Ecological Management Plan (EMP) – Pencarrow Rd, Tamahere

Prepared for Waikato Thoroughbred Racing



Table of Contents

1 Introduction 2
1.1 Ecological values 3
1.2 Objectives 4
2 Restoration and Management Actions 6
2.1 Fencing 6
2.2 Pest plant control 6
2.2.1 Herbicide use 7
2.3 Animal pest control 8
2.4 Kahikatea and wetland planting requirements 9
2.4.1 Restoration strategy 9
2.4.2 Hydrology 9
2.4.3 planting and species selection 9
2.4.4 Planting Techniques 12
2.4.5 Planting Maintenance 12
2.5 Monitoring 12
2.5.1 Timeline 13
3 Mitigation Measures During Site Development 14
3.1 Terrestrial vegetation 14
3.1.1 Long-tailed bats - Pekapeka-tou-roa 14
3.1.2 Lizards – Mokomoko 14
3.1.3 Avifauna – Manu 14
3.1.4 Aquatic biota 14
4 Summary of the management requirements 15

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1 INTRODUCTION

BCD Group Ltd on behalf of Waikato Thoroughbred Racing commissioned Awa Ecology to prepare an Ecological Management Plan (EMP) for natural features present at the c.160 ha block of land at Pencarrow Road, Tamahere.

The purpose of this EMP is to appropriately mitigate for the proposed development of the site into a horse racecourse, harness racing and associated facilities. The terrestrial, freshwater and wetland ecological values of the site have been detailed in the Ecological Impact Assessment (EcIA) for the site[1]. The site is bordered by State Highway 1, Pencarrow, Hooker and Duncan Roads and is currently a working dairy farm comprised of pasture with hedgerows, scattered exotic trees, a maize crop, a remnant kahikatea stand with a small area of natural wetland, and a network of artificial watercourses and associated artificial wetlands.

The majority of the site will undergo development (Figure 1), however the remnant kahikatea stand and associated natural wetland in the southern portion of the property will remain to ensure that there is no net loss of biodiversity on site, and through the proposed enhanced documented in this plan, will result in a net gain.

