

2 March 2026

Swordfish Projects Limited

c/o Barker and Associates Limited
Attn: Briar Belgrave

Awanui Links Fast Track Referral Application – Ecology

Introduction and Project Description

Swordfish Projects Limited (applicant) are proposing a mixed-use development at Telephone Road, Puketaha, near Hamilton through the Fast Track Approvals Act (2024) that is referred to as Awanui Links (the 'site') (shown on Figure 1). The Awanui Links site covers approximately 115 ha of farmland, located at Telephone Road, and adjoining Holland Road and the East Coast Main Trunk railway line. The site is currently zoned 'General Rural' under the Waikato District Plan – Operative in Part.

The proposed master plan for Awanui Links shows high-end tourism, lifestyle living, retirement accommodation, and employment-generating light industrial land uses within a rural setting. The proposed master plan for the Awanui Links site is shown in Figure 2.

Anchored by an 18-hole golf course, the development includes extensive visitor infrastructure such as a clubhouse, proshop, virtual golf centre, driving range, wellness centre, fine dining venue, hotel, events centre and a café. Accommodation offerings comprise 10 large and 52 small luxury villas. The residential component includes 63 rural residential lots and a retirement village with a dedicated care facility. The project also features nine light industrial lots, a solar farm, landscaped open spaces, wetlands, and integrated infrastructure, delivering a destination that supports regional growth, tourism, housing diversity, and environmental resilience.

Approach to Effects Management

Ecological Solutions Ltd. were engaged to undertake the initial high-level terrestrial and aquatic ecological assessment of the proposal including the identification of any actual or potential effects. Suitably qualified and experienced ecologists will prepare a report that describes the current ecological values, assessment of the actual or potential effects of the proposal and sets out the methods to avoid, remedy, mitigate and offset/compensate those effects on the values identified.

Specific detailed ecological management plans required to address any adverse effects on ecological values will be prepared, including applications for any statutory authorisations (e.g., Wildlife Act Authorisation). Once the necessary resource consents are obtained, appropriately qualified and experienced ecologists will assist with implementing any ecological management plans as required.



Figure 1: Location of Awanui Links site.

Legend

- Site Boundary
- Proposed Rural Residential Lots (70 lots)
- Proposed Light Industrial Lots (9 lots)
- Proposed Retirement Village (137 units)
- Proposed Retirement Village Care Facility
- Proposed Golf Course Visitor Accommodation
- Proposed Golf Course Facility Buildings
- Proposed Golf Course Driving Range Building
- Proposed Commercial Amenities / Services
- Proposed Community Hub / Meeting Space
- Proposed Indicative Planting / Landscaping
- Proposed Stormwater Device
- Proposed Carpark (approx. 6300sqm)
- Rail Corridor Noise and Vibration Influence / Alert Area (Kiwi Rail) (100m)

Existing Railway

State Highway

- 1 Wellness Centre / Fine Dining (approx. 3500sqm)
- 2 Event Centre / Hotel (approx. 3500sqm)
- 3 Clubhouse / Club / Cafe (approx. 2550sqm)
- 4 Proshop (approx. 800sqm)
- 5 Virtual Golf / Sims (approx. 800sqm)
- 6 Cart Storage (approx. 1000sqm)
- 7 Putting Green
- 8 Storage Shed (approx. 1000 sqm)
- 9 Open Space / Wedding Venue
- 10 Visitor Accommodation - Large Luxury Villas (10 villas)
- 11 Visitor Accommodation - Small Luxury Villas (52 villas)
- 12 Retirement Village Care Facility (approx. 3000sqm)
- 13 Cafe (approx. 800sqm)
- 14 Convenience Store / Pharmacy / Medical Centre / Dentist / Wellness Gym / Physio (approx. 1100sqm)
- 15 General Recreation / Lawn Bowls / Tennis / Pickle Ball Courts (approx. 2500sqm)
- 16 Solar Farm (approx. 3000sqm)



Figure 2: Proposed Masterplan for the Awanui Links site (Barker & Associates).

Background Analysis and Receiving Environment

Surveys and Analysis

Ecological values within the Awanui Links site were assessed during a field survey on 22–23 October 2025 and after reviewing ecological databases (e.g., New Zealand Freshwater Fish database, Department of Conservation Bioweb and eBird), Waikato Regional Council (WRC) spatial database and historical aerial images. Significant natural areas (SNAs) were identified from Waikato District Council and Waikato WRC spatial databases.

Watercourses were classified in accordance with the definitions in the Waikato Regional Plan. Environmental DNA (eDNA) samples were collected from selected watercourses, ponds and wetlands to determine the presence of aquatic invertebrates and fish. Additionally, 30 Gee minnow traps were set in selected watercourses and ponds to determine the presence of black mudfish (*Neochanna diversus*) within the site.

