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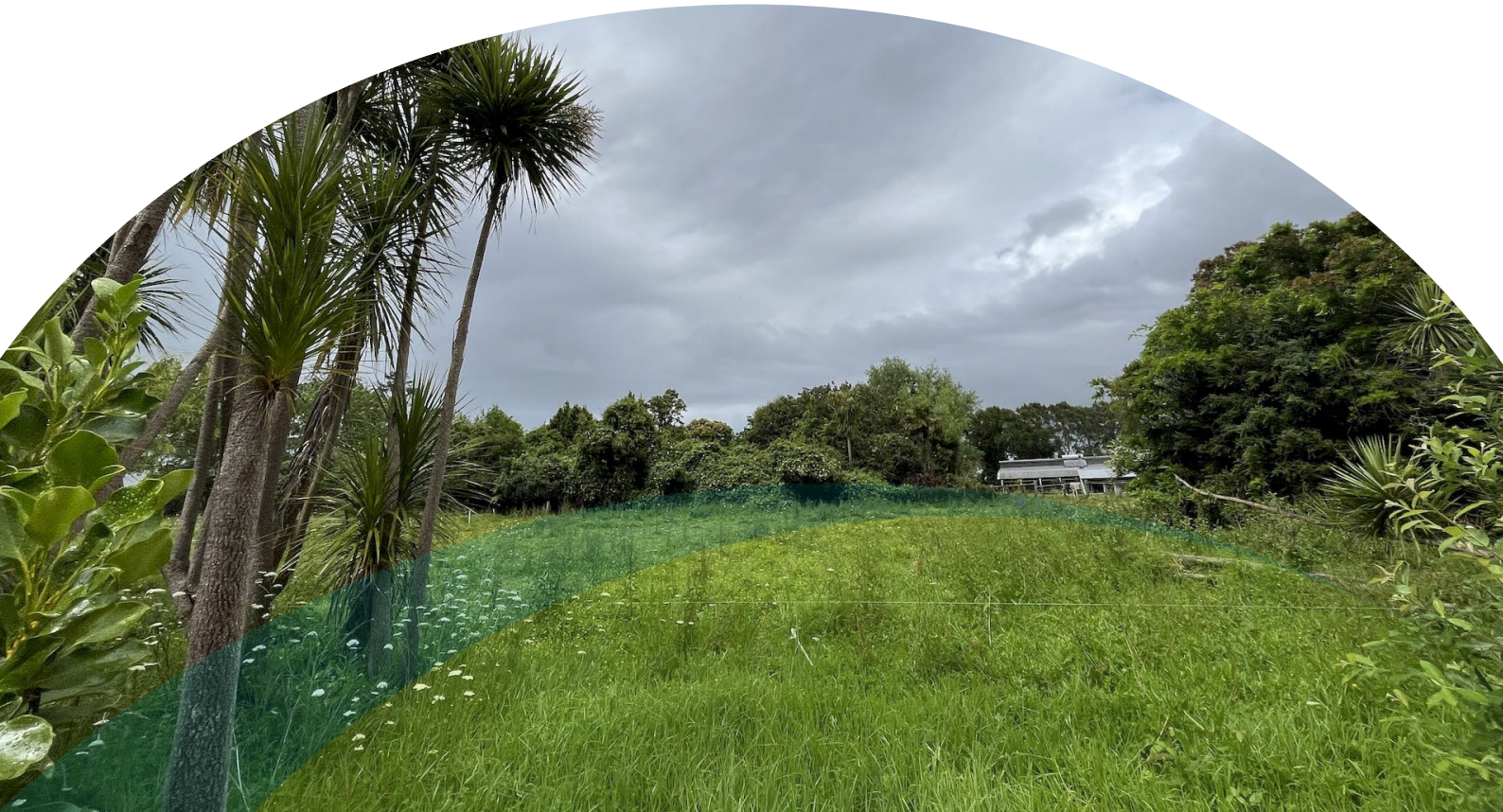
# Kumeū Secondary NoR

## Ecological Impact Assessment

**Final**

Prepared for Ministry of Education



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# Executive Summary

Morphum Environmental Ltd was engaged by the Ministry of Education to prepare an Ecological Impact Assessment to inform a Notice of Requirement to enable the future construction and operation of a secondary school at 43 Trigg Road; 54 and 60 Station Road, Kumeū, Auckland (hereon in the 'site').

As with other areas in the Eastern Northland Ecological District, agricultural activities have cleared much of the site's original vegetation. The current land cover is reflective of the site's past agricultural use and current rural lifestyle-residential dwellings. Where present, vegetation is reflective of that land use, with the largest proportion of the site being pasture grassland, and the balance in native and exotic vegetation planted as amenity gardens, or shelter belts.

Although the site has been heavily modified, it retains some ecological value. Ecological features of note include a small pond and a short reach of a potentially intermittent stream on the southern boundary. Terrestrial vegetation of ecological consideration includes mixed mature exotic and native vegetation in the northern half of the site. Vegetation, where present, contributes to ecosystem services such as habitat provision for native fauna adapted to agricultural landscapes. The lack of quality habitat values and areas is reflected in the native species of birds and lizards considered likely to utilise the site. Avifauna species present are consistent with those that can comfortably travel distances over open fields between forested patches, or make use of fields, farmland, and shelter belt vegetation as habitat. Suitable lizard habitat was limited and, if present, lizard populations are likely limited to copper skinks. The site contains mature trees with cavities or loose bark that may be utilised as bat roosts. However, the site does not contain any features that would be utilised as movement corridors or maternity roosts by native long-tailed bats. The artificial pond to the south of the site provides freshwater fish habitat likely to support shortfin eels and potentially, longfin eels. Whilst fauna observations to date have been limited to common species, the use of this area by threatened species such as long-tailed bats, on a temporary, foraging basis, whilst considered unlikely, cannot definitively be ruled out.

It is acknowledged that the construction and operation of a school has the potential to have adverse ecological effects. The redevelopment of the site would likely require land disturbance, vegetation clearance, noise, vibrations, and traffic movements. Notwithstanding the actual values identified, vegetation removal may affect the fauna that potentially utilise the site as habitat.

The Wildlife Act (1953) absolutely protects all native herpetofauna and bats, and most avifauna species (unless specifically excluded), from harm and disturbance. Any activities in the stream, or any other waterway that may be present, would be subject to the regional consenting provisions of the Auckland Unitary Plan (AUP). These provisions would address potential effects on native terrestrial and freshwater fauna.

Land disturbing activities could potentially result in sediment being discharged to the receiving environment. Sediment is a contaminant as defined in the Resource Management Act (RMA) and has the potential to cause a range of adverse effects in the receiving environment, including smothering of in-stream habitat, injury and/or mortality of native freshwater fish. To be a permitted activity under the regional earthworks provisions of the AUP, erosion and sediment controls in accordance with Auckland Council Guideline Document: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region must be used, as well as compliance with other relevant standards. In all other cases, consent would be required under the regional plan provisions of the AUP.

The redevelopment of the site will increase impervious surface coverage. Stormwater discharges to the receiving freshwater environment associated with the proposed development and increase in impervious surfaces have the potential to result in adverse ecological effects. Guidance on best practice stormwater

management is given by Auckland Council Guideline Documents; Stormwater management devices in the Auckland region (GD01) (Auckland Council, 2017) and Water Sensitive Design for Stormwater (GD04) (Auckland Council, 2015). These technical documents require an integrated approach to water quality management that would alleviate the identified potential effects, ensuring that stormwater management is sensitive to ecological features.

The redevelopment of the site provides an opportunity to improve the site's ecological values; through the reduction of agricultural nutrients and contaminants to the receiving environment, and the opportunity to increase and enhance native vegetation as part of the associated landscaping, providing ecological 'stepping stones' in the landscape.

