Waitakere Farms Limited

Seven stage subdivision comprising a boundary adjustment followed by a fee simple, in-situ, 40 lot rural/residential subdivision enabled by comprehensive native ecosystem restoration and enhancement

131-149 Anzac Valley Road, Waitakere

Updated Following Section 92 information requests

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1.0 Executive Summary

1.1 Proposal

This application by Waitakere Farms Limited ("the applicant") relates to a proposal to undertake a staged, 40 lot cluster style rural/residential subdivision of land within the Rural - Waitakere Foothills zone. The subdivision would see the creation of 40 new rural/residential lots over seven stages, enabling significant ecological restoration to occur across the approximately 52 hectare site.

The subdivision is based on the notion of *quid pro quo*, where the applicant is seeking additional development/subdivision rights in exchange for significant environmental enhancements on the site. The proposal would enable (as a type of *quid pro quo*) implementation of a site-wide plant and animal pest management strategy, to achieve natural regeneration of native vegetation and enhancement of natural features such as watercourses and wetland features, alongside a system of reinstatement (replanting) of native plant cover where natural regeneration is absent or limited. The additional density afforded to the development would see a total of approximately **37.33** hectares of land proposed for restoration and permanent legal protection. This land consists of a mosaic of native forest (both SEA (3.80 ha) and non-SEA land (2.43 ha), native shrubland (2.35 ha), wetland remnants (1.03 ha) with a combined total of 9.61 hectares, and additional restoration areas comprising of cut-over ex-pine forestry land (27.72 ha).

The revegetated entire area, comprising just under 40 hectares, would be protected in-perpetuity by way of protective land covenants.

The site has a long and complex history and has historically been used as a productive forestry block, with the plantation forest recently harvested (the summer of 2018/2019) leaving the site in a degraded state, with limited ecological value. This proposal will retire the land from its present forestry use to enable rural/residential subdivision of the site, together with the proposed restoration planting.

The rural landscape character of the site although changing from a productive forestry block to a rural/residential 'bush living' type of environment as a result of the proposal, will be maintained. The final design of the subdivision is the result of an iterative process which reflects inputs from a range of experts (landscape architects, geotechnical specialists, ecologists, and restoration specialists) to achieve the best outcome. The subdivision design incorporates a combination of the following factors:

- a carefully considered clustered lot layout which takes advantage of the relatively visually contained, basin-like nature of the site which limits public views into the site; and
- the use of the existing lawful network of forestry roads for access into the site which minimises the visual impact by avoiding the creation of any new roads on the existing landscape; and
- the use of the site's natural topography/undulations of the land which visually contain the clusters, and
- the significant extent of planned ecological restoration/revegetation (including screen vegetation along key site boundaries) and
- the inclusion of restrictive controls on future built development (which seek to further minimise the visual impact of future dwellings); and
- limits on the number of lots proposed across the upper-most slopes of the site
- management of the site wide restoration through the establishment of an Incorporated Society to ensure the on-going maintenance requirements contained within the Restoration Plan and Pest Management Plan are met.

The biodiversity and ecological benefits of the proposed subdivision will be high, enabling the protection, enhancement and expansion of existing indigenous vegetation and ecosystems on the site through enhancement of stream corridors and wetlands and extensive rehabilitation/regeneration of native vegetation across 37.49 hectares. The ecological restoration secured as part of the development would strengthen the site's ecological connection with the Waitakere Ranges and support key biodiversity initiatives on adjacent sites (ARK in the Park) and across the wider Auckland region (North-West Wildlink). The combined restoration programme will have significant positive outcomes for local indigenous flora and fauna and provide additional ecological benefits such as water quality enhancement and erosion protection.

It has been determined that suitable stable building platforms can be established, with safe vehicle access to each proposed site. All sites can be provided with site services and the overall development will manage the effects of downstream flooding. The building platforms have been designed to minimise effects an adjacent sites through the placement of the proposed clusters, restrictions on building platforms and heights (in some cases) and through screen planting. The nature of the site is such the proposed clusters will be well separated from adjacent sites.

The following assessment concludes that, subject to conditions of consent, any adverse actual or potential environmental effects will be no more than minor and that the

proposal will secure significant ecological gains. In addition, the report finds that this development would not be contrary to the objectives and policies of the Auckland Unitary Plan, the Waitakere Ranges Heritage Area Act, or the National Policy Statement: Freshwater Management.

1.2 Activity Status

The proposal requires consent as a **Discretionary Activity** under the Auckland Unitary Plan (Operative in Part) and also requires consent as a **Non-Complying Activity** under the recently introduced National Environmental Standards for Freshwater (2020).

The activity status of the application is therefore **Non-Complying Activity** overall.

2.0 The Applicant and Property Details

Applicant:	Waitakere Farms Limited
Address for Service:	C/- Campbell Brown Planning Limited P O Box 147001 Ponsonby AUCKLAND 1144 Attention: Michael Campbell Email: michael@campbellbrown.co.nz *(all written correspondence via email please)*
Location:	131-149 Anzac Valley Road, Waitakere
Legal Description:	Lot 1 DP 320387
Site Area:	51.4860 hectares
Unitary Plan Zoning:	Rural – Waitakere Foothills Zone
Unitary Plan Overlays:	Natural Resources: Significant Ecological Areas Overlay – SEA_T_2011, Terrestrial Natural Resources: Significant Ecological Areas Overlay – SEA_T_4637, Terrestrial Natural Resources: Significant Ecological Areas Overlay – SEA_T_5539, Terrestrial Natural Resources: High Use Aquifer management Areas Overlay – Kumeu - Waitemata Aquifer Natural Heritage: Outstanding Natural Landscapes Overlay – Area 73, Waitakere Ranges and Coastline Natural Heritage: Waitakere Ranges Heritage Overlay – Extent of Overlay Natural Heritage: Ridgeline Protection Overlay – Natural Infrastructure: Quarry Buffer Area Overlay

Unitary Plan Controls:	Controls: Macroinvertebrate Community Index – Exotic, Native, Urban.
Unitary Plan Designations:	Designations: Designations – 418 Regional Park (Waitakere Ranges Regional Parkland) Designations: Airspace Restriction Designations – ID4311, Defence Purposes – protection of approach and departure paths (Whenuapai Airbase)
Road Classification	Local

