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FROM: Mark Delaney, Lead Ecologist

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BRICK BAY LODGE – FAST-TRACK REFERRAL APPLICATION - DRAFT PRELIMINARY ECOLOGY ASSESSMENT

Introduction

This memorandum provides a preliminary ecological assessment of the proposed Brick Bay Lodge development at 52 Kauri Drive, Sandspit (Brick Bay) (the site), prepared to support a referral application under the Fast-track Approvals Act 2024 (FTAA).

The proposed development comprises a luxury lodge including villas, cottages, and treehouse-style accommodation, along with associated access, infrastructure, and amenities.

Specifically, this memorandum provides:

- A high-level overview of ecological values on the site
- A description of anticipated ecological effects
- Recommendations for further assessment and management measures to inform the substantive application

This assessment is preliminary in nature and is based on currently available information and site familiarity. It provides an initial overview of ecological values and anticipated effects, with detailed survey and assessment to follow at the substantive application stage.

Methodology

This assessment is based on reviews of:

- Available project information, including concept masterplans and supporting documentation
- Auckland Unitary Plan (AUP) ecological overlays
- Department of Conservation (DOC) species records (including lizard and bat datasets)
- Aerial imagery and GIS mapping

In addition, the author has undertaken multiple site visits across the wider Brick Bay property (October and November 2024, February and December 2025), including inspection of the general area where the lodge is proposed. While these visits were not formal ecological surveys, they provide a sound understanding of the site's ecological characteristics and condition.

No detailed ecological field survey has been undertaken for the proposed development area at this stage. As such, a precautionary approach has been adopted where appropriate.

Existing Environment

Site Context

The site is located on the coastal side of the wider Brick Bay property near Snells Beach, within the Rodney Ecological District of the Auckland region. Historically (pre-human), much of the area would

have been covered by kauri, podocarp, broadleaved forest (WF11). These ecosystems would have supported a wide range of native invertebrates, amphibians, reptiles, birds, and bats.

However, a review of historical aerial imagery indicates that much of the site and the surrounding landscape was cleared for agricultural use more than 50 years ago.

Within the wider site boundaries, a range of ecosystem types are identified in Auckland Council's Geomaps. The dominant ecosystem type across the northern and coastal portions of the site is classified as VS2, which corresponds to kānuka scrub/forest and is mapped as a Significant Ecological Area (SEA_T_2289) under the AUP. Additional ecosystem types include areas of kauri, podocarp, broadleaved forest (WF11) to the west, coastal vegetation associations (CL1) along the shoreline, and estuarine or coastal margin vegetation (e.g. EF). More modified or anthropogenic land cover is also present, including 'unclassified' (UC) areas associated with pasture and developed land, as well as small areas of plantation or amenity planting (e.g. PL and TL). Collectively, these ecosystem types reflect a mosaic of indigenous and modified environments across the site, with higher ecological values associated with the VS2-mapped SEA and coastal vegetation margins.

Today, the site comprises a mix of:

- Pasture and modified grassland
- Planted and regenerating native vegetation
- Areas of established indigenous forest
- Exotic trees (e.g. willow, poplar, pine, macrocarpa), occurring both as individual specimens and as shelterbelts

The wider Brick Bay property has been subject to long-term restoration and management by the landowners, including native planting, fencing of indigenous vegetation, and pest and weed control.

Significant Ecological Area (SEA)

The site contains areas identified as SEA (SEA_T_2289) under the AUP. This SEA extends beyond the site boundary and includes adjoining areas such as the Brick Bay Drive – Puriri Place Reserve, forming part of a wider network of indigenous vegetation.

The SEA is considered to meet, at a minimum, the following AUP Schedule 3 criteria:

- (2) Representativeness
- (3) Diversity and pattern
- (4) Ecological context

Information provided by Auckland Council and the Department of Conservation confirms that SEA_T_2289 is associated with VS2 and CL1 ecosystem types and supports indigenous biodiversity values including regionally uncommon species such as *Hypolepis dicksonioides*.

The SEA comprises coastal and inland indigenous vegetation that contributes to ecological connectivity across the wider landscape, including linkages to adjacent reserve land and coastal margins, and provides buffering and ecological support functions within the wider network.

