



# 142 Konini Road

# Ecological Management

# Plan

Prepared for Johnstone Construction Limited  
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		Management Plan			
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## 1. INTRODUCTION

This report<sup>1</sup>, prepared by Ecology New Zealand Limited (ENZL) for Johnstone Construction Limited (the Client), presents an Ecological Management Plan (EMP) to manage the impacts of the retrospective residential upgrades at 142 Konini Road, Titirangi (the Site). These upgrades include dwelling upgrades, replacement of the existing driveway, carport, sheds, and pool. Specifically, this plan details practical methodologies for restoration planting and maintenance, as well as pest animal and plant management. This management is required to satisfy the recommendations within the Ecological Impact Assessment (EclA)<sup>2</sup>.

## 2. ECOLOGICAL OUTCOME STATEMENT

Ecological management measures have been detailed within this plan in order to address the retrospective impacts at 142 Konini Road. Remediation, restoration, and additional enrichment/infill planting, along with pest plant and animal control, will be undertaken on-site to adequately manage the associated adverse effects (Appendix B). A covenant will also be applied to the restoration planting areas and retained Significant Ecological Areas (SEA) to ensure vegetation protection and pest control in perpetuity.

## 3. GENERAL METHODOLOGY AND DEFINITIONS

A site investigation was carried out by ENZL on the 12<sup>th</sup> of September 2024. During the investigation, pest plant and animal species were documented on-site along with native fauna and native fauna habitat. Recommended management measures to address the ecological impacts associated with the retrospective residential upgrades were set out within the relevant EclA by ENZL.

All pest plants and pest animals were then classified in alignment with the Auckland Regional Pest Management Plan (ARPMP)<sup>3</sup>. Recommendations are provided for control expectations and specific control methods. Native fauna habitat was identified in relation to the extent of the works footprint to provide specific recommendations to manage the impacts on native fauna. Throughout this EMP, reference is made to the need for a suitably qualified restoration professional to implement the works, to maximise the likelihood of successful pest control and planting.

## 4. PEST PLANT CONTROL

The definition of a pest plant can vary depending on the context being applied and the environment in which it is situated. For the purposes of this report, definitions will be guided by the ARPMP. Recommended pest management strategies consider both the ARPMP status of the pest as well as the actual effect of that species on-site. Some exotic or pest plant species may provide local ecological benefits (e.g., exotic trees and shrubs can provide nest sites and food resources for native birds) and, as such, options for the removal or retention of these species will be carefully considered.

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<sup>1</sup> This report is subject to the Report Limitations provided in Appendix A.

<sup>2</sup> Ecology New Zealand Limited 2025. Ecological Impact Assessment – 142 Konini Road. Report number 24140-2.001.Rev1. Prepared for Johnstone Construction Limited.

<sup>3</sup> Auckland Regional Pest Management Plan, 2020 – 2030.

A pest plant control programme will be implemented *in perpetuity*. The management detailed below is to be implemented for a period of five years to remove established pest plants and control any re-infestations within the planting areas and retained SEA. After this initial 5-year period, this plan should be reviewed and updated accordingly based on the site conditions and current best practices every five years. Pest plant species observed at the site have been summarised in Table 1 with their categorisation under the ARPMP, their relative abundance, and the expected control measure.

The following sections provide instructions on how these pest plants are to be managed using best practice methodologies. It is important to note that the plant list is not intended to be exhaustive, and any additional pest plants that may be found when undertaking the works will also be controlled in alignment with the ARPMP.

## 4.1. Control Methods and Expected Outcomes

Across the site, most pest plant infestations will require initial control with multiple follow-up control visits. It is reasonable to expect that all pest plant infestations will be controlled within one year. It is expected that at this time, no fruiting or flowering pest plants will be present within the SEA or planting areas, nor will there be any dense/monoculture stands or immature pest plant species. Pest plant control will be initiated six months and three months prior to any restoration planting, as set out in the programme of works in Section 9 below.