3.0 Site Location

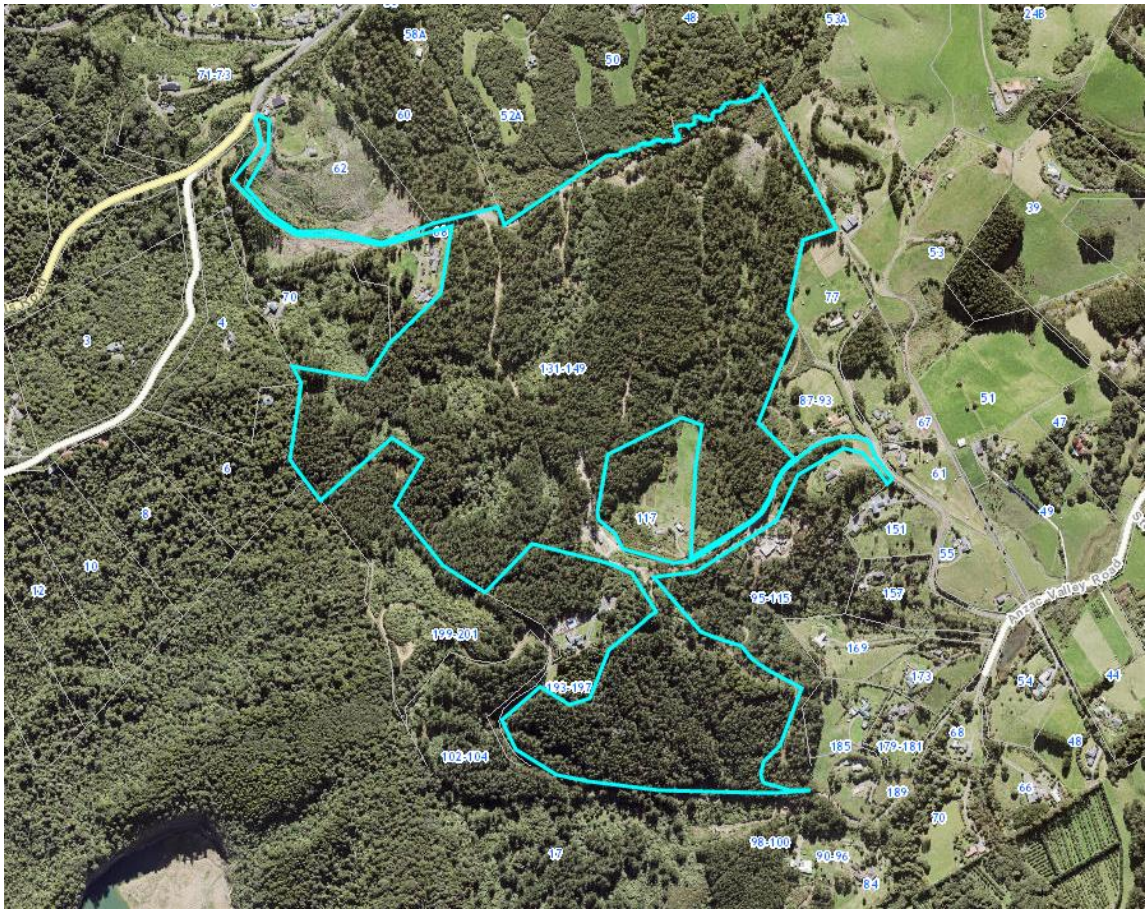


Figure 1: Aerial photo of subject site at 131-149 Anzac Valley Road, Waitakere (Source: Auckland Council Geomaps)

4.0 Description of the Existing Environment

4.1 Zoning and Overlays

The site is located within the Rural – Waitakere Foothills Zone (refer Figure 1, below). The Rural – Waitakere Foothills Zone is described in Chapter H20 of the AUP (OIP) as covering *"the area between the developed, urban part of Auckland and westward to the bush-covered part of the Waitakere Ranges……It forms a visual buffer between metropolitan Auckland and the bush-clad core of the heritage area……Limited settlement is allowed where it does not cause adverse effects on the heritage features."*[1] The site is bounded by properties within the same zone or within the Rural - Waitakere Ranges Zone. Land beyond, to the south-west, contains ARK in the Park, which forms part of the Waitakere Ranges Regional Parkland, zoned Open Space – Conservation Zone.

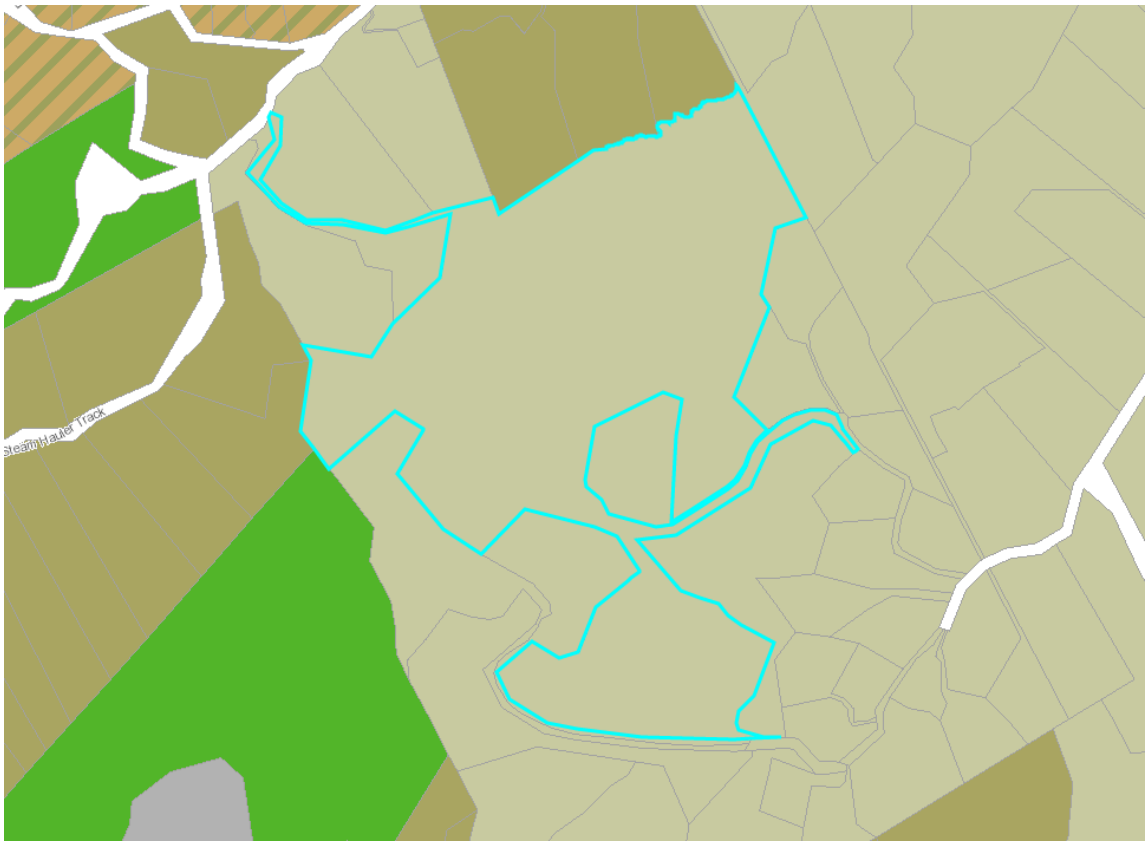


Figure 2 AUP (OIP) Zoning Plan (Source: Auckland Council GeoMaps)