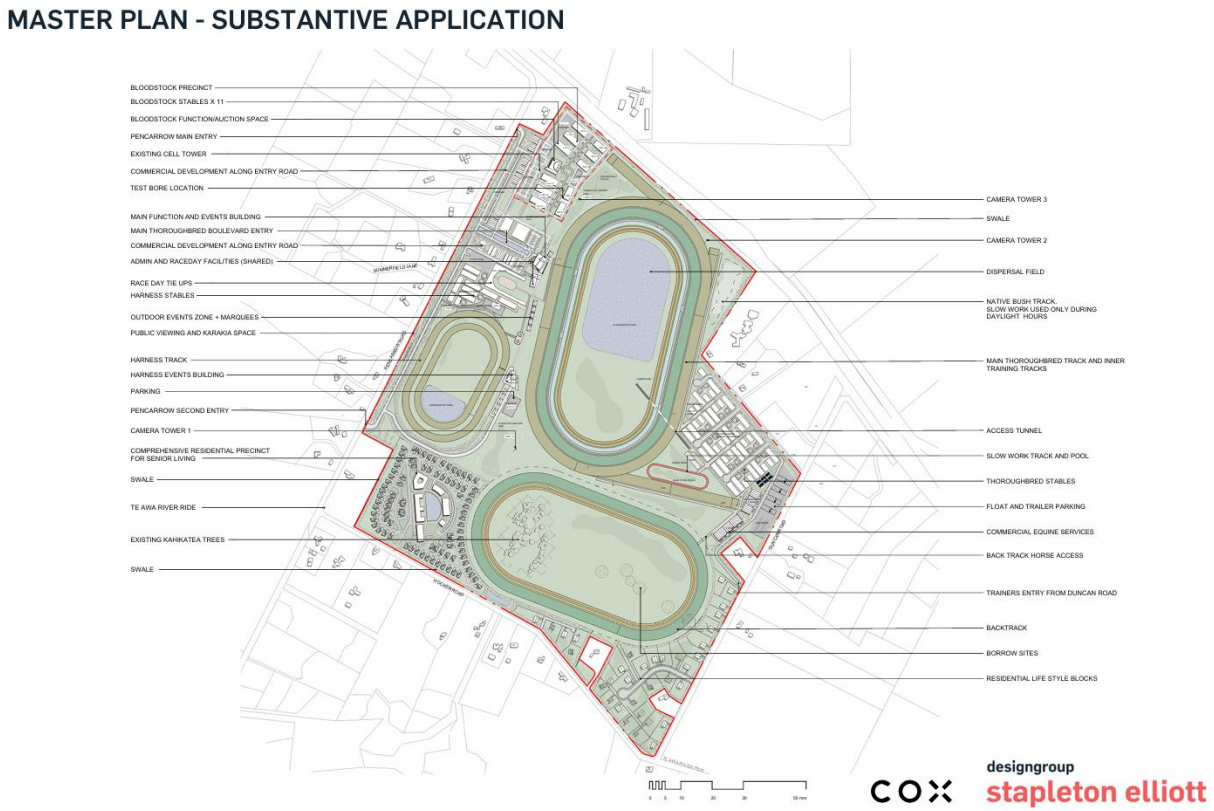


Figure 1: Proposed master plan for the site. Note that most of the site will be developed with the kahikatea stand retained and enhanced.

This plan provides restoration and management measures to enhance the remnant kahikatea stand and associated natural wetland, and details measures to mitigate for any adverse effects on natural features and fauna present on site during development.

[1] Awa Ecology report dated August 2026 – Ecological Impact Assessment at Pencarrow Rd, Tamahere, for Waikato Thoroughbred Racing

1.1 Ecological values

The EcIA identified that the kahikatea stand with associated wetland, located near the southern boundary of the property, had high ecological value (Figure 2). The stand is ecologically significant as it meets at least two of the Waikato Regional Council Regional Policy Statement criteria for Significant Indigenous Ecosystems (Criteria 3 and 4) and represents an under-represented habitat type. Lowland podocarp forest remnants are particularly under-represented, with 20% or less of their known or likely original extent remaining. Within the Hamilton Ecological District, only approximately 1.2% of the original forest extent remains. Although the stand has been substantially modified and degraded and is more appropriately characterised as treeland rather than forest, it contains a range of mature indigenous species, including pōkākā, tawa and mataī, with occasional pukatea and small-leaved milk tree also present.

The stand provides commuting and foraging habitat, and potentially roosting habitat, for threatened mobile species such as long-tailed bats. However, the understorey is relatively sparse, with pastoral grasses comprising much of the ground cover.

Within the southern portion of the kahikatea stand, is a natural wetland. The wetland was c.25 m^2 in size and was dominated by exotic grass species. As a result, this wetland is regarded as highly disturbed and significantly modified and no longer reflects the indigenous vegetation communities that would have naturally occurred in this landscape. Wetlands are ecosystems that are either permanently or intermittently saturated with water. Wetlands support a distinct assemblage of organisms that are adapted to wet conditions. Wetlands perform important ecosystem services and functions, including protecting and improving water quality, providing fish and wildlife habitats, storing floodwaters, maintaining surface water flow during dry periods, and carbon storage.

The natural wetland associated with the stand is also an under-represented habitat type both nationally and regionally due to historic land clearance and drainage. As a result, wetlands are now a national priority for protection and restoration.

Ecological values associated with fauna on-site range from very high for long-tailed bats which have a critically endangered national threat status to low for common, not threatened birds and aquatic fauna (Table 1). Separate fauna management plans have been prepared, with general management principles summarised in this report.

Table 1: Ecological value of fauna present or likely to be present at the site using the EIANZ criteria.

Species	Threat status	Ecological Value	Ecological context
Pekapeka-tou-roa	Threatened – Nationally Critical	**Very High**	Long-tailed bats are a nationally critically threatened species, and locally rare in the Waikato Region. Bats were confirmed to occur on-site.
Copper skink	At Risk - Declining	**Moderate**	Habitat on-site is limited. At least 98 % of the site is intensively managed pasture with no lizard habitat. There are only two locations where lizards could possibly be present, and both rate as very low likelihood.
Locally common indigenous bird species (e.g., tui, fantail)	Not threatened	**Low**	There were no threatened avifauna recorded at the site, and a low diversity of native species were recorded. Habitat on-site is used by a range of commonly occurring native and exotic species.
Locally common indigenous aquatic fauna (Shortfin tuna/eels)	Not threatened	**Low**	Shortfin tuna/eels were confirmed to be present onsite via eDNA analysis. The artificial drains are likely ephemeral and dry out in summer, meaning that they provide seasonal habitat.

