



Location	174 & 176 Brookvale Road, Havelock North – Brookvale Green
Matters addressed	Ecology
Date issued	01/09/2025

Background

Vermont Street Partners No.4 Ltd (referred to as "the Client") propose to lodge a referral application under the Fast Track Approvals Act for a property located at 174 & 176 Brookvale Road, Havelock North ('the Site'). The Client engaged Wild Ecology Ltd to conduct ecological surveys, mapping and reporting of the site. Ecological field surveys and mapping of ecological features within the site boundaries were carried out in January 2025.

To support the application, this memo presents a high-level review of the site's ecological aspects and responds to preliminary feedback received from Hawke's Bay Regional Council (HBRC) (Memo dated 21 August 2025). It includes a description of the baseline ecological conditions, a summary of the proposed activities, a high-level ecological assessment of the proposal, and an outline of any additional works required to implement the project.

Project Description

The site is located at 174 & 176 Brookvale Road approximately 3.5km to the west of Havelock North's village centre in the Hawkes Bay. It comprises of a total area of 22.26 hectares on the eastern edge of Havelock North's urban residential boundary. Brookvale Green provides a unique opportunity to deliver a comprehensive residential community comprising of 189 – 215 new homes within a well-connected, high-quality and distinctive living environment.

The proposal is designed to create a defined rural/urban boundary while enhancing the site's natural ecological features. A defining characteristic of the site is the two stream corridors, one meandering through the centre and the other forming the northern boundary. These features are central to the design approach, providing a strong landscape framework that has shaped the layout of streets, lots, and open spaces. The streams contribute significantly to the site's visual amenity, support ecological values, and provide opportunities for walking, cycling, and passive recreation. Their integration into the development ensures a strong connection to the site's natural character, while the northern stream establishes a soft green edge that reinforces the relationship with the wider rural landscape.

The residential community of Brookvale Green is guided by a series of design principles focused on delivering a liveable, connected and green environment, with enhanced public spaces and diverse housing options. The development is structured around a central loop road that extends from Brookvale Road and runs through the heart of the site. This loop is supported by local streets and pedestrian and cycle connections to enable a legible grid structure. A variety of housing typologies and densities are proposed to meet the evolving and growing needs of the housing market, ensuring choice and flexibility for future residents. Together, these elements will support the creation of a diverse, visually interesting neighbourhood with a strong sense of place.

Ecological Baseline

The Site, located on the outskirts of Havelock North about 3.5 km from the town centre, is currently used for commercial horticultural purposes. The total site size is approximately 22.26 ha and it contains one dwelling, several outbuildings, with the remainder of the site composed of orchards and exotic pasture (see Figure 1). The land has been heavily modified by decades of intensive agricultural and horticultural land use, resulting in the degradation in both terrestrial and aquatic habitats.

Terrestrial habitats

Analysis of historic aerial imagery reveals that by the 1950s, most terrestrial vegetation on the site had already been cleared, resulting in the absence of indigenous terrestrial ecological values for over 70 years. Currently (see habitat types on site described under Figure 2), the terrestrial vegetation on site is comprised of scattered exotic trees and shrubs, with only remaining native vegetation consisting of scattered plantings of harakeke/flax, surrounded predominantly by exotic species. The broader landscape also lacks notable remnants of indigenous vegetation, further reducing ecological connectivity and habitat potential. The extensive clearing of native flora and continued horticultural and urban development have produced a highly modified environment with low ecological diversity and significance.

Watercourses

Historical imagery shows that the site's watercourses have undergone significant modification since at least the 1950s. Natural stream channels were progressively straightened, culverted, infilled, piped, or otherwise altered—likely to facilitate horticultural development and manage stormwater. By 2025, neither the northern stream (Watercourse 1), nor central stream (Watercourse 2) catchments (see Figure 3) exhibited signs of natural flow or ecological function. Overall, the ecological condition of the onsite watercourses at present day is considered highly degraded, with minimal biodiversity or habitat value remaining.

