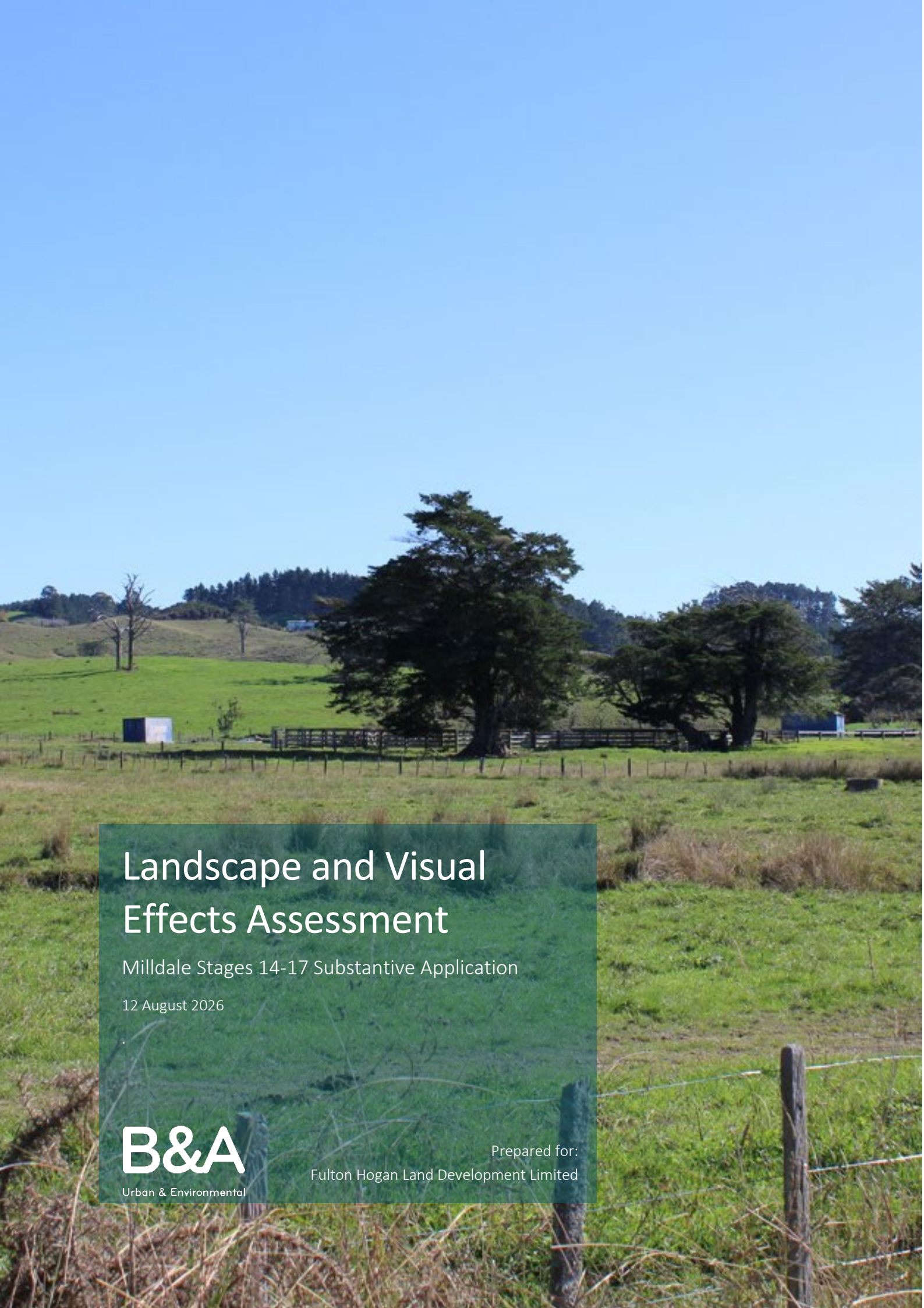


A wide-angle photograph of a rural landscape under a clear blue sky. In the foreground, there is a grassy field with some dry, brownish vegetation. A wooden fence runs across the middle ground. Behind the fence, there are several large, dark green trees. In the background, there are rolling green hills and a line of trees. The overall scene is peaceful and scenic.

Landscape and Visual Effects Assessment

Milldale Stages 14-17 Substantive Application

12 August 2026

B&A
Urban & Environmental

Prepared for:
Fulton Hogan Land Development Limited

B&A Reference:

025999

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Prepared by:



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Registered Landscape Architect / Associate, Barker & Associates Limited



Tuia Pito Ora
New Zealand Institute
of Landscape Architects

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1.0 Statement of Qualifications and Experience

My full name is Joseph McCready. I am an Associate Landscape Architect at Barker & Associates. I hold the qualifications of Bachelor of Landscape Architecture and Bachelor of Commerce and have 16 years' professional experience in the field of landscape architecture. My experience includes landscape design and assessment projects across a range of scales and complexity. My recent project experience includes landscape assessments for the Surf Park development in Albany, Auckland, Whakatupu Housing development, Mangawhai and Pukekohe Park Housing Development Fast Track application.

I have been engaged by Fulton Hogan Land Development Limited (FHLD) (the Applicant) to undertake an assessment of landscape assessment matters associated with the Milldale Stages 14-17 project and to prepare this report in support of the substantive application under the Fast-track Approvals Act 2024 (FTAA).

While this is not an Environment Court proceeding, I confirm that I have prepared this assessment in accordance with the applicable professional and ethical obligations of my profession and that the opinions expressed are within my area of expertise.

2.0 Introduction

This report has been prepared in support of the substantive application for the Milldale Stages 14-17 (Milldale North) Project under the Fast-track Approvals Act 2024 (FTAA). The Project relates to approximately 231ha of land centred around Wainui Road in Wainui, Auckland. The proposal provides for a comprehensively planned urban development including residential neighbourhoods, a supporting commercial node, transport and servicing infrastructure, open space, wetland and ecological restoration, and associated enabling works.

The application seeks approvals necessary to facilitate the staged development of the Project, including a suite of resource consents required under the FTAA framework. The substantive application is supported by a comprehensive set of technical assessments and plans addressing the environmental, servicing and infrastructure matters associated with the proposal. This report should be read alongside the Planning Report and the appended technical reports and drawings lodged in support of the substantive application.

This assessment considers the potential effects of the proposal on landscape character, visual amenity and natural character within the Site and receiving environment.

2.1 Methodology

This Landscape Assessment has been undertaken by a Registered Landscape Architect in accordance with Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines (2022). It recognises landscape as an integrated system of biophysical attributes, perceptual experience, and associative meanings and values, which together shape landscape character and identity and provide the basis for this assessment. Refer to Appendix 1 for further detail. Before fieldwork, a desktop study was undertaken. This included review of the Auckland Unitary Plan - Operative in Part (AUP), specialist reports including ecology, proposed precinct plans and Aerial imagery and Google Street View. Fieldwork was undertaken in July 2026. The desktop review also included the current landscape plans, water and wastewater infrastructure layouts and cross sections, and ecological enhancement material. The desktop review also included the Joint Cultural Impact Assessment prepared by Te Kawerau ā Maki and Ngāti Manuhiri. This LVA draws on its disclosed landscape related findings but does not independently assess or reinterpret Mana Whenua cultural values.

2.1.1 Assessment Process

Landscape and visual effects were evaluated by considering ‘Sensitivity,’ which reflects the value and susceptibility of the landscape or view to change; and ‘Magnitude of change,’ which considers the scale, extent, and duration of that change. The overall level of effect is determined by combining these two factors, as outlined in Appendix 1 and effects are described as positive, neutral, or adverse. The following scale has been adopted to describe the overall level of effect:

Effect	Planning Term	Description
Very High	Significant	A complete or near-total alteration of key landscape characteristics or values, amounting to a fundamental change in character.
High	Significant	A major change that significantly alters the coherence or perceived amenity of the landscape or view.
Moderate – High	More than minor	A clearly perceptible change that influences the legibility or integrity of the landscape or view.
Moderate	More than minor	A distinct but not overwhelming change where key features remain evident and the overall landscape pattern remains coherent.
Moderate – Low	Minor	A limited or localised change that is noticeable but not dominant in the broader context.
Low	Less than minor	A minor alteration discernible under specific conditions with little influence on landscape character or viewer perception.
Very Low	Less than minor	A negligible or imperceptible change approximating a no-change situation.

Table 1. Landscape Assessment Ratings Summary

3.0 The Proposal

The proposal provides for the urban development of Milldale Stage 14-17 as an integrated extension of the existing and developing Milldale urban area. The urban development area encompasses approximately 100 hectares immediately north of the existing and consented Milldale development and builds from its established movement network, block structure, open space framework and infrastructure investment. The masterplan is structured by the Ōrewa Awa, Waterloo Creek, unnamed tributaries, wetland and riparian corridors, and the existing and planned road network. The proposal can be summarised as follows:

- Up to approximately 1,410 dwellings, comprising:
 - Up to 935 detached dwellings on regular lots generally between 250 m² and 450 m², with larger lots of up to approximately 1,723 m² around the western and peripheral areas and where landform or other constraints require lower intensity development.
 - Up to 475 medium density dwellings within centrally located superlots, including duplexes, terraced housing, walk up apartments and narrow or small lot detached dwellings.
 - Medium density development concentrated near natural amenity, key movement corridors, Milldale Town Centre and the proposed school campus, with access generally from jointly owned access lots or rear lanes.
 - Maximum building heights of 8 m for detached dwellings and 11 m for medium density development, with limited additional height for pitched roofs.

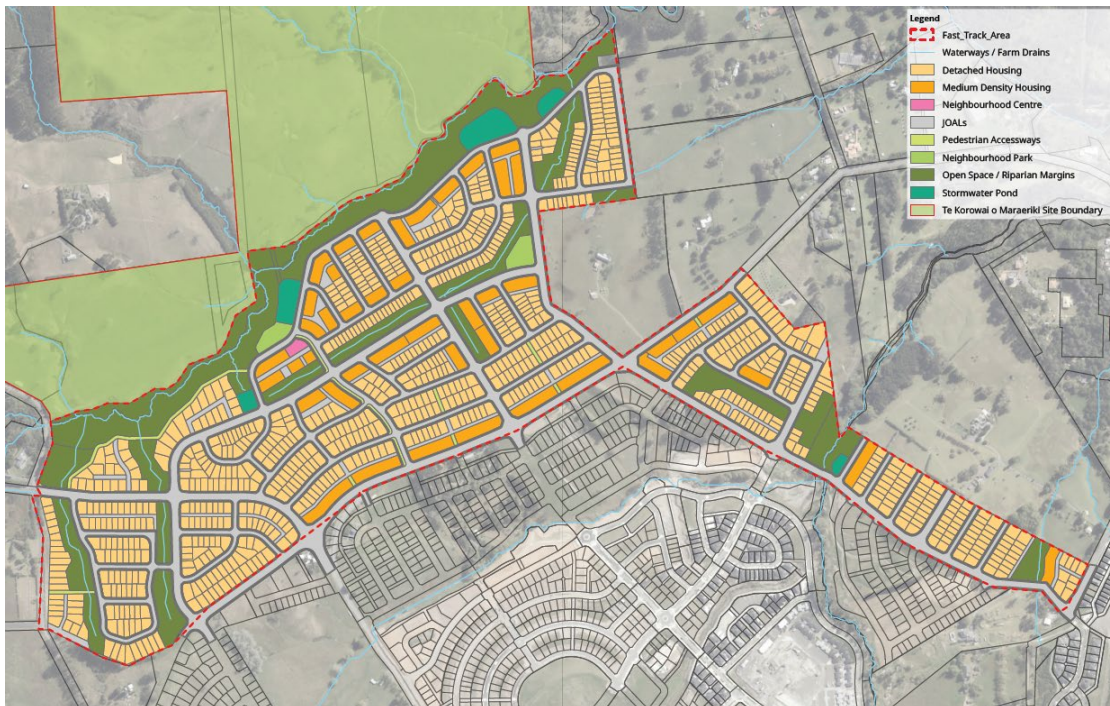


Figure 1. Proposed Masterplan (B&A).

- A masterplan structured around the Ōrewa Awa, Waterloo Creek, tributaries, riparian margins, stormwater areas, parks, pedestrian links and the street network.
- Up to 1,000 m² of small-scale commercial floor area on Lot 3029.
- Built form and landscape controls addressing coverage, setbacks, outlook, outdoor living, fencing, retaining, street interfaces, materials, planting and facade articulation.
- On-site planting and at least one specimen tree for each residential lot, with visually open fencing beside public open space and riparian margins.
- Neutral, muted and earth toned external materials, varied roof forms and facade articulation to reduce perceived bulk.
- Integrated pedestrian access, parking, servicing and lighting, supported by a development design review process.
- A water reservoir near Gervin Road, designed as a low-profile water body within grassed berms and the wider riparian and restoration landscape.
- A water and wastewater treatment area north of the Ōrewa Awa, including treatment buildings, tanks, pumping and conveyance infrastructure, maintenance access, earthworks and planted wastewater wetland cells.
- The reservoir and wastewater wetlands designed to read as naturalised water features, with above ground infrastructure finished in dark, visually recessive materials and obscured by the required screen planting.
- A comprehensive landscape framework incorporating stream bank and riparian planting, native restoration, stormwater reserve and rain garden planting, wetland planting, planted batters, street trees, recreational trails, and retention of Significant Ecological Areas and existing vegetation.

