (occupier control): must be controlled within 20 m of a boundary	The occasional gorse does not usually hinder restoration efforts. However, dense growths were present in Forest remnant C and the edge of QEII B and these require control to a level that does not suppress native regeneration is recommended.	Medium-High	Individual plants: Cut stem and swab stump with glyphosate (250 ml/ L). Frilling or injection with Tordon Brushkiller XT ® is also recommended as a control method. Large patches: Spray with triclopyr 600 EC (20 ml/10 L) during summer - autumn, or during late autumn - winter with metsulfuron-methyl (5 g/10 L+ penetrant, based on using a knapsack). Cannot tolerate shade so will eventually be outcompeted.



2.4 PLANTING REQUIREMENTS

Restoration planting is required in all remnants to infill open areas and following weed control to prevent re-establishment and aid regeneration. Most of the restoration areas will be located around the fence lines, particularly the northern fence lines.

The total open area for restoration planting for all remnants is approximately 9,550 m² (Table 3). Restoration of these areas will require the planting of approximately 5,337 indigenous pioneer plants.

Table 3: Total areas for restoration planting in the forest remnants.

Forest Remnant	Open area to be planted (m ²)*	The approximate number of pioneer plants required
QEII Forest remnant A	2,150	1,095
QEII Forest remnant B	2,570	1,310
Forest remnant C	5,620	2,860
Forest remnant D	145	72
Total	9,550	5,337

*Includes weedy areas that will need to be planted following weed control to prevent re-establishment.

2.4.1 SPECIES SELECTION

Table 4 shows a range of suitable indigenous plants for restoration planting in the open areas. Light-demanding pioneer or primary species such as manuka, kanuka, makomako, karamu and koromiko should be planted into the open areas of pasture grass and areas where weed control has been undertaken. This shrubland can be supplemented by secondary colonisers, which include mahoe, ribbonwood and mapou (Table 4).

Once pioneer or primary species have established, supplementary planting of the forest remnants to establish canopy species which are in low density in the remnants. Recommended species include; rimu, miro, matai, totara and kahikatea. These species should be planted in sheltered gaps within restoration plantings in all forest remnants as well as lightwells within QEII Forest remnant A and Forest remnant C (Table 5).

Table 4: Plants to be planted in the open areas within the forest remnants.

Botanical Name	Common name	Abundance	Plant grade (pot size)
<i>Aristotelia serrata</i>	wineberry	10%	1L, PB2
<i>Cordyline australis</i>	cabbage tree	5%	1L
<i>Coprosma robusta</i>	karamu	15%	1L, PB2
<i>Dodonaea viscosa</i>	akeake	5%	1L
<i>Knightia excelsa</i>	rewarewa	5%	1L
<i>Kunzea robusta</i>	kanuka	10%	1L, PB2



<i>Leptospermum scoparium</i>	manuka	15%	1L, PB2
<i>Melicactus ramiflorus</i>	mahoe	5%	1L, PB2
<i>Myrsine australis</i>	mapou	10%	1L, PB2
<i>Pittosporum eugenioides</i>	lemonwood	5%	1L, PB2
<i>Pittosporum tenuifolium</i>	Black matipo	10%	1L
<i>Veronica (Hebe) stricta</i>	koromiko	5%	1L

Table 5: Late-stage canopy enhancement tree species.

Botanical Name	Common name	% of mix	Plant grade (pot size)
<i>Dacrydium cupressinum</i>	rimu	20%	1.5L
<i>Dacrycarpus dacrydioides</i>	kahikatea	20%	1.5L
<i>Laurelia novae-zelandiae</i>	pukatea	15%	1L, PB2
<i>Podocarpus totara</i>	totara	15%	1.5L
<i>Prumnopitys ferruginea</i>	miro	10%	1.5L
<i>Prumnopitys taxifolia</i>	matai	10%	1.5L
<i>Phyllocladus trichomanoides</i>	tanekaha	10%	1.5L

2.4.2 PLANTING TECHNIQUES

Planting should ideally be done in autumn when there is sufficient soil moisture and soil temperatures are still high enough to promote root growth. Planting can be done right through winter until around September.