Terrestrial ecological features including vegetation and habitat for indigenous fauna and wetlands were indicatively mapped. Comprehensive studies would be undertaken to inform the substantive application should the application be accepted as a referred project.

Terrestrial Ecological Values

The Awanui Links site was farmed at the time of the survey, which was reflected in the near absence of indigenous vegetation present. The site comprised mostly exotic pasture with mature exotic paddock trees, shelterbelts, hedgerows and ornamental plantings around buildings and ponds.

Indigenous vegetation was limited to sparse naturally regenerating ponga/silver fern (*Cyathea dealbata*) and planted species (e.g., harakeke/ flax (*Phormium tenax*) and karo (*Pittosporum tenuifolium*)) around artificial farm ponds (shown on Figure 3). Regenerating karo was also observed throughout hedgerows of exotic camellia (*Camellia japonica*). No plant species of botanical or conservation interest were recorded during the survey. There was no remnant or regenerating native habitat. There were no significant natural areas (SNAs), Significant Amenity Landscapes or Notable Trees within the site¹.

Native birds present within the local area (eBird records) include exotic and common native species (e.g., pīwakawaka (*Rhipidura fuliginosa placabilis*), tūī (*Prothemadera n. novaeseelandiae*), spur-winged plover (*Vanellus miles novaehollandiae*)). Given the overall absence of indigenous vegetation, habitat for native birds within the site is limited.

Native copper skink (*Oligosoma aeneum*) are considered 'At Risk – Declining' (Hitchmough et al. 2021) and have been recorded within 11.1 km of the site (DOC Bioweb). If present within the site, copper skink are likely to occur at low density and be restricted to the very small areas of suitable habitat associated with woody debris piles (e.g., felled trees, log piles), ornamental plantings (e.g., habitat associated with ponds and existing dwellings/buildings), shelterbelts/hedgerows, shrubs and vines, and overgrown grass along fence lines (e.g., habitat associated with shelterbelts and artificial watercourses). Grazed or mown pasture would not be considered suitable habitat for skinks.

¹ Waikato District Council GIS layers (Accessed 29 September 2025).



Figure 3: Terrestrial vegetation and habitat within the Awanui Links site.

Native long-tailed bats/pekapeka (*Chalinolobus tuberculatus*) are considered 'Threatened – Nationally Critical' (O'Donnell et al. 2023) and have been recorded in similar pastoral habitat locally (e.g., within 5 km west and south of the site) (DOC Bioweb). The closest known record is located 3.6 km from the southern property boundary within a gully system associated with Mangaonua Stream (tributary of the Waikato River). Mature exotic trees, such as cedar (*Cryptomeria japonica*), gum (*Eucalyptus* sp.), oak (*Quercus robur*, *Q. palustris*), liquidambar (*Liquidambar styraciflua*), plane tree (*Platanus ×hispanica*) and poplar (*Populus nigra*), particularly in the northern, central and western extents of the site, could provide foraging and roosting habitat for long-tailed bats. More detailed surveys would need to be undertaken to confirm their presence.

Wetland Ecological Values

The Awanui Links site contains two small (collectively = 4,400 m²) fragmented areas of putative wetland within paddocks that could meet the RMA definition of a 'wetland' and the NPS-FM (2020) definition of a 'natural inland wetland'. These putative wetlands were indicatively mapped as shown on Figure 3. The putative wetlands are likely to vary over time in terms of size, vegetation composition and location, as a result of farming and grazing practices.

All putative wetland areas have been highly modified and degraded through historic vegetation removal, drainage and unrestricted livestock access. Vegetation within the putative wetlands comprised locally established low-stature exotic species such as grasses (e.g., *Glyceria declinata*) and herbs (e.g., *Callitriche stagnalis*, *Persicaria hydropiper*) within areas of pooled water. No native plant species were recorded in putative wetlands.

No wetland plant species of botanical or conservation interest were recorded during the survey. The putative wetland habitat present did not reflect historically expected bog mosaic communities.

Freshwater Ecological Values

All watercourses within the Awanui Links site were classified as artificial watercourses (i.e., farm drainage canal) in accordance with definitions in the Waikato Regional Plan (shown on Figure 3). There are no natural portions of stream within or upstream of any of the watercourses within the site or evidence of former natural watercourses in either current or historic aerial imagery (Retrolens) shown on Digital Elevation Models (LINZ).

Artificial watercourses within the site flow into the central drainage system managed by WRC (e.g., Waikato Central: Komakorau). This system generally flows northwest and is part of the modified Komakorau and Mangatoketoke streams, that subsequently join the Mangawara River and ultimately discharges into the Waikato River near Taupiri.