1.2 Objectives

This EMP outlines the objectives and implementation methods required to restore and manage the overall ecological condition of the kahikatea stand and wetland.

The key objective of this EMP is to create self-sustaining native habitats where animal and plant pests are largely controlled to zero density and indigenous flora and fauna dominate. This will be achieved through the restoration of the kahikatea stand and wetland, with pest animal and plant control throughout the proposed restoration areas. Regular and ongoing weed control will be crucial until the indigenous plants are well established.

The following key management measures are required to meet these key objectives:

i. The natural features must be legally protected, 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 key 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 on an ongoing basis.



Figure 2: Location of the remnant kahikatea stand at Pencarrow Road, Tamahere

2 RESTORATION AND MANAGEMENT ACTIONS

2.1 Fencing

There is a partial 1 wire fence around the remnant kahikatea stand and associated natural wetland, and this continues around the borders of the stand and associated paddock. As part of the development of the site, the kahikatea stand will be encompassed within the training track. The land use of the site will change significantly, and it will be important to ensure stock continue to be excluded in perpetuity.

Approximately 645 m of fencing will need to be constructure around the kahikatea stand, with the indicative fenceline shown in Figure 2. The recommended fencing standard is 7 wire post and batten with a single electric wire on an outrigger. Thie sill achieve secure perimeter fencing of the proposed covenant area.

To extend the life of the existing fences and ensure the ongoing protection of all the vegetation areas, 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

2.2 Pest plant control

Pest plants can outcompete, smother, and inhibit the growth of native species, typically by competing for space and resources. Current weed pressure is low to moderate throughout most of the site, with current grazing levels keeping weeds at a minimum aside from unpalatable and grazing-tolerant species such as barberry.

Table 2 presents information on the pest plants observed during the visit, other potential plant pest species which could inhabit these areas once stock is removed, as well as priorities for control. The Waikato Regional Pest Management Plan (WRPMP, 2022 – 2032) outlines the regional council's 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 1. Control methodologies 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. For further information on control methodologies see the weedbusters webpage[2].

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

[2] Weedbusters • Working together to protect Aotearoa New Zealand

following days. Once pest plant control is started it is important that regular checks are made to monitor the effectiveness of the control and to look for new invasions.

2.2.1 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	Control method
Blackberry	*Rubus fruticosus agg.*	Site-led – Wetland Prevent spread and minimise impacts on high biodiversity sites	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.
Barberry	*Berberis glaucocarpa*	Not listed in WRPMP	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)
Inkweed	*Phytolacca octandra*	Not listed in WRPMP	Pull small plants or cut stems at ground level and paint the stumps with metsulfuron-methyl 600g/kg (1g/L)

2.3 Animal pest control

A mammalian predator and herbivore pest management programme should be developed to control herbivores (possums, hares) that will damage revegetation plantings and predators (rats, feral cats and mustelids).

Ongoing control is recommended as possums, rabbits and hares browse native vegetation. Hares can severely browse planted seedlings, which has already been seen. 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.

To assess the impacts of the development of long-tailed bats, a Qualitative Compensation Model (QCM) was completed. This approach was applied exclusively to bat habitat because long-tailed bats are a nationally 'Threatened' ('Nationally Critical) species, and because they are wide-ranging and use all habitat types currently present and are expected to be adversely affected by the proposed landuse change. The compensation package requires that funding is provided for 45 ha of mammalian predator control in high-potential bat-roost habitat, preferably within the known local population home range and, as a backstop, within 20 km.

The pest animal control program for the kahikatea stand and for bat compensation requirements shall be prepared and implemented by a professional pest-control provider.