4.0 Planning Context

The site is primarily subject to the Future Urban Zone and Rural Production Zone, with important natural resource overlays and controls associated with Significant Ecological Areas, Natural Stream Management Areas, highly productive land, flooding, overland flow paths, landslide susceptibility. The overall policy framework is therefore one of rural land use and rural character as the existing baseline, while recognising that parts of the site are identified for future urbanisation. The key tension for the LVA is that the proposal will substantially change rural landscape character, but does so in a location where future urban growth has been signalled by Council and where the development response must protect the key landscape systems.

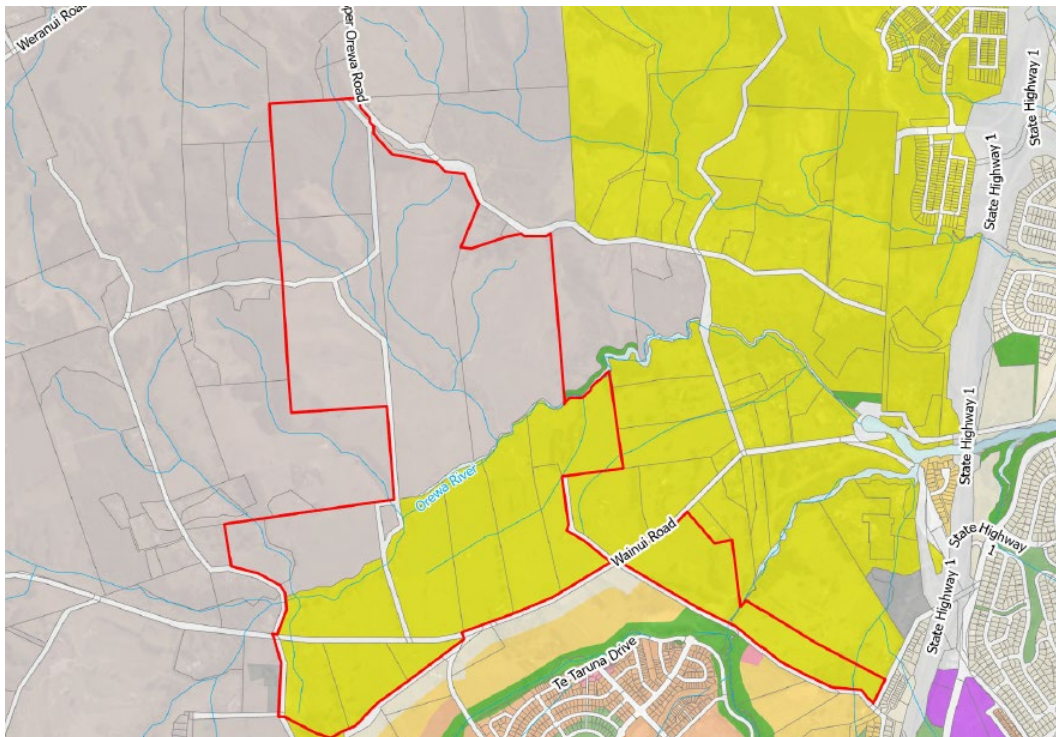


Figure 2. AUP Zones (AC).

4.1 Auckland Council Auckland Unitary Plan - Operative in Part (AUP).

Site Zoning	
Zone	Future Urban Zone (FUZ) Rural Production Zone (RPZ)
Precinct	N/A
Overlays	Significant Ecological Areas Overlay - SEA_T_2223, Terrestrial Natural Stream Management Areas Overlay Highly Productive Land – Class 3
Controls	Macroinvertebrate Community Index – Rural, Native, Exotic
Designations	Designations - 14109, The construction, operation and maintenance of an upgrade to Wainui Road to an arterial transport corridor and associated facilities, (Upgrade to Wainui Road), Designations, Auckland Transport

Table 2. AUP Provisions Summary Table

4.2 Landscape Relevant Objectives & Policies

Provision	Relevant objectives and policies	LVA relevance
B2 Urban growth and form	Supports a well-functioning urban environment and planned urban growth. Structure planning should protect natural and physical resources, manage effects on receiving waters and hazards, and use rivers, catchments, wetlands and ridgelines as natural boundaries.	Supports urbanisation of the Site, provided the masterplan is structured around the Ōrewa Awa, Waterloo Creek, wetlands, riparian margins, stormwater corridors, open space and landform.
B6 Mana Whenua	Recognises Te Tiriti partnerships and Mana Whenua participation in resource management. It provides for Mana Whenua to identify values associated with ancestral lands, freshwater, biodiversity and cultural heritage, and for mātauranga, tikanga, kaitiakitanga and mauri to be integrated into decision making and structure planning.	Requires recognition of the Site as part of a wider cultural landscape and continued Mana Whenua involvement in the design of waterways, open space, infrastructure, naming, interpretation and public realm. Particular attention is required for the Ōrewa Awa, wai Māori, productive soils and cultural landscape relationships.
H18 Future Urban Zone	Identifies transitional greenfield land suitable for future urbanisation. Until rezoned, development should achieve Rural Production Zone outcomes and not compromise future infrastructure, transport networks or urban form.	Existing rural character remains part of the baseline, but future urbanisation is also relevant to the anticipated receiving environment.
H19 Rural Production Zone	Provides for rural production while maintaining rural character, amenity and productive capability.	The proposal will permanently reduce pasture, rural openness, productive land use and rural character, although this is moderated by the Future Urban context.
B9 Rural environment and highly productive land	Recognises the productive, landscape, amenity and biodiversity values of rural land, including Class 3 highly productive land.	Reinforces the need to acknowledge the loss of productive rural land, pastoral character and rural edge identity.
D9 Significant Ecological Areas Overlay	Protects significant indigenous biodiversity and Mana Whenua relationships with indigenous vegetation and fauna. Effects should be avoided where practicable, then minimised, remedied, mitigated or offset.	Supports retention and enhancement of Significant Ecological Area values where they contribute to biodiversity, natural character, landscape structure and amenity.
D4 Natural Stream Management Areas Overlay	Protects streams with high natural character and ecological values, including in stream values, riparian margins and fish passage.	Supports treating the Ōrewa Awa, Waterloo Creek and associated waterways as primary landscape elements, with generous riparian margins.
B7 Natural resources	Protects indigenous biodiversity and freshwater systems and requires integrated management of land use, stormwater and wastewater. Restoration and enhancement are encouraged where development occurs.	Supports the blue green framework, stormwater treatment, wetland and riparian enhancement, and wider revegetation response. It also supports integrating the reservoir, wastewater wetlands and treatment infrastructure

		within the restored catchment landscape.
B10 Environmental risk, E36 Natural hazards and flooding, and PC120	Require development to manage flooding, overland flow paths and landslide risk, maintain natural drainage and account for climate change.	Supports the use of floodplains, stormwater corridors, planted slopes, riparian margins and landform responsive design, while avoiding visually dominant engineering where practicable.
E3 Lakes, rivers, streams and wetlands	Protects freshwater systems from degradation and permanent loss. Activities should minimise disturbance, avoid unnecessary reclamation or drainage, and maintain fish passage.	Relevant to wetlands, streams, tributaries, crossings, culverts, outlets and riparian works. Retained corridors should be enhanced and integrated with open space and movement networks.
E15 Vegetation management and biodiversity	Maintains ecosystem services and indigenous biodiversity, particularly within riparian margins, wetlands, hazard areas and vegetation.	Supports retention of mature vegetation, native riparian planting, revegetation and stronger ecological links through the Site. The required screen planting is also important to obscure the wastewater treatment and pumping infrastructure.
E11 and E12 Land disturbance	Require land disturbance to minimise sediment, conserve soil and manage effects on water quality, amenity and biodiversity.	Relevant to earthworks, retaining and exposed slopes. Landform modification should be minimised, riparian margins protected and disturbed areas replanted.
E38 and E39 Subdivision	Seek integrated infrastructure, accessible layouts, long term community needs, protection of natural features and maintenance of floodplain and overland flows.	Supports an integrated relationship between subdivision layout, landform, waterways, open space, pedestrian links, stormwater areas and roads.

Table 3. Landscape Objectives and Policies Summary Table.

4.3 Discussion

The AUP recognises the Site's rural production context while identifying much of the proposed urban development area as Future Urban land. Within the Future Urban Zone, the proposal will result in a permanent change from open pastoral and rural edge land to an urban neighbourhood of up to 1,410 dwellings. This will reduce rural openness, alter the pastoral ground plane and introduce built form, roads, lighting, traffic and domestic activity. The proposal therefore does not maintain the existing rural character within the urban development area, although this change occurs on land identified for future urbanisation.

The northern part of the Site within the Rural Production Zone is treated differently. No urban residential development is proposed in this area. Instead, it will remain part of the wider rural catchment and ecological enhancement framework, with extensive native restoration planting proposed north of and along the Ōrewa Awa. This will retain a predominantly vegetated northern setting, strengthen the awa corridor and provide separation between the urban development and rural land beyond.

However, the Site adjoins the developing Milldale urban area and forms part of a future urban growth setting. The proposal provides a logical extension of Milldale, building from its movement network, block structure, open space framework and infrastructure. The mix of detached and medium density housing, commercial activity, neighbourhood parks, pedestrian and cycle connections and public transport links will contribute to a

compact and well-functioning urban environment. From a landscape and visual perspective, concentrating urban development beside existing Milldale, while retaining the Ōrewa Awa and the northern restoration area as a strong landscape edge, reduces the perceived spread of development into the wider rural catchment. The local rural to urban change will remain substantial from the closest interfaces, but the development will read as an extension of Milldale rather than an isolated urban incursion.

The proposal responds positively to natural resource provisions by treating the Ōrewa Awa, Waterloo Creek, tributaries, wetlands, riparian margins and floodplain areas as primary structuring elements. These features are integrated with stormwater management, open space, pedestrian connections, riparian enhancement and revegetation. This approach retains the legibility of the catchment structure, strengthens ecological connectivity and supports the natural character, biodiversity and amenity of the waterway corridors.

The blue green framework also provides an appropriate basis for responding to flooding, overland flow paths and landslide susceptibility. Floodplains, riparian margins, stormwater corridors, planted slopes and open spaces form part of the landscape structure rather than residual areas. Detailed design will need to maintain natural drainage functions, avoid development in higher risk areas and minimise visually dominant engineered responses where naturalised or planted solutions are practicable.

Wainui Road forms part of the anticipated future urban movement network and will be an important gateway to Milldale North. Consents have been secured to upgrade Wainui Road to an urban standard, reinforcing the transition already occurring along this interface and the anticipated urban character of the receiving environment. The relationship between development and the road corridor, including building frontage, street trees, pedestrian connections, access and open space, will influence the legibility and amenity of this urban edge.

Overall, the proposal will have adverse effects on rural openness, rural amenity and pastoral landscape character within the urban development area. These effects are moderated by the Future Urban context, the urbanising character of Milldale and the integrated blue green framework. The absence of urban residential development in the northern Rural Production Zone and the extensive restoration planting proposed there provide additional landscape separation and reinforce the Ōrewa Awa as the principal northern landscape edge. The proposal is capable of meeting the landscape relevant intent of the AUP, provided waterways, wetlands, natural hazard areas, riparian margins, open spaces, mature vegetation and sensitive interfaces are retained, enhanced and appropriately integrated with the urban form.

5.0 The Site

The Site comprises land within the proposed FTA boundary, generally located north of the existing and developing Milldale urban area and associated with Wainui Road, Cemetery Road, Upper Ōrewa Road, the Ōrewa Awa and Waterloo Creek.

5.1 Broader Milldale Context

Milldale is located north of Albany, west of State Highway 1, and adjacent to Millwater, Silverdale and Ōrewa. The wider setting includes established and developing urban neighbourhoods, rural and rural lifestyle land, open space and waterway corridors, earthworked areas, transport infrastructure and Future Urban land.

The landscape is shaped by rolling to steep hill country to the north and west, including Lloyds Hill, and lower valley land associated with the Ōrewa River and Waterloo Creek. Ridgelines, spurs, gullies and valley floors influence drainage, road alignment, vegetation patterns and visibility across the area.

The existing Milldale development south of Wainui Road is now a significant part of the receiving environment, comprising roads, housing, open spaces, waterway corridors, streetscape planting, earthworks and emerging urban built form. The rural urban interface is therefore transitional, with Milldale progressively extending north and west.

Rural and rural lifestyle character remains evident around the Ōrewa River catchment, Upper Ōrewa Road, Wainui Road, Cemetery Road, Garvin Road and land toward Lloyds Hill. These areas contain open paddocks, shelterbelts, tree groups, rural dwellings, farm buildings, rural roads and views across rolling landform. Rural character is strongest where land remains open and development is screened by landform and vegetation.