Control techniques will differ between species and will depend on the nature and size of infestations. Methods that will be utilised include one or more of the following as appropriate: cutting and piling, foliar spraying, hand-pulling and drill and fill. Table 1 summarises the recommended control methods and herbicide for each species observed.

## 4.2. Agrichemical Use

Agrichemical use will be assessed individually for each area and species, to minimise herbicide use as much as practicable without compromising the control efficacy. All herbicide application will be undertaken by a Registered Chemical Applicator or as a minimum by a Growsafe Approved Handler. This is particularly important for any herbicide application around or near waterways. Operators must apply industry best practice methods and be in alignment with the Management of Agrichemicals (NZS 8409:2004) guidelines.

Records of herbicide application must be kept, including what chemicals have been used, the locations, application rates, and dates of application. An example of a pest plant control monitoring form is provided in Appendix C.

## 4.3. Pest Plant Detected On-site

Pest plants observed at the time of the site investigation occurred in low to high densities throughout the entire site (Table 1). Weed species were generally found in the highest densities along the driveway (Figure 1).



Figure 1: Example of pest plants along the driveway, including wild ginger and speckled spur flower.

Table 1: Pest plant species recorded on-site and management methodology.

Common Name	Species Name	ARPMP Category	Abundance Low · Med ·· High ···	Control Measure	Control Method
<b>Climbing asparagus</b>	<i>Asparagus scandens</i>	Sustained control	··	To zero density	Foliar spray (knapsack sprayer) using 150ml glyphosate/10L.
<b>English ivy</b>	<i>Hedera helix</i>	Sustained control	··	Multi-levelled approach	Cut stem & paint stump with 5g metsulfuron/1L or foliar spray (knapsack sprayer) with 5g metsulfuron/10L.
<b>Loquat</b>	<i>Eriobotrya japonica</i>	Sustained control	·	To zero density	Hand pull or dig out small seedlings or ringbark large trees or foliar spray (knapsack sprayer) 5g metsulfuron/10L or cut low at stump and apply 60ml triclopyr/1L.
<b>Speckled spur flower</b>	<i>Plectranthus ciliatus</i>	Sustained control	···	To zero density	Foliar spray (knapsack sprayer) with 200ml glyphosate/10L.
<b>Tuber ladder fern</b>	<i>Nephrolepis cordifolia</i>	Sustained control	··	To zero density	Foliar spray (knapsack sprayer) using 5g metsulfuron/10L.
<b>Wild ginger</b>	<i>Hedychium sp.</i>	Sustained control	··	To zero density	Cut the stump above pink collar and apply 5 g/L metsulfuron to cut stump.

## 5. PEST ANIMAL CONTROL

Pest animal control is best undertaken using a site-wide approach (Appendix B). Animal pest control in these areas will have a “halo” effect on the adjacent residential properties. Control of possums, rats and stoats in the SEA planting areas will reduce the numbers of these pests up to 100m beyond the control areas.

Management will be implemented in perpetuity. The management detailed below will be for a period of 5 years, following which this plan should be reviewed and updated every five years. Management of pest animals will increase the quality of habitat for native fauna and protect new plantings from pest browsing. Given the habitat and food resources available on-site, and in the surrounding area, it is reasonable to assume that pest animals are present in at least low abundance on-site.

### 5.1. Expected Outcomes

Given the geographical location of this property and its linkages with neighbouring properties pest animal control intends to maintain and enhance native biodiversity by reducing pest animal populations. With the near certainty of ongoing pest animal re-invasion from adjacent properties, it is unreasonable to expect eradication at this site.

### 5.2. Control Methods

There is no single technique for successful pest animal control, and methods can vary between and within each species. Often, a combination of multiple methods can have the best outcome, and the recommended plan below takes into consideration the most practical methods to meet the expected outcomes. It is recommended that an experienced pest animal control professional be appointed to implement pest animal control, commencing with trap installation. A catch and bait take record should be recorded on the website/mobile application trap.nz or on a pest animal monitoring form. An example is provided in Appendix C.