The proposed activities have been assessed here using the Environmental Institute of Australia and New Zealand EcIA Guidelines (EIANZ, 2018). Considering the ecological values potentially present at the site, and the magnitude of impacts, the overall level of effects across the ecological components ranges from **Low** to **Very Low**.

As such, it is not considered that any ecology-specific conditions are required on the Designation to address any of the identified potential ecological effects. An advice note, to highlight the requirements of the Wildlife Act, is proposed.

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# 1. Introduction

## 1.1. Purpose and Scope

Morphum Environmental Ltd was engaged by the Ministry of Education (hereon in 'the Ministry') to prepare an Ecological Impact Assessment (EcIA) to inform a Notice of Requirement (NoR) to enable the future construction and operation of a secondary school at 43 Trigg Road; 54, and 60 Station Road, Kumeū, Auckland (hereon in the 'site'). A map of the site, with key ecological attributes, is provided in Appendix 1.

These new facilities will be used by the Ministry to accommodate the continuing population growth and urban intensification of the Kumeū-Huapai urban area. The site will initially be developed for 1,500 students. Design has yet to be completed; as such, this assessment assumes that the majority of woody vegetation within the site will be cleared and that earthworks will be required. Subsequently, the school would increase the impervious surface coverage within the site, and generate traffic movements, light and noise.

Morphum understands that an EcIA is required to identify the ecological values of the site, describe the potential impacts that the construction and operation of a school on the site may have on those values and recommend management measures if required, including possible designation conditions.

This assessment has been undertaken in accordance with the Environmental Institute of Australia and New Zealand EcIA Guidelines (EIANZ, 2018) and assessment methodology (Appendix 2). The scope of this EcIA is limited to the NoR/Designation.

## 1.2. Methodology

A desktop review of client-supplied information, as well as the following literature and databases, was undertaken to inform site ecological values:

- Landcare Research Land Cover Database v5.0 (Landcare Research, 2021)
- Auckland Council's geospatial map viewer (Auckland Council, 2016)
    - Contours, aerial photography, watercourses, and Significant Ecological Areas overlay
- New Zealand Freshwater Fish Database (NIWA, 2025)
- iNaturalist (iNaturalist, 2025)
- eBird (Cornell Lab of Ornithology, 2025)

A site visit was undertaken on 13/11/25 by two suitably qualified and experienced Environmental Scientists to assess the current ecological values of the site. The site itself was not entered, as per the Ministry's instruction, rather, the site was viewed from the property to the north (Huapai District Primary School) and from publicly accessible viewpoints only.

## 1.3. Site Overview

The site comprises 3 property parcels at 43 Trigg Road; 54, and 60 Station Road, Kumeū, Auckland. The size of the site is approximately 6.87 ha, comprising multiple residential dwellings and buildings (Figure 1). The buildings are likely associated with the residential and agricultural land use. The site is zoned as

Future Urban Zone (FUZ) under the Auckland Unitary Plan. There are no Significant Ecological Areas (SEA) or 'current ecosystem extent' shown within the site boundary.

Landcare Research Land Cover Database v5.0 (Landcare Research, 2021) classifies the land cover across the majority of the site as 'High Producing Exotic Grass Land'. This is considered an accurate high-level description of the land cover on the site. To the north, is Huapai District School, and beyond that the immediate surrounding area is in low-density residential land-use. To the east, there has been development of high-density residential housing, whilst to the south and west, the immediate area is in similar rural-lifestyle land uses.

The historic ecosystem extent for the site is listed as WF7.3 Pūriri forest with kahikatea (Auckland Council, 2017). The species on site is not representative of the WF7.3 historic ecosystem type, with the only representative species being kōwhai (*Sophora microphylla*) and kahikatea (*Dacrycarpus dacrydioides*) found in low densities, as individual specimens, across the site. The site landcover is predominantly unmaintained pasture grass species. There are areas of mature trees, most likely planted as an amenity garden feature or as screen planting, which are mostly located within the parcel boundary at 54 Station Road.

The site is located in the Eastern Northland, formerly the Rodney, Ecological District (9.01) (Department of Conservation, 1987). The original vegetation was dominated by mixed podocarp-hardwood forest. The original land cover has been substantially modified by human activity, primarily through agriculture, reducing the extent of remaining forest.

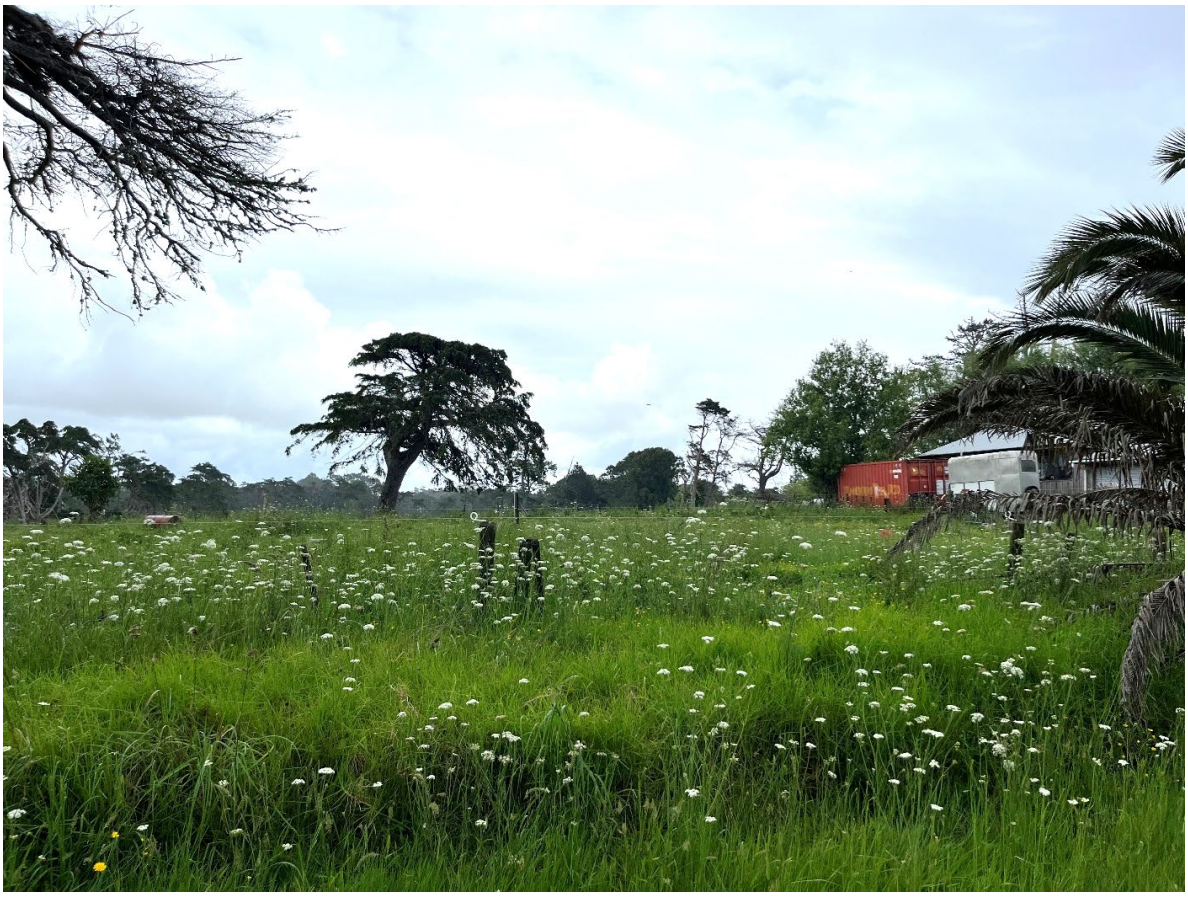

Figure 1: Photo of the site comprising low-density dwellings, isolated trees and rank grassland (13/11/2025)

# 2. Current Ecological Values

A combination of desktop assessments, literature reviews and a site visit was used to determine the ecological values of the ecosystems within the works area and the wider catchment. The following sections briefly describe the methodology for assessing the ecological values.