[1] Section H20.1 Zone Description (Page 1) – Rural Waitakere Foothills Zone

The site is subject to a number of overlays as outlined below:

- Outstanding Natural Landscapes Overlay

This Overlay affects only a very narrow corner of the property (Green Hatching) as indicated in Figure 3, below.

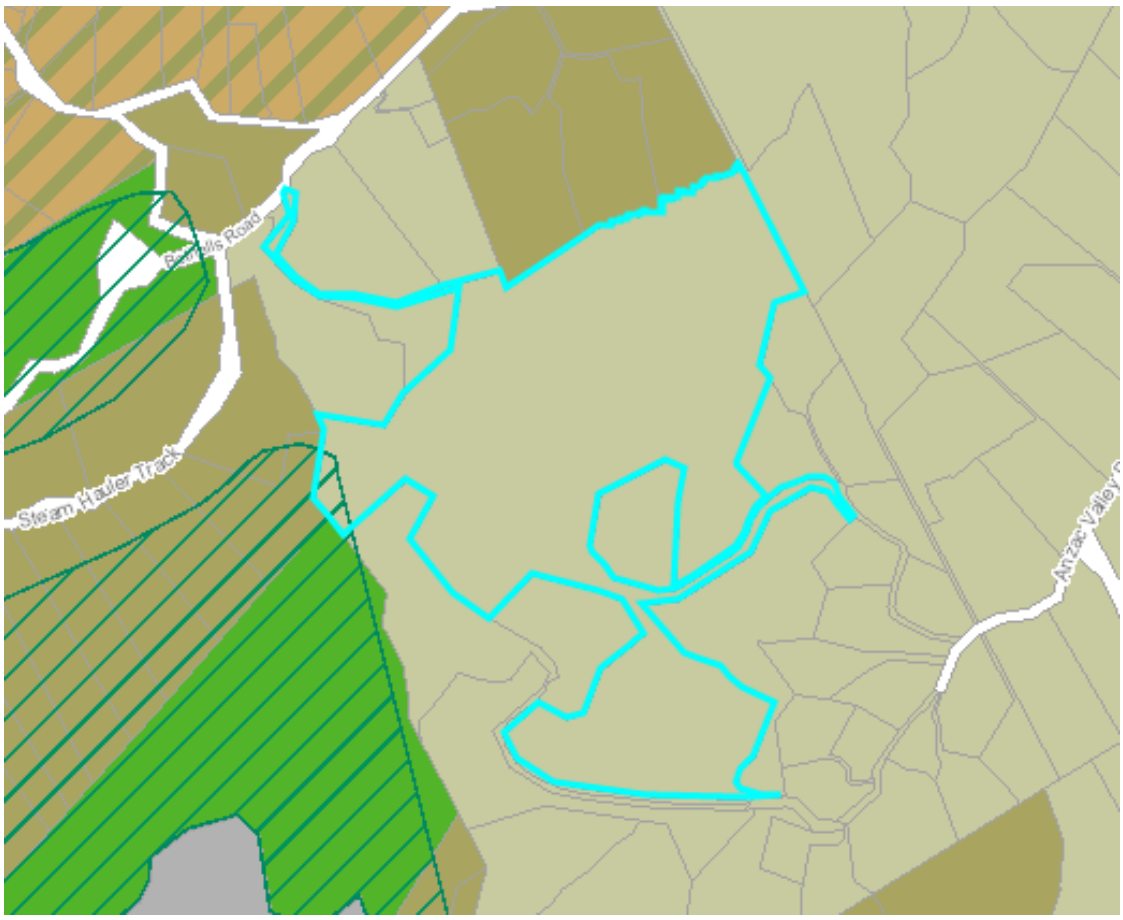


Figure 3 - Natural Heritage – Outstanding natural Landscapes overlay (ONLO)

- Ridgeline Protection Overlay – Natural

This overlay, affects two very narrow segments of the site, as indicated in Figure 4, below.