Plants should be bought from a reputable grower, should be from a local seed source (Maungatautari Ecological District), and should be healthy and robust. Plants grown from natural populations in neighbouring districts are preferred to non-eco-sourced plants. If planting any myrtle species, such as kānuka and rātā (*Metrosideros* spp.), nursery stock shall be checked for signs of myrtle rust prior to planting. Identifying features of myrtle rust can be found on the Department of Conservation website².

In the open restoration areas, plants are to be planted at a density of one plant every 0.5 to 1.5 m (approximately 40,00/ha to 4,500/ha) in groups of three or more. Large canopy forming trees should be spaced approximately 10-15 m apart (approximately 115/ha to 50/ha), within the areas already planted. Smaller trees and shrubs can be scattered throughout. Spot-spraying with a glyphosate herbicide should be carried out to control weed and grass growth 28 to 14 days prior to planting. Spots should be approximately 0.3 x 0.3 m in area and spaced according to the required planting density (e.g. 1.5 m centre to centre).

If specified plants are not available it is preferable to increase the proportion of another plant in the list rather than substitute another species which may not be suitable for the site.

² <https://www.doc.govt.nz/nature/pests-and-threats/diseases/myrtle-rust/>, accessed 16/10/2019



In areas where soil has been compacted as the result of previous land uses, the soil can be loosened to a depth of 0.5 m using a crowbar or trenching spade. After planting, the soil level against the stem should be the same as before planting. Staking is recommended so that plants are more easily located.

The plant is to be secured in the ground by filling the space surrounding the roots with soil and lightly compressing it. Soil compression will fill any voids that might be present around the roots avoiding damage caused by water accumulation. Initial watering after planting is required.

Optimal plant stock will be used in the planting which has the following attributes:

- Healthy, vigorous, and free from obvious signs of disease and pests;
- Planter bag or pot size RRTT, PB3 - PB5;
- Of at least average size for the specified pot/planter bag size;
- Well-developed root system with high amount of new root growth; and
- Not root bound.

2.4.3 PLANTING MAINTENANCE

Planted areas should be regularly maintained to keep them weed-free and plants should be released at least three times in the first year after planting and one or two times in the subsequent four years. This involves clearing competing vegetation from around each plant, which gives them the best chance of survival and maximises growth rates. Releasing can be done with a non-residual herbicide such as glyphosate, with a brush-cutter, or manually.

It is normal to expect a mortality rate of at least 10%. Additional plants should be planted in the spaces where other plants died.

2.4.4 TIMELINE

Weed control and releasing of plants should be carried out four times per year for three years following completion of planting. This involves removing weeds and competing vegetation from around each plant (releasing) by either spraying or mechanical means (brush cutter). Grasses can be quickly cleared by hand if preferred. Regular releasing is very important and promotes fast growth which minimises time to canopy closure. The plantings should be inspected three months after planting and any dead or dying plants removed and replaced with the same species.

Table 6 shows the recommended timeline for restoration planting and weed control.

Table 6: Approximate timeline of restoration planting, weed control and plant release.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pre-planting weed control												
Planting												
Plant release/weed control (year 1)												
Plant release/weed control (years 2 – 5)												



3 SUMMARY AND MANAGEMENT REQUIREMENTS

Four forest remnants are proposed for restoration, management and protection on the Browne Pastoral Enterprises property at 333 Roto-o-Rangi Road. These forest remnants have a combined protection lot area of 22.53 ha and are ecologically significant under Section 6(c) of the Resource Management Act 1991 in accordance with the WRC RPS criteria.

This plan outlines the ecological management process for the forest remnants. The protected QEII forest remnants A and B have been fenced for several years and some repair and ongoing maintenance of the fence is required. Forest remnants C and D require secure fencing around their perimeter to meet council requirements and allow protection in perpetuity. Animal and plant pest control measures are also required. Restoration planting is required in all remnants to fill open spaces and following weed control to prevent re-establishment and aid regeneration. Once the pioneer plants have been established supplementary planting with large canopy species can be undertaken. The restoration and supplementary planting will promote the natural succession of indigenous plants.

Once the requirements of this management plan have been implemented, the remnants will require minimal ongoing management apart from yearly animal and plant pest control, as well as fence maintenance.