## 2.1. Terrestrial Vegetation

A high-level vegetation assessment was conducted during the initial site visit. Three distinct vegetation types were noted from the vantage points and have been grouped according to the vegetation composition (Appendix 1). Area 1 (red) is best described as Planted Vegetation (PL.3), being native and amenity plantings (Auckland Council, 2017). Area 2 (green) is classified as Planted Vegetation (PL.2), being planted with native scrub and forest more than 20 years old. Area 3 (orange) is classified as Exotic Forest (EF) with more than 50% cover of exotic canopy. Not mapped are the Exotic Grasslands (EG), which comprise the balance of the site cover outside of the existing buildings.

Note that these areas were grouped based on dominant vegetation types that could be seen from publicly accessible viewpoints. The identified species are provided in Tables 1-3 below. A representative photo from each area has been provided in Figures 2 to 4.

Area 1 holds the most observable diversity out of the 3 vegetation groups, with mixed native and exotic vegetation, but has little canopy cover. Due to the location adjacent to Station Road, and the isolated nature of mature trees, it is unlikely that the vegetation in this area provides habitat for native birds, bats or lizards on a more than transitory basis (Figure 2).

Area 2 comprised mixed native and exotic vegetation, with much of the vegetation smothered by Japanese honeysuckle (*Lonicera japonica*). Mature exotic pine (*Pinus radiata*) and oak (*Quercus* spp.) trees present in this area are likely suitable as roosts for native birds (Figure 3).

Area 3 comprised mixed native and exotic vegetation dominated by wattle species *(Paraserianthes lophantha*) and macrocarpa (*Hesperocyparis macrocarpa*), likely also providing low-quality bird and potentially bat roosts (Figure 4).

Table 1 below provides an assessment of the ecological values of the terrestrial vegetation within the site, utilising the assessment matters from the EcIAG (EIANZ, 2018). The ecological value of this vegetation has been considered **Low**.

Table 1: Assessment of terrestrial vegetation values within the site

| Assessment Matter | Ecological Value (EIANZ, 2018) | Reasoning |
|---|---|---|
| Representativeness | Low | The current vegetation community is dominated by rank grassland, exotic trees and shrubs, and common native species. Not considered representative of the historic WF7.3: Pūriri forest with kahikatea forest ecosystem. |
| Rarity/distinctiveness | Low | The terrestrial vegetation recorded from the site comprises pasture grasses that have grown rank, common species, exotic weeds, as well as exotic and common native trees and shrubs, typical of rural/agricultural areas. No species are Threatened or At Risk. |
| Diversity and pattern | Moderate | The current vegetation community is comprised of a moderate level of diversity of common native and exotic vegetation. |
| Ecological context | Low | The site's history of modification, and similar local environmental conditions which have influenced the ecological attributes present. The vegetation present would provide low quality nesting/roosting habitat for native birds and bats. Such habitat is found in the immediate surrounding area and the likelihood of species present is considered low, the vegetation is not likely to be significant at the regional or district level. |
| Overall | **Low** | The terrestrial values rates moderate for one, and low for the remaining three matters for consideration. Ecological values are limited to the provision of habitat for tolerant native species. |

Table 2: Area 1 comprises mixed vegetation, mainly understory along the eastern boundary of the site

| **Common Name** | **Scientific Name** | **Native or Exotic** (Department of Conservation, 2024; Auckland Council, 2023) |
|---|---|---|
| Tī kōuka/cabbage tree | *Cordyline australis* | Native |
| Karamu | *Coprosma robusta* | Native |
| Karo | *Pittosporum crassifolium* | Native |
| Kahikatea | *Dacrycarpus dacrydioides* | Native |
| Mānuka | *Leptospermum scoparium* | Native |
| Kānuka | *Kunzea ericoides* | Native |
| Pōhutukawa | *Metrosideros excelsa* | Native |
| Tōtara | *Podocarpus totara* | Native |
| Māpou/red matipo | *Myrsine australis* | Native |
| Kōwhai | *Sophora microphylla* | Native |
| Harakeke/flax | *Phormium tenax* | Native |
| Bracken | *Pteridium esculentum* | Native |
| Oak | *Quercus spp.* | Exotic |
| Macrocarpa | *Hesperocyparis macrocarpa* | Exotic |
| Brush Wattle | *Paraserianthes lophantha* | Exotic (Pest) |
| Tree privet | *Ligustrum lucidum* | Exotic (Pest) |
| Chinese privet | *Ligustrum sinense* | Exotic (Pest) |
| Japanese honeysuckle | *Lonicera japonica* | Exotic (Pest) |
| Blackberry | *Rubus fruticosus* | Exotic (Pest) |
| Phoenix palm | *Phoenix canariensis* | Exotic (Pest) |
| Pampus | *Cortaderia selloana* | Exotic (Pest) |
| Agapanthus | *Agapanthus praecox* | Exotic (Pest) |
| Bottlebrush | *Melaleuca citrina* | Exotic |

Table 3: Area 2 comprises the mixed vegetation including canopy cover, in the centre of 54 Station Road

| **Common Name** | **Scientific Name** | **Native or Exotic** (Department of Conservation, 2024; Auckland Council, 2023) |
|---|---|---|
| Tī kōuka/cabbage tree | *Cordyline australis* | Native |
| Karo | *Pittosporum crassifolium* | Native |
| Tītoki | *Alectryon excelsus* | Native |
| Radiata pine | *Pinus radiata* | Exotic |
| Oak | *Quercus spp.* | Exotic |
| Japanese honeysuckle | *Lonicera japonica* | Exotic (Pest) |
| Phoenix palm | *Phoenix canariensis* | Exotic (Pest) |

Table 4: Area 3 comprises the mixed vegetation located in the western portion of 54 Station Road

| **Common Name** | **Scientific Name** | **Native or Exotic** (Department of Conservation, 2024; Auckland Council, 2023) |
|---|---|---|
| Tī kōuka/cabbage tree | *Cordyline australis* | Native |
| Karamu | *Coprosma robusta* | Native |
| Karo | *Pittosporum crassifolium* | Native |
| Māpou/red matipo | *Myrsine australis* | Native |
| Tōtara | *Podocarpus totara* | Native |
| Kāpuka/griselinia | *Griselinia littoralis* | Native |
| Harakeke/flax | *Phormium tenax* | Native |
| Puka | *Meryta sinclairii* | Native |
| Weeping willow | *Salix babylonica* | Exotic |
| Cypress | *Cupressus spp.* | Exotic |
| Brush Wattle | *Paraserianthes lophantha* | Exotic (Pest) |
| Gorse | *Ulex europaeus* | Exotic (Pest) |