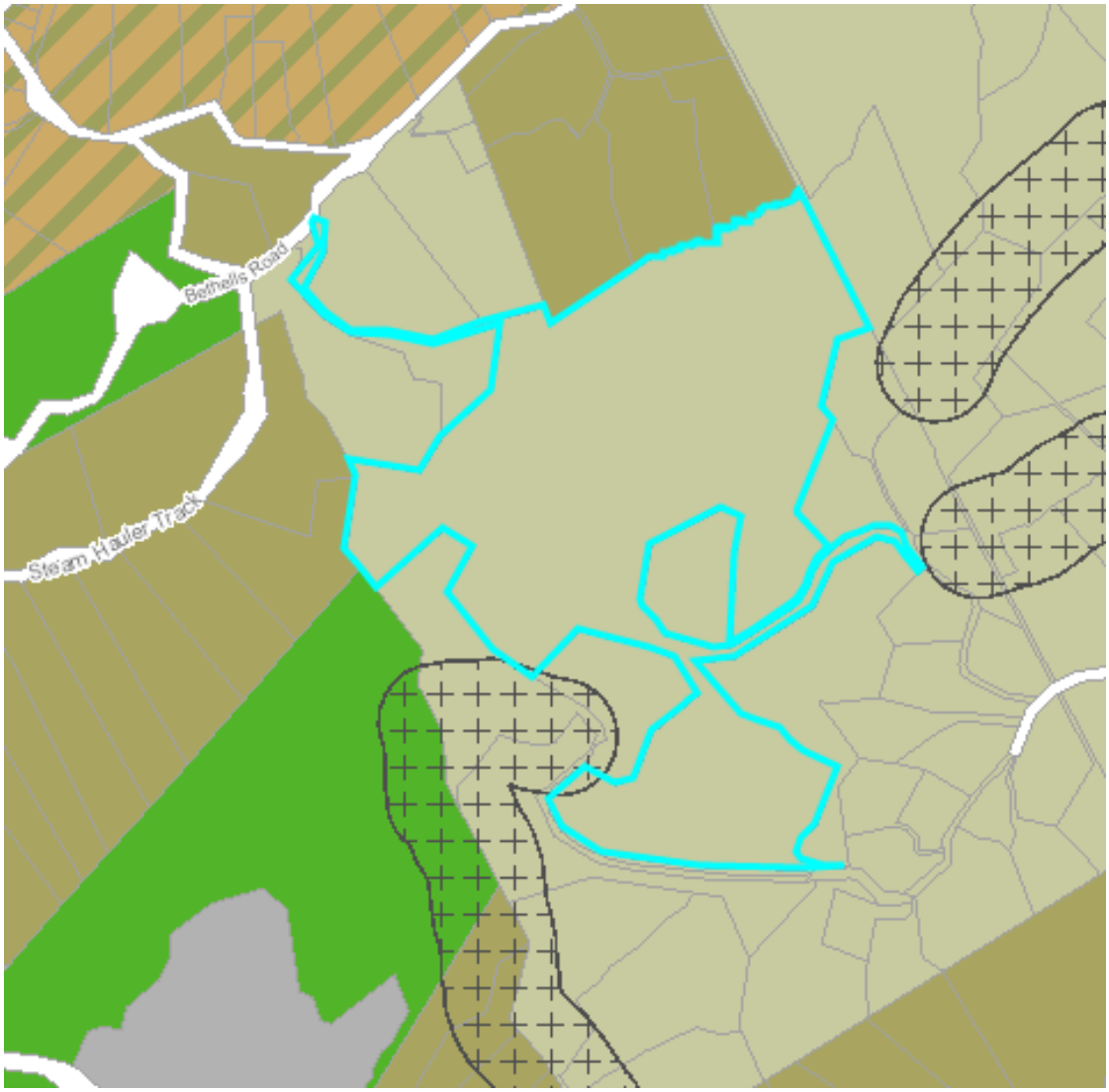


Figure 4 - Natural Heritage – Ridgeline Protection Overlay – Natural

- Significant Ecological Area Overlay

This overlay applies to two fingers of existing native bush located in the northern central part of the site, as indicated in Figure 5, below.

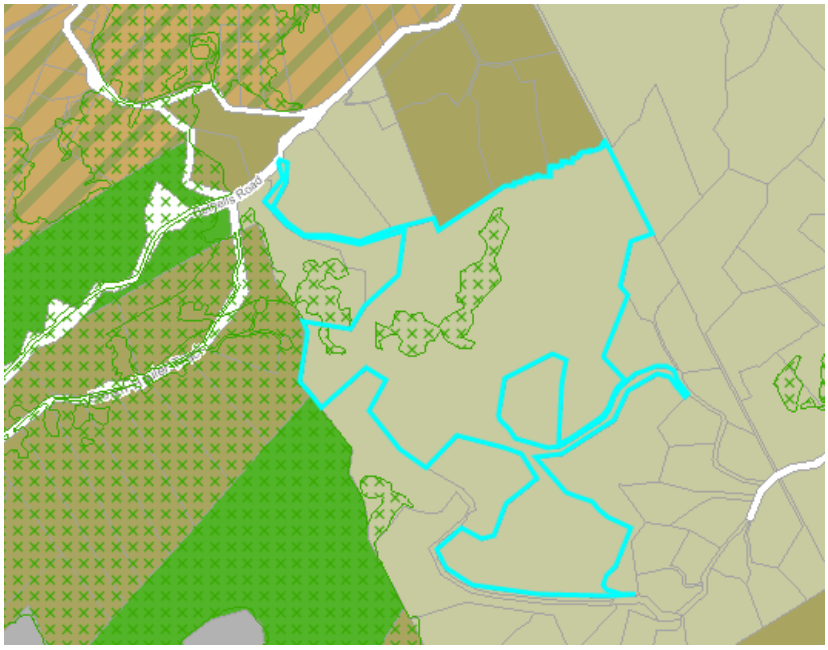


Figure 5 – Natural Resources – Significant Ecological Areas Overlay

- Quarry Buffer Area Overlay

This overlay covers a narrow wedge in the south-western corner of the site as indicated on Figure 6, below and passes through the centre of Lot 38. This quarry is no longer operating.

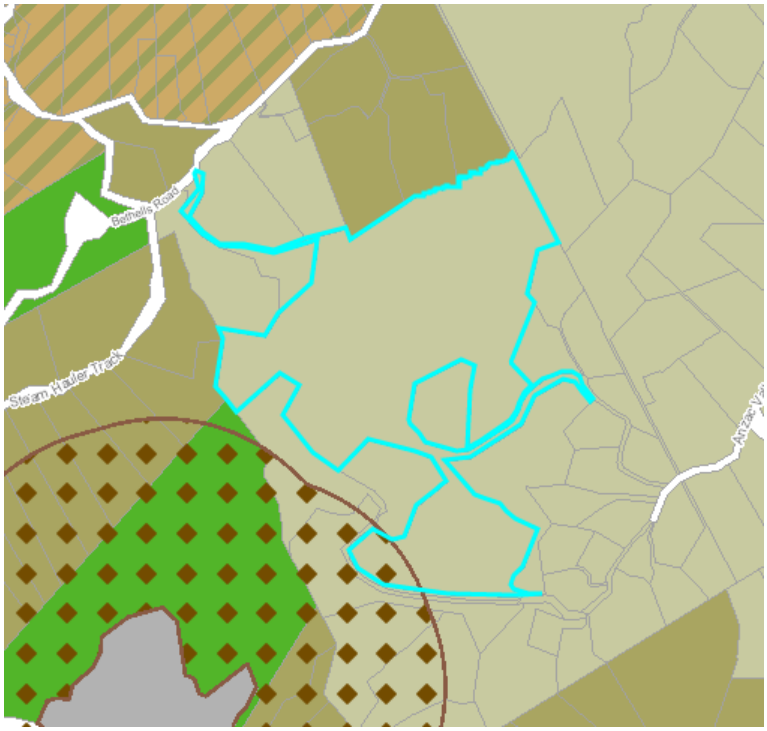


Figure 6 - Infrastructure – Quarry Buffer Area Overlay

- Waitakere Ranges Heritage Area Overlay

This overlay covers the site in its entirety (refer Figure 7, below).