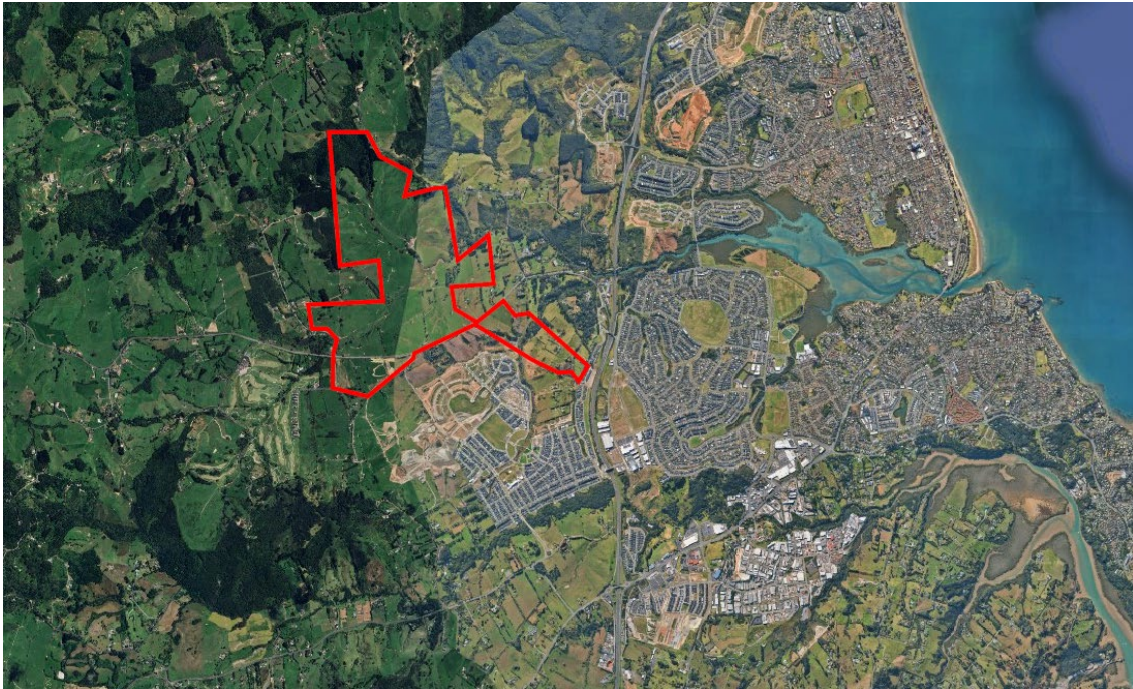


Figure 3. The Broader Site (Google Maps).

5.2 The Subject Site

The Subject Site comprises Milldale Stage 14-17, located north and north west of the existing Milldale urban area. It is defined by the Ōrewa River to the north, Wainui Road through the central and southern parts of the Site, Cemetery Road and Garvin Road to the west, and Lysnar Road, Sidwell Road and Waterloo Creek to the east.

The Site is characterised by undulating rural farmland, scattered rural residential properties, farm buildings, cattle yards, shelterbelts, exotic tree groups, drains, streams, wetlands and open paddocks. Land generally falls toward the Ōrewa River and Waterloo Creek catchments, with the northern part of the Site having a strong visual relationship with the river valley and rising rural land beyond. North of Wainui Road, the Site has a broad and open rural character. Pastoral slopes descend toward the Ōrewa River, with flatter valley land, river banks, wetlands, ponds and drainage channels expressing the hydrological pattern. Vegetation is relatively sparse across the paddocks, although shelterbelts, hedgerows, farm access planting and mature exotic trees provide local enclosure and rural structure.

The Ōrewa River is the most prominent landscape feature associated with the Site, forming its northern edge through the river channel, floodplain, wetlands, river banks and open rural margins. The hills beyond provide a defined rural backdrop across the catchment.

Waterloo Creek passes through the eastern part of Milldale North and connects with the developing Milldale area. Its tributaries and riparian vegetation, including mature exotic trees, provide visible landscape structure and continuity with the established Milldale open space and waterway network. Open pasture is the dominant land cover, supported by shelterbelts, hedgerows, tree lined accessways, paddock planting, exotic specimen trees, riparian vegetation and wetlands. More established vegetation is generally associated with waterways, property boundaries, rural dwellings and steeper or less intensively managed land.

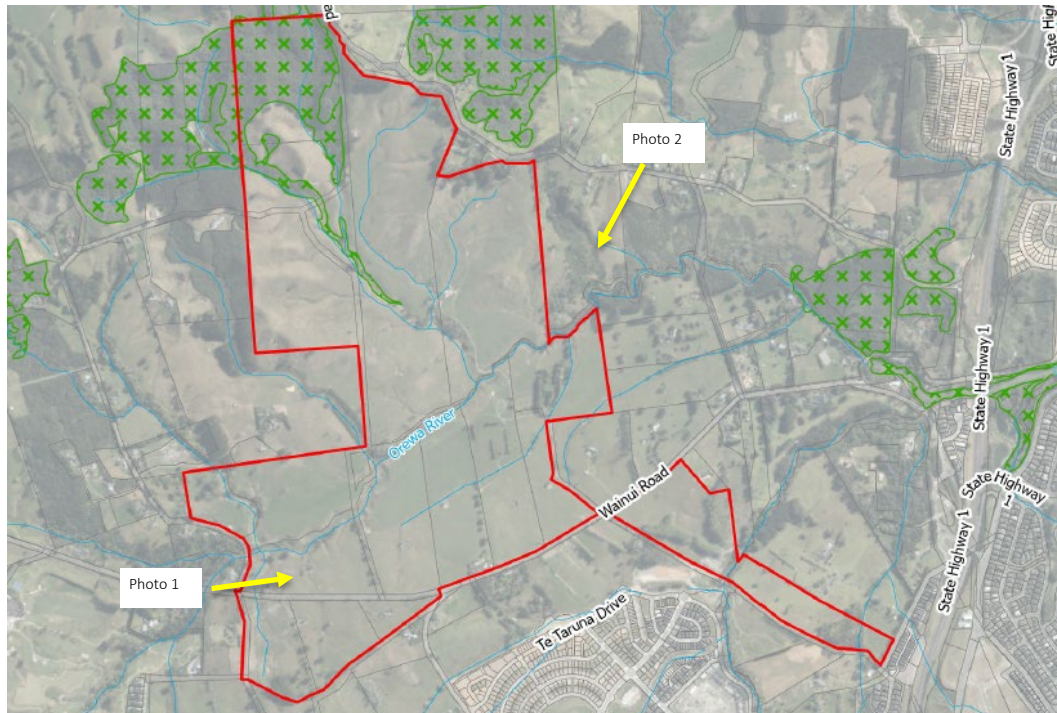


Figure 4. The Site (Google Maps).

5.3 Immediate Interfaces

The northern interface is defined by the Ōrewa River corridor and adjoining rural production land. Upper Ōrewa Road and rural residential properties occupy rising land to the north, with vegetation and landform forming the wider rural backdrop.

The southern interface is shaped by Wainui Road and the existing and developing Milldale urban area. This is the most urbanised edge of the Site and includes residential development, streets, open spaces, earthworked land and infrastructure associated with the continuing expansion of Milldale.

The western interface retains a stronger rural character associated with Cemetery Road, Garvin Road, Wainui Cemetery, Wainui Settlers Cemetery, Wainui Golf Course and land toward Lloyds Hill. The cemeteries occupy an elevated spur near the Wainui Road intersection and are partly enclosed by established planting. Views extend across open paddocks, rolling landform and scattered rural vegetation.

The eastern interface is shaped by Waterloo Creek, Lysnar Road, Sidwell Road, Northridge Country Lodge Golf Course and the existing Milldale urban edge. It has a closer relationship with urban development while retaining open paddocks, rural land cover and waterway vegetation.



Figure 5. Photo 1 (B&A).



Figure 6. Photo 2 (B&A).

6.0 Landscape Values Assessment

6.1 Existing Landscape Values

6.1.1 Biophysical values

Milldale Stages 14-17 occupies an undulating upper catchment landscape shaped by the Ōrewa Awa, Waterloo Creek and their tributaries. Broad pastoral slopes, local ridges, incised gullies, low lying wet areas and floodplain margins direct drainage toward the principal waterways, creating a legible landform and catchment structure across the Site.

The Joint Cultural Impact Assessment identifies the alluvial soils of the Ōrewa valley as productive whenua with cultural value and life supporting capacity. This adds an associative dimension to the physical landform and soil resource beyond its rural production function.

The freshwater network includes permanent, intermittent, ephemeral and artificial watercourses, together with culverted sections, an underground stream reach, natural and potential wetlands, constructed ponds and mapped tomos. Permanent waterways and larger wetlands are concentrated within the northern, eastern and south eastern catchments, while smaller wetlands, ponds, drains and ephemeral channels occur through the central and western pastoral areas.

The Ōrewa Awa is the principal biophysical feature and forms a strong northern landscape edge. Its corridor includes the river channel, tributaries, wetlands, floodplain land, riparian vegetation, pasture and adjoining gullies. The awa provides hydrological continuity and contributes natural character, habitat, ecological connectivity and visual relief within the wider rural landscape.

Waterloo Creek and its tributaries provide a second important biophysical structure through the eastern and south eastern parts of the Site. These corridors include permanent and intermittent streams, natural wetlands, riparian vegetation and mature trees. They connect with the open space and waterway network established within Milldale, providing continuity between the rural catchment and developing urban area.

Natural and potential wetlands occur along waterways, lower lying land, pastoral depressions, tributary margins and seepage areas. They contribute water storage, attenuation, habitat diversity and ecological function, while reinforcing the legibility of natural drainage patterns. Constructed ponds and artificial drains also contribute to the water network, although they reflect the long-standing modification of the landscape for farming.

Improved pasture is the dominant land cover. Vegetation otherwise comprises shelterbelts, hedgerows, mature exotic trees, conifer groups, farm track planting and vegetation associated with rural properties. More continuous woody vegetation occurs along waterways, wetlands, gullies and steeper slopes, where it provides enclosure and greater structural diversity. Mature trees, wooded gullies and riparian corridors have greater biophysical value than open pasture and artificial drainage areas. They provide habitat, shade, bank stability, organic material and movement opportunities for indigenous fauna. Suitable large native and non-invasive exotic trees also provide potential roosting habitat, while connected vegetation along waterways, gullies and ridges supports movement through the wider landscape.

Together, the Ōrewa Awa, Waterloo Creek, tributaries, wetlands, gullies, mature vegetation and floodplain areas provide the basis for a connected ecological network at both Site and catchment scales. Although fragmented by pasture, roads, artificial drains and rural development, this network retains meaningful biophysical structure, connectivity and restoration potential.

Overall, the strongest biophysical values are associated with the principal waterways, natural wetlands, floodplain areas, riparian vegetation, mature trees and connected gullies. Lower values are associated with improved pasture, artificial drains, constructed ponds and more extensively modified areas.



Figure 7. Ecology landscape feature mapping (Viridis).

6.1.2 Perceptual and sensory values

The perceptual and sensory attributes of Milldale Stages 14-17 are strongly influenced by rural openness, rolling landform, broad sky views, open pasture, scattered trees, shelterbelts, rural dwellings and the contrast between the existing rural landscape and the developing Milldale urban area.

The northern part of the Site has a particularly open rural character. From Wainui Road, Cemetery Road, Garvin Road, Upper Ōrewa Road and land north of the Ōrewa River, views extend across pasture, waterway corridors and rolling landform toward the rural backdrop beyond the river. This part of the Site has a broad and open visual character, with the Ōrewa River valley and northern hills contributing to the wider sense of place.

The southern and eastern parts of the Site have a closer relationship with the existing and developing Milldale urban area. In these areas, earthworks, roads, housing, infrastructure, open space corridors and streetscape planting are already visible and influence the character of the receiving environment. The landscape is therefore not experienced as a remote rural setting, but as a rural edge landscape in transition.

The waterway corridors provide visual relief and help structure the experience of the Site. They create a finer grain of enclosure within the open pastoral landscape and provide a contrast to the more open paddock areas. The combination of rural landform, waterways, vegetation and nearby urban development gives the Site a transitional character, with both rural and emerging urban qualities.

6.1.3 Associative values

The Joint Cultural Impact Assessment identifies Te Kawerau ā Maki and Ngāti Manuhiri as Mana Whenua with shared whakapapa, ahi kā and kaitiakitanga interests in Milldale North and the wider Wainui Ōrewa Wēiti area. It describes the Site as part of the northern takiwā of Te Whenua Roa o Kahu and as one component of a wider cultural landscape containing whenua, wai, ancestral routes, kāinga, wāhi tohu and natural resources. These associations are not confined to recorded archaeological sites or current property boundaries.

The Ōrewa Awa and wai Māori are identified as having high cultural value. The awa is an ancestral waterway and former mahinga kai, while its tributaries, wetlands and floodplain contribute to cultural landscape integrity, mauri and the exercise of kaitiakitanga. The productive alluvial soils of the Ōrewa valley also have cultural value because of their capacity to support life and cultivation.

The CIA also identifies Maraeariki kāinga at the headwaters of the Ōrewa Awa, Puketaniwha as a wāhi tohu, and wider movement routes as important reference points within the cultural landscape. The Wainui Cemetery and Wainui Settlers Cemetery remain separate local associative features whose rural setting contributes to the western landscape interface. This LVA recognises these Mana Whenua values but does not independently determine their cultural significance.

6.2 Effects on Landscape Values

The proposal will permanently transform Milldale Stages 14 - 17 from a modified rural and rural edge landscape into an urban residential neighbourhood of up to approximately 1,410 dwellings. Open pasture, rural production land, farm structures, shelterbelts and rural access patterns will be replaced or modified by housing, roads, infrastructure, open spaces, stormwater areas and urban planting. The proposal also introduces a water reservoir, wastewater wetlands and associated treatment and pumping infrastructure within the northern catchment landscape.

The principal adverse effect will be the loss of rural openness, pastoral land cover and rural production character. This change will be most apparent across the open land north of Wainui Road and along the Ōrewa Awa, Cemetery Road and Wainui Road interfaces.

The Site is, however, part of a transitional rural to urban landscape adjoining the existing and developing Milldale urban area. The proposal also retains the main waterways, wetlands, riparian margins, floodplain areas and open spaces as a connected blue green framework. These features, together with street trees, revegetation and sensitive interface treatments, will provide visual relief, maintain catchment legibility and progressively integrate the development. The reservoir and wastewater wetlands are designed as low profile, planted water features that reinforce this catchment structure. Restoration planting and dark, recessive finishes will reduce the prominence of the wastewater treatment and pumping infrastructure.