Natural Inland Wetlands

Several small, scattered wetland areas exist on the site (see Figure 3), and these are located within the bed of the two onsite watercourses. The small wetland areas associated with the onsite watercourses are best characterised as integral components of the modified stream systems rather than discrete, standalone wetlands. In particular, Wetlands W1 and W2 have formed as induced features in direct association with culvert structures, while Wetlands W3 to W5 occur entirely within the bed of Watercourse 1 and are ephemeral in nature, reflecting temporary flows within the channel. All wetland features are dominated by exotic species. These features lack the hydrological and ecological characteristics of natural, self-sustaining wetlands and instead are a product of historic drainage modification and temporal ephemeral flows within the stream channel.

The proposed development works involve the realignment of a section of Watercourse 1 to enable the proposed urban development. As part of these works, the wetland areas (W3–W5) located within the existing channel will be temporarily removed during stream re-alignment. This

activity is considered to fall under regulation 54 of NES-FW (2020). The works are necessary to achieve the functional design of the development and will result in a re-established stream channel that continues to provide water conveyance and drainage functions. In addition, wetland margins alongside the realigned channel will be re-established and extended through targeted revegetation planting (approximately 4.3 ha of riparian planting), creating habitat of higher ecological value, diversity, and structural complexity than currently exists. Given the low existing ecological value, and functional integration of the existing wetlands with the stream environment, this approach is considered the most appropriate and consistent with NES-FW provisions for non-complying activities.

Fauna

In terms of fauna presence and habitat, the site currently holds low ecological value due to extensive historical modification and ongoing land use. Aquatic fauna are scarce; onsite surveys detected only a small number of shortfin eel (*Anguilla australis*), a disturbance-tolerant native species, in the northernmost reaches of Watercourse 2. Watercourse 1 was completely dry during site visits, with minimal evidence of flow, suggesting it remains dry for most of the year. Watercourse 2 likely conveys water only in the lower sections closest to Brookvale Road. Both watercourses function primarily as drainage and water conveyance channels, with regular dredging and vegetation removal substantially reducing habitat complexity and ecological function.

Avifauna observed on site were limited to common native and introduced species typical of highly modified landscapes, with no signs of species reliant on intact natural habitats or any 'At Risk' or 'Threatened' species present. Habitat assessments for lizards identified a lack of suitable conditions, as the site lacks the structural vegetation and ground cover necessary to support indigenous skink or gecko populations. However, given the possibility of lizard presence even in low-quality habitats—common in modified environments—it is recommended that a Lizard Management Plan be developed and implemented to guide any vegetation clearance on site. This will require obtaining a Wildlife Act Authority to ensure compliance and appropriate handling of any protected fauna encountered.

Although long-tailed bats (*Chalinolobus tuberculatus*) occur in the broader region, acoustic surveys conducted during optimal conditions in January 2025 recorded no bat activity onsite, and the absence of mature trees with suitable roosting features further limits habitat suitability.

The proposed streamworks associated with the development will also necessitate the preparation of a Fish Management Plan, including provisions for fish salvage and relocation as needed, consistent with best-practice environmental management.

It is recommended that a comprehensive Fauna Management Plan be prepared for the proposal, addressing all relevant species groups—including lizards, fish, avifauna, and bats—on a precautionary basis, even where certain groups were not recorded during initial site surveys. This approach will help ensure the necessary Wildlife Act Authorities can be obtained and that robust protocols are in place for pre-clearance surveys and for managing any accidental fauna discoveries during vegetation clearance and construction activities.