2.4 Kahikatea and wetland planting requirements

2.4.1 Restoration strategy

The area to be restored should include all the mature trees in the area. To ensure the kahikatea stand is protected from edge effects we have included the restoration of a 10 m buffer around the kahikatea stand, which equates to 2.71 ha of protection and restoration. The restoration of the existing wetland and the creation of additional wetland areas is also part of this restoration plan. The existing wetland is 25m^2 and an additional 1,302 m^2 of wetland creation and restoration will be undertaken in the kahikatea stand. The substantial increase in wetland area provides a net ecological benefit and contributes to the betterment of Te Ture Whaimana by increasing the extent of wetland habitat and supporting the restoration and protection of the Waikato River and its catchment.

2.4.2 Hydrology

Drains have been dug around the perimeter of the kahikatea stand. These drains are relatively shallow and ephemeral but, along with landscape-scale drainage, will likely alter the natural hydrology of the remnant. Reinstatement of the hydrology to this area would be a difficult and complex issue as any alteration to the present hydrology would have to ensure that flooding of the nearby road and adjacent productive grazing land did not occur. In addition to this the kahikatea trees have adapted to this altered hydrology, and a comparatively rapid rehydration could be detrimental to the trees present.

It is recommended that these drains immediately bordering the remnant are no longer maintained or dug out. The restoration plan includes the creation of wetlands in the location where existing drains are present, utilising the current ground and hydrology conditions, and expanding them in places. It is likely that these wetlands will be ephemeral as the current natural wetland and drains currently hold water for part of the year.

The site is suitable for wetland establishment as similar wetlands were likely historically widespread across the area prior to land clearance and drainage modifications. Although land use has changed over time, the underlying geological and topographical conditions remain, together with modified hydrological processes. The additional wetland areas will be constructed below the surrounding ground level to support appropriate wetland hydrology and will connect with the existing natural wetland and drainage network. Any excavation required to establish these areas should be appropriately set back from existing trees to avoid disturbance to their root systems.

2.4.3 planting and species selection

Three planting zones are highlighted within the kahikatea stand, the open areas require a spacing of 1.5m, the area beneath the kahikatea trees (Figure2) which requires supplementary planting with reduced spacing of 3m and the wetlands. The wetland areas will have plants spaced 0.75 m apart. A total of 11,893 plant will be required.

Table 3: Areas that require planting

Vegetation Description	Spacing (m)	Areas (m^2)	Number of plants
Supplementary beneath existing kahikatea treeland	3.5	9460	885
Open area including buffer	1.5	16307	8305
Wetland restoration	0.75	1327	2703
Total		**27,096 (2.71ha)**	**11,893**

A recommended plant list for kahikatea forest remnants is provided in Table 5 and has been adapted from the Waikato Regional Council forest fragment factsheet 6[3].

The use of early successional species is particularly useful to buffer the remnant from edge effects such as prevailing winds and weed intrusion. On the damp/drier areas early successional plants such as manuka, karamu, and flax will provide good ground cover and grow quickly. As the plantings mature other species, particularly large canopy trees, can be planted in the restoration area.

- Well-drained drier areas can be planted predominantly with kanuka, with species such as totara, mapou, mahoe and karamu placed among it.
- Damper areas can have manuka, kahikatea, cabbage tree, karamu, and pukatea.
- The wetland areas should be planted mostly in sedges and rushes, with damp-tolerant species such as kahikatea and flax.

[3] Forest-Fragment-factsheet-6.pdf

Table 4: Plants to be planted in each of the different areas in the kahikatea stand.