Possums, rodents, and mustelids are classified as pest animals under the ARPMP and can cause significant damage to plants as well as preying upon native birds, lizards, and insects. Control of possums is to involve the installation of one AT220 Possum & Rat trap at a rate of one trap/ha (lines 100m apart and traps spaced every 100m) placed in the SEA vegetation. These will be installed as per the manufacturer’s guidelines. The AT220 Possum & Rat trap should be baited with NZAutoTraps lure. The trap should be placed on the largest tree within the target area and blaze powder should be sprinkled around the area, leading to the trap.

Control of rodents is to involve the installation of a trap network of two Goodnature A24 traps installed at a rate of two traps/hectare (lines 100m apart and traps spaced 50m apart). Traps will be installed within the SEA and planting areas along watercourses, bush lines, roads, ridges, or fence lines, where pest animals are most likely to traverse. The traps will be installed as per the manufacturer’s guidelines and baited with Goodnature Chocolate or Nut Butter Lure.

Control of mustelids and rats will be via the installation of a single DOC 200 double kill trap at a rate of one trap / 20ha. The trap should be placed within the vegetation on-site along a watercourse, bush line, road, ridge, sheltered fence line, where the animals are most likely to traverse. The trap should be baited with rabbit meat.

All traps will be serviced as a pulse cycle, being set during February, May, August, and November. The DOC 200 trap will be checked every 2-3 nights for a period of two weeks and should be left empty/unset between pulses. The Goodnature and AT220 traps should be checked once during each service month and be left set between service checks.

Table 2: Animal pest management summary

Species Name	Maori Name	Common Name	ARPMP Recommended Management Programme	Control Method
<b>Mustela spp.</b>	Toriura, tori uaroa, tori hura	Mustelids (stoat, weasel, ferrets)	Sustained control	Trapping Network
<b>Mus musculus</b>	Kiore	Mouse	Sustained control	Trapping Network
<b>Rattus spp.</b>	Kiore	Rats (ship and Norway)	Sustained control	Trapping Network
<b>Trichosurus vulpecula</b>	Paihamu	Possum	Progressive containment	Trapping Network

### 5.2.1. Maintenance of Traps and Bait Stations

It is important to maintain the traps and bait stations to ensure they are in working order during the pulse cycle. This involves clearing the area directly around traps (*i.e.*, in front of the traps), checking the security of the traps, and checking the trap's moving parts. DOC traps should be subject to weight testing before use and then checked annually.

## 6. PLANTING

The purpose of this section is to provide specific planting protocols to restore and enhance the SEA. The enhancement will result in increased habitat and resources for native fauna and reduce the opportunity for exotic / pest plants to re-establish. Planting will be conducted within two main areas (Appendix B):

- i. Mitigation Planting Area:
  - a. SEA vegetation along the driveway where there has been understorey damage. This area was partially covered by native canopy at the time of assessment.
  - b. Areas of SEA around the new garage where vegetation was removed during the works.
  - c. Enrichment/infill planting in the northeastern and western of the access road.
- ii. Additional planting area: Area along the southern end of the property containing exotic vegetation at the time of assessment and lying outside of the SEA overlay.

### 6.1. Site Preparation

Site preparation for planting will be completed as part of the pest plant strategy specified above in Section 4. Non-invasive grasses/groundcovers are not recommended for control and

will be left uncontrolled where possible with the intention of providing a living mulch effect to protect the native plantings from drought, frost, and wind damage. The plants will require periodic release from any existing grasses and weedy vegetation to ensure these do not overtop the new plantings.

## 6.2. Plant Selection

Plant selection is based on several considerations, including the replication of native plant communities present on-site and in the surrounding area, the likelihood of establishment, the benefit to native fauna and the mapped Current Ecosystem Extent (WF11: Kauri, podocarp, broadleaved forest). These characteristics are crucial in the selection of plants which will survive and perform important ecological functions such as filtration, stabilisation and ensure quick re-establishment of canopy cover. Species will be distributed at appropriate percentages and according to species niche preferences and ground conditions.