6.2.1 Effects on Biophysical Values

The proposal will modify landform, drainage, vegetation cover, soil structure and catchment response through earthworks, increased impervious surfaces and the introduction of roads, lots, infrastructure, parks and stormwater areas. Pasture and parts of the existing rural vegetation pattern will be removed, and some shelterbelts, hedgerows, mature trees, drains and watercourses may be modified. The reservoir, treatment platform and wastewater wetland cells will require local earthworks and modification of the river terrace and drainage pattern.

The area's most sensitive to change are the Ōrewa Awa, Waterloo Creek, permanent waterways, natural wetlands, floodplain areas, riparian margins, mature vegetation and connected gullies. Effects on these

features would have greater consequences for natural character, hydrological function and ecological connectivity than effects on improved pasture, constructed ponds or artificial drains.

These effects will be moderated by retaining and enhancing the principal waterways, wetlands, riparian corridors and mature trees where practicable. The wider ecological enhancement area will increase native vegetation cover, strengthen habitat connections and improve the coherence and resilience of the catchment landscape. Suitable large trees and fauna habitat features will further support long term ecological function.

The planted wastewater wetlands, grassed reservoir berms and restoration planting around the infrastructure will contribute additional wetland and native vegetation structure within the northern catchment.

Biophysical effects are assessed as **adverse Moderate-Low to Moderate**. Although physical change will be substantial within the development area, the retained and enhanced ecological network will maintain the underlying catchment structure and moderate effects over time. The local effects associated with the reservoir and treatment platform are included within this rating, subject to detailed design maintaining stream, wetland and floodplain functions.

6.2.2 Effects on Perceptual and Sensory Values

The proposal will change the experience of Milldale 14 – 17 from an open rural and rural edge landscape to a more enclosed and visually complex urban environment. Built form, roofscape, roads, lighting, traffic and domestic activity will reduce rural openness and create a more continuous urban edge north of existing Milldale.

The change will be most apparent from Wainui Road, Cemetery Road, Garvin Road, Upper Ōrewa Road and elevated locations north of the Ōrewa Awa where views currently extend across open pasture and rolling catchment landform. Effects will be less pronounced from locations already influenced by urban development.

Waterway corridors, stormwater areas, parks, reserve edge roads, street trees and revegetation will break up the visual extent of development and retain visible connections with the Site's landform and drainage structure. These elements will soften urban edges and reduce the perceived scale and hardness of built form as planting matures. Perceptual and sensory effects are assessed as adverse Moderate, reducing to **adverse Moderate-Low to Moderate** as the landscape framework establishes. The reservoir and wastewater wetlands will be perceived as naturalised water related features rather than prominent engineered structures. The wastewater treatment and pumping infrastructure will be largely concealed by restoration planting and will use dark, visually recessive materials where visible.

6.2.3 Effects on Associative Values

The proposal will reduce the legibility of farming activity, rural production and rural edge identity and will also alter the readability of the wider cultural landscape. The change from open rural land to urban development will modify relationships between landform, the Ōrewa Awa, tributaries, productive soils and the rural setting, and may affect sight lines and landscape relationships identified by Mana Whenua.

Effects on the Ōrewa Awa extend beyond visual character to its mana, mauri and role as an ancestral waterway. The awa should remain visually and physically legible through generous vegetated separation, ecological restoration, water sensitive design and opportunities for kaitiaki access. The Wainui Cemetery and Wainui Settlers Cemetery interfaces should also retain openness, dignity and vegetated amenity.

Positive associative outcomes may arise through native restoration, improved water quality, cultural naming and interpretation, and Mana Whenua participation in the design of open spaces, bridges and the public realm. These outcomes depend on continued engagement with Te Kawerau ā Maki and Ngāti Manuhiri through detailed design, construction and operation.

From a landscape assessment perspective, associative effects are assessed as **adverse Moderate-Low**. This rating does not replace the cultural effects assessment in the CIA, which should be read alongside this report.

6.3 Contributing factors

The sensitivity of the receiving landscape has been assessed through its susceptibility to the proposed change and its landscape value. Magnitude has been assessed in relation to the size and scale, geographical extent, and duration and reversibility of change.

6.3.1 Sensitivity

6.3.1.1 Susceptibility to Change – **Lower**

Milldale North is a modified rural and rural edge landscape influenced by farming, rural dwellings, roads, utilities, drainage systems and the adjoining Milldale urban area. Its location beside an established growth area provides some capacity to accommodate urban development without fundamentally changing the character of the wider Wainui landscape. Susceptibility is higher around the Ōrewa Awa, Waterloo Creek, wetlands, riparian margins, Significant Ecological Areas, mature vegetation, the cemetery interfaces and the open land north of Wainui Road. It is lower along the southern and eastern edges, where existing development and infrastructure exert a stronger urban influence.

6.3.1.2 The Value of the Landscape – **Lower**

The Site is not identified as an Outstanding Natural Landscape or Outstanding Natural Feature. Its pastoral character and rural edge condition are broadly representative of the wider Wainui growth area. Local landscape value is associated with the Ōrewa Awa, Waterloo Creek, wetlands, riparian margins, mature vegetation, rolling landform, rural openness and the cemetery setting. The CIA identifies higher cultural value associated with the wider Wainui Ōrewa Wēiti cultural landscape, the Ōrewa Awa, wai Māori and related natural resources. These cultural values are not directly equivalent to the landscape rating scale, but indicate higher localised associative value than the surrounding modified pasture.

6.3.2 Magnitude of Change

6.3.2.1 Size/scale – **Higher**

The proposal will replace or modify a substantial area of open pasture and rural production land with up to approximately 1,410 dwellings, roads, infrastructure, stormwater areas, parks, commercial and community activities, and urban planting. This will introduce a finer subdivision pattern, increased built form, lighting, traffic and domestic activity, substantially reducing rural openness. The revegetation and blue green framework will provide beneficial change by increasing native vegetation and strengthening ecological and landscape connections, but will not offset the fundamental rural to urban transformation. The reservoir, wastewater wetlands and treatment infrastructure add localised physical change within the northern catchment, but their low-profile form and landscape integration will limit their contribution to the overall magnitude of change.

6.3.2.2 Geographical extent – **Lower**

The principal effects will occur within the Site and its immediate receiving environment, particularly along Wainui Road, Cemetery Road, the existing Milldale edge, Waterloo Creek and the Ōrewa Awa catchment. The wider influence will be moderated by landform, vegetation, the awa corridor, existing development and the progressive establishment of open space and revegetation.

6.3.2.3 Duration and reversibility - Higher

The change from rural land to urban development will be permanent and not practically reversible. Construction effects will be temporary, but the subdivision pattern, buildings, roads, infrastructure and urban activity will remain. Planting will progressively integrate the development and strengthen its landscape framework, but will not reverse the underlying land use change.

6.4 Overall Landscape Values Effects Rating

The proposal will substantially transform Milldale 14 - 17 from a modified rural and rural edge landscape into an urban residential neighbourhood. The principal adverse effects will arise from the permanent loss of open pasture, rural production character, rural openness and the existing coarse rural landscape pattern.

The magnitude of change is high at the Site scale. However, the effect is moderated by the landscape's Moderate susceptibility and Moderate Low value, its modified and transitional setting, the adjoining Milldale urban area and the anticipated future urbanisation of much of the Site.

The retention and enhancement of the Ōrewa Awa, Waterloo Creek, tributaries, wetlands, riparian margins and floodplain areas will provide a coherent organising framework. Stormwater areas, parks, pedestrian connections, street trees and revegetation will provide separation, visual relief and improved ecological connectivity as the landscape matures. The naturalised reservoir and wastewater wetlands will form additional water related elements within this framework, while required screen planting will obscure the treatment and pumping infrastructure.

Overall landscape effects are assessed as adverse Moderate (More than minor) during construction and initial establishment, reducing to **adverse Moderate-Low (Minor)** over the long term. This landscape rating should be read alongside the CIA and does not represent a separate assessment of cultural effects.

7.0 Landscape Visual Assessment

7.1 Extent and Pattern of Visibility

Milldale Stages 14-17 occupies an undulating rural landscape associated with the Ōrewa Awa and Waterloo Creek catchments. The Site includes open pastoral slopes, lower lying floodplain land, stream and wetland corridors, shelterbelts, mature tree groups, rural dwellings and farm buildings. The combination of open pasture and varied landform allows views towards parts of the Site from nearby roads, rural properties and elevated land surrounding the Ōrewa Awa catchment.

The Zone of Theoretical Visibility indicates that potential visibility is concentrated around the immediate Site interfaces, Wainui Road, Cemetery Road, the western rural landscape, elevated land north of the Ōrewa Awa, Upper Ōrewa Road and parts of the existing Milldale and Silverdale urban area.

The actual visual catchment is more contained and fragmented than the theoretical mapping suggests. Existing landform, shelterbelts, riparian vegetation, mature tree groups, rural dwellings, farm buildings and existing urban development interrupt and filter views. The Site is therefore generally experienced through a sequence of partial, framed or oblique views rather than as a single continuous landscape.

The proposed residential development will be most visible from Cemetery Road and Wainui Road, where existing views extend directly across open pastoral land within the proposed urban development area. Elevated views from Upper Ōrewa Road have a broader relationship with the Site, although built form will be seen at greater distance and behind foreground rural properties, vegetation and proposed revegetation area.

The proposed open space, stormwater, riparian and revegetation framework will reduce the continuity and prominence of the urban built form over time. These landscape elements will retain the legibility of the main waterway corridors, divide the development into smaller visual compartments and provide increasing integration as vegetation establishes. The visual assessment considers the anticipated urban envelope and landscape framework of the illustrative masterplan rather than the detailed appearance of individual buildings. Elevated views may also include the reservoir, wastewater wetlands and parts of the treatment area. The low-profile basins will read as water related landscape features, while restoration planting and dark, recessive finishes will limit the visibility of above ground treatment and pumping infrastructure.

7.2 Viewing Audiences and Representative Viewpoints

The visual assessment is based on 7 representative public viewpoints selected to test the principal viewing conditions around Milldale North:

- Viewpoint 1: Cemetery Road near Wainui Settlers Cemetery.
- Viewpoint 2: Garvin Road near the Wainui Road intersection.
- Viewpoint 3: Wainui Road near Wainui Golf Course.
- Viewpoint 4: Wainui Road at the eastern Site interface.
- Viewpoints 5 and 6: Upper Ōrewa Road north of the Ōrewa Awa.
- Viewpoint 7: Upper Ōrewa Road north west of Milldale North.

The principal viewing audiences include:

- Visitors to Wainui Cemetery and Wainui Settlers Cemetery.
- Nearby rural and rural residential properties.
- Local road users travelling along Wainui Road, Cemetery Road, Garvin Road and Upper Ōrewa Road.
- Users of Wainui Golf Course.
- Residents within the existing and developing Milldale urban area.

Residents and cemetery visitors generally have greater susceptibility to visual change because views may be experienced for longer periods or contribute to the setting and amenity of a place. Road users generally have lower susceptibility because views are transient, although repeated local travel and proximity to the Site increase awareness of change.

Users of Wainui Golf Course experience the landscape as part of a recreational setting. Their susceptibility is moderated where attention is focused on golf activity and where the Site forms only a limited or peripheral part of the available outlook. The viewpoints are representative rather than exhaustive. Some private dwellings may have more sustained or elevated views than those available from adjoining public roads.

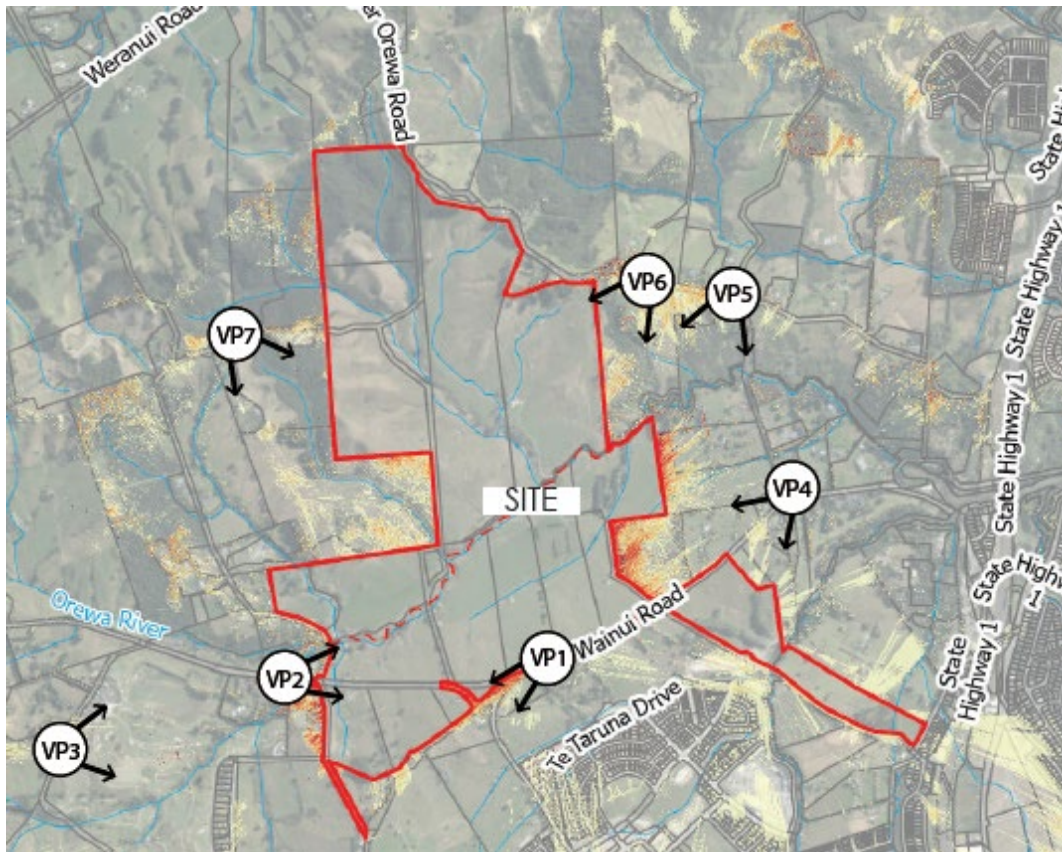


Figure 8. ZTV Viewpoint locations (B&A).