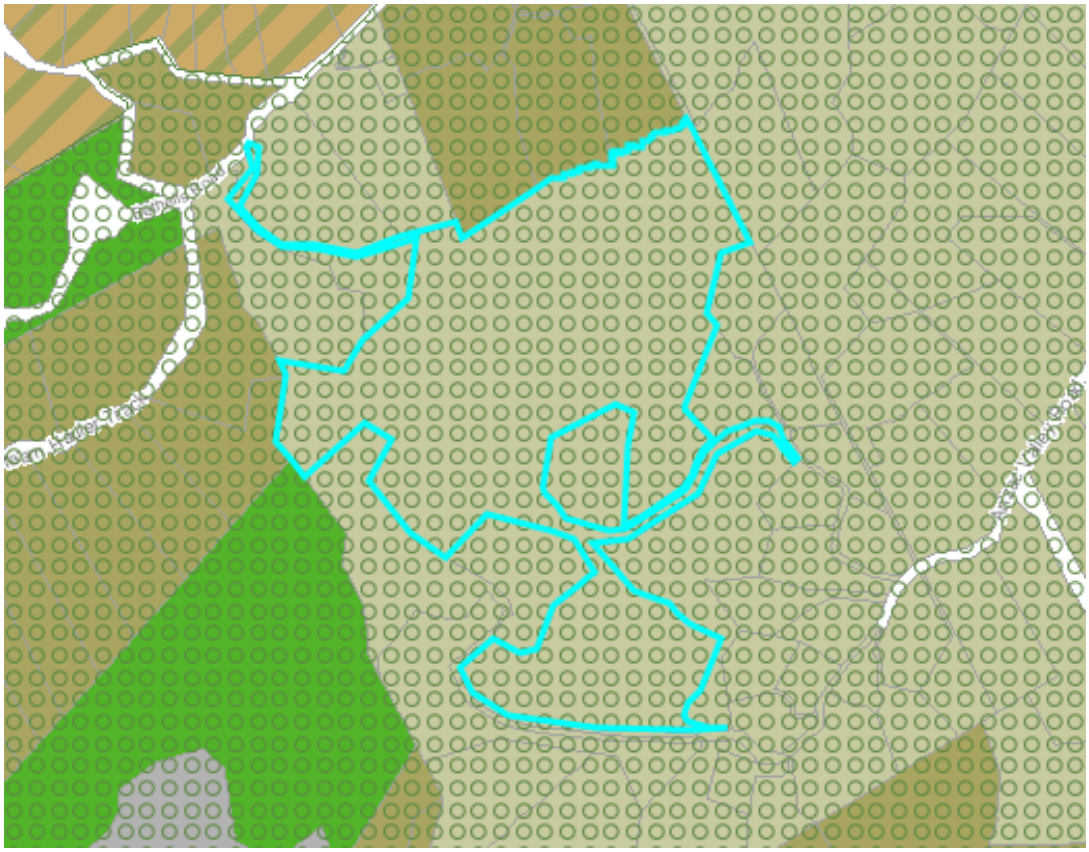


Figure 7 - Natural Heritage – Waitakere Ranges Heritage Area Overlay (Extent of Overlay)

The High-use aquifer management area overlay also covers the entire site.

The site is also subject to a Macroinvertebrate Community Index Control – Rural, Exotic and Native.

4.2 Application Site

The subject site comprises a total site area of 51.4860 hectares and is located approximately 2 kilometres west of the Waitakere Township between Bethells Road, Anzac Valley Road and Te Henga Road. A copy of the Certificate of Title and various interests registered against the title, are attached at **Appendix A.** Of note is Consent Notice C878988.7 imposed by the pre-amalgamation local authority, Waitakere City Council in 1995, which limits subdivision of the site *"without first obtaining the prior*

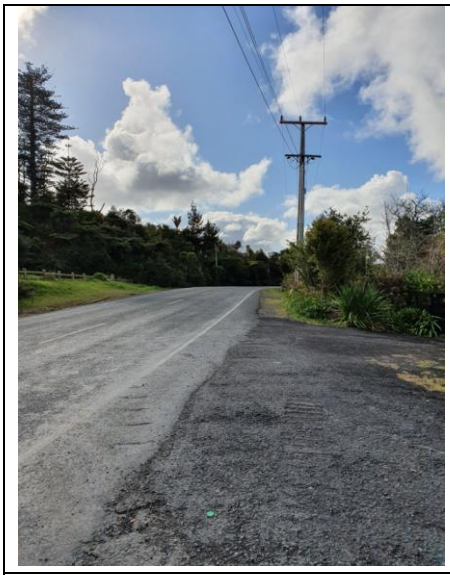
consent to such subdivision from the Waitakere City Council." [2] Subdivision consent is being sought (as part of this application) from Auckland Council, which replaced the Waitakere City Council when amalgamation of the previous seven territorial authorities and one regional authority occurred creating the Auckland Council in 2010.

The site includes a number of Interests pertaining to forestry rights. These relate to the former owner of the site.

The subject site is irregular in shape with its only legal vehicle access located off Bethells Road (refer Photographs 1 – 4, below).

Photograph 1 – Existing formed vehicle entrance to the site from Bethells Road, Waitakere, taken from immediately opposite the site.

[2] CONO C878988.7 – First Schedule, 1.



Photograph 2 - View of existing vehicle access, looking east along Bethells Road

Photograph 3 - View of existing vehicle access, looking west along Bethells Road

The site has been used historically for forestry (since the 1950's) and the plantation pine forest which covered the majority of the site has recently been harvested (January 2019). The site does not contain any built development but there are a series of existing forestry roads, culverts, tracks and forestry infrastructure (i.e. skid bridges) which exist across the site to enable the forestry use and harvest process.

As noted above, the site was cleared of the production forest approximately 18 months ago. The site remains cleared, with some weed species starting to emerge.

Photograph 4 - View of cleared site (taken 18 months ago)

4.2.1 Topography and natural features (water courses/wetland features)

The topography of the site is characterised by gradual to steep sloping land and deep gullies. The property spans a catchment divide between the Anzac Valley Catchment on the southern side of the property and the Jonkers/Dilworth Stream Catchment on the northern side of the property.

The northern portion of the property is a larger area of land and extends across two north trending gullies with a ridge running through the centre of the site (referred to as the 'central ridge'). Jonkers Stream flows through the western gully and along the northern boundary, while Dilworth Stream flows through the eastern gully. The two streams join together in the north-eastern corner of the site and discharge into the Kumeu River, before eventually draining into the Kaipara Harbour to the north (refer Figure 8, below).