The planting schedules outlined below provide appropriate species selections for this site based on the characteristics described. As mentioned in Section 3 it is recommended that experienced professional ecological restoration contractors undertake this planting work. This will enable the planting implementor to best define the number of plants needed and be permitted to make appropriate changes to site preparation and timing based on site-specific conditions when deemed necessary.

## 6.3. Plant Sourcing

Plant stock is to be of good quality and eco-sourced from the Tamaki Ecological District. Eco-sourcing is key to ensure plants are well adapted to local conditions, increasing survivorship through to establishment. Plants purchased will also be of pure stock with no hybrids used.

Myrtaceae species (e.g., *kānuka* [*Kunzea robusta*]) should be sourced from nurseries which are accredited under Plant Pass ([www.plantpass.org.nz](http://www.plantpass.org.nz)). Plant quality will be assessed upon delivery from the nursery/supplier. The foliage and roots of the supplied plants must be in good health. Plant quality will be tested by the planting implementor with visual inspections, and by lifting no less than 10 supplied plants by the stem to confirm whether the planter bag/root trainer of each plant is supported (*i.e.*, the plant does not pull out of the bag too easily). Plants considered by the planting implementor to be of poor quality will be rejected and will need to be replaced.

## 6.4. Plant Layout, Density and Grade

Plant layout is important to maximise plant survival and establishment, and needs to be considered across the planting site. Plants are to be planted in clusters of one or more species while avoiding the creation of large areas of open ground. Clusters replicate the natural process of seed dispersal, establishing and preventing the creation of larger monoculture areas or intentionally separating species. The general layout will also be somewhat random as opposed to a grid or row layout, mimicking natural regeneration.

Planting grades to be used will generally be of 0.5 to 3-litre grade plants. This takes into consideration the greater success of transplanting smaller plants, the larger root mass to leaf area ratio and the economics of large-scale planting.

Planting is to be undertaken at an average density of 1m<sup>2</sup> (1 plant per 1 square metre), however, sedges will be planted at a higher density of 0.5m<sup>2</sup> (2 plants per 1 square metre). Large, specimen trees (3L grade or larger) will be planted at a density of 5m<sup>2</sup>. This density will enable canopy closure to be achieved quickly where required and the understorey to be re-instated as quickly as possible. Planting placement will take into consideration the current indigenous species that are found around the site.

## 6.5. Planting Methodology

Timing of planting will be mid-autumn to early winter (May – July), ideally after rain but before winter frosts. Planting directly into damp soil will benefit the plants through water availability and through soil compressibility, getting a good packing of soil around exposed roots. Holes are to be dug approximately twice the size of the root ball. Holes dug with hand tools are preferred, but machinery can be used (e.g., motorised auger) as long as the walls of each hole are scarified to facilitate root penetration. Plant roots are to be slightly loosened at the base of the root mass to aid roots to grow outward once planted, rather than remain in a tight root ball. Care must be taken when removing plants from bags/pots to minimise root disturbance, and plants will need to be pressed/heelled in firmly once in the ground to minimise air pockets around the root system. Non-invasive grasses should be seeded through the planting to provide a living mulch effect.

## 6.6. Planting Schedule

Two planting schedules have been recommended for the planting of the SEA at 142 Konini Road. Species for restoration planting within the area of damaged understorey adjacent to the driveway have been provided in Table 3, while Table 4 contains the schedule for restoration planting area where vegetation had been removed and in the additional planting area (Appendix B). Planting will be undertaken by an experienced professional ecological restoration contractor who will determine the quantity of plants required and make appropriate changes to species if necessary.

Table 3: Remediation planting schedule within damaged understorey vegetation east of the driveway for 142 Konini Road.