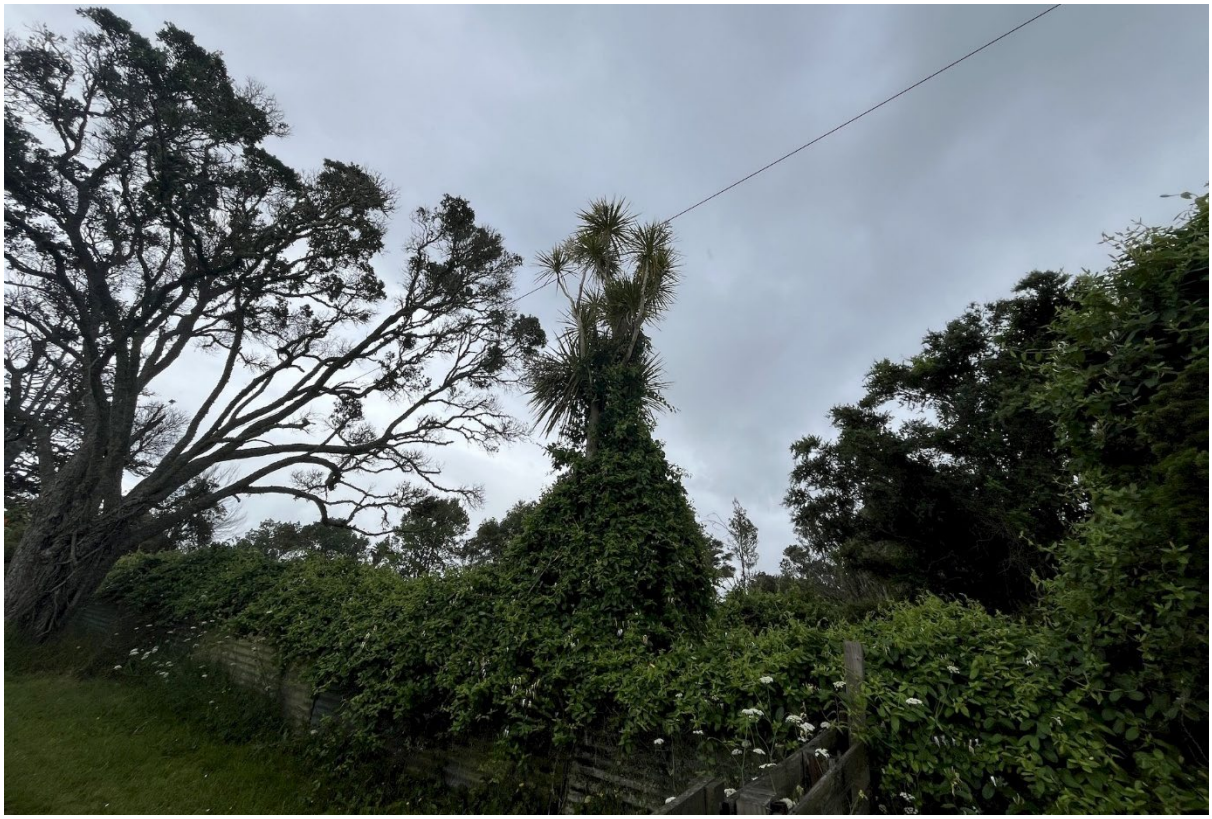

Figure 2: Representative mixed vegetation in Area 1 (13/11/2025)

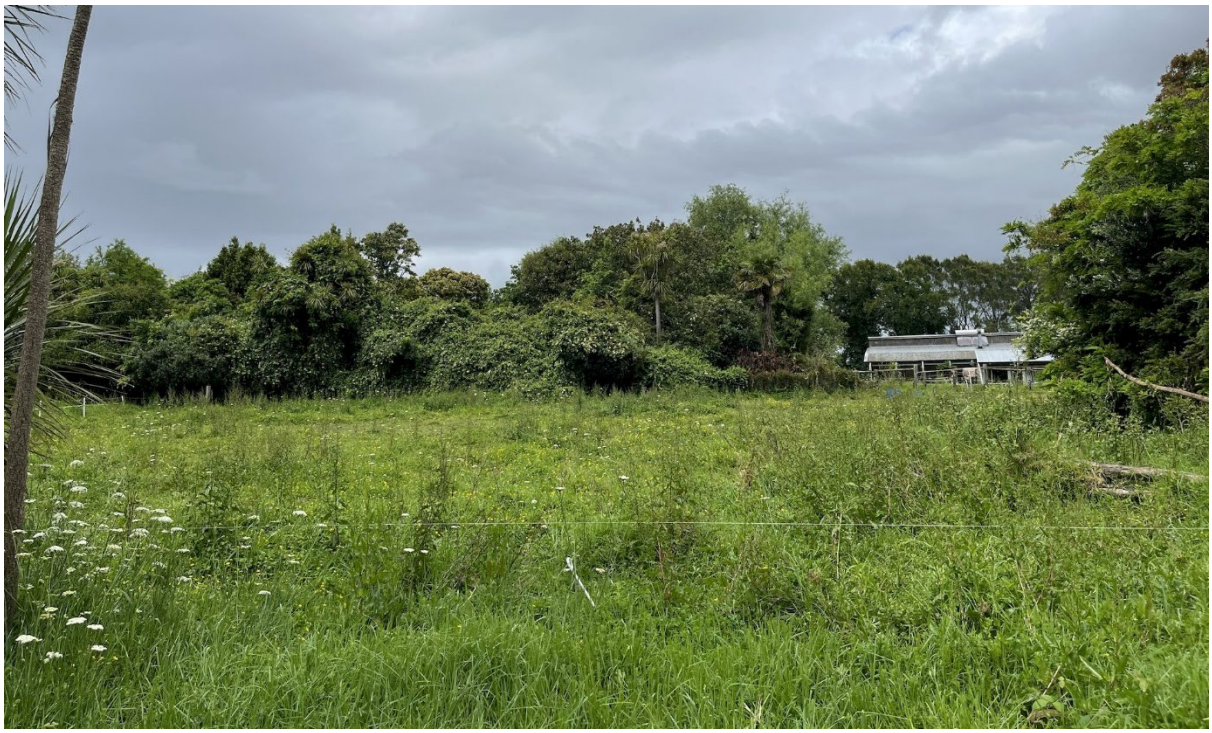

Figure 3: Representative mixed vegetation in Area 2 and pasture species (13/11/2025)

Figure 4: Representative mixed vegetation in Area 3 (13/11/2025)

## 2.2. Avifauna

No formal bird counts or surveys were undertaken. However, incidental observations of birds seen and heard were made throughout the site visit. A desktop assessment using records from a 2 km radius of the site from iNaturalist and eBird was also undertaken for the surrounding area (Cornell Lab of Ornithology, 2024; iNaturalist, 2024). One eBird hotspot at 'Huapai-Parlane Pond' was located 1.6 km north of the site. A summary of all native and exotic species from these sources is presented in Table 5 below.

Table 5: Site avifauna observations

| **Common name** | **Scientific name** | **Threat Status** (Department of Conservation, 2021) |
|---|---|---|
| Pied shag / Kāruhiruhi + | *Phalacrocorax varius* | At Risk - Recovering |
| Little shag / Kawaupaka + | *Microcarbo melanoleucos* | At Risk - Relict |
| Black shag / Māpunga + | *Phalacrocorax carbo* | At Risk - Relict |
| Little black shag / Kawau tūī + | *Phalacrocorax sulcirostris* | At Risk – Naturally Uncommon |
| Grey warbler / Riroriro ~+ | *Gerygone igata* | Not Threatened |
| Welcome swallow / Warou ~+ | *Hirundo neoxena* | Not Threatened |
| Sacred kingfisher / Kōtare *+ | *Todiramphus sanctus* | Not Threatened |
| White-faced heron / Matuku moana *+ | *Egretta novaehollandiae* | Not Threatened |
| Silvereye / Tauhou *+ | *Zosterops lateralis* | Not Threatened |