Figure 1: Site boundaries

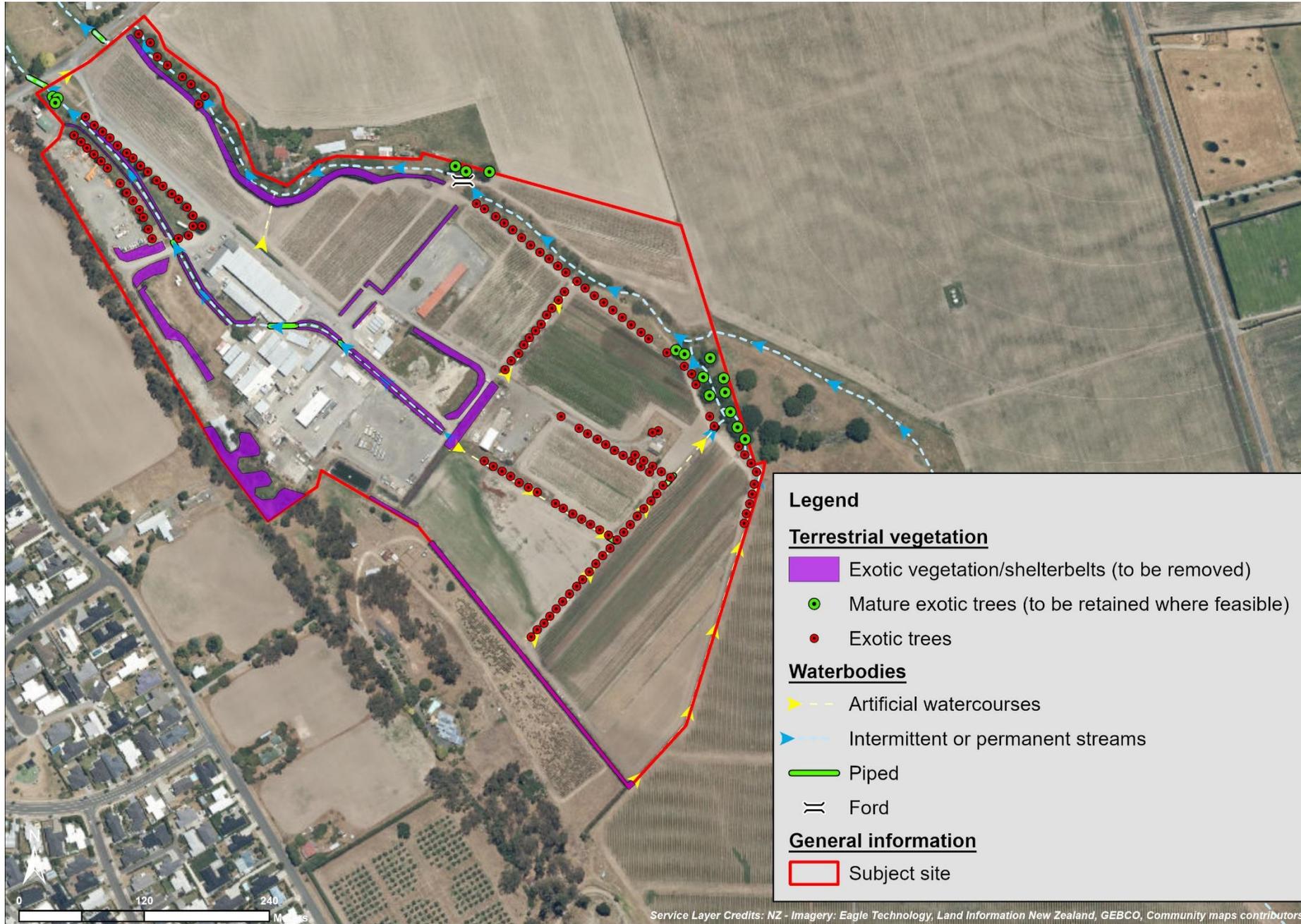


Figure 2: Showing general habitat types noted within the site boundaries



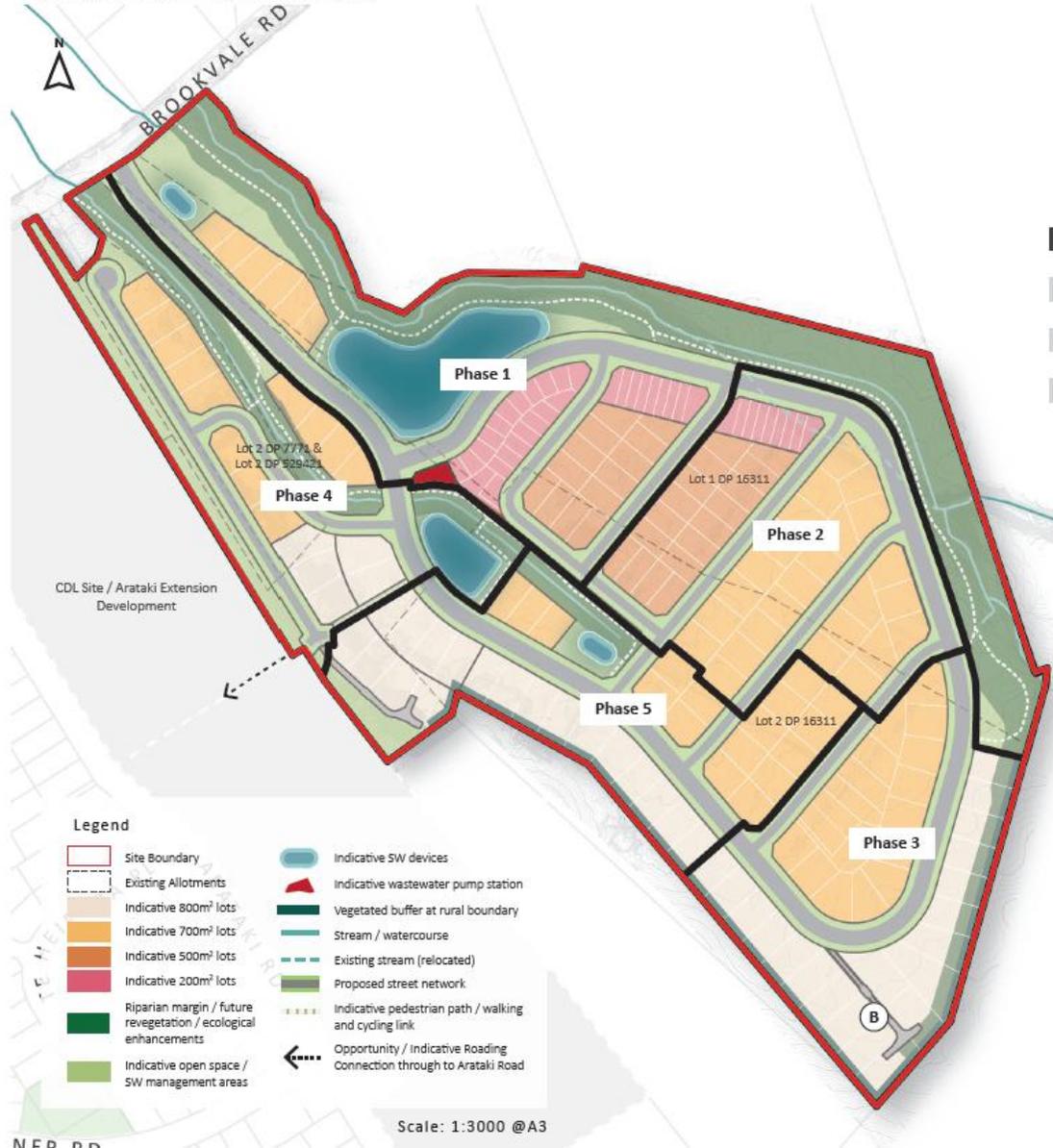
Figure 3: Showing the general hydrological patterns as observed on site during site field visits

Proposal

The Client is proposing a development of the site into residential dwellings and supporting roading and servicing infrastructure. The proposal will deliver between 189 – 215 new homes (subject to change through further design involvement) across 5 phases. A new road off Brookvale Road (generally following the existing internal access road) is proposed which will provide access to the development. The development will construct a new wastewater gravity network, which will be pumped from the site via a new public line and connect into the exiting public wastewater infrastructure. It is understood that the site is not currently connected to a public stormwater network. A new stormwater network is proposed, designed to handle up to a 1-in-5-year ARI rain event within pipes. The drainage layout will align with proposed roads and discharge into the existing watercourses to maintain base flows. On-site storage and treatment measures will help maintain hydrological balance and reduce contaminant loads, supporting both onsite and downstream ecological values. The proposed draft masterplan is provided under Figure 4.

Brookvale Green - Concept Masterplan

B&A



6. DEVELOPMENT PHASES

Phase	Total Lots	200m ²	500m ²	700m ²	800m ²
1	48	29	13	6	0
2	51	9	17	25	0
3	38	0	0	18	20
4	17	0	0	12	5
5	35	0	0	17	18
Total (lots/%)	189	38	30	78	43
	100%	20%	16%	41%	23%