A number of natural, induced or constructed wetlands are present on the site; identified as the Jonkers wetlands, the Dilworth wetlands and the Southern wetlands. These are identified in Figures 8 and 9, below. The Bioresearches report completes a detailed analysis of each of the wetland features present. The analysis undertaken is fully outlined in their Ecology Report (attached at **Appendix B**) and this should be referred to for a comprehensive assessment of the classification of each wetland feature. It is noted that Bioresearches used the RMA definition of natural wetlands during their inspection of the site and is this repeated here; *"wetland includes permanently or intermittently wet areas, shallow water and land margins that support a natural ecosystem of plants and animals that are adapted to wet conditions."*[3] The analysis applied the following definition of a seepage wetland, "*An area on a slope which carries a moderate to steady flow of groundwater, often also surface water, including water that has percolated to the land surface, the volume being less than that which would be considered as a stream or spring" (Johnson & Gerbeaux, 2004). Rutherford (2018)'s description of a seepage wetland was also considered – "…characterised by water-tolerant plants; saturated, organically-enriched, anaerobic soils; and standing water… …Seepage wetlands are mainly fed by subsurface water flow from springs that emerge from a single point, or by seepage emerging from the ground along a line or surface without a distinct origin… …Their degree of saturation ranges from temporary dryness to permanent saturation with standing water".*[4]

[3] Section 5.8.2, Para 3, Pg 59 – Ecology Report, Bioresearches
[4] Section 5.8.2, Para 4, Pg 59 – Ecology Report, Bioresearches

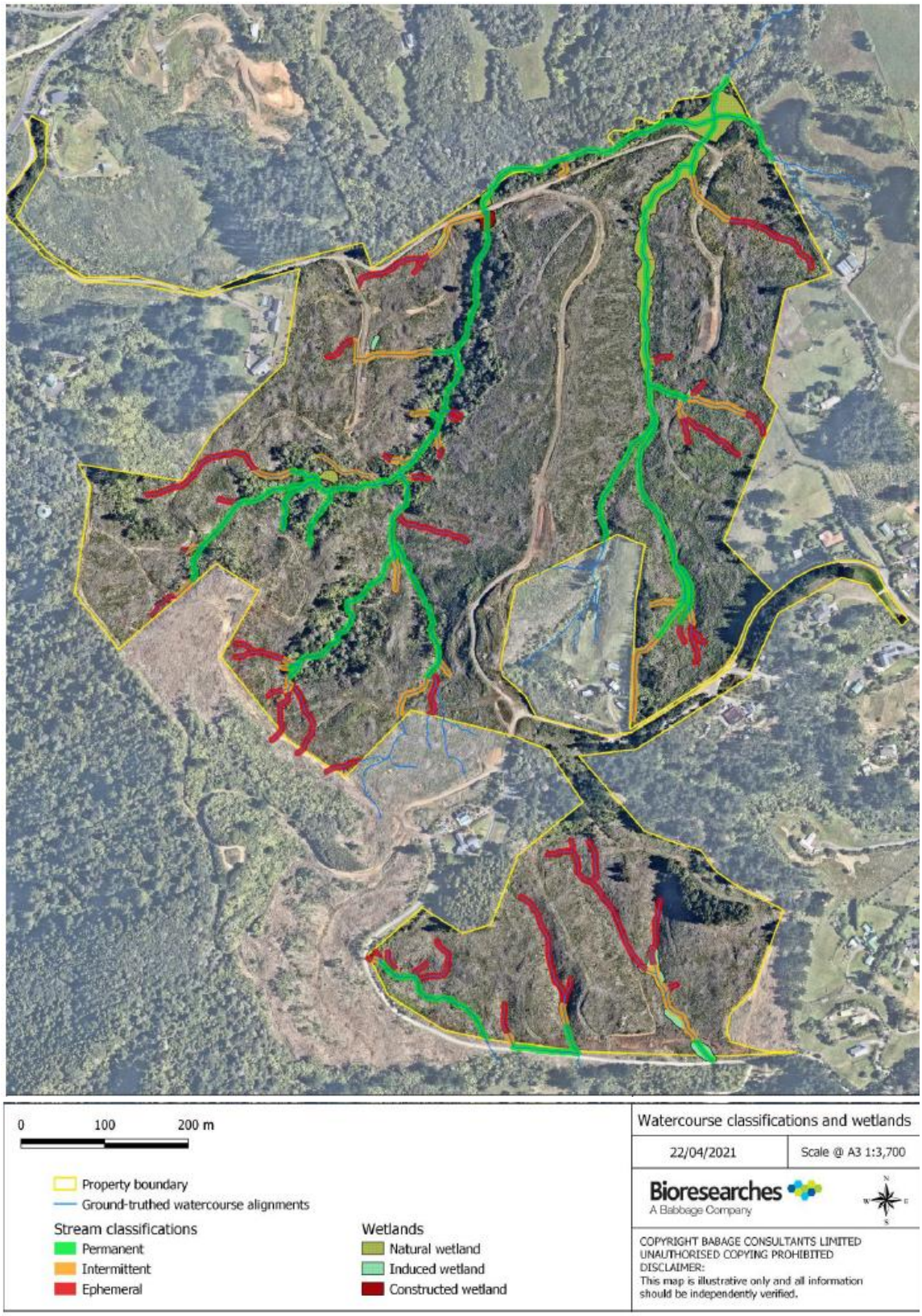


Figure 8 – Aerial photograph overlain with stream classification and ground trothed overland flow paths running through or adjacent to the site. (Source: Figure 5.8.3 Bioresearches Ecology Report)

The southern end of the property comprises a series of three south trending ridges separated by deeply incised gullies. The gullies drain into the Kumeu River which flows just beyond the southern site boundary (refer Figure 8 above, and photograph 5 below).

Photograph 5 – View looking south towards Anzac Valley Road

The site is traversed by several overland flow paths (OLFPs) that fall within the larger catchment area. These OLFPs are clearly identified on Auckland Council's GeoMaps and have been clearly shown in Figure 5.8.1 of the Bioresearches Ecology Report.

A detailed analysis of the site's hydrology and freshwater environments is contained within the Bioresearches Assessment of Ecological Values and Effects Report attached at **Appendix B**.