As part of the substantive application, targeted ecological survey will be undertaken to confirm the presence and distribution of *Hypolepis dicksonioides* and other indigenous species. Where present, the design will seek to avoid adverse effects where practicable. Subject to survey outcomes and propagation

feasibility, there may also be opportunities to enhance ecological values through restoration planting of this species within appropriate areas of the site..

Terrestrial Vegetation

Vegetation across the site reflects a combination of historic land use and ongoing restoration. The site includes pasture and modified areas, exotic shelterbelts and specimen trees, planted native areas, and areas of regenerating and more mature indigenous forest.

Within the mapped SEA, vegetation comprises indigenous forest dominated by species such as kauri (*Agathis australis*), pūriri (*Vitex lucens*), tōtara (*Podocarpus totara*), and a range of podocarp–broadleaf species. Kauri are present in parts of the site, particularly on ridgelines. The forest includes a mix of mature canopy trees and regenerating vegetation.

The condition of vegetation within the SEA varies, with some areas comprising more mature forest and others reflecting secondary growth and regeneration. Understory vegetation is, in places, modified by historic land use practices, pest plant invasion, and animal browse, consistent with a regenerating coastal forest system.

Outside of the SEA, vegetation is generally more modified and includes pasture, planted areas, and exotic shelterbelts.

Freshwater Environment

The site contains freshwater features including streams and a mapped wetland feature (identified as Site 9 on project plans).

Based on preliminary understanding, this wetland feature may be artificial; however, this has not been confirmed. There remains potential for areas on site to meet the definition of a natural inland wetland under the National Environmental Standards for Freshwater (NES-F).

Detailed wetland delineation will be required at the substantive application stage to confirm the status of these features.

Terrestrial Fauna (Desktop Assessment)

No site-specific fauna surveys have been undertaken at this stage. A precautionary, habitat-based assessment has therefore been adopted. Potential fauna values are primarily associated with the site's indigenous vegetation, forest margins, and sheltered edge habitats.

Avifauna

The site is expected to support a range of common native forest bird species. Given the extent of indigenous vegetation and connectivity to surrounding habitats, there is also potential for At Risk or Threatened bird species to utilise the site, including mobile forest species such as kākā (*Nestor meridionalis septentrionalis*), which may use the area intermittently for foraging.

Herpetofauna

DOC records indicate the presence of indigenous lizard species within the wider locality (within approximately 10 km of the site), confirming that the site is within the known distribution of lizard species typical of the northern Auckland region.

The records comprise multiple observations across a range of habitats, including:

- coastal environments
- regenerating indigenous vegetation

- forest margins and edge habitats
- rural and modified landscapes

These records indicate that indigenous lizards in the locality are not restricted to pristine forest, but are able to utilise a mosaic of habitat types, including areas of secondary growth and modified vegetation similar to that present on the site.

While no records have been identified in close proximity to the site itself, this is not unexpected given the cryptic nature of lizards and the typically limited survey effort in many areas. The absence of records therefore does not indicate absence of lizards.

Based on site observations and available information, the site contains a range of habitat features suitable for lizards, including:

- forest edges and ecotones
- areas of regenerating native vegetation
- sheltered environments associated with woody debris and leaf litter
- interfaces between indigenous vegetation and more open areas

These habitat types are commonly associated with indigenous lizard presence, particularly in coastal and lowland environments. Lizard species likely to occur in the wider area include indigenous skinks such as copper skink (*Oligosoma aeneum*) and ornate skink (*Oligosoma ornatum*), and geckos such as forest gecko (*Mokopirakau granulatus*) and Auckland green gecko (*Naultinus elegans*), all of which are typical of northern North Island habitats.

Given:

- confirmed presence of lizards within the wider locality
- availability of suitable habitat on site
- and the absence of targeted survey effort

it is considered that there is a moderate to high likelihood that lizards are present, particularly within areas of indigenous vegetation and forest margins.

Accordingly, and consistent with best practice, a precautionary approach has been adopted whereby indigenous lizards are assumed to be present. Potential effects can be appropriately managed through further site-specific survey and, where required, implementation of lizard salvage and relocation under a Wildlife Act permit issued by the DOC.

Chiroptera (Bats)

Available bat records do not indicate confirmed bat presence in the immediate vicinity of the site, although records exist within the wider 10 km area. The absence of records in close proximity to the site is likely to reflect limited survey effort rather than confirmed absence.