Artificial watercourses within the site appear to have been constructed to drain historic wetlands and have straight alignments, hold shallow water and may dry up in summer. The drains have low dissolved oxygen and low pH, and provide poor quality aquatic habitat for fish and invertebrates.

Aerial imagery from 1952 (Retrolens²) and Digital Evaluation Model (DEM 2023) shows evidence of initial construction of the artificial watercourses to drain wetland areas that no longer exist³. Almost all areas of former wetland appeared to have been cleared of original vegetation and drained, as shown in the 1963 and 1974 imagery (Retrolens).

² <https://retrolens.co.nz/>

³ Historic wetlands, such as those present in the 1840s, and remnants still visible in the central and eastern portion of the Project Area in 1952, appear to have been part of the broader Komakorau Bog system within the Hamilton Basin (Clarkson 2002, McCraw 2011, Nicholas 2002, van der Zwan and Kessels 2017). By 1963, much of the bog's original extent had already been extensively cleared and drained for agricultural development.

Three artificial farm ponds occur within the site (shown on Figure 3). The ponds were 'deliberately constructed water bodies' and are excluded from the RMA and NPS-FM definitions of wetlands. The artificial ponds provide low quality habitat and have poor or no connectivity with artificial watercourses so are unlikely to support fish (i.e., no fish in traps or eDNA samples). One of the artificial ponds appears to be a farm treatment pond whilst the other two appear to currently function as amenity ponds.

Aquatic macroinvertebrates recorded in eDNA samples collected from artificial watercourses that held surface water at the time of the survey and the two artificial amenity ponds reflected poor water quality and habitat conditions and included copepods, *Daphnia* (cladoceran), *Chironomus* (chironomid), *Culex* sp. (mosquito) and worms. No water quality and habitat sensitive EPT taxa or kōura were recorded.

The New Zealand Freshwater Fish Database (NZFFD) holds numerous records of native fish within the wider Komakorau Catchment⁴, some of which are considered 'At Risk – Declining' by Dunn et al. (2018) including longfin eel (*Anguilla dieffenbachii*), giant kōkopu (*Galaxias argenteus*), īnanga (*G. maculatus*), torrentfish (*Cheimarrichthys fosteri*) and black mudfish (*Neochanna diversus*).

No fish were captured in Gee minnow traps set in artificial ponds or watercourses that held adequate surface water at the time of the survey or recorded in eDNA samples collected within the site. The artificial watercourses and ponds provide very low-quality habitat for native fish. Although no fish were recorded during the survey, the artificial watercourses have potential to support shortfin eel if water remains year-round and there is adequate fish passage access. The artificial watercourses may support black mudfish but their presence is unlikely given none were captured or recorded in eDNA samples.

Actual and Potential Effects

The Awanui Links project will involve works that have the potential for both positive and adverse effects on ecological values within the site. Based on the proposed masterplan (Figure 2), the anticipated effects include:

Positive effects:

- Creation of stormwater treatment wetlands with indigenous vegetated riparian margins will increase the overall area of wetlands within the site and provide habitat for birds.
- Landscape planting with a preference for indigenous species will increase the amount of habitat and biodiversity for flora and fauna (e.g., birds, lizards, potentially bats long-term) and promote connectivity between habitats.

Potential adverse effects if not managed appropriately:

- Removal of poor quality, predominantly exotic, terrestrial vegetation (e.g., pasture, mature exotic trees) and habitat, and the potential for effects of this loss of habitat on terrestrial fauna that may be using it (e.g., birds, lizards, bats).
- Unavoidable loss and/or effects on low-quality wetlands.
- Removal of artificial watercourses that may provide habitat for native fish.
- Removal of artificial ponds that may provide habitat for native fish.
- Potential short-term adverse effects on water quality due to sediment mobilisation and/or contaminant discharges during earthworks.
- Potential stormwater discharges that affect downstream hydrology and water quality.

⁴ Catchment boundary follows the Komakorau central drainage system as defined by WRC.

- Potential wastewater discharges that affect downstream water quality.