3.1 PERFORMANCE CRITERIA

A follow-up visit by a suitably qualified ecologist will be required to assess the property against the following performance standards prior to granting the EBL entitlement. A staged release of the EBL entitlements can occur as per Table 7. Performance criteria include the following:

For QEII Forest Remnants A and B the following criteria must be met prior to the award of 2 and 3 EBL entitlements respectively:

1. The remnants are fenced, but some repair is required, a thorough check of the fencelines and maintenance (as identified in Figure 2.1) must be undertaken with photo evidence of the repairs to be provided using the Monitoring/maintenance certificate form in Appendix 1.
2. Control of invasive plant pests to a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration of covenant areas (Section 3.3).
3. Formalisation and implementation of pest animal management practices as described above, and a map of the trap and bait station locations will need to be provided (this is a requirement before the granting of any EBLs but can be undertaken under the guidance of this management plan, without an inspection) (see Section 3.2).
4. Planting needs to be undertaken in the restoration areas with a minimum survival rate of 90% of the original density and species. The stems per hectare native plant density should be no less than one plant spaced every two meters for indigenous forest (equivalent density of 2,750 plants per hectare) as per the planting requirements in Section 2.4. Canopy closure is not required prior to granting the EBL entitlement and a site visit is not required prior to granting the EBL for these QEII forest remnants. EBL entitlement eligibility could be possible immediately following planting. Ongoing plant maintenance is required as described in Section 2.4.



For Forest Remnants C and D the following criteria must be met prior to the award of one EBL entitlement per remnant (2 in total):

1. Forest remnants must be legally protected by covenants in perpetuity.
2. Ensure all covenant areas are securely fenced and stock excluded.
3. Control of invasive plant pests to a level that is sufficient to prevent pest plants from inhibiting the continued natural regeneration of covenant areas (Section 3.3).
4. Formalisation and implementation of pest animal management practices as described above, and a map of the trap and bait station locations will need to be provided (this is a requirement before the granting of any EBLs but can be undertaken under the guidance of this management plan, without an inspection) (see Section 3.2).
5. Planting needs to be undertaken in the restoration areas with a minimum survival rate of 90% of the original density and species. The stems per hectare native plant density should be no less than one plant spaced every two meters for indigenous forest (equivalent density of 2,750 plants per hectare) as per the planting requirements in Section 2.4. Canopy closure is not required prior to granting the EBL entitlement and a site visit will be required prior to granting the EBL for this forest remnant. EBL entitlement eligibility could be possible as soon as six months post planting (this timeframe is recommended to demonstrate the survival rate of 90% of the original density).



Table 7: Summary vegetation types, management requirements and EBL entitlement recommendations.

Vegetation areas	Size (ha)	Restoration and management actions	Recommended EBLs
QEII forest remnant A	6.38	<ul style="list-style-type: none"> Fenced with 8 wires around the perimeter. In places the fence line is not visible due to dense growths of gorse/privet. Control weeds – Chinese and tree privet, with large trees observed flowing within the central parts of the remnant. Gorse is present along the fence line as well as inkweed and some barberry. Pest animal control - 26 bait stations in total required and 6 mustelid traps Restoration planting will be required. 	2
QEII forest remnant B	13.37	<ul style="list-style-type: none"> Fenced with mesh with a single electric wire along most of the northern boundary. A 17 wire fence is present along the property boundary to the south and east – the standard fence appears to have been extended to exclude deer. Eight wire fence along the western boundary (see QEII certification). Fence requires maintenance along the northern and southern boundaries where trees have fallen or wires have loosened. Photo proof of repair and maintenance must be provided. Control weeds – Chinese privet, pampas, gorse, barberry and inkweed present along the northern fence line. Pest animal control - 45 bait stations in total required and 13 mustelid traps. Restoration planting will be required. 	3
Forest remnant C	1.97	<ul style="list-style-type: none"> Fencing required around approximately half of the remnant; secure fencing around entire perimeter is required. Weed pressure is high with dense growths of barberry, gorse and privet in places (particularly in the northeastern corner where the remnant joins QEII A). Pest animal control - 7 bait stations in total required and 2 mustelid traps. Restoration planting will be required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	1
Forest remnant D	0.805	<ul style="list-style-type: none"> Currently fenced with a single electric wire, secure fencing required. Weed pressure is relatively low, some privet and gorse along northern boundary. Pest animal control – 4 bait stations and 1 mustelid trap. Restoration planting required. Follow up visit required to ensure performance standards have been met prior to awarding EBL 	1
Total area	22.53		7