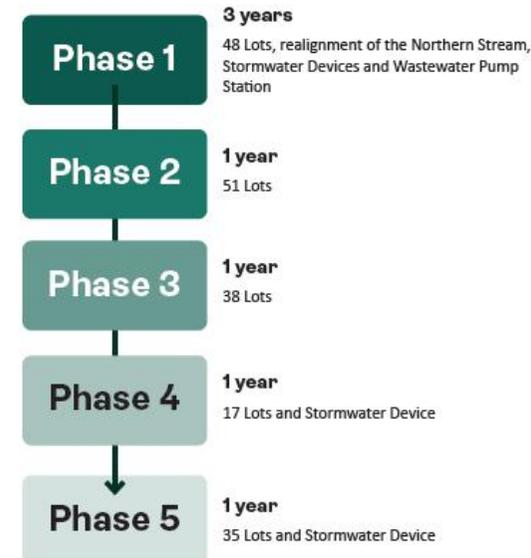


Figure 4: Showing the conceptual masterplan for the Site

Assessment of Potential Ecological Effects

The project, as presented in the masterplan, forms the basis of this application. Given the negligible terrestrial vegetation values on site, these have not been assessed in detail. Fauna values are similarly low, with only common, mobile, and non-threatened species observed. Although the site's watercourses are highly modified and of low ecological value, the proposed development still has the potential to result in adverse ecological effects if not appropriately managed.

To minimise these effects, the development—including road alignments, lot layouts, and stormwater infrastructure—has been designed to minimise impacts on watercourses wherever practicable. Road layouts strategically utilise existing stream crossings to maintain connectivity and access, and any alteration, replacement, or extension of existing or proposed structures within the realigned watercourses will be undertaken in accordance with the permitted standards set out in Regulation 70 of NES-FW. Stormwater management will include the construction of on-site storage and treatment systems to ensure potential adverse effects on hydrology and water quality—both within and beyond the site boundary—are appropriately avoided, remedied, or mitigated.

The project also includes significant ecological restoration efforts, such as riparian revegetation along stream margins, aimed at restoring more natural stream functions and improving both onsite and downstream water quality. A key component of the proposed development involves the realignment of Watercourse 1 to accommodate the northern edge of the residential layout and integrate it within a broader ecological corridor. This will require consideration to be given to Regulations 54 and 57 of NES-FW (2020). This realignment will temporarily remove the wetland areas located within the existing channel. It is recommended that the new channel is excavated prior to disconnecting the old channel, maintaining flow and connection for fish and minimising ecological disturbance. An ecologist will be present during works, particularly while the upper section of the existing channel is closed off, to manage any potential fish strandings and ensure their protection during the transition between channels.

Sediment control will be carefully managed to minimise mobilisation into the watercourse during excavation and connection of channels, with appropriate controls including planning for the placement of excavated material to prevent sediment entering the stream, particularly during rainfall events. Post-construction restoration, including riparian planting along the realigned channel, will be undertaken to maintain and improve habitat quality, provide shade to reduce instream temperatures, and support overall ecological values. Approximately 4.3 ha of riparian margins on site (subject to final design) are proposed to be revegetated with appropriate indigenous species and will be managed through ongoing pest plant and animal control. These measures are intended to not only maintain the functional drainage role of the watercourse but also enhance ecological outcomes by creating more structurally diverse and biologically supportive stream margins.

This realignment allows for a more integrated and effective design, incorporating the entire length of the watercourse within a proposed ecological restoration and enhancement corridor. The result will be a functional and accessible open space that supports ecological restoration and promotes landscape-scale integration within the northern development area. As the existing stream currently functions as a highly degraded artificial drainage and stormwater

channel, the proposed realignment presents an opportunity to restore natural stream functions and is therefore considered appropriate. With the application of suitable controls and mitigation measures, the realignment is not expected to result in any adverse environmental effects.

Although the site currently has limited ecological value due to historical horticultural modification, potential ecological impacts can be effectively managed through established best-practice approaches. These include implementing stream enhancement plans, conducting fish salvage and relocation where necessary during earthworks, and applying lizard management protocols during vegetation clearance. Precautionary measures will also be in place to address any accidental discoveries of protected species such as native avifauna and bats. Additionally, a range of mitigation options will be employed to safeguard the hydrology of intermittent streams both onsite and downstream.

The development also presents opportunities to deliver positive ecological outcomes. These include restoring stream functions that have been lost to past land use, enhancing aquatic and terrestrial habitats through targeted riparian planting, and contributing to broader ecological advocacy through improved amenity, landscape, and social values.