7.3 Viewpoint 1: Cemetery Road

7.3.1 Existing View and Viewing Audience

Viewpoint 1 is located on Cemetery Road adjacent to Wainui Settlers Cemetery. It represents views available to cemetery visitors, local road users and nearby rural properties. The view is directed north and east across the western part of Milldale Stages 14-17. The road descends through the left side of the view, while open pasture occupies much of the foreground and middle ground. Scattered mature trees, shelterbelts, rural dwellings, farm structures and rolling rural landform provide visual structure. The broad sky and open pastoral ground plane contribute to a spacious rural outlook.

The developing Milldale area is visible in the wider distance, but does not currently dominate the view. The immediate visual character remains rural, with a relatively coarse landscape pattern and a strong sense of openness. Cemetery visitors have greater susceptibility to change because the rural setting contributes to the quiet and reflective experience of the place. The view is not identified as a formal scenic viewpoint, but it has local amenity and associative value.



Figure 9. Viewpoint 1 from Cemetery Road (B&A).

7.3.2 Magnitude of Change and Visual Effect VP1

The proposal will replace a substantial part of the open pastoral middle ground with residential development, roads, access areas, parks, stormwater areas, domestic activity and urban planting. The existing coarse rural pattern will become finer, more enclosed and visually complex. The change will be close, readily apparent and permanent. Residential roofscape, streets, lighting and domestic activity will alter the rural outlook and create a more continuous urban relationship between Milldale North and the existing Milldale development.

The magnitude of change will be greatest during earthworks and the initial establishment period, when exposed ground, construction activity, retaining and recently completed buildings will be prominent. Street trees, open space planting and planted interfaces will soften the urban edge over time, but will not retain the existing rural outlook. It is worth noting there is an upgrade to this existing road to an arterial corridor which will introduce significant change to this view.

7.4 Viewpoint 2: Garvin Road near Wainui Road

7.4.1 Existing View and Viewing Audience

Viewpoint 2 is located on Garvin Road near its intersection with Wainui Road. It represents views available to local road users and nearby rural residents. The existing view is directed east across a gently undulating rural landscape. The foreground and middle ground contain pasture, rural fencing, mature pine trees, scattered vegetation and an existing rural dwelling with associated buildings and access. The dwelling, trees and vegetation provide partial enclosure and interrupt broader views across the Site.

The view has a rural residential character rather than an uninterrupted pastoral character. Built elements are already present, but they are dispersed and remain subordinate to the open ground plane, vegetation and broad sky. Road users experience the view briefly, while nearby residents may experience a more sustained outlook. The viewpoint has local amenity value but is not a recognised scenic destination.



Figure 10. Viewpoint 2 from Garvin Road near Wainui Road (B&A).

7.4.2 Viewpoint 2 from Garvin Road near Wainui Road VP2

The proposal will introduce residential development into the pasture and rural land beyond and around the existing dwelling. The view will become more urban in character through the addition of dwellings, roads, roofscape, domestic activity, lighting, stormwater areas and urban planting. The existing dwelling, mature trees and rolling landform will provide some visual containment, and the full development will not be visible from a single location. However, the change from a dispersed rural residential pattern to a more continuous urban neighbourhood will be clear. The reservoir may also be perceptible within the wider western catchment, but its low-profile water form, grassed berms and surrounding planting will limit visual contrast.

7.5 Viewpoint 3: Wainui Road near Wainui Golf Course

7.5.1 Existing View and Viewing Audience

Viewpoint 3 is located on Wainui Road west of the Site, near the western approach to Milldale North. It represents sequential views experienced by local road users and views available from nearby rural properties. The existing outlook is rural in character and includes Wainui Road, road verges, pasture, rural fencing, scattered dwellings, mature trees and shelterbelts. Rolling landform and vegetation frame the view toward the western part of the Site and limit the extent to which the entire development area can be seen from one location.

For road users, the view is experienced briefly as part of the approach toward Wainui Road, Cemetery Road and Milldale. Nearby rural residents have greater susceptibility due to the longer duration of views. The view has local amenity value but is not a recognised destination or formal viewing location. Overall visual sensitivity is assessed as Moderate.



Figure 11. Viewpoint 3 from Wainui Road near Wainui Golf Course (B&A).

7.5.2 Magnitude of Change and Visual Effect VP3

The proposal may be visible in partial or oblique views beyond the golf course and intervening landform and vegetation. It is not expected to occupy the full field of view or become the principal visual focus from this location. Where visible, residential roofscape and urban planting will introduce an urban element into the wider rural and recreational setting. However, the golf course, clubhouse, existing vegetation and local landform will remain the dominant foreground and middle ground features.

The short duration of views for road users and the indirect relationship between the viewpoint and the Site further moderate the magnitude of change.

7.6 Viewpoint 4: Eastern Wainui Road Interface

7.6.1 Existing View and Viewing Audience

Viewpoint 4 is located on Wainui Road near the eastern part of Milldale Stages 14-17. It represents views available to road users, nearby rural residents and people travelling between State Highway 1, Upper Ōrewa Road and Milldale. The viewpoint provides a close and open view north across the eastern part of the Site. Pasture occupies most of the foreground and middle ground, with rural dwellings, farm buildings, fencing, scattered trees and low vegetation distributed across the view. Rolling pastoral hills and vegetation form the background.

Roadside drainage, power lines and rural buildings provide evidence of modification, but the overall view remains open and rural in character. Built form is dispersed and subordinate to the broad pastoral ground plane. The viewing audience is primarily transient road users, although nearby rural dwellings may experience similar views for longer periods. The view has local rural amenity value but is not a recognised scenic viewpoint. It is worth noting there is an upgrade to this existing road to an arterial corridor which will introduce significant change to this view.

7.6.2 Magnitude of Change and Visual Effect VP4

The proposal will introduce residential development across a large part of the close and open view. Dwellings, roads, roofscape, traffic, domestic activity, lighting, open spaces, stormwater areas and urban planting will replace the current pastoral outlook. The change will be front on, close and visually extensive. The existing simple rural composition will become finer grained, more enclosed and more complex. Wainui Road will change from a rural road beside open farmland to an urban movement corridor and principal arrival route into Milldale North. It is worth noting there is an upgrade to this existing road to an arterial corridor which will introduce significant change to this view.

The existing and developing Milldale area and nearby State Highway 1 provide an urban and infrastructure context that moderates the wider contrast. The proposal will be understood as an extension of Milldale rather than a separate urban settlement.



Figure 12. Viewpoint 4 from Wainui Road at the eastern Site interface (B&A).

7.7 Viewpoints 5 & 6: Upper Ōrewa Road

7.7.1 Existing View and Viewing Audience

Viewpoint 5 is located on Upper Ōrewa Road, north of the Ōrewa Awa. It represents elevated views available to road users and nearby rural and rural residential properties. The view is directed south across a foreground rural residential property containing dwellings, accessways, timber fencing, pasture and mature trees. Beyond the foreground property, the landscape falls towards the Ōrewa Awa catchment and extends across rolling rural land towards Milldale North.

Existing vegetation, rural buildings and landform divide the view into a series of layers. The Site is experienced within the middle and longer distance rather than as an uninterrupted foreground landscape. Existing urban development is visible within the wider horizon but remains subordinate to the rural foreground and middle ground. Nearby residents have greater susceptibility to change because the outlook may be experienced from dwellings and outdoor living areas over long periods. Road users experience shorter and intermittent views.



Figure 13. Viewpoint 5 from Upper Ōrewa Road (B&A).

7.7.2 Magnitude of Change and Visual Effect VP's 5 & 6

The residential component of the proposal will introduce a finer pattern of roofscape, roads and urban activity into the middle distance. The rural to urban change will be perceptible across parts of the view, particularly during earthworks and early development when exposed ground and new buildings are most apparent. Distance, foreground dwellings, mature vegetation and the undulating Ōrewa Awa catchment will reduce the prominence of the urban development. The Site will not occupy the entire view and the existing rural foreground will remain an important part of the visual experience. The water and wastewater treatment area and associated wetlands may also be visible within the middle ground during construction and early establishment.



Figure 14. Viewpoint 6 from Upper Ōrewa Road (B&A).

The proposed native revegetation north of and along the Ōrewa Awa will become a prominent middle ground landscape element. In the long-term, as it establishes, it will filter views towards the residential development, increase visual enclosure, strengthen the legibility of the awa corridor and reduce the continuity of visible roofscape. The long-term view will therefore change from a predominantly open rural catchment to a more vegetated awa corridor with urban development visible beyond and between areas of planting.

The wastewater wetlands will read as planted water features within this restored setting. The treatment and pumping infrastructure will use dark, recessive materials and will become largely obscured as the required screen planting establishes, resulting in minimal additional longer term visual effect.

7.8 Viewpoint 7: Upper Ōrewa Road

7.8.1 Existing View and Viewing Audience

Viewpoint 7 is located on Upper Ōrewa Road, on elevated rural land north west of Milldale Stages 14-17. It represents views available to local road users and nearby rural and rural residential properties. The viewpoint provides an elevated and layered outlook across the Ōrewa Awa catchment toward Milldale North and the existing urban area beyond. Dense woody vegetation occupies much of the foreground and lower middle ground, with a group of mature conifer trees and rolling pasture providing enclosure and visual structure through the centre of the view. More open pastoral slopes, rural fencing and scattered trees occur to the right, while distant urban development is visible across the left background.



Figure 15. Viewpoint 7 from Upper Ōrewa Road. (B&A).

The existing view has a predominantly rural and vegetated character. The combination of rolling landform, pasture, gullies, mature vegetation and broad sky creates a spacious outlook, although the view is not entirely open. Intervening vegetation and landform divide the panorama into a series of overlapping landscape layers and limit direct views across the full extent of the Site. Distant urban development is already perceptible but remains subordinate to the rural foreground and middle ground. Road users experience the view briefly and sequentially. Nearby rural residents may experience similar views for longer periods from dwellings and outdoor living areas and therefore have greater susceptibility to visual change. The viewpoint has local rural amenity value but is not understood to be a recognised scenic viewpoint.

7.8.2 Magnitude of Change and Visual Effect VP7

The proposed residential development will be viewed at middle to long distance and will be partly screened by intervening landform, dense woody vegetation and mature tree groups. Where visible, the proposal will introduce a finer pattern of residential roofscape, roads and urban activity into parts of the existing rural outlook. The proposal will not occupy the full field of view. The foreground vegetation, rolling pasture, mature conifer planting and rural landform will remain the principal visual elements, and the proposed development will be seen in the context of existing urban development in the wider background. The principal rural skyline and the layered composition of the view will remain legible. The reservoir, wastewater wetlands and treatment area will occupy a limited part of this broad view and will be subordinate to the surrounding landform and restoration landscape.

Construction earthworks and recently completed dwellings may be more apparent during the initial establishment period because exposed ground and new built form will contrast with the surrounding vegetation and pasture. However, distance and intervening landscape elements will limit their prominence.

The proposed revegetation associated with the Ōrewa Awa and the land north of the awa will become an increasingly important middle ground element. As planting establishes, it will increase vegetation cover, reinforce the landform and waterway pattern, filter views toward the residential development and strengthen the visual coherence of the catchment. The longer-term view will retain a predominantly vegetated rural foreground, with urban development perceived beyond and between areas of planting. Separately, the required screen planting will obscure the wastewater treatment and pumping infrastructure, while the reservoir and planted wetlands will read as part of the broader waterway pattern.

7.9 Summary of Viewpoint Effects

Viewpoint	Visual sensitivity	Magnitude of change	Visual effect
VP1 Cemetery Road	Moderate High	High	Adverse Moderate-low (Minor)
VP2 Garvin Road near Wainui Road	Moderate	Moderate High	Adverse Moderate Low to Moderate (Minor to more than minor)
VP3 Wainui Road near Wainui Golf Course	Moderate	Low	Adverse Low (Less than minor)
VP4 Eastern Wainui Road interface	Moderate	High	Adverse Moderate-low (Minor)
VP6 Upper Ōrewa Road	Moderate High	Moderate	Adverse Moderate Low to Moderate (Minor to more than minor)
VP7 Upper Ōrewa Road, north west of Milldale North	Moderate	Moderate Low	Adverse Low (Less than minor)

Table 4. Visual Effects Summary Table

7.10 Visual Effects Conclusion

The proposal will permanently change visual amenity within the local visual catchment. The greatest effects will occur at Viewpoints 1 and 4, where close, open rural views will become more continuous urban residential outlooks. At Viewpoint 1, effects are elevated by the sensitivity of cemetery visitors and the contribution of rural views to the cemetery setting. At Viewpoint 4, effects reflect the close, open and front on relationship with Wainui Road. However, it is worth noting there is an upgrade to this existing road to an arterial corridor

which will introduce significant change to this view which will reduce the visual amenity values ahead of this part of the development taking place.