Site observations and aerial imagery indicate that the site contains trees with potential bat roost features, including the following:

- Trees of sufficient size (≥ 15 cm DBH)
- Hollows, cavities, and cracks

- Peeling or flaking bark
- Deadwood and epiphytes

On this basis, and adopting a precautionary approach, indigenous bats are considered potentially present within suitable habitats on site.

Assessment of Effects

Vegetation and SEA

The proposed development includes elements located within and adjacent to the SEA, including treehouse accommodation and associated access. Vegetation removal required to accommodate the proposed development is expected to be localised and associated primarily with modified or edge environments within the SEA, and is not anticipated to result in any significant loss of ecological function or habitat.

Potential effects include:

- Localised vegetation removal
- Disturbance within tree root zones
- Modification of understory vegetation

These effects are moderated by the following factors:

- The development footprint within the SEA is limited and dispersed
- Structures such as treehouses and boardwalks are expected to utilise pile or post foundations, minimising ground disturbance
- The layout will be refined through detailed design to avoid large native trees where practicable
- Arborist and/or ecological supervision of works within root zones will be undertaken
- Adverse effects can be further mitigated through ecological enhancement measures, including pest plant and animal control, buffer and infill planting, and where necessary, any residual effects can be offset through restoration activities within the site

While the SEA exhibits ecological values consistent with Schedule 3 criteria, the affected areas represent a small proportion of the wider SEA network, which extends beyond the site into adjoining reserve land. Ecological function at a landscape scale is therefore maintained. This is supported by the variable condition of vegetation within the SEA, including areas of regenerating and modified forest.

Fauna

Potential effects on fauna include:

- Habitat disturbance
- Vegetation clearance
- Construction-related disturbance

These effects are considered manageable through standard ecological management measures, including pre-construction surveys and species-specific mitigation. On the precautionary assumption that indigenous fauna are present, effects are not expected to be significant at a population level.

Kauri Dieback

Kauri are present on site and may be affected by construction activities.

Potential effects include:

- Introduction or spread of kauri dieback disease through soil disturbance and movement
- Transfer of contaminated soil via machinery, tools, or footwear
- Disturbance of kauri root zones during construction activities, including earthworks and installation of structures

Construction of boardwalks and other elevated structures within areas containing kauri has the potential to disturb soils within kauri root zones during installation of posts or piles. However, once established, boardwalks can play an important role in reducing ongoing disturbance by limiting foot traffic and soil compaction within sensitive areas.

These risks can be appropriately managed through kauri dieback hygiene protocols and careful construction methodologies, including:

- Preparation and implementation of a Kauri Dieback Management Plan
- Use of hygiene stations and cleaning protocols for all personnel and equipment
- Minimising soil disturbance within kauri root zones (e.g. through use of pile or post foundations and hand excavation where necessary)
- Arborist and/or ecological supervision of works within kauri root zones
- Design of boardwalks and accessways to avoid key kauri root zones where practicable and to restrict future access to sensitive areas

These measures align with current best practice guidance for managing kauri dieback risk.

Freshwater and Wetlands

The proposal will seek, in the first instance, to avoid the reclamation or modification of these features. There remains uncertainty as to whether the mapped wetland feature qualifies as a natural inland wetland under the NES-F. At this stage, it is considered possible that the feature is artificial; however, further investigation is required. A precautionary approach is therefore recommended, with detailed wetland delineation to confirm whether any proposed works could trigger NES-F prohibited activity provisions. It is appropriate to retain flexibility within the referral application to account for the potential identification of natural inland wetlands during subsequent detailed investigations. Any adverse effects will be addressed at the substantive application stage, with the effects management hierarchy applied as required.

Avoidance, Mitigation and Management

A range of measures will be implemented to avoid, minimise, and offset potential ecological effects.

Avoidance and Design Integration

- Refinement of layout to avoid sensitive areas within the SEA
- Avoidance of large native trees where practicable
- Minimisation of vegetation clearance

Arboricultural Management

- Engagement of a suitably qualified arborist
- Preparation of Tree Protection Management Plans (TPMPs)
- Identification and protection of tree root zones
- Use of trenchless or low-impact construction methodologies where practicable

Kauri Dieback Management

- Preparation of a Kauri Dieback Management Plan
- Installation of hygiene stations and signage
- Design of accessways (e.g. boardwalks or gravel surfaces) to avoid soil disturbance in kauri root zones
- Implementation of Earthworks Risk Management Plans where required under the Biosecurity (National Pest Management Plan) Order 2022

Fauna Management

- Pre-construction ecological surveys
- Preparation of a Fauna Management Plan
- Lizard salvage and relocation (subject to DOC Wildlife Act permits)
- Bat roost assessments where tree removal is proposed
- Nesting bird management, including seasonal restrictions where required

Restoration and Enhancement

- Native revegetation planting
- Ongoing pest plant and pest animal control
- Enhancement of degraded understory vegetation
- Opportunities to improve ecological connectivity across the site and wider SEA network

These measures provide a clear pathway for achieving an overall net gain in indigenous biodiversity values.