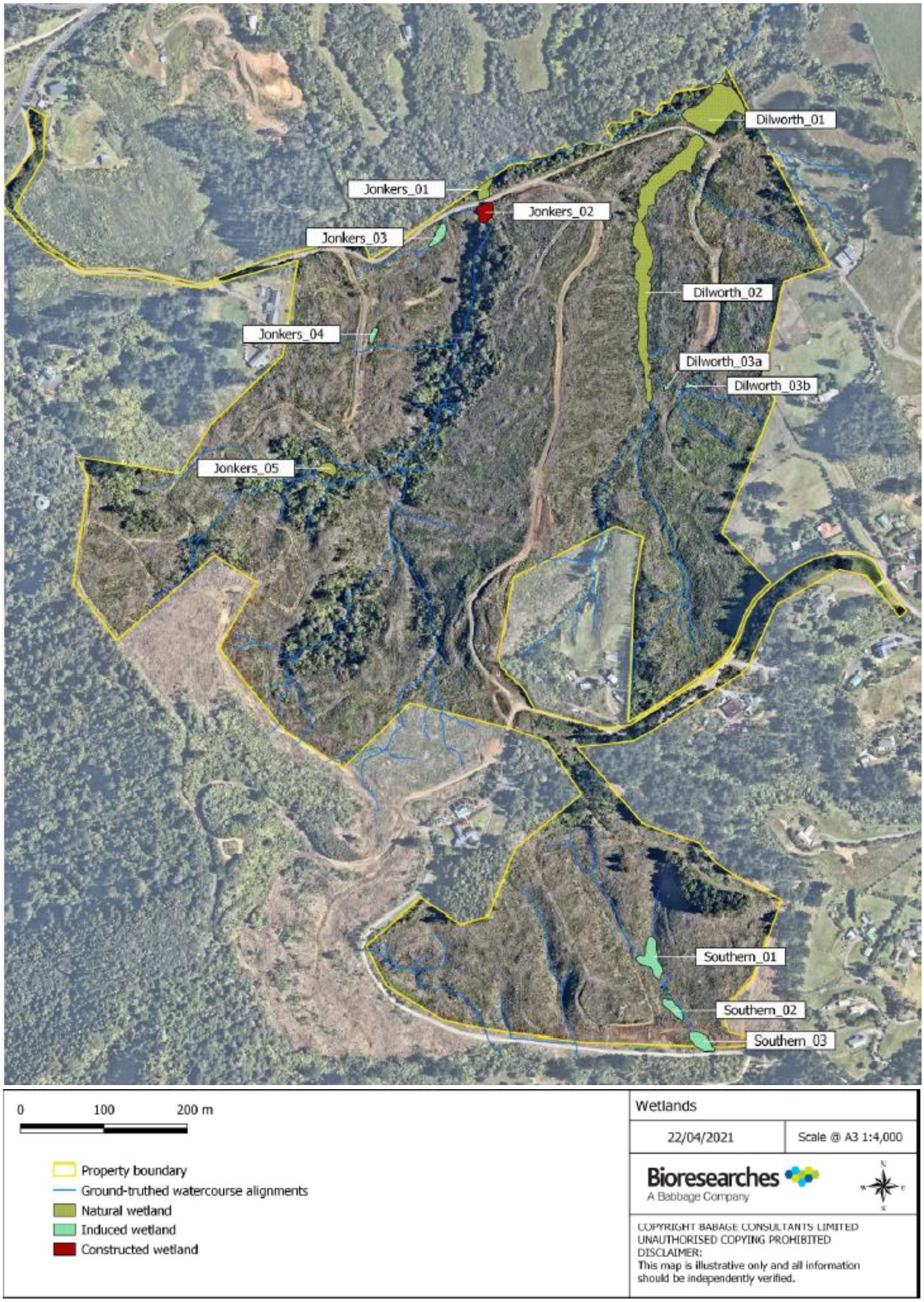


Figure 9 – Wetlands and associated wetland classification on the subject site at 131-149 Anzac Valley Road. (Source: Figure 5.8.6, Bioresearches Ecology Report)

4.2.2 Vegetation

Existing vegetation on the site comprises cut over pine plantation, exotic shrub land, fragments of native forest and weed infested areas, including riparian margins and wetland areas.

The site contains two areas of native vegetation that are identified in the AUP (OIP) as Significant Ecological Area overlays (SEAs - refer Figure 5, above). These areas, and other fragments of significant vegetation (Fragments A-D) and wetland areas (Jonkers, Dilworth and Southern wetlands) have been identified and described in detail within the Bioresearches Ecology Report (**Appendix B**) and are shown in Figure 10 below.