Botanical name	Common name	Drier/Damp		Wetland (wet/damp)		Supplementary planting		Total	Plant grade
		% of mix	No. required	% of mix	No. required	% of mix	No. required		
Alectryon excelsus	titoki	5%	415			5%	44	460	1L, PB2
Aristotelia serrata	wineberry	8%	664					664	1L, PB2
Carex geminata	rautahi			15%	405			405	1L, PB2
Carex virgata	purei			15%	405			405	Root trainer
Coprosma robusta	karamu	10%	831			10%	89	919	1L, PB2
Coprosma propinqua	swamp coprosma			10%	270			270	1L, PB2
Cordyline australis	cabbage tree	8%	664	20%	541			1205	Root trainer
Cyperus ustulatus	giant umbrella sedge			5%	135			135	Root trainer
Dacrycarpus dacrydioides	kahikatea	8%	664	8%	216	2%	18	898	1.5L, PB3
Dacrydium cupressinum	rimu					5%	44	44	1.5L, PB3
Eleocarpus hookerianus	Pokaka					5%	44	44	1.5L, PB4
Gahnia xanthocarpa	giant sedge			6%	162	5%	44	206	1L, PB2
Hedycarya arobrea	pigenowood	10%	831					831	1L, PB2
Laurelia novae-zelandiae	pukatea			1%	27	8%	71	98	1.5L, PB3
Leptospermum scoparium	manuka	20%	1661			18%	159	1820	1L, PB2
Melicytus ramiflorus	mahoe	10%	831			10%	89	919	1L, PB2
Myrsine australis	mapou	6%	498					498	1L, PB2
Phormium tenax	harakeke	10%	831	20%	541	10%	89	1460	1L, PB2
Podocarpus totara	totara	5%	415					415	Root trainer
Prumnopitys ferruginea	matai					6%	53	53	1.5L, PB3
Sophoria microphylla	kowhai					8%	71	71	1L, PB2
Syzygium maire	swamp maire					8%	71	71	1.5L, PB5
Total		100%	**8,305**	100%	**2703**	100%	**885**	**11,893**	

2.4.4 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 (ideally from the Hamilton Ecological Districts or neighbouring districts), and should be healthy and robust. Plants grown from natural populations in neighbouring districts are preferred to non-eco-sourced plants.

In the open restoration areas, plants are to be planted at a density of one plant every 1.5 m (approximately 5,000/ha) in groups of three or more. Large canopy forming trees (planted in the initial restoration phase) should be spaced approximately 3-4 m apart. Smaller trees and shrubs can be scattered throughout. Supplementary canopy enhancement species, planted after the early successional species have gained canopy closure, should be spaced approximately 10-15 m apart (approximately 115/ha to 50/ha). 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).

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 can be undertaken to make plants easier to locate.

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.

2.4.5 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.

2.5 Monitoring

A detailed monitoring regime is critical to the success of this restoration programme. Restoration/reforestation planting should be monitored annually during the first five years following planting to ensure the reforestation is progressing in terms of the detailed specifications of the EMP and in accordance with any potential consent condition performance standards. Monitoring will check for evidence of plant and animal pests, and that fencing and plantings have been implemented as specified in this EMP.

Photo-point monitoring gives a very good record of vegetation changes over the short to medium term. The method is simple: choose two or three fixed locations in each vegetation/restoration area. The photo positions should be easy to re-locate, such as at a particular fence post or beside a particular tree. Choose positions that will not be overgrown. Take photographs at each location that give a good view of the area. Photographs should be re-taken each year at the same time which will give a good record of how the vegetation changes.

Any pest animal monitoring will be detailed in pest animal control program.

Regular checks of the fences should also be undertaken. These may need to be more often than for other fences on the farm as branches and trees falling over fences can be a problem

2.5.1 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

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

Table 5: 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**)		■									■	
Rat and possum control – 3-4 pulse feeds each	■			■				■			■	
Regular fence checks (more frequent after storms)	■			■				■			■	
Photo point monitoring											■	

3 MITIGATION MEASURES DURING SITE DEVELOPMENT

3.1 Terrestrial vegetation

The remnant kahikatea stand has high ecological value. The stand also provides important foraging and commuting habitat for long tail bats as well as potential roost habitat. Restoration and management recommendations that would provide a net positive ecological benefit in the future are detailed in this EMP.

All other vegetation is exotic including large the hedgerows which are comprised of weedy species, exotic wetlands and exotic trees. Outside of the remnant kahikatea stand, the remainder of the vegetation on the property has low ecological value.

The creation of bare earth as a result of construction has the potential for weed colonisation, and this is highly likely given the nearby seed source of the open pastoral areas which contain predominately exotic species. Fauna

3.1.1 Long-tailed bats - Pekapeka-tou-roa

The bioacoustics survey indicates bat activity at the site ranged from low in areas of pastoral farmland with scattered trees to relatively high within the kahikatea stand.

The development of the land including the establishment of a horse racecourse, training facility, harness racing and associated infrastructure may cause several adverse effects on long-tailed bat habitats, including habitat loss, habitat fragmentation, and increases in noise and lighting.