Relevant Legislation

The above assessment and proposed mitigation measures are consistent with relevant statutory planning and ecological policy frameworks, including the National Policy Statement for Freshwater Management 2020 (NPS-FM) and the National Policy Statement for Indigenous Biodiversity 2023 (NPS-IB).

The objective of the NPS-FM is to prioritise the health and well-being of water bodies and freshwater ecosystems. Consistent with that objective, freshwater features on the site will be further identified and assessed as part of the substantive application so that reclamation or disturbance is avoided as far as practicable. Where adverse effects cannot be avoided, they can be managed through application of the effects management hierarchy.

The objective of the NPS-IB is to ensure, at a minimum, no overall loss of indigenous biodiversity. The proposal is considered capable of being developed consistently with that objective, as indigenous biodiversity values can be identified, avoided where practicable, and managed through mitigation, restoration, and where necessary, offsetting.

Conclusions

The site contains areas of indigenous vegetation identified as SEA and provides habitat for indigenous fauna.

While the proposed development includes works within the SEA, these are:

- Limited in extent
- Able to be refined through design
- Manageable through established ecological and arboricultural practices

Potential effects on vegetation and fauna can be appropriately avoided, minimised, and mitigated.

Further ecological survey and assessment will be undertaken to inform the substantive application, including:

- Detailed vegetation and ecological survey
- Wetland delineation

Overall, there are no ecological constraints that would preclude the proposed development, subject to appropriate design refinement and implementation of mitigation measures. The proposal represents a managed interaction with the SEA, with potential to maintain and enhance ecological values at both the site and landscape scale.

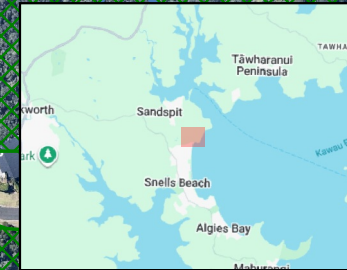
Attachments

Attachment A – Ecological Features (Desktop Mapping)

Attachment B – Historic aerial

Attachment C – Illustrative master plan

SEA T_2291



Ecological Features

(Desktop Mapping)

Brick Bay Lodge FTAA Referral

Legend

- Brick Bay site
- Site of proposed lodge

Significant Ecological Area (SEA)

- Terrestrial
- Marine 1
- Marine 1

AUP Overland Flow Paths

- 2,000 m² to 4,000 m²
- 4,000 m² to 1 ha
- 1 ha - 3 ha
- 3 ha - 100 ha
- 100 ha and above

SOURCES

Nearmap 2025

DISCLAIMER:
This map/plan is not an engineering draft.
This map/plan is illustrative only and all
information should be independently
verified on site before taking any action.

SCALE **1:3,500** @ A4

PROJECT NO. 10291
DRAWN BY: MD
DATE: 20 March 2026

SEA T_2289

SEA T_3752

SEA-M1-3255b



1966





Key

	Site 1 Stone sculpture site	7 Villas		Site 6 Bamboo site	2 Villas		Primary Vehicle Access road
	Site 2 Macrocarpa site	4 Villas		Site 7 Tennis Pavillion site	5 Cottages		Golf Cart road
	Site 3 Pa site	4 Villas, 1 cottage		Site 8 Great Lawn site	3 Cottages		
	Site 4 Palm Tree site	3 Cottages, 8 Treehouses		Site 9 Wetland site	4 Cottages		
	Site 5 Hilltop site	3 Villas		Amenity sites			

1:2000

0 20 40 100 200 Meters

4 Bedroom Villas
Two Level

4 Bedroom Villas

2 Bedroom Cottages

2 Bedroom
Two level

Treehouse

Proposed Masterplan