Viewpoint 2 will experience a clear rural to urban change, moderated by the existing dwelling, mature trees and rolling landform. Effects at Viewpoint 3 will be lower because views are limited and oblique, with Wainui Golf Course remaining dominant.

From Viewpoints 5 and 7, development will form part of broader elevated views and will be moderated by distance, rural properties, landform, mature vegetation and proposed revegetation along the Ōrewa Awa. The reservoir and wastewater wetlands will have minimal additional visual effect because they will read as naturalised water features, while the treatment and pumping infrastructure will be obscured by the required screen planting and finished in dark, recessive materials.

The proposal will not be uniformly visible or dominant, as landform, shelterbelts, buildings, vegetation and existing development will interrupt views.

7.11 Contributing factors

Refer to Appendix 1 for a detailed outline of the assessment methodology.

7.11.1 Sensitivity

7.11.1.1 Susceptibility to change – **Higher**

Viewing audiences include cemetery visitors, nearby rural and rural residential properties, local road users, Wainui Golf Course users, and residents within existing and developing Milldale. Susceptibility is greatest at Viewpoint 1, where the rural outlook contributes to the quiet and reflective cemetery setting, and at Viewpoints 5, 6 and 7, where residents may experience sustained elevated views across the Ōrewa Awa catchment. Residents near Viewpoints 2 and 4 may also value the existing pastoral outlook.

Road users have lower susceptibility because views are brief and sequential. Golf course users are more aware of the landscape setting, although their attention is also directed toward recreation and the Site occupies only part of the outlook. The low-profile reservoir and wastewater wetlands will not materially increase the visual scale of change, and the above ground treatment and pumping infrastructure will be visually contained by restoration planting and recessive finishes.

7.11.1.2 Value attached to views – **Lower**

Views toward Milldale North have local amenity value through their openness, pastoral character, rolling landform and rural edge qualities. This is most evident from Cemetery Road, Garvin Road and Upper Ōrewa Road. Views from Wainui Cemetery and Wainui Settlers Cemetery also have local associative value, while elevated views contribute to the amenity of nearby rural properties. However, the viewpoints are not formally recognised scenic views and have no known regional or national significance.

7.11.2 Magnitude of Change

7.11.2.3 Size and scale – **Higher**

The proposal will substantially change views from the closest and most open locations. At Viewpoints 1 and 4, pasture will be replaced by housing, roads, roofscape, traffic, open spaces, stormwater areas and urban planting, creating strong contrast with the existing rural landscape. Change will also be clear at Viewpoint 2, although buildings, trees and landform provide some containment. At Viewpoints 5 and 7, distance, vegetation and landform reduce the visible extent of development. Change at Viewpoint 3 will be limited and oblique, with Wainui Golf Course remaining dominant.

Planting, open space and revegetation will divide the development into smaller visual areas and soften built form, but will not retain the rural outlook.

7.11.2.4 Geographical extent – Higher

The visual catchment extends across nearby roads, rural land around the Ōrewa Awa and parts of Milldale and Silverdale. Actual visibility is more fragmented due to landform, vegetation, rural buildings and existing development.

The greatest change will occur from Cemetery Road and eastern Wainui Road. Effects from Garvin Road and Upper Ōrewa Road will be moderated by distance and intervening features, while visibility near the golf course will be limited.

7.11.2.5 Duration and reversibility – Higher

The visual change will be permanent. Construction effects will be temporary, but the urban land use, buildings, roads and subdivision pattern will remain. Planting and revegetation will reduce visual contrast and soften roofscape over time, but the change from rural to urban outlook will remain evident. Visibility of the treatment and pumping infrastructure will reduce substantially as restoration planting matures, while the reservoir and wastewater wetlands will remain as integrated water related landscape features.

7.12 Visual Effects Rating

Overall visual effects are assessed as adverse Moderate, with localised adverse Moderate High effects at Viewpoints 1 and 4 during establishment. These are expected to reduce overall to **adverse Moderate-Low (Minor)** as the landscape framework matures. The reservoir, wastewater wetlands and visually screened treatment and pumping infrastructure have a minimal incremental visual effect and do not alter these ratings.

8.0 Conclusion

The proposal will substantially and permanently transform Milldale Stages 14-17 from a modified rural and rural edge landscape into an urban residential neighbourhood. The principal adverse effects will arise from the loss of open pasture, rural production character, rural openness and the existing coarse landscape pattern, together with the introduction of residential built form, roads, roofscape, traffic, lighting and domestic activity.

These effects are moderated by the transitional receiving environment, the relationship with the existing and developing Milldale urban area, and the landscape framework embedded within the proposal. The reservoir, wastewater wetlands and treatment infrastructure are also integrated within the northern restoration landscape rather than presented as isolated engineered elements.

The effects are summarised as follows:

- Landscape effects are assessed as adverse Moderate during construction and initial establishment, reducing to **adverse Moderate-Low** as open spaces, riparian planting, street trees, stormwater areas and revegetation mature.
- Visual effects are assessed as adverse Moderate overall during construction and establishment, reducing to **adverse Moderate-low** effects as planting establishes within the development.
- Overall landscape and visual effects are assessed as adverse Moderate during construction and establishment, reducing to **adverse Moderate-Low** over the longer term.

The proposal will remain perceptible as a substantial rural to urban change but will not be uniformly visible or dominant throughout the wider receiving environment. Effects will be concentrated around Cemetery Road, the Wainui Road interfaces and parts of Upper Ōrewa Road, reducing where distance, landform, mature vegetation, rural buildings and existing urban development intervene. The reservoir and wastewater wetlands may be visible from some elevated and western viewpoints but will read as water related landscape features. The wastewater treatment and pumping infrastructure will be largely concealed by restoration planting and dark, recessive materials. The landscape and visual ratings should also be read alongside the CIA, particularly its findings regarding the wider cultural landscape, Ōrewa Awa, wai Māori, productive soils and ongoing kaitiakitanga.

8.1 Mitigation Encapsulated in the Proposal

The assessment ratings take account of the following measures that are integral to the proposal:

- A development pattern that extends the existing Milldale movement network and urban structure rather than forming an isolated urban area.
- Retention of the Ōrewa Awa, Waterloo Creek and some tributaries, wetlands, riparian margins and floodplain areas as primary landscape organising elements.
- Integration of stormwater management areas, neighbourhood parks, open spaces and pedestrian and cycle connections within a connected blue green framework.
- Extensive native revegetation and ecological enhancement associated with the Ōrewa Awa and adjoining rural production land.
- Riparian and wetland enhancement that will strengthen the legibility, natural character and visual continuity of the waterway corridors.
- The water reservoir and wastewater wetlands shaped as low profile water features with grassed berms, wetland planting and native restoration planting that connect with the river terrace and wider catchment pattern.
- Required screen planting arranged around the wastewater treatment and pumping infrastructure to obscure and largely conceal buildings, tanks, access and service areas from surrounding roads, residential areas and elevated rural viewpoints.
- Dark and visually recessive materials for above ground treatment and pumping infrastructure, together with low level, downward directed lighting and controlled spill.
- Street trees, open space planting and landscape treatment that will divide the development into smaller visual compartments and reduce the continuity of roofscape.
- Landscape separation between residential development and the Ōrewa Awa corridor.
- Progressive establishment of planting alongside the staged development of Milldale North.
- Development design guidelines.

These measures are fundamental to the assessed outcome. Without the proposed open space, riparian, stormwater and revegetation framework, the landscape and visual effects would be greater.

Appendix 1 Landscape Assessment Methodology

Contributing Factors		Higher	Lower
Sensitivity	Susceptibility to change	The landscape is strongly distinctive with important biophysical, sensory, and associative aspects. There is an absence of landscape detractors which make it highly vulnerable to the type of change which would result from the proposed development.	The landscape lacks any distinctive biophysical, sensory, or associative aspects. It has many detractors and can accommodate the proposed development without undue consequences to landscape character.
	The value of the landscape	The landscape requires protection as a matter of national importance (ONF/L).	The landscape is of low or local importance.
Magnitude of Change	Size or scale	Total loss or addition of key features or elements. Major changes in the key characteristics of the landscape, including significant aesthetic or perceptual elements.	Most key features or elements are retained. Key characteristics of the landscape remain intact with limited aesthetics or perceptual change apparent.
	Geographical extent	Landscape character area scale.	Site scale, immediate setting.
	Duration and reversibility	Permanent. Long term (over 10 years).	Reversible. Short Term (0-5 years).

Table 1: Determining the significance of landscape effects

Contributing Factors		Higher	Lower
Sensitivity	Susceptibility to change	Views from dwellings and recreation areas where attention is typically focussed on the landscape.	Views from places of employment and other places where the focus is typically incidental to its landscape context.
	Value attached to views	Viewpoint is recognised by the community such as identification on tourist maps or in art and literature. High visitor numbers.	Viewpoint is not typically recognised or valued by the community. Infrequent visitor numbers.
Magnitude of Change	Size or scale	Loss or addition of key features in the view. High degree of contrast with existing landscape elements (i.e. in terms of form scale, mass, line, height, colour, and texture). Full view of the proposed development.	Most key features of view retained. Low degree of contrast with existing landscape elements (i.e. in terms of form scale, mass, line, height, colour, and texture). Glimpse / no view of the proposed development.
	Geographical extent	Front on views. Near distance views; Change visible across a wide area.	Oblique views. Long distance views. Small portion of change visible.
	Duration and reversibility	Permanent. Long term (over 15 years).	Transient. Short Term (0-5 years).

Table 2: Determining the significance of visual effects

Nature of effect	Use and Definition
Adverse (negative):	The proposed development would be out of scale with the landscape or at odds with the local pattern and landform which results in a reduction in landscape and visual values
Neutral (benign):	The proposed development would complement (or blend in with) the scale, landform and pattern of the landscape maintaining existing landscape and visual values
Beneficial (positive):	The proposed development would enhance the scale, landform and pattern of the landscape, improving the landscape and visual quality through removal of damage caused by existing land uses or addition of positive features

Table 3: Determining the nature of effects

Effect Rating	Use and Definition
Very High:	Total loss to the characteristics or key attributes of the receiving environment and /or visual context amounting to a complete change of landscape character.
High:	Major change to the characteristics or key attributes of the receiving environment and /or the visual context within which it is seen; and/or a major effect on the perceived amenity derived from it.
Moderate-High:	A moderate - high level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate - high level of effect on the perceived amenity derived from it.
Moderate:	A moderate level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a moderate level of effect on the perceived amenity derived from it.
Moderate -Low:	A moderate - low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have moderate - low level of effect on the perceived amenity derived from it.
Low:	A low level of effect on the character or key attributes of the receiving environment and/or the visual context within which it is seen; and/or have a low effect on the perceived amenity derived from it.
Very Low:	Very low or no modification to key elements/ features/ characteristics of the baseline or available views, i.e. approximating a 'no change' situation.

Table 4: Determining the overall significance of landscape and visual effects

Zone of Theoretical Visibility (ZTV) mapping

Zone of Theoretical Visibility (ZTV) describes the area over which a structure or development can theoretically be seen, based on a Digital Terrain Model (DTM). ZTV mapping is also commonly referred to as a Zone of Visual Influence (ZVI), Visual Envelope Map (VEM), or viewshed map. ZTV outputs are typically presented as a transparent coloured overlay on a topographic base, where the coloured areas indicate locations from which the modelled built form has a theoretical line of sight.

For Milldale North, ZTV mapping was prepared as a desk based visibility tool to establish the likely extent and distribution of views toward the masterplan and to support a transparent and representative viewpoint selection process. The mapping tested the anticipated residential envelope across the Site, with emphasis on development within open and elevated parts of the Ōrewa Awa catchment.

The reservoir, wastewater wetlands and treatment infrastructure were considered through the field based assessment, recognising their low profile forms, integration with the riparian and restoration framework, and the use of dark, recessive finishes for above ground elements.

1. Method and Data

- Software: ArcGIS Pro Viewshed tool.
- Terrain surface: LiDAR derived digital terrain model using a 1 m grid.
- Surface assumption: Bare earth terrain only, excluding vegetation, buildings and temporary construction elements. This represents a high visibility scenario rather than actual on the ground visibility.
- Observer eye height: 1.7 m, representing a typical standing viewer.
- Targets modelled: Representative target heights for the anticipated residential envelope were combined into a composite ZTV across the development.
- Curvature and atmospheric refraction were excluded, reflecting the local scale of assessment.

2. How the ZTV was Used

The composite ZTV identified public corridors and receptor areas where views were most likely to occur, including:

- Wainui Road, Cemetery Road and adjoining properties;
- Garvin Road and the western rural landscape;
- Upper Ōrewa Road and elevated land north of the Ōrewa Awa; and
- the existing and developing Milldale urban area and parts of Silverdale.

In the Milldale North context, undulating landform, waterway valleys, shelterbelts, riparian vegetation and existing development create a fragmented visual catchment. The ZTV was used to:

- identify where visibility was likely or unlikely before detailed viewpoint assessment;
- inform the selection of representative viewpoints;
- test potential visibility beyond the immediate Site context; and
- support assessment of static views and sequential road corridor views.