| **Common name** | **Scientific name** | **Threat Status** (Department of Conservation, 2021) |
|---|---|---|
| New Zealand pigeon / Kererū * | *Hemiphaga novaeseelandiae* | Not Threatened |
| Tūī *+ | *Prosthemadera novaeseelandiae* | Not Threatened |
| Grey duck × mallard hybrid * | *Anas superciliosa x platyrhynchos* | Not Threatened |
| Australasian swamphen / Pūkeko *+ | *Porphyrio melanotus* | Not Threatened |
| Swamp harrier / Kāhu + | *Circus approximans* | Not Threatened |
| New Zealand Fantail / Pīwakawaka + | *Rhipidura fuliginosa* | Not Threatened |
| Pīpīwharauroa / Shining Cuckoo + | *Chrysococcyx lucidus* | Not Threatened |
| Karoro / Kelp gull + | *Larus dominicanus* | Not Threatened |
| Whitehead / Pōpokotea + | *Mohoua albicilla* | Not Threatened |
| Pied stilt / Poaka + | *Himantopus leucocephalus* | Not Threatened |
| House Sparrow / Tiu ~*+ | *Passer domesticus* | Introduced and Naturalised |
| Eurasian blackbird / Manu pango ~+ | *Turdus merula* | Introduced and Naturalised |
| European greenfinch ~+ | *Carduelis chloris* | Introduced and Naturalised |
| Yellowhammer ~ | *Emberiza citrinella* | Introduced and Naturalised |
| Indian myna ~+ | *Acridotheres tristis* | Introduced and Naturalised |
| Helmeted Guineafowl / Wild turkey * | *Numida meleagris* | Introduced and Naturalised |
| Canada Goose *+ | *Branta canadensis* | Introduced and Naturalised |
| Australian magpie / Makipai *+ | *Gymnorhina tibicen* | Introduced and Naturalised |
| Common starling / Tāringi *+ | *Sturnus vulgaris* | Introduced and Naturalised |
| Eastern rosella *+ | *Platycercus eximius* | Introduced and Naturalised |

*iNaturalist observations are marked with an **
*eBird observations are marked with +*
*Incidental site observations are marked with ~*

The 'At Risk' species are all shags and were recorded 2 km from the site, from the eBird hotspot at the stormwater pond at 10 Parlane Drive. Shag species are unlikely to be present at the site, on a more than transitional basis, given the lack of aquatic habitat for foraging. Foraging habitat is limited to the small pond at the southern boundary of the site.

The value of the site for avifauna has been assessed as **Low,** given that only 'Not Threatened' native and exotic species are likely to utilise the habitat on site.

## 2.3. Herpetofauna

Herpetofauna that may be present on site is informed by field observations of potential habitats and herpetofauna known to be resident in the Auckland Region. The vegetation, rank grassland and organic debris on site offer low-quality habitat for native ground-dwelling skinks. There is potential for At Risk – Declining copper skink (*Oligosoma aeneum*) to be present at the site (Department of Conservation, 2021). Given the history of modification and lack of connectivity, it is unlikely that any arboreal geckos are present. Overall, ecological value for native herpetofauna onsite is assessed as **High** given the potential presence of an At Risk - Declining species.

The Introduced and Naturalised exotic plague skink (*Lampropholis delicata*) may also be present.

## 2.4. Bats

A review of the Bat Observations Map (Department of Conservation, 2025) recorded long-tailed bat (*Chalinolobus tuberculatus*) passes approximately 970 m west of the site. There are numerous records within Riverhead Forest and Waitakere within a 10 km radius of the site. The site is therefore considered within the home range of a known long-tailed bat population.

The site offers potential low-quality bat roosts within the isolated mature pines and, macrocarpa in Areas 2 and 3. These trees have cavities and loose bark that may be utilised for roosting. However, given their isolated nature, these are unlikely to be maternity roosts. Further, these trees are not proximate to any waterways that would be utilised as preferred movement corridors by native long-tailed bats. The grassland, particularly where livestock remain, could provide foraging opportunities for bats foraging over the wider landscape.

Short-tailed bats (*Mystacina tuberculata*) are classified as At Risk - Declining and prefer deep-forest habitat and are associated with old-growth indigenous forest. As such, their presence within or close to the site is considered extremely unlikely (Department of Conservation, 2023).

The ecological value for bats is **Very High**, based on the long-tailed bats Threatened – Nationally Critical threat status, notwithstanding their likelihood of presence is considered to be low.

## 2.5. Freshwater Habitat and Fauna

The freshwater features described in this memorandum are based on aerial imagery and available geospatial information and databases, as they were not viewable from the road or neighbouring property, nor were they publicly accessible. Auckland Council GeoMaps does not map any streams on the site (Auckland Council, 2016). Overland Flow Paths (OLFPs) are indicated both within and in close proximity to the site. Based on the hydrogeological area being Waitemata sandstone, and contributing catchment areas, most OLFPs are most likely ephemeral streams (Storey & Wadhwa, 2009).

One OLFP, through the central part of 60 Station Road, has a contributing catchment of 0.61 ha, which is slightly over the 0.60 ha size that typically forms an intermittent stream in this geology, in the Auckland Region. From a review of aerial imagery, the OLFP, through the central part of 60 Station Road, could be channelised. This is based on farm crossing points located along the OLFP, as shown on the map (Appendix 1). Thus, it is considered that a short reach of this OLFP near the southern boundary is, potentially, an intermittent stream.

There is a 300 $m^2$ pond on the southern boundary of 60 Station Road. This pond is not present in historic aerial imagery prior to 1950, and the topography and catchment size would not indicate a stream in this location. On that basis, the pond is considered an artificial watercourse.

Based on the lack of connectivity, it is considered unlikely that the site's watercourses provided aquatic habitat for species other than Not Threatened shortfin eels (*Anguilla australis*) and At Risk – Declining longfin eels (*Anguilla dieffenbachii*), which could be present within the pond.

A combination of the site's topography, the OLFPs and historical aerial imagery does not provide any indication that there are wetlands / natural inland wetlands on the site.

Given that there is potential for At Risk - Declining longfin eels to be present within the site, the value for freshwater habitat and fauna has been assessed as **High**.

## 2.6. Pest Animals

No pest animals were noted on site. It is considered likely that, at a minimum, rabbits (*Oryctolagus cuniculus*), hedgehogs (*Erinaceus europaeus*), common brushtail possums (*Trichosurus vulpeca*), rats (*Rattus rattus, Rattus norvegicus* and/or *Rattus exulans*) and mice (*Mus musculus*) are present.

## 2.7. Summary of Ecological Effects

The current ecological values of the site have been described based on on-site observations in conjunction with a review of the available literature and databases. A summary of this information is presented in Table 6 based on the Ecological Impact Assessment guidelines set out in Appendix 2. The ecological values across the site range from **Low** to **Very High**.

Table 6: Summary of the current ecological values at the site

| Ecological Component | Ecological Value (EIANZ, 2018) | Reasoning |
|---|---|---|
| Terrestrial Vegetation | **Low** | The terrestrial values were assessed as moderate for two, and low for the remaining two matters for consideration. Vegetation is primarily pasture grasses, amenity gardens or shelter belts with no threatened species observed. |
| Avifauna | **Low** | The value of the site for avifauna has been assessed as Low, given that only native Not Threatened and exotic species are likely to utilise the habitat on site. |
| Herpetofauna | **High** | Overall, ecological value for native herpetofauna onsite is assessed as High, given the potential presence of an At Risk - Declining copper skink. |
| Bats | **Very High** | The mature vegetation on site offers potential low-quality bat roosts. The rank grassland may provide foraging opportunities for bats foraging over the wider landscape.<br>The ecological value for bats is Very High, based on the long-tailed bats Threatened – Nationally Critical threat status. |
| Freshwater Habitat and Fauna | **High** | Given that there is potential for At Risk - Declining longfin eels to be present within the site, the value for freshwater habitat and fauna has been assessed as High. |

# 3. Proposed Activities and Potential Effects

This EcIA has been prepared to support the lodgement of a NoR for the construction and operation of a secondary school at 43 Trigg Road; 54, and 60 Station Road, Kumeū.

At the time of writing, no design for the school has yet been undertaken. It is assumed that for ease of construction (minimising earthwork costs and connectivity to existing services), school buildings and facilities would be situated on the flatter areas of the site at 54 Station Road and the northeastern portion of 60 Station Road.