APPENDIX I: MONITORING/MAINTENANCE CERTIFICATE FORM

As part of the Consent Conditions for the subdivision regarding title # 333 Roto-o-Rangī, the preparation and implementation of an Ecological Management Plan (MP) was required.

The QEII forest remnants have been fenced for several years and some repair and ongoing maintenance of the fence is required, along with pest plant control and infill planting. While a follow up visit is not required to ensure performance criteria have been met prior to awarding EBL. Management measures need to be undertaken and documented in the 'Monitoring / Maintenance Certificate' along with photographs, and provided to Council prior to the granting of the EBL entitlements. This is to ensure that the necessary restoration measures are undertaken and the areas subject to the restoration plan will be self-sustaining in the future.

The following actions will have to be undertaken to complete the Ecological Management Plan and to prevent re-infestations of pests and ensure the long-term viability of the natural areas:

Weed Control* - to prevent reoccurring weed invasion
Comment (i.e. weeds sprayed/removed):

* Species present in the area that will need to be controlled include woolly nightshade, Himalayan honeysuckle, blackberry and barberry. Refer to the Ecological Management Plan for suitable control measures.

Animal Pest Control - possums, rats, mustelids, goats, wild pigs, rabbits and hares, feral cats
Comment (i.e. setup traps/bait stations, shooting; success of control measures):

Check and Maintain Fences (if applicable) - to ensure no stock can enter the areas
Comment (i.e. fences in good working order; measures undertaken):

*



Plant Replacement (if applicable) - if any dead or dying plants are noticed*
Comment (i.e. dead plants noted, species and numbers planted):

* Refer to the Ecological Management Plan for suitable plant species. Maintenance inspections of any planting area are required to be carried out four times per year for one year following completion of planting and twice per year for the following four years.

Releasing of Plants* (if applicable)
Comment (i.e. measures undertaken, state of plant establishment):

* Releasing of plants is required in the spring and summer months for 3 to 5 years after planting until the plantings are established.

Attach photos, as well as receipts relating to replacement plants, herbicide and animal pest control costs.



COMMITTEE AGENDA



To: The Chairperson and Members of the Regulatory Committee
From: Governance
Subject: **RESOLUTION TO EXCLUDE THE PUBLIC**
Meeting Date: 22 May 2023

1 EXECUTIVE SUMMARY – WHAKARĀPOPOTOTANGA MATUA

A local Authority may, by resolution, exclude the public from the whole or any part of the proceedings of any meeting under section 48(1) of the Local Government Official Information and Meetings Act 1987.

2 RECOMMENDATION – TŪTOHU Ā-KAIMAHI

THAT the public be excluded from the following parts of the proceedings of this meeting.

The general subject of the matter to be considered while the public is excluded, the reason for passing this resolution in relation to each matter, and the specific grounds under section 48(1) of the Local Government Official Information and Meetings Act 1987 for the passing of this resolution are as follows:

General subject of each matter to be considered	Reason for passing this resolution in relation to each matter	Ground(s) under section 48(1) for the passing of this resolution
10. Confirmation of Public Excluded Minutes – 22 March 2023 11. Objection to Notice of Disqualification from Dog Ownership	Good reason to withhold exists under section 7 Local Government Official Information and Meetings Act 1987	Section 48(1)(a)

This resolution is made in reliance on section 48(1)(a) of the Local Government Official Information and Meetings Act 1987 and the particular interest or interests protected by Section 6 or Section 7 of that Act, or Sections 6, 7 or 9 of the Official Information Act 1982, as the case may be, which would be prejudiced by the holding of the whole or relevant part of the proceedings of the meeting in public, are as follows:

Item No.	Section	Interest
10,11	7(2)(a)	<i>To protect the privacy of natural persons, including that of deceased natural persons</i>