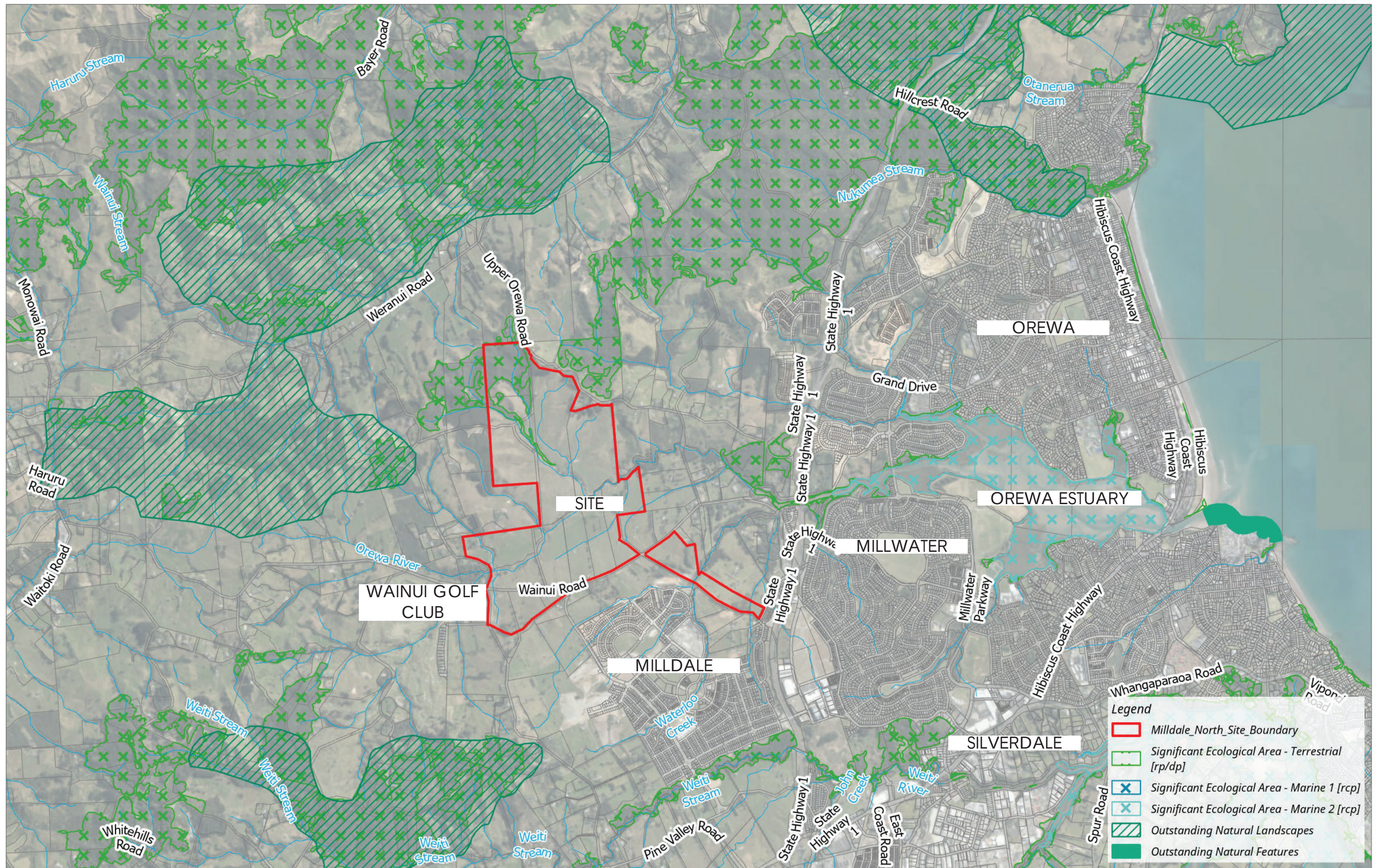
3. Limitations

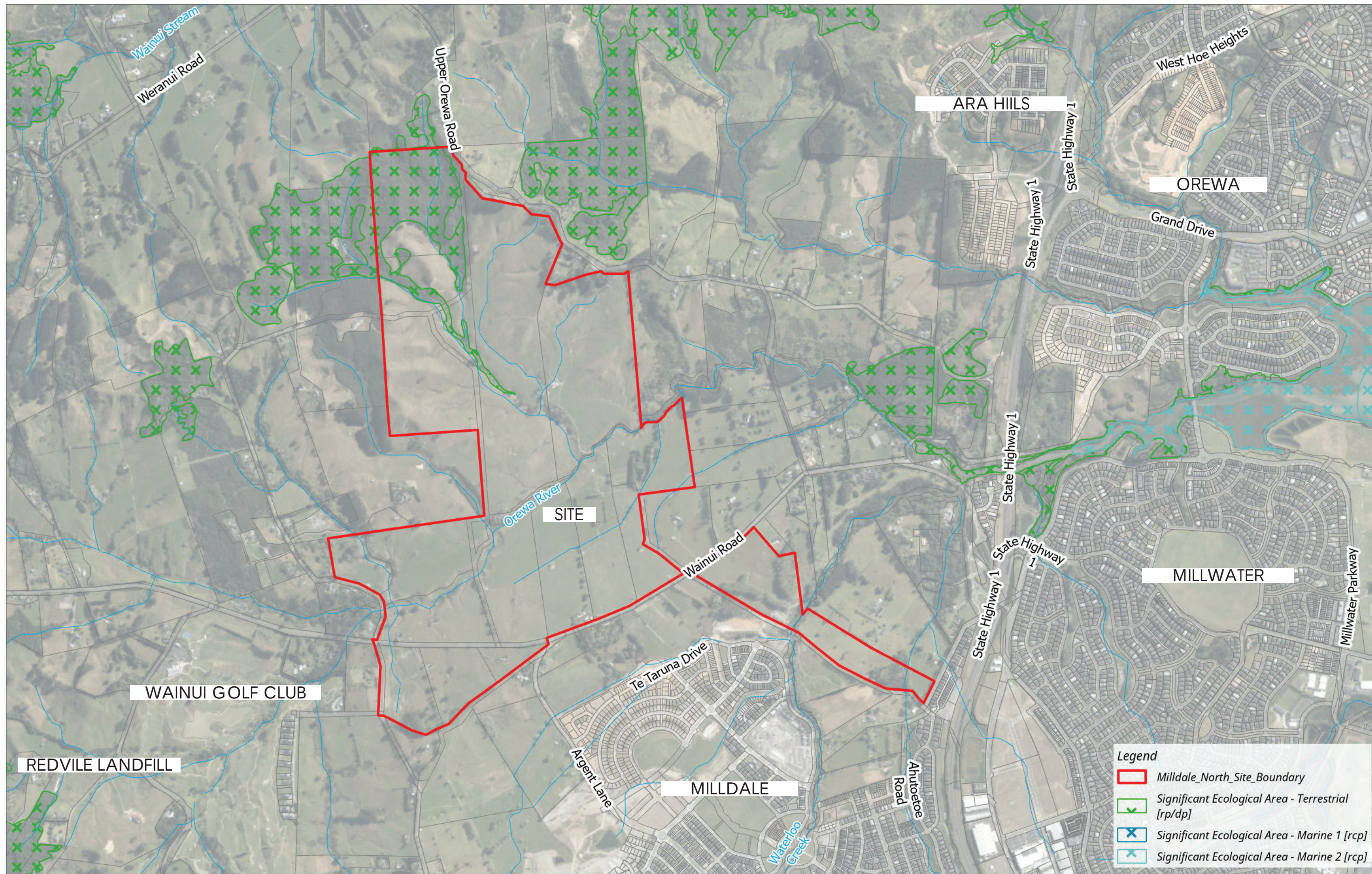
ZTV mapping is a useful input to landscape and visual assessment, but it has important limitations:

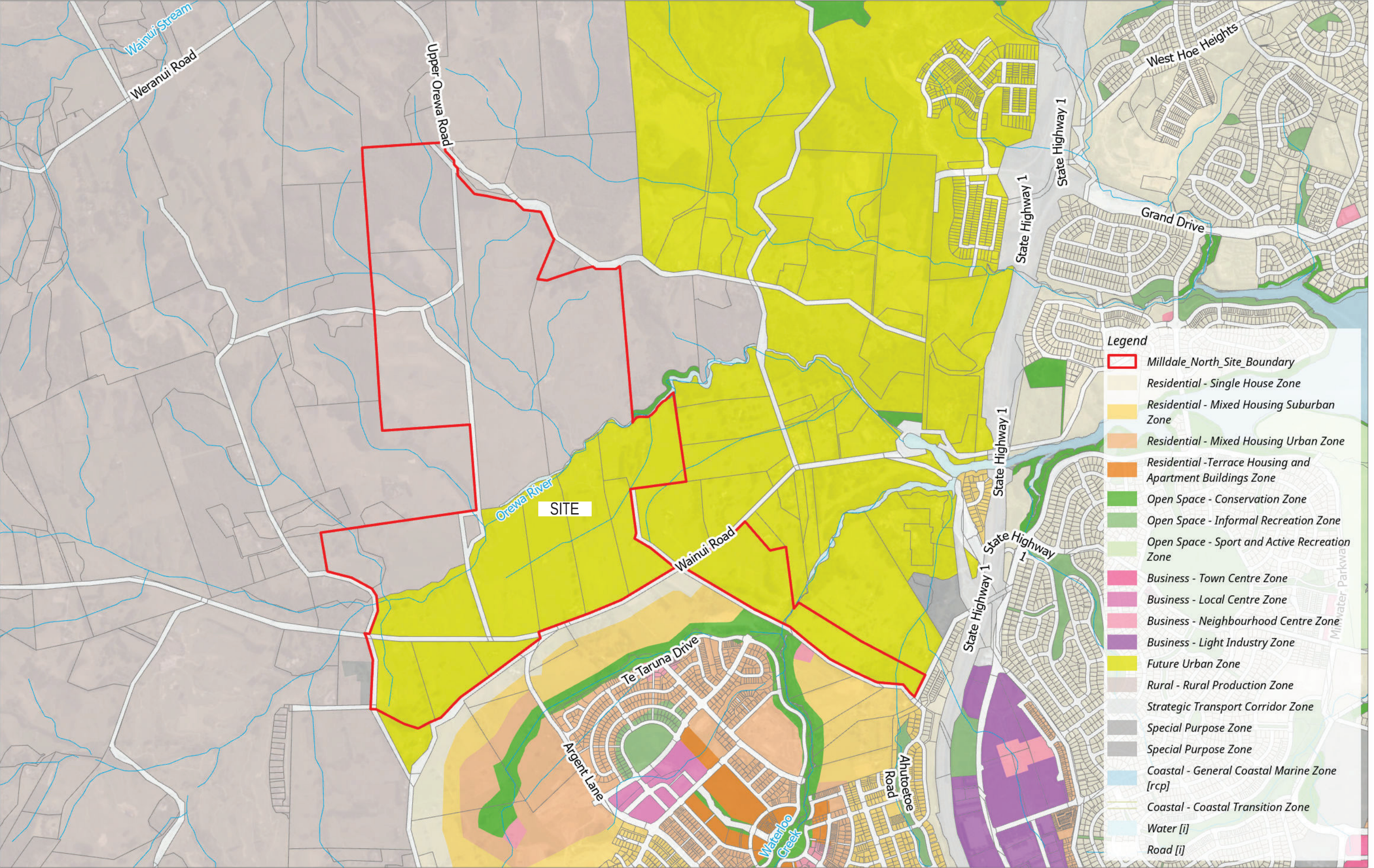
- It represents theoretical line of sight only. Actual visibility is often reduced or fragmented by undulating landform, shelterbelts, riparian and roadside vegetation, mature trees, rural buildings and existing urban development.
- It does not capture viewing experience or effects such as view duration, prominence, dominance, contrast or audience sensitivity, and does not represent how visibility may change as planting establishes.
- It does not account for distance decay, including the reduced perceptual influence of distant elements where theoretical visibility exists.

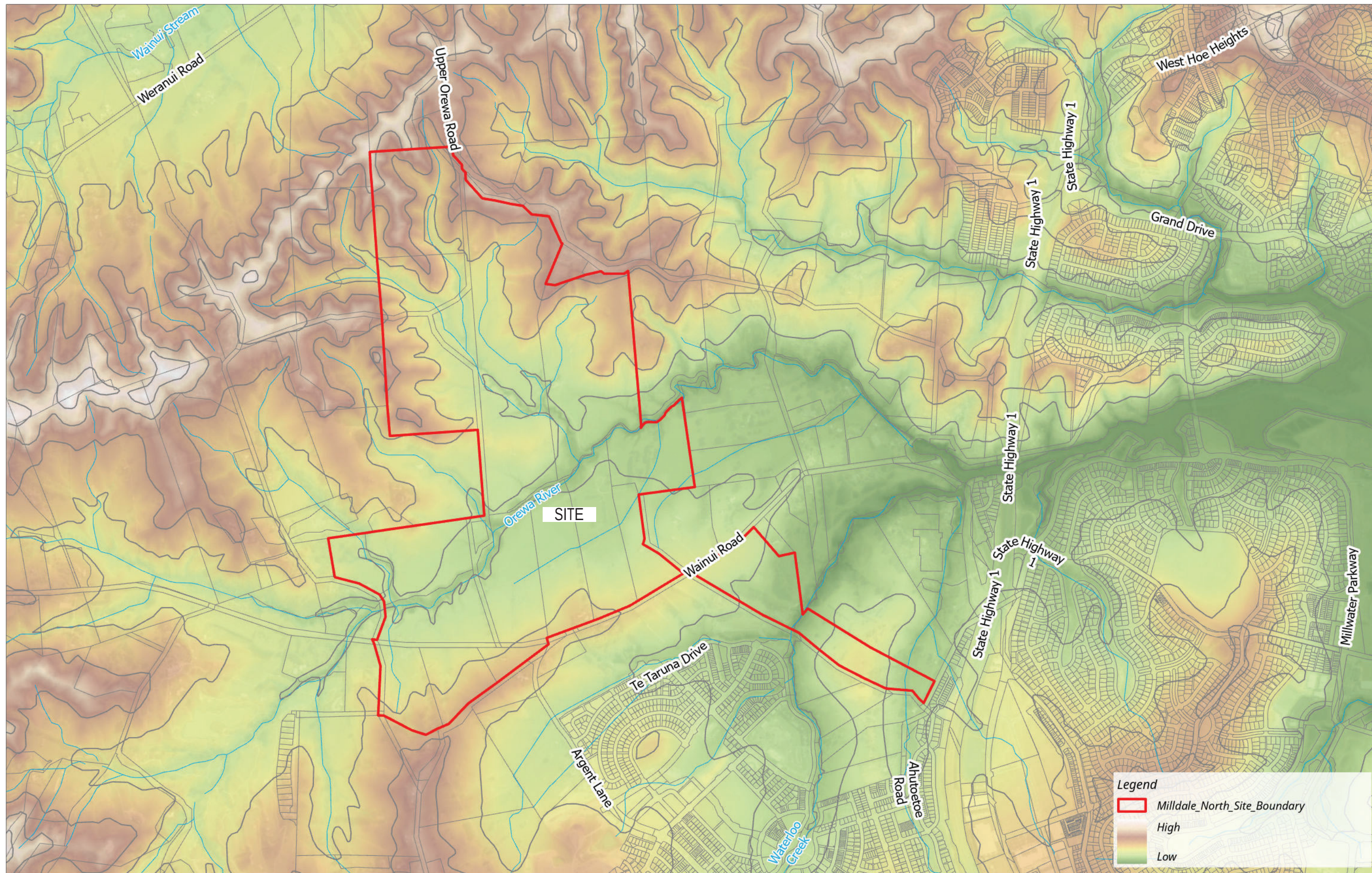
Accordingly, the ZTV was used as an input to the visual assessment rather than as a substitute for field based judgement. Predicted visibility was ground checked through site visits to confirm actual viewing conditions, viewing audiences and the perceptual context of views. Fieldwork was undertaken in July 2026 and was supported by standard lens photography.