The types of activities considered to likely be required in the construction and operation of a school include:

- Construction of school buildings and facilities. i.e. classrooms, hall, library, gymnasium, and sports fields.
- Construction of infrastructure services. i.e. stormwater, and telecommunications.
- Earthworks and vegetation clearance to facilitate site development.
- Vehicular, pedestrian and cycle traffic and associated noise

## 3.1. Construction Activities

### 3.1.1. Land Disturbance

The current topography is generally flat at 54 Station Road, whilst 60 Station Road slopes towards the southwest. It is anticipated that minimal earthworks will be required at 54 Station Road to prepare the building platforms, outdoor play areas, and parking areas. Earthworks and construction activities would involve the use of machinery and traffic that will generate dust, noise, and vibrations for the duration of construction. Dust, noise, and vibrations may reduce the habitat quality for any species present and lead to their avoidance of the area.

For all land disturbance activities, there is a risk of uncontrolled sediment discharge to the receiving environment. Sediment is a contaminant as defined in the Resource Management Act (RMA) and has the potential to cause a range of adverse effects in the receiving environment, including smothering of benthic habitat, direct mortality of native freshwater fish through asphyxiation from clogged gills, and changes to water quality, including physico-chemical indicators pH and clarity.

Sediment-related effects would not only occur within the site but could also accumulate in the wider receiving environment, including Coopers Creek.

### 3.1.2. Vegetation Clearance

It is anticipated that, due to its position across the flatter areas of the site, the majority of the mixed exotic native vegetation at 54 Station Road will be cleared to facilitate the construction of the school. A proportion of the pasture grassland is also expected to be removed. Vegetation removal may affect the fauna that potentially utilise these areas for foraging and habitat. Vegetation clearance could result in the direct mortality of individuals, displacement of nesting sites, reduced connectivity between foraging and nesting areas, and potentially impact reproductive success.

## 3.2. Operational Activities

### 3.2.1. Traffic and Noise

Traffic can create a range of anthropogenic disturbances, such as movement, noise, and light disturbance. The ongoing operation of the school may generate noise disturbance. Anthropogenic disturbances may reduce the quality of any retained vegetation as habitat for any native species, reducing habitat quality through the deterrence of nesting sites and foraging, potentially impacting reproductive success. The level of effect of such anthropogenic disturbances will depend on the habitat retained and the landscaping of the site during construction, notwithstanding the existing habitat values of the site and the large extent of similar habitat in the surrounding catchment.

### 3.2.2. Increase in Impervious Surfaces

The redevelopment of the site would result in an increase in impervious surfaces. As a positive effect, this is likely to lead to the prevention of further agricultural runoff (nutrients and sediment) from the site. However, an increase in impervious coverage, unless managed, has the potential to alter hydrology, resulting in increased peak flow discharges and adversely impacting water quality. Changes in hydrology can have an adverse effect on streams within the catchment, including accelerating river and stream erosion and bank instability, which generate sediment that can accumulate in the receiving environment.

Auckland Council provides guidance on applying Water Sensitive Urban Design (WSUD), a stormwater management approach that seeks to promote stormwater management practices that balance land development with the ecosystem services necessary to support it, in Auckland Council Guideline Document 2015/004 Water Sensitive Design for Stormwater (GD04). A WSUD approach reduces the potential for adverse effects from point-source stormwater discharges and those associated with a change in land use to occur. Guidance on the relevant devices is provided in Auckland Council Guideline Document: Stormwater management devices in the Auckland region (GD01).

### 3.2.3. Potential Positive Effects

The development of the site has the potential to improve ecological values. Wider landscaping with native vegetation could be utilised to improve habitat provision, and connectivity for native species, as well as improving the ecological functions (shading and water temperature regulation) of the onsite pond.

## 3.3. Summary of Proposed Activities

It is acknowledged that the construction and operation of a school could have potential adverse ecological effects. The redevelopment of the site would likely require the demolition and construction activities involving land disturbance and potentially vegetation clearance and associated noise and vibrations. The operational activities of the school are envisioned to include traffic movements and noise-generating activities. The development of the site has the potential to improve ecological values.

# 4. Ecological Impact Assessment

The current ecological values of the site have been described based on in-field observations in conjunction with a review of the available literature and databases as set out in Section 2 of this report. The likely activities have been described and set out in Section 3. This section utilises the findings of Sections 2 and 3 to provide an assessment of the magnitude of the effects based on the EIANZ guidelines, set out in Appendix 2, to derive the level of effect.

As part of this assessment, it is important to highlight to the reader that this EcIA has been prepared to inform the NoR required by the Ministry to enable the construction and operation of a new secondary school. Should the Ministry be successful, the regional provisions of the Auckland Unitary Plan Operative in Part (AUP) and the requirements of the Wildlife Act 1953 will still apply. Further details on these relevant matters have been provided below.

## 4.1. Relevant Planning Provisions

The AUP contains provisions for certain activities that pose risks to the health of freshwater and freshwater ecosystems. The AUP aims to avoid significant adverse effects, manage adverse effects and enhance the value of freshwater streams and fauna. If any activities require streamworks, this is governed by chapter E3 of the AUP (Auckland Council, 2016).

Should any resource consent be required for any of the activities identified, then Auckland Council would have the ability, through the usual resource consenting process, to place conditions on the consent to manage any identified effects.

For land disturbance, standard E11.6.2(2) would require that industry best practice erosion and sediment controls (Auckland Council Guideline Document GD2016/005) are in place to address the effects from potential sediment discharges to the receiving environment.

The relevant stormwater provisions would depend on the stormwater management approach undertaken, which is subject to detailed design. The AUP also includes a range of provisions that relate to stormwater management, including chapters: E1, E8 and the supporting best-practice technical guidance Auckland Council Guideline Documents GD04 and GD01.

## 4.2. The Wildlife Act 1953

The Wildlife Act (1953) absolutely protects all native lizards, bats, and birds (unless listed in Schedule 5). Consequently, a permit under the Wildlife Act would be required for any (potential) harm to these species.

## 4.3. Summary of Ecological Impact Assessment

The current ecological values of the areas that would be impacted by the likely activities are summarised and assessed in Table 7 below. Table 7 provides an interpretation of effects, assuming At Risk and Threatened species are present on site, although the actual likelihood of their presence is low. Magnitude of effect is determined by a combination of scale (temporal and spatial) of the effect and degree of change that will be caused in or to the ecological component, and is assessed here with the relevant planning provisions forming a baseline.

The current site vegetation consists primarily of pasture grassland and areas of mixed vegetation. The current ecological value of the site vegetation has been assessed as **Low**. The magnitude of effect of the anticipated vegetation clearance has been assessed as **Low**, representative of a slight shift from current baseline conditions. While the loss of terrestrial vegetation will be discernible, the underlying character and composition would largely be similar to pre-development and would likely have a barely discernible effect on the fauna potentially present (at a species population-level), and the Wildlife Act provisions remain to protect individuals. There is potential for redevelopment landscaping to include native vegetation and increase the proportion of native vegetation present, such that the actual overall level of effect could be negligible.

This assessment assumes that the site supports populations of native avifauna and that suitable nesting habitat is cleared. The Wildlife Act 1953 would require that bird nesting surveys be undertaken prior to vegetation removal (trees and unmaintained rank grass) and if found, a setback should be established to avoid any active nest until the chicks have fledged. Management actions should be undertaken to manage any potential risk to native nesting birds, through provisions of the Wildlife Act to manage potential adverse impacts to native nesting birds on the site. It is considered that the magnitude of effect would be **Low** and that no conditions need to be placed on the designation to address this potential effect as they addressed under the Wildlife Act.