Approach to Addressing Effects

The general approach to addressing potential effects is outlined below:

- The removal of predominantly exotic vegetation (or habitats) can be managed to avoid impacts on native terrestrial fauna. A management plan approach specifying management objectives is proposed to address any effects on birds, lizards and bats so that they are avoided and/or adequately mitigated or offset, in particular:
 - Management of fauna (specifically lizards) is subject to the provisions of the Wildlife Act 1953, and would require a Wildlife Act Authority (WAA) in order to handle, capture and relocate salvaged lizards, and any incidental killing of lizards that are not collected.
 - The approach to managing effects on bats would involve following the Department of Conservation protocols for tree felling. By implementing these protocols, one should not be in a position where bats require handling, thus a WAA would not be required.
 - If bat roosts are identified during detailed surveys, appropriate avoidance and/or mitigation and/or offsetting will be set out in the management plan.
 - The direct effects of vegetation removal on birds would be handled by avoidance (e.g., avoidance of felling during nesting season or if outside this period, avoiding felling any tree with a nest until chicks have fledged). On that basis, a WAA for managing birds would not be required.
- Any loss of low quality natural inland wetland habitat will be addressed via avoidance where practicable, and where loss cannot be avoided, mitigation and biodiversity offsetting/compensation will be implemented. Any creation/restoration of wetlands would follow best practice (e.g., planting ecologically appropriate indigenous plant species, pest plant and animal control, formal legal protection). There are areas available within the site where wetlands could be created for offsetting purposes (e.g., in areas where stormwater treatment wetlands are proposed).
- Fish capture and transfer will be used to manage the direct impacts of habitat loss and potential mortality on native fish. These effects will be addressed via a dedicated fish management plan.
- Black mudfish were not recorded from artificial watercourses or ponds during the survey, but if they are present, the removal of habitat will be addressed through the application of the effects management hierarchy process and including offsetting within the site (e.g., in areas where stormwater treatment wetlands are proposed).
- The magnitude of adverse effects on water quality and aquatic habitat during earthworks will be reduced via best practice approaches to the timing of works, careful construction methodologies and erosion and sediment control measures that will be implemented in accordance with existing Waikato Regional Council guidelines.
- Potential stormwater discharge effects will be managed by designing stormwater treatment wetlands in accordance with Waikato Regional Council guidelines. Stormwater treatment wetlands would be designed with indigenous vegetated riparian margins to maximise their ecological value as habitat for native species.
- Wastewater will be treated on-site. The effects of any wastewater discharge will be managed to ensure discharge water quality meets standards and guidelines to avoid adverse effects on downstream water quality and aquatic ecology. The proposed development will likely be split into different land use areas with each area having

independent wastewater treatment and disposal options (e.g., on-lot BioCycle systems and disposal field, MBR/Aeration plants in combination with Biocycle systems).

Conclusion

The anticipated adverse effects of developing the Awanui Links site could be appropriately managed by applying the effects management hierarchy and developing suitable consent conditions, implementing site-specific fauna management plans (e.g., birds, lizards, bats, fish) and offset/compensation plans as appropriate for habitats (e.g., wetlands).

A Wildlife Act Authorisation will be required for the salvage and relocation of indigenous lizards during vegetation clearance, as well as incidental injury or death. Any unavoidable loss of wetlands and black mudfish habitat (if present) would require biodiversity offsetting/compensation to address residual effects and there are areas available within the site where wetlands could be created to address this (e.g., in areas where stormwater treatment wetlands are proposed or along the golf course).

A detailed ecological assessment and ecological management plan, as well as an offset/compensation plan (if required), would be included in the resource consent application should the application be accepted as a referred project.

Qualifications and Experience

Ecological Solutions Ltd (formerly Freshwater Solutions Ltd and The Ecology Company Ltd) are expert freshwater and terrestrial environmental consultants with offices based in Northland, Auckland, Tauranga and Nelson from where we service our national client base. The company is managed by Richard Montgomerie who founded Freshwater Solutions Ltd in 2009. Dr Gary Bramley is the terrestrial team lead and Nick Carter is the freshwater team lead, each with more than 20 years' experience managing a diverse range of environmental projects, including significant infrastructure and housing projects, throughout the country.

Gary is currently the project manager for the Rotokauri Greenway Project (an EPA approved COVID-19 Recovery (Fast-track Consenting Act 2020 project) together with Rebecca Bodley one of our senior terrestrial ecologists. Nick prepared the freshwater ecology effects assessment and ecological management plan components for the Rotokauri Greenway Project and prepared effects assessments for developments at Pōkeno. Rebecca is project managing the Brymer project (a Fast Track Approvals Act 2024 project). Chad Croft, another of our senior ecologists has extensive experience in the land development sector in the Waikato Region including the Peacocks Structure plan area and is currently managing Ecological Solutions involvement in the greater Southern Links 1 project area.

Ecological Solutions are experienced in developing appropriate mitigation and biodiversity offset/compensation projects required to manage terrestrial, wetland and stream habitat loss for a range of flora and fauna, including wetlands and black mudfish for the Rotokauri Greenway Project and bats for various developments in the Peacocke area. The most recent example of black mudfish offsetting undertaken included the development and implementation of an enhancement plan for Lake Waiwhakareke to offset loss of habitat for black mudfish associated with another local project.

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