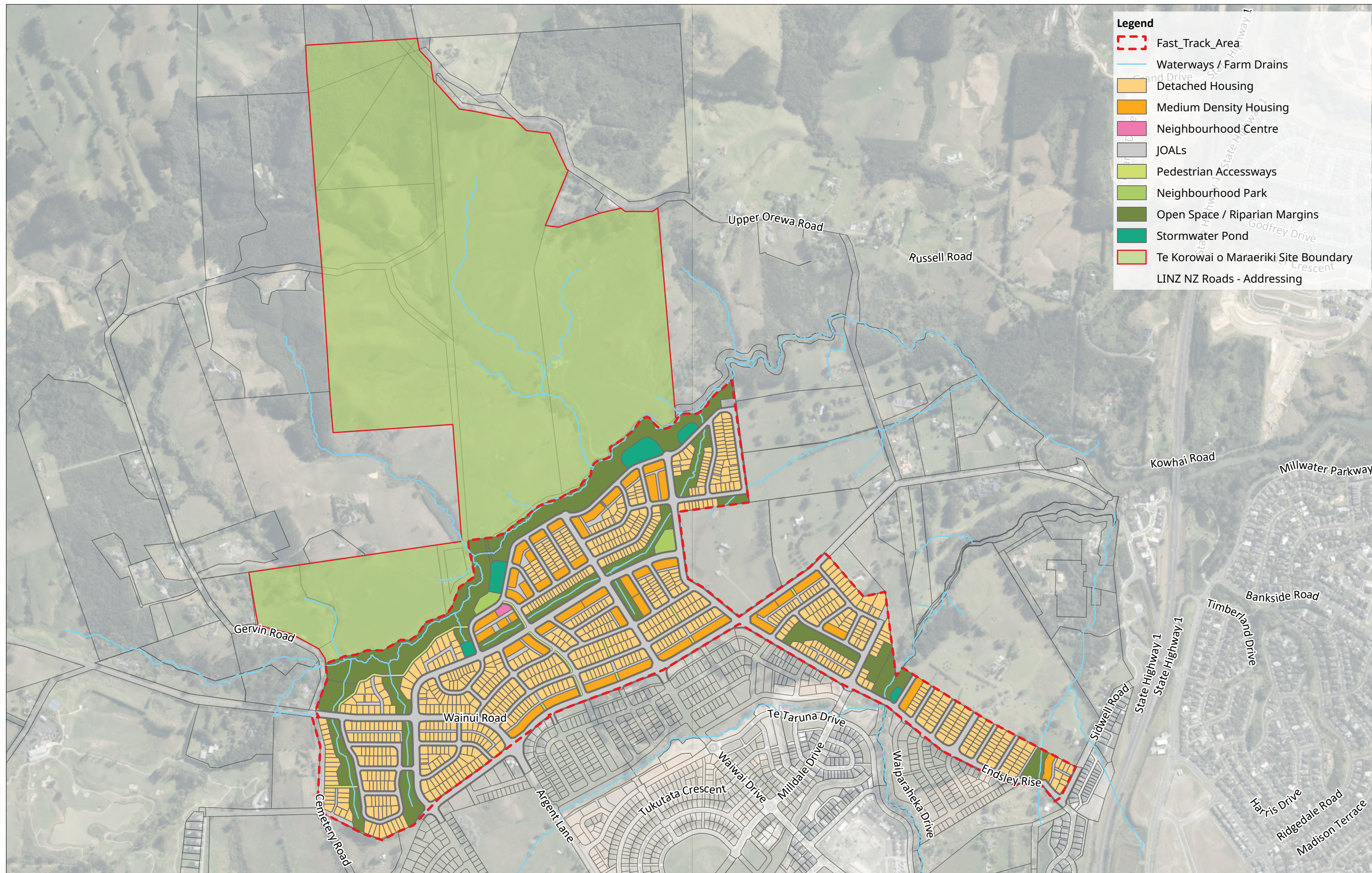
Appendix 2 Maps & Photographs

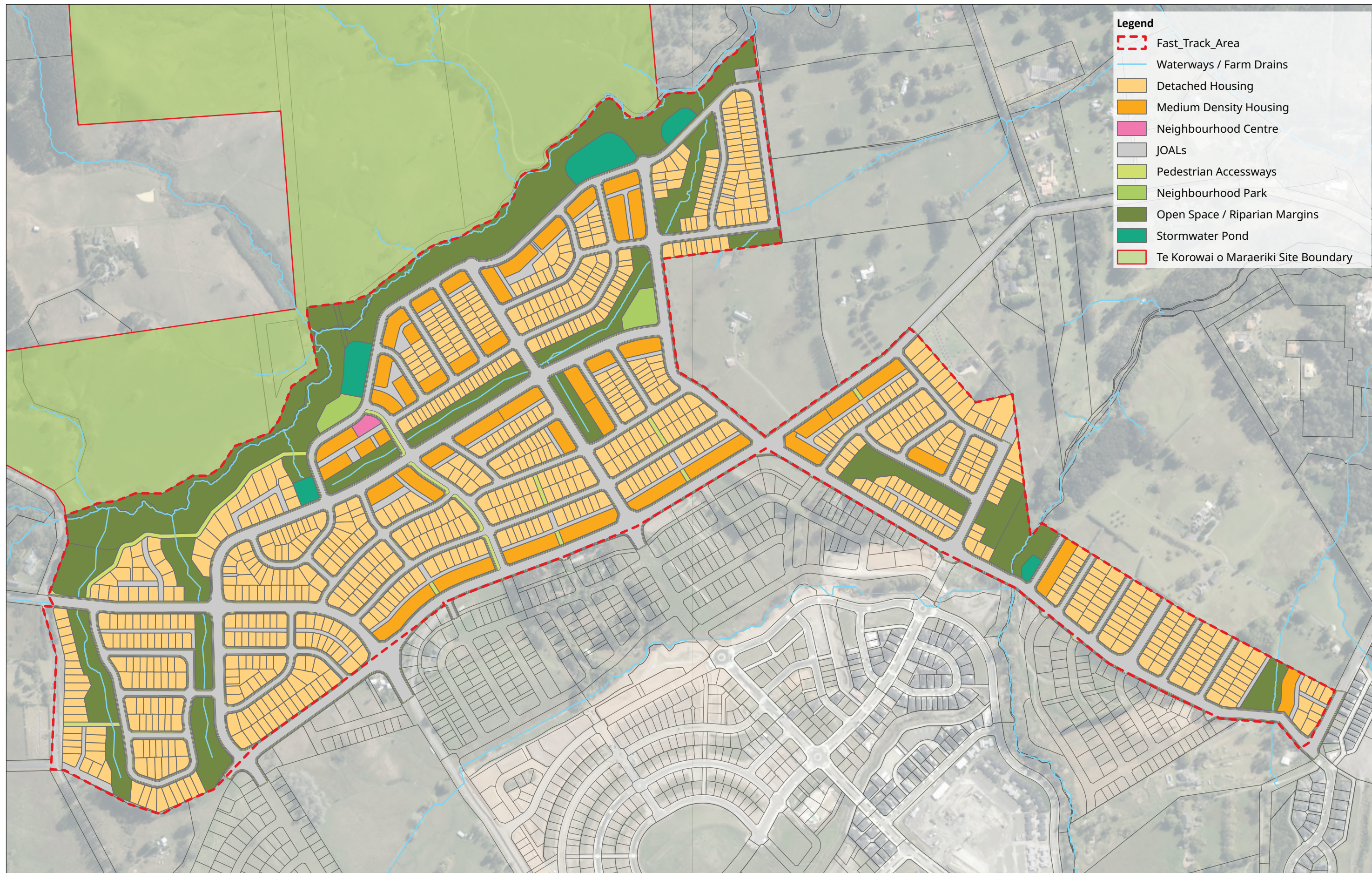


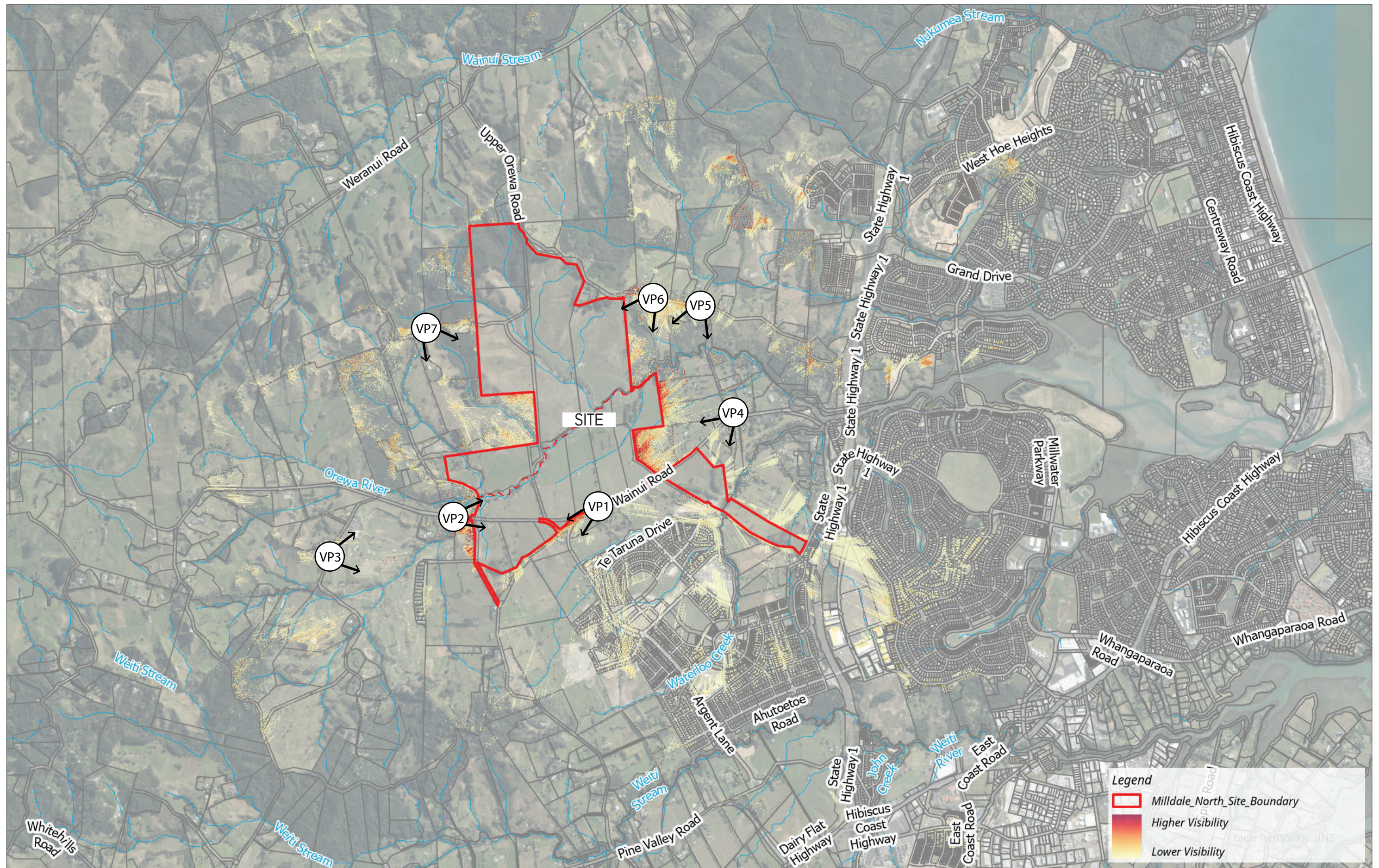














VP1



VP2



VP3



VP4



VP5



VP6



VP7