In summary, the site's ecological baseline is one of significant degradation, with minimal existing indigenous flora, fauna, or aquatic habitat values. There are no fundamental ecological constraints within the proposed masterplan that cannot be addressed through the effects management hierarchy. With appropriate design and mitigation, potential adverse effects can be minimised, and positive ecological benefits maximised through well-considered restoration and enhancement measures.

Response to HBRC Feedback

Preliminary feedback from HBRC (Memo dated 21 August 2025) identified several ecological matters for consideration. These have been addressed in outline here and will be fully addressed within the Ecological Assessment.

In relation to timing and sequencing of works, the realignment of Watercourse 1 will be staged so that the new channel is fully excavated and stabilised prior to disconnection of the existing channel. This approach will maintain flow continuity and minimise ecological disturbance. This work will be carried out as part of Phase 1 of the proposal.

With respect to potential fish presence, a comprehensive Fauna Management Plan (including specific provisions for fish) will be prepared and implemented for the proposed development. This will include pre-works surveys, salvage and relocation protocols for shortfin eel and other species (if required), and the requirement for an ecologist to be present during closure of the channel.

Regarding channel design and substrate, the new alignment will incorporate suitable substrates (current substrate is silt), in-stream habitat features, and riparian planting to restore ecological function and deliver improvements over the existing degraded condition.

For sediment control, all streamworks will be managed under a certified Erosion and Sediment Control Plan to ensure excavation, storage, and placement of materials do not mobilise sediment into waterways.

Post-construction, riparian planting will be implemented to provide shading, regulate water temperatures, enhance habitat quality, and improve water quality outcomes. Approximately 4.3 ha of riparian margins on site (subject to final design) are proposed to be revegetated with appropriate indigenous species.

From an ecological perspective, the stormwater infrastructure designed by Maven is expected to support the water quality objectives outlined in Schedule 26 of TANK Plan Change 9. On-site treatment and detention measures will help achieve target water quality outcomes by reducing contaminant loads and maintaining hydrological balance. Access to stormwater and channel infrastructure will be provided to enable long-term maintenance, with governance arrangements formalised through the consent process.

In relation to NES-FW (2020) matters, the temporary removal of wetlands (W3–W5) within the existing bed of Watercourse 1 during realignment is a non-complying activity under Regulation 54, and the realignment requires consideration of Regulation 57 (reclamation of riverbed). These activities will follow the effects management hierarchy: the new channel will be constructed and stabilised before decommissioning the old channel, drainage and flow will be maintained, and wetland areas and their margins will be reinstated with indigenous planting to avoid any net loss of wetland habitat.

Any culvert extensions or replacements or new crossings will comply with permitted standards under Regulation 70, ensuring fish passage is maintained.

Conclusion

The ecological assessment of the site at 174 & 176 Brookvale Road confirms that the existing ecological values are low, primarily due to historic and ongoing horticultural activities that have significantly modified both terrestrial and aquatic environments. Indigenous vegetation is virtually absent, and fauna presence is limited to common, disturbance-tolerant species. The site's watercourses and wetland features are highly degraded, offering limited ecological function.

The proposed residential development masterplan has been carefully designed to avoid or minimise ecological degradation, particularly concerning watercourses. By integrating ecological features into the overall layout and incorporating mitigation measures—such as ecological restoration, riparian planting, stormwater treatment systems, and stream realignment—the project aims to avoid or reduce potential adverse ecological impacts. Approximately 4.3 ha of riparian margins on site (subject to final design) are proposed to be revegetated with appropriate indigenous species and will be managed through ongoing pest plant and animal control. Ultimately, it is expected to deliver a net ecological gain through the restoration and enhancement of onsite watercourses and their surrounding margins.

While potential adverse ecological effects have been identified, they can be appropriately addressed through the implementation of established best-practice ecological management methodologies. Furthermore, the proposed development offers a significant opportunity to enhance ecological function and deliver positive contributions to the broader landscape context.

In conclusion, no significant ecological effects are anticipated from the proposed development proceeding under the Fast Track consenting pathway, provided that the recommended mitigation and restoration measures outlined in this ecological memo are implemented. A

comprehensive ecological assessment will be submitted as part of the resource consent application, should the project be accepted as a referred application.



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