Any potential adverse effects of the development on long-tailed bats and their associated habitats, will be mitigated through specific measures outlined in a separate Bat Management Plan (BMP).

3.1.2 Lizards – Mokomoko

Lizard habitat values onsite were assessed by RMA Ecology (2026) who found that ‘at least 98 % of the site is intensively managed pasture with no lizard habitat. There are only two locations where lizards could possibly be present, and both rate as very low likelihood’. These authors concluded that a pre-clearance survey and a Wildlife Act authority are not needed. However, a Lizard Accidental Discovery Response Protocol is recommended as a consent condition.

3.1.3 Avifauna – Manu

The vegetation onsite, particularly mature indigenous and exotic trees may contain native birds and clearance of this vegetation has the potential to cause injury to or death of native birds, particularly during the breeding season. Native birds within the area should be able to emigrate out of the area, unless unfledged chicks are present in nests.

To reduce the likelihood of bird mortality, vegetation removal of any mature trees will include checks for nesting birds at the same time.

3.1.4 Aquatic biota

The artificial watercourses on site are shallow and likely ephemeral. There is minimal overhead canopy cover and riparian vegetative protection, and no fish were recorded during the trapping survey. However, shortfin eels were detected during an eDNA survey at the outlet of the site.

Given that the watercourses do provide habitat for shortfin eels, all activities on site will need to be managed to ensure there is no adverse effect on these species. Fish recovery will need to take place if watercourses are to be infilled or diverted, so long as water is present within the channel. Any potential adverse effects of the development on aquatic biota, will be mitigated through specific measures outlined in a separate Fish Management Plan (FMP).

4 SUMMARY OF THE MANAGEMENT REQUIREMENTS

BCD Group Ltd on behalf of Waikato Thoroughbred Racing commissioned Awa Ecology to prepare an Ecological Management Plan (EMP) for natural features present at the c.160 ha block of land at Pencarrow Road, Tamahere. The purpose of this plan is to prepare an EMP to appropriately mitigate for the proposed development of the site into a horse racecourse, harness racing and associated facilities. The majority of the site will undergo development, however the remnant kahikatea stand and associated natural wetland in the southern portion of the property will remain and be enhanced to ensure that there is no net loss of biodiversity on site and through the proposed enhanced documented in this plan, will result in a net gain. This plan provides restoration and management measures to enhance the remnant kahikatea stand and associated natural wetland on the site.

As part of the development of the site, the kahikatea stand will be encompassed within the training track. The land use of the site will change significantly, and it will be important to ensure stock continue to be excluded from the kahikatea stand in perpetuity. Pest animal and plant control is required throughout the proposed restoration area. Regular ongoing weed and pest animal control will be required until the indigenous plants are well established.

Restoration planting within the kahikatea stand and the natural wetland will need to be undertaken to meet the objectives of this EMP. The existing natural wetland is 25m^2 and an additional 1302 m^2 of wetland creation and restoration will be undertaken within the kahikatea stand. The substantial increase in wetland area provides a net ecological benefit and contributes to the betterment of Te Ture Whaimana by increasing the extent of wetland habitat and supporting the restoration and protection of the Waikato River and its catchment.

Measures to mitigate against any adverse effects of the site development on fauna are provided in separate fauna management plans but have been mentioned here for completeness.

Over time, these combined restoration and management actions will significantly enhance biodiversity and contribute to the long-term ecological resilience and self-sustainability of the natural features.

Attachment 1: Annual monitoring form

Tick when complete or add in the numbers if applicable.

Year 1

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pre-planting weed control												
Planting												
Plant release/weed control (**year 1**)												
Replacements required Y1 (add #)												
Rat and possum control – 3-4 pulse feeds each												
Regular fence checks (more frequent after storms)												
Photo point monitoring												
Comments												

Years 2-5 (table to be completed every year)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Plant release/weed control												
Replacements required (add #)												
Rat and possum control – 3-4 pulse feeds each*												
Regular fence checks (more frequent after storms)												
Photo point monitoring												
Comments												

*A tally of all pest animals can be collected to record the trap number, date and species.

Other things to take note of in the comments section- plant losses and replacement, estimated % canopy cover, establishment of indigenous seedlings (if any), weed invasion.