No suitable maternity bat roosting sites were identified within the site, and the site provides limited foraging opportunities. It is considered unlikely that bats are present on more than an infrequent transient basis. The Wildlife Act requires that any vegetation clearance that could potentially adversely impact to native bats to be avoided. This could be achieved through a pre-vegetation removal bat survey once access to the property is provided, with any vegetation removal scheduled after the bats move on. With these management techniques in place, are used the impacts on any individuals present would be **Negligible**. With the low-quality habitat, the impact on the wider population is also considered to be barely discernible. The clearance of vegetation and construction of a school is therefore considered to produce a **Low** level of effect on bat values.

The Wildlife Act 1953 would require that any vegetation clearance avoid potential adverse impacts to native lizards. This can be achieved through a pre-clearance lizard survey that would inform a Lizard Management Plan (if required). The Lizard Management Plan would require measures to search for and relocate any potentially impacted native lizards present. With the management plan in place, the impacts on any individuals present would be **Negligible**. Given the lack of connectivity to the wider suitable skink habitat, the impact on the wider population is also considered to be barely discernible/negligible. The clearance of vegetation is therefore assessed as a **Very Low** level of effect on herpetofauna values.

There is a risk of uncontrolled sediment discharge to the receiving environment during all land disturbance activities. Auckland Council Guideline Document: Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05) provides guidance on reducing the potential for erosion to occur and measures to minimise sediment discharged offsite. Redevelopment of the site provides the opportunity to bring the site's stormwater management approach in line with current industry best practice (WSUD), and reduce runoff from the rural land uses; such that overall changes to the stormwater discharge are expected to be negligible compared to the rural baseline. Any works in the stream would likely require a regional consent. Therefore, the magnitude of the effect on freshwater habitat and native freshwater fish has been considered as **Low**, and therefore the overall level of effect is also **Low**.

Overall, the level of effect on the site's ecological values from the proposed activities has been assessed as Low (Table 7). EIANZ provides a description of Low-level effects as not normally of concern, although normal design, construction and operational care should be exercised to minimise adverse effects.

Table 7: Assessment of level of effect of the proposed activities and recommended actions

| Ecological Components | Ecological Value (EIANZ, 2018) | Magnitude of effect and reasoning relative to baseline conditions | Level of effect |
|---|---|---|---|
| Terrestrial Vegetation | **Low** | **Low** - slight shift away from baseline condition, predominantly pasture grassland, common native species and exotic vegetation. | **Very Low** |
| Avifauna | **Low** | **Moderate** – alteration to the existing baseline through temporary and permanent disturbances within the site, potentially impacting the Not Threatened native species which utilise the site.<br><br>Bird nesting surveys should be undertaken prior to vegetation removal (trees and unmaintained rank grass). If found, a buffer should be erected to avoid the nest until birds have fledged. Management actions should be undertaken to manage any potential risk to native nesting birds, through provisions of the Wildlife Act. | **Low** |
| Herpetofauna | **High** | **Negligible** – very slight shift from the existing baseline through temporary and permanent disturbances within the site, potentially impacting At Risk - Declining species which may utilise the site. Removal of potential ground-dwelling skink habitat is subject to the provisions of the Wildlife Act.<br><br>Lizard salvage and relocation in accordance with a site-specific Lizard Management Plan should be implemented to manage any potential risk to herpetofauna through provisions of the Wildlife Act. | **Very Low** |
| Bats | **Very High** | Whilst the ecological value of bats is Very High, it is highly unlikely that bats are utilising the potential bat roosting trees for maternity roosting, given their isolated nature and lack of connectivity.<br><br>Given the wide spatial extent of similar roosting and foraging habitats in the immediate surrounding area, habitat removal is considered to be a barely discernible shift away from the existing baseline condition, such that the magnitude of effect on individuals and the population would be **Negligible**<br><br>Bat surveys should be undertaken to determine presence, and if found, preparation and implementation of a Bat Management Plan to manage any potential risks to bats through provisions of the Wildlife Act. | **Low** |
| Freshwater Habitat and Fauna | **High** | **Low** – one small reach of a potential intermittent stream and an artificial pond are present on site. The pond may support native Not Threatened and potentially At Risk – Declining species.<br><br>If any activities are proposed at the site stream and pond, impacts on the habitat values associated with aquatic life may result from the proposed development. In this case, fish capture and relocation may be required to managed any potential risk to native fish through provisions of the AUP. | **Low** |

| Ecological Components | Ecological Value (EIANZ, 2018) | Magnitude of effect and reasoning relative to baseline conditions | Level of effect |
|---|---|---|---|
| | | Erosion and sediment control and stormwater management would be required to manage the hydrological and water quality and quantity effects of stormwater.<br><br>Changes to the freshwater habitat are considered to be a slight shift away from the existing baseline conditions. | |

# 5. Conclusions and Recommendations

It is acknowledged that the construction and operation of a school have the potential to have adverse ecological effects.

Past farming activities have cleared much of the site's original vegetation, the current land cover present is typical and consistent with the past and current agricultural use of the site. The largest extents of vegetation are pasture grasslands and a smaller area of mature exotic trees, interspersed with regenerating natives. Exotic pest plants such as Japanese honeysuckle, bush wattle and privet are also widespread throughout the vegetation areas.

Although the site has been heavily modified, it retains some ecological value. Ecological features of note include the areas of mixed vegetation, bird nesting and bat roosting habitat and freshwater features. Vegetation, where present, contributes to ecosystem services such as habitat provision for native fauna adapted to moving across agricultural landscapes. Avifauna species present are consistent with those that can comfortably travel distances over open fields between forested patches, or make use of fields, farmland, and shelter belt vegetation as habitat. Lizard habitat is limited and, if present, lizard populations are likely limited to ground-dwelling skinks. The site contains mature trees with cavities and loose bark that may be utilised as roosts; however, these are not proximate to any waterways that could be utilised as movement corridors by native long-tailed bats. The freshwater habitat on site may support freshwater fish populations, likely being limited to shortfin, and potentially, longfin eels. Whilst onsite fauna observations were limited to common species, the use of the site by Threatened and At Risk species, such as long-tailed bats, whilst considered unlikely, cannot definitely be ruled out.

The redevelopment of the site would likely require the demolition and construction activities involving land disturbance, vegetation clearance and associated dust, noise, vibrations, and traffic movements.

The magnitude of these effects has been considered as **Negligible** to **Moderate** using the EIANZ Ecological Impact Assessment guidelines. Considering both the ecological values and the magnitude of impacts, the overall level of effect ranges from **Low** to **Very Low** across all of the ecological attributes. EIANZ guidelines describe Low to Very Low-level effects as "*…not normally be of concern, although normal design, construction and operational care should be exercised to minimise adverse effects. If effects are assessed taking impact management developed during project shaping into consideration, then it is essential that prescribed impact management is carried out to ensure Low or Very Low level effects*".

In this case, due care is provided by the provisions of the Wildlife Act, which remain in effect to ensure that any loss of habitat for native avifauna, lizards and bats is appropriately managed. The provisions of chapter E3 of the AUP will also remain in effect to ensure that any activities in the freshwater habitat have no adverse effects on native freshwater fish. For all land disturbance activities, such as building demolition and construction, there is the potential for sediment to be discharged from the site to the receiving environment. This would be addressed through the existing requirement for industry best practice erosion and sediment controls during any land disturbance. The redevelopment of the site would result in increased impervious coverage. The potential effects of changes to the quantity and quality of stormwater discharged from the site would be addressed through the stormwater management, incorporating GD01 and GD04.

Overall, the level of effects of the proposed activities is considered here as **Low** to **Very Low**. As such, it is not considered necessary to recommend any ecology-specific conditions to address any of the identified effects. An advice note, to highlight the requirements of the Wildlife Act, is recommended.