Common Name	Botanical Name	Grade (L)	Spacing (m <sup>2</sup> )	Indicative Percentage	Indicative no. of plants
<b>Whauwhaupaku/ five-finger</b>	<i>Pseudopanax arboreus</i>	1	1	15	11
<b>Pigeonwood</b>	<i>Hedycarya arborea</i>	1	1	15	11
<b>Māhoe</b>	<i>Melicytus ramiflorus</i>	1	1	10	7
<b>Hangehange</b>	<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	1	1	10	7
<b>Koromiko</b>	<i>Veronica stricta</i> var. <i>stricta</i>	1	1	10	7
<b>Twiggy coprosma</b>	<i>Coprosma rhamnoides</i>	1	1	10	7
<b>Karaka</b>	<i>Corynocarpus laevigatus</i>	3	5	5	1
<b>Kohekohe</b>	<i>Didymocheton spectabilis</i>	3	5	5	1
<b>Pūriri</b>	<i>Vitex lucens</i>	3	5	5	1
<b>Rewarewa</b>	<i>Knightia excelsa</i>	3	5	5	1
<b>Tōtara</b>	<i>Podocarpus totara</i>	3	5	5	1
<b>Taraire</b>	<i>Beilschmiedia tarairi</i>	3	5	5	1

Table 4: Restoration planting schedule where SEA vegetation has been removed and additional planting area for 142 Konini Road.

Common Name	Botanical Name	Grade (L)	Spacing (m <sup>2</sup> )	Indicative Percentage	Indicative no. of plants
<b>Kānuka</b>	<i>Kunzea robusta</i>	1	1	20	34
<b>Mānuka</b>	<i>Leptospermum scoparium</i>	1	1	15	26
<b>Māhoe</b>	<i>Melicytus ramiflorus</i>	1	1	15	26
<b>Ti kōuka</b>	<i>Cordyline australis</i>	1	1	10	17
<b>Pigeonwood</b>	<i>Hedycarya arborea</i>	1	1	10	17
<b>Mapou</b>	<i>Myrsine australis</i>	1	1	10	17
<b>Koromiko</b>	<i>Veronica stricta</i> var. <i>stricta</i>	1	1	5	9
<b>Rewarewa</b>	<i>Knightia excelsa</i>	3	5	3	2
<b>Rimu</b>	<i>Dacrydium cupressinum</i>	3	5	3	2
<b>Pūriri</b>	<i>Vitex lucens</i>	3	5	3	2
<b>Kohekohe</b>	<i>Didymocheton spectabilis</i>	3	5	3	2
<b>Tōtara</b>	<i>Podocarpus totara</i>	3	5	3	2

Additional enhancement/infill planting within the northeastern corner of 142 Konini Road is recommended to enhance lizard habitat in the northeastern corner and west of the driveway area. Native skinks thrive in gardens that provide food, shelter, and high insect populations. Planting a dense mix of leafy, twiggy, and flowering species provides essential year-round fruit and food for insects. Recommended species for infill planting within the northeastern corner of 142 Konini Road are included in Table 5 below.

Table 5: Recommended species for enhancement/infill planting within the northeastern corner and west of the driveway at 142 Konini Road.

Common Name	Botanical Name	Grade (L)	Spacing (m <sup>2</sup> )	Indicative Percentage	Value adding
<b>Hangehange</b>	<i>Geniostoma ligustrifolium</i> var. <i>ligustrifolium</i>	1	1	10	Good food source
<b>Kānuka</b>	<i>Kunzea robusta</i>	1	1	15	Food source and habitat
<b>Koromiko</b>	<i>Veronica stricta</i> var. <i>stricta</i>	1	1	5	Good plant for attracting and supporting native New Zealand lizards, although it is more valued for shelter and insect attraction
<b>Māhoe</b>	<i>Melicytus ramiflorus</i>	1	1	10	An excellent, high-value native plant for supporting lizard populations.
<b>Mānuka</b>	<i>Leptospermum scoparium</i>	1	1	15	A good plant to include in a habitat designed for New Zealand lizards. It serves as a beneficial