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# Appendix 1 Site Map

# ECOLOGICAL OPPORTUNITIES AND CONSTRAINTS

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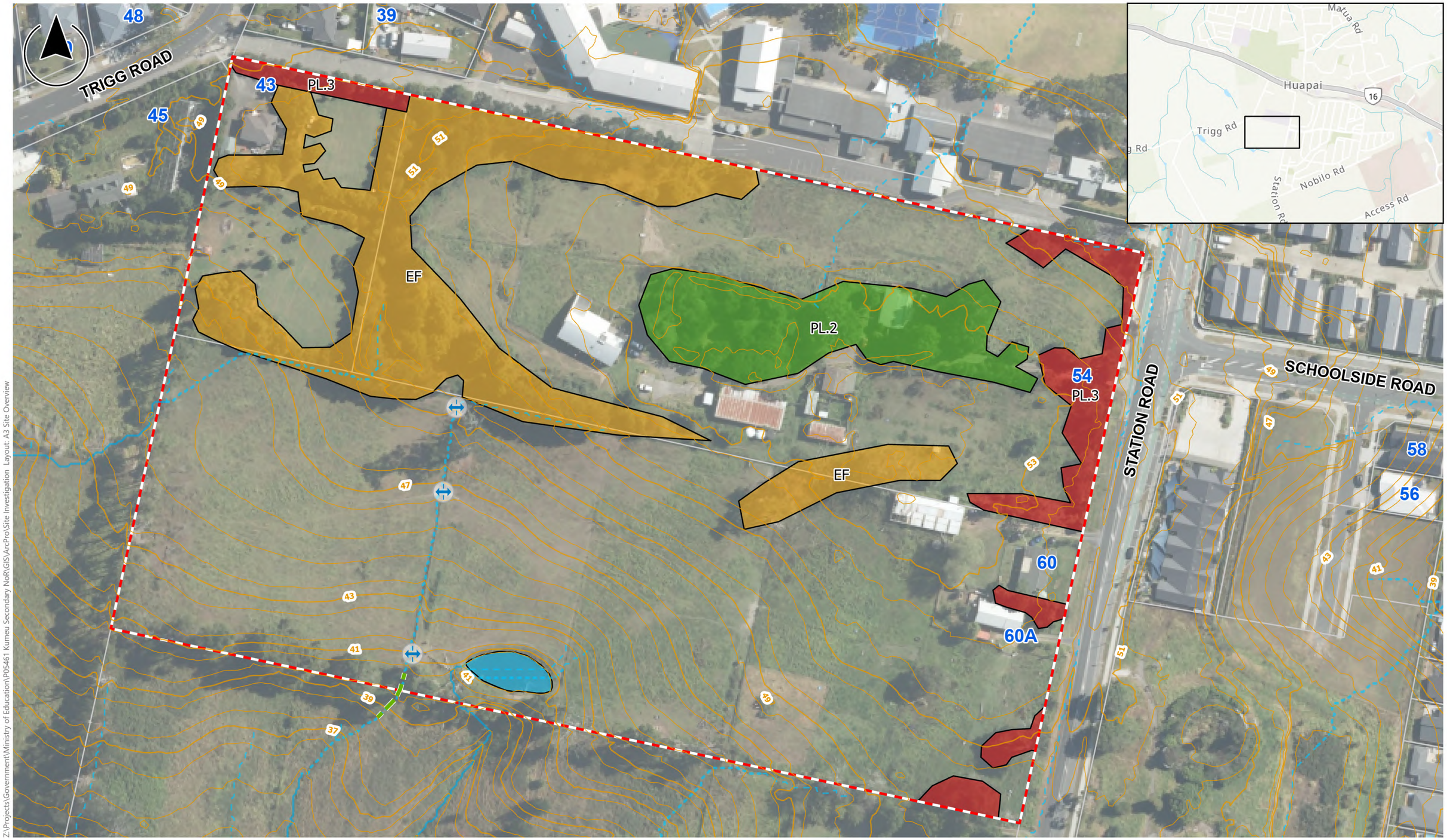


Z:\Projects\Government\Ministry of Education\P05461 Kumeu Secondary NoR\GIS\ArcPro\Site Investigation Layout: A3 Site Overview

- Farm Crossing
- Potential Intermittent Stream
- Overland Flow Paths - 1 ha to 3 ha
- Overland Flow Paths - 4,000m² to 1 ha
- Overland Flow Paths - 2,000m² to 4,000m²
- Contours 1m
- Contours 0.5m
- Site Boundary

Vegetation Areas

- 1 (Native and Amenity Planting)
- 2 (Native Plantings >20 years)
- 3 (Exotic Forest Canopy)
- Existing Pond
- Parcel Boundaries

Client MINISTRY OF EDUCATION

Project **KUMEU SECONDARY NOR**

0 40 80 m

Project no. P05461

Date 14 Nov 2025

Drawn SFA

Approved AR

# Appendix 2 EIANZ Assessment Methodology

Table 8: Assigning value to species, vegetation, and habitats (EIANZ, 2018)

| Value | Species Values | Vegetation/Habitat Values |
|---|---|---|
| Very High | Nationally threatened species found in the (Zone of Influence) ZOI[1] either permanently or seasonally | Area rates High for 3 or 4 attributes (Representativeness, Rarity/distinctiveness, Diversity and pattern, Ecological context). Likely to be national important and recognised as such |
| High | Species listed as At Risk – Declining, found in the ZOI either permanently or seasonally | Area rates High for 2 of the attributes, Moderate and Low for the remainder, or<br>Area rates High for 1 assessment matters, Moderate for the remainder<br>Likely to be regionally important and recognised as such |
| Moderate | Species listed as any other category of At Risk, found in the ZOI either permanently or seasonally, or<br>Locally (ED) uncommon or distinctive species | Area rates High for 1 assessment matters, Moderate and Low for the remainder, or<br>Area rates Moderate for 2 or more of the attributes, Low or Very Low for the remainder<br>Likely to be important at the level of the Ecological District |
| Low | Nationally and locally common indigenous species | Area rates Low or Very Low for majority of assessment matters and Moderate for 1<br>Limited ecological value other than as for habitat for tolerant native species |
| Negligible | Exotic species, including pest species having recreational value | Area rates Very Low for 3 matters and Moderate, Low or Very Low for remainder |

Table 9: Criteria for describing magnitude of effect (EIANZ, 2018)

| Magnitude | Description |
|---|---|
| Very High | Total loss of or major alteration to key features of the baseline condition causing a fundamental change or complete loss of the character, composition, or attributes of the site. |
| High | Major loss or major alteration to key features of the baseline condition causing a fundamental change of the character, composition, or attributes of the site. |
| Moderate | Loss or alteration of one or more key features of the baseline condition causing a partial change to the character, composition, or attributes of the site. |
| Low | Minor shift away from baseline conditions. Change may be discernible, but underling character, composition, or attributes of the site will be similar to pre-development. |
| Negligible | Very slight change from existing baseline condition. Change barely distinguishable. |

[1] The Zone of Influence (ZOI) refers to all land, water bodies and receiving environments that could be potentially impacted by the project.

Table 10: Criteria for describing level of effects (EIANZ, 2018)

| | | Ecological Value | | | | |
|---|---|---|---|---|---|---|
| | | **Very High** | **High** | **Moderate** | **Low** | **Negligible** |
| **Magnitude** | **Very High** | Very High | Very High | High | Moderate | Low |
| | **High** | Very High | Very High | Moderate | Low | Very Low |
| | **Moderate** | High | High | Moderate | Low | Very Low |
| | **Low** | Moderate | Low | Low | Very Low | Very Low |
| | **Negligible** | Low | Very Low | Very Low | Very Low | Very Low |
| | **Positive** | Net gain | Net gain | Net gain | Net gain | Net gain |

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