Common Name	Botanical Name	Grade (L)	Spacing (m <sup>2</sup> )	Indicative Percentage	Value adding
					food source for native lizards, particularly by providing nectar
<b>Mapou</b>	<i>Myrsine australis</i>	1	1	10	An excellent native plant for creating a lizard-friendly habitat and, to a lesser extent, a food source in New Zealand. While lizards (skinks and geckos) primarily eat invertebrates, they also consume fruits, and <i>Myrsine australis</i> provides a combination of shelter and food.
<b>Small-leaved pōhuehue</b>	<i>Muehlenbeckia complexa</i>	1	1	10	An excellent source of food and habitat for New Zealand lizards. It is frequently recommended in restoration projects and "lizard-friendly" gardening for its ability to support both the diet and shelter needs of skinks and geckos
<b>Ti kōuka</b>	<i>Cordyline australis</i>	1	1	10	An excellent, highly recommended native plant for supporting lizard populations. It serves as a "lizard lounge" or habitat, offering both food and shelter for native gecko and skink species
<b>Twiggy coprosma</b>	<i>Coprosma rhamnoides</i>	1	1	10	An excellent source of food and habitat for native New

Common Name	Botanical Name	Grade (L)	Spacing (m <sup>2</sup> )	Indicative Percentage	Value adding
					Zealand lizards (skinks and geckos). It is often recommended by conservationists as a key plant for creating lizard-friendly gardens
<b>Whauwhaupaku/ five-finger</b>	<i>Pseudopanax arboreus</i>	1	1	10	An excellent choice for a lizard-friendly garden in New Zealand, acting as a source of food and habitat

In addition, the creation of lizard habitat in the form of ecostack, consisting of wooden logs stacked to create lizard habitat is recommended for the creation of additional habitat. Eco-stacks must be created by recycling suitable logs/deadwood, selected onsite from vegetation clearance areas and placed within the enhancement planting areas and restoration planting areas to provide additional habitat for ground-dwelling lizards such as copper skinks recorded onsite. These eco-stacks must be established within the enhancement planting areas to naturalise within the environment. The number of eco-stacks will be selected based on ground conditions and at the discretion of Project Herpetologist. A minimum eco-stack size will cover an area of L 0.5m x W 0.3m x H 0.3m. This could be established as a single stack or multiple stacks.

## 6.7. Planting Completion / Plant Maintenance

Upon completion of the initial works, all plantings will be periodically monitored for five years or until an average of 90% canopy closure and/or a 90% survival rate is achieved. This maintenance involves undertaking regular pest plant control to minimise any effects attributable to pest plant re-invasion and releasing plants from grasses and other competitors in the early stages.

Plants will be inspected at least annually with any dead or dying plants replaced. Typically, this is accommodated by 10% replacement in year one and 5% replacement in years two and three. The attached plant monitoring form (see Appendix C) will be used annually to inspect the health of all plantings (including documenting survival rate and canopy closure) and recording of any works undertaken to improve planting success such as pest plant control, and replacement planting.

## 7. PROTECTION

All planting areas and retained native SEA vegetation on-site will be protected by the implementation of a covenant area in accordance with Section 108 of the Resource Management Act 1991.

The native forest restoration planting areas, retained native vegetation, and SEA will be protected by a covenant (Appendix B) which will:

- i. Ensure that the areas are maintained free of pest animals, livestock, noxious weeds, exotics and environmental pest plants in perpetuity;
- ii. Ensure that stock proof fencing is maintained;
- iii. Maintain the protected area free from earthworks or land modification;
- iv. Not do anything that would prejudice the health or ecological value of the areas of native bush to be protected, their long-term viability and/or sustainability; and
- v. Not (without the prior written consent of the relevant Compliance Monitoring Team Leader and then only in strict compliance with any conditions imposed by the relevant Compliance Monitoring Team Leader) cut down, damage or destroy, or permit the cutting down, damage or destruction of the vegetation or wildlife habitats within the areas of native bush to be protected.

The management measures in this EMP are expected to be carried out for five years. At the end of the five-year period, this plan should be reviewed and updated based on the state of the site and any updated best practices.

## 8. CONCLUSION

This EMP provides a comprehensive plan for Johnstone Construction Limited to conduct pest animal and pest plant management, restoration planting, and protection of indigenous vegetation at 142 Konini Road, Titirangi. This restoration planting, covenant application, and pest control is expected to adequately address the retrospective ecological impacts associated with the site's residential upgrades.

## 9. PROGRAMME OF WORKS

Table 6: Example programme of restoration works for 142 Konini Road.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Year 1										Pest animal network installation and service		
Year 2	Initial pest plant control	Pest animal network service	Follow up pest plant control in planting area (no residual herbicides)		Pest animal service Follow up pest plant control in planting area (no residual herbicides)	Initial planting		Pest animal service	Planting maintenance and follow up pest plant control		Pest animal service	
Years 2-6		Pest animal service Planting maintenance and follow up pest plant control			Pest animal service Pest plant maintenance, follow up pest plant control, and infill planting (if required)			Pest animal service			Pest animal service Planting maintenance and follow up pest plant control	

## APPENDIX A

### Report Limitations

This Report/Document has been provided by Ecology New Zealand Limited (ENZL) subject to the following limitations:

- i) This Report/Document has been prepared for the particular purpose outlined in ENZL's proposal and no responsibility is accepted for the use of this Report/Document, in whole or in part, in other contexts or for any other purpose.
- ii) The scope and the period of ENZL's services are as described in ENZL's proposal and are subject to restrictions and limitations. ENZL did not perform a complete assessment of all possible conditions or circumstances that may exist at the site referenced in the Report/Document. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by ENZL in regards to it.
- iii) Conditions may exist which were undetectable given the limited nature of the enquiry ENZL was retained to undertake with respect to the site. Variations in conditions may occur between investigatory locations, and there may be special conditions pertaining to the site which have not been revealed by the investigation and which have not therefore been taken into account in the Report/Document. Accordingly, if information in addition to that contained in this report is sought, additional studies and actions may be required.
- iv) The passage of time affects the information and assessment provided in this Report/Document. ENZL's opinions are based upon information that existed at the time of the production of the Report/Document. The Services provided allowed ENZL to form no more than an opinion of the actual conditions of the site at the time the site was visited and cannot be used to assess the effect of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.
- v) Any assessments, designs and advice made in this Report/Document are based on the conditions indicated from published sources and the investigation described. No warranty is included, either express or implied, that the actual conditions will conform exactly to the assessments contained in this Report/Document.
- vi) Where data supplied by the client or other external sources, including previous site investigation data, have been used, it has been assumed that the information is correct unless otherwise stated. No responsibility is accepted by ENZL for incomplete or inaccurate data supplied by others.
- vii) The Client acknowledges that ENZL may have retained sub-consultants affiliated with ENZL to provide Services for the benefit of ENZL. ENZL will be fully responsible to the Client for the Services and work done by all of its sub-consultants and subcontractors. The Client agrees that it will only assert claims against and seek to recover losses, damages or other liabilities from ENZL and not ENZL's affiliated companies. To the maximum extent allowed by law, the Client acknowledges and agrees it will not have any legal recourse, and waives any expense, loss, claim, demand, or cause of action, against ENZL's affiliated companies, and their employees, officers and directors.
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- ix) Where lengths or other measurements have not been provided by a surveyor, ENZL has used basic GIS mapping and measurement systems to estimate these numbers. These should not be taken as surveyor-level accuracy for the purposes of decision making.

## APPENDIX B

### Ecological Management Plan Maps



Pest Animal Control				
Location:		Commencement Date:	Completion Date:	Company:
Date	Target Species	Trap/Toxin Used	No. Caught/Bait Taken (g)	Notes

Extra Information (notable observations, future recommendations, etc)

## Plant Monitoring

<b>Planting Area/Covenant:</b>	<b>Planting Date:</b>	<b>Infill Planting Date:</b>	<b>Company:</b>
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### Plant Survival

Canopy Closure (%)	Plant Survival (%)	Approximate Growth (cm/yr)	Extra Information:		
Planted Species	Number Planted	Species Condition (Thriving/Failing)	Quantity Replaced	Location of Replacement	

### Fertilisation

<b>Date Applied</b>					
<b>Fertiliser Applied</b>					
<b>Quantity</b>					