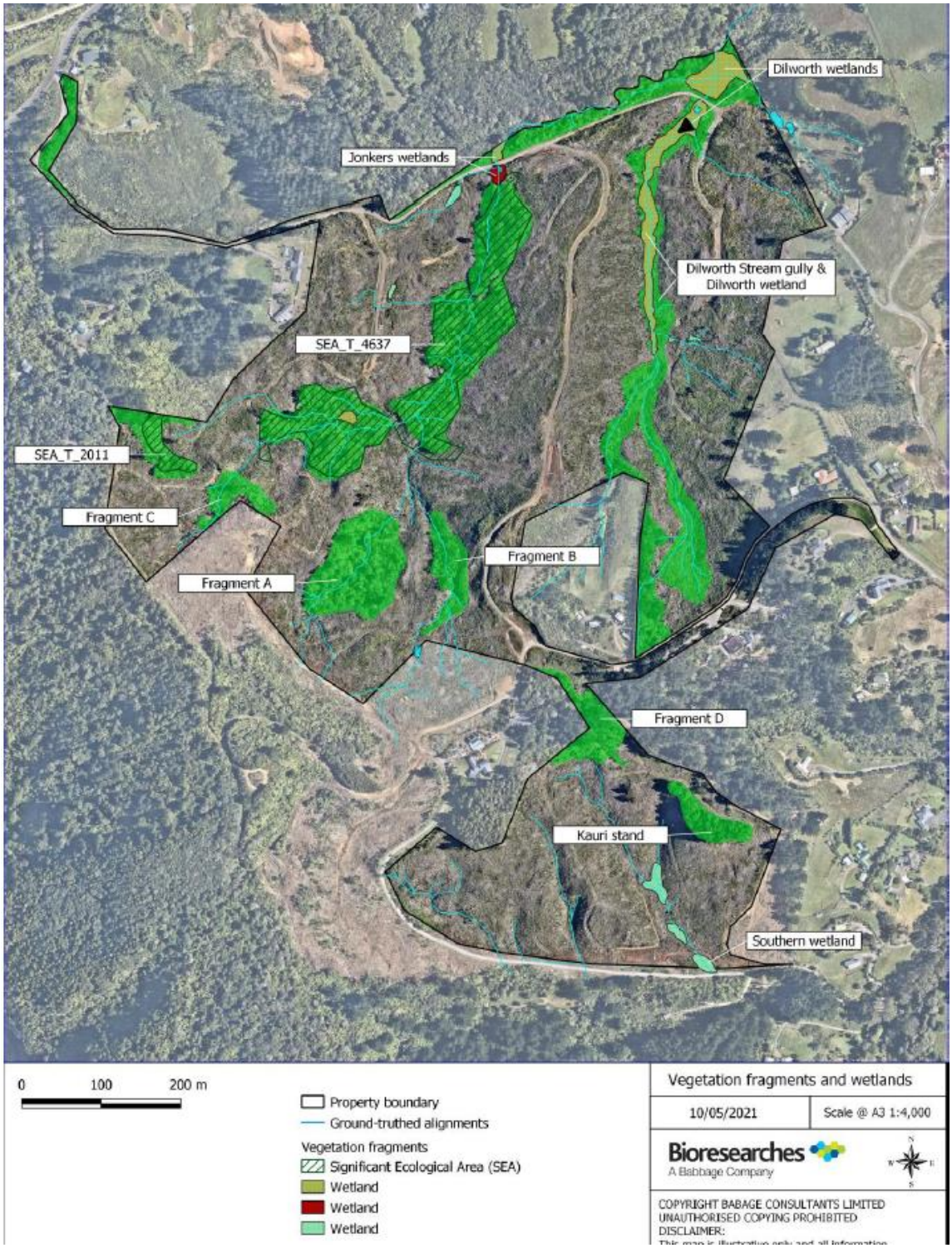


Figure 10 –Aerial image showing the location and extent of identified vegetation fragments and wetlands (Source: Figure 5.2.1- Bioresearches Ecology Report)

4.3 Surrounding Environment

The site is located in the foothills of the Waitakere Ranges and represents a significant sized land holding when viewed against the predominantly, considerably smaller landholdings to the north, east and south. The predominant land use in the area consists of rural/residential lifestyle landholdings with some small-scale pastoral grazing.

The properties located to the north of the site (48 – 62 Bethells Road) are predominantly covered in native vegetation with fragments of pasture. These sites generally front onto/have access to Bethells Road, and the dwellings tend to be located on the upper areas of the site which provides aspect and views, although views into the site are limited due to the existing vegetation and landform.

Access to the application site is located immediately adjacent to an access lot which serves the established property (which features a large single level dwelling, sheds, pasture and planting) at 68 Bethells Road. The two sites currently both utilise the existing formed driveway (which traverses both access lots) to gain access into their individual lots. A boundary adjustment is proposed to correct and legalise the existing access arrangements.

To the south of the site, there are a number of smaller lifestyle lots that have vehicle access via Anzac Valley Road. These lots were established approximately 25 years ago and were original part of the wider forestry landholding. The majority of these sites are located within the Anzac Valley catchment which have no visual connection with the northern part of the site.

There are some properties located at the top of the site and along the ridgeline that divides the Dilworth catchment from the Anzac catchment that have outlook over the site. This includes 61, 67, 77, 87-93, 117, 95-115 151, and 193-197 Anzac Valley Road.

The key properties that surround the site are identified (with red dots) in in Figure 11 below. Please also refer to the Landscape Visual Assessment at **Appendix O** for a further description of the surrounding site.

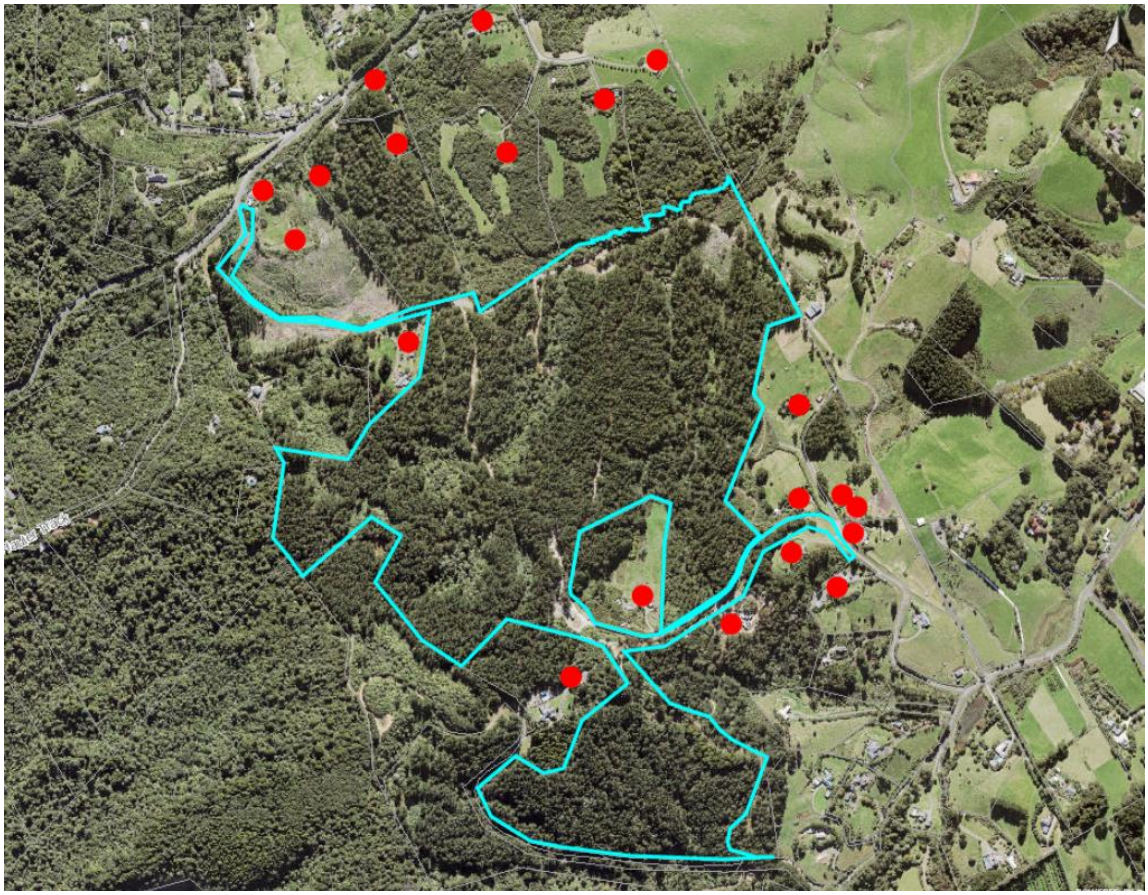


Figure 11 – Key adjoining sites

The sites to the north east are somewhat larger and appear to be larger grazing/pastoral farms or lifestyle lots, these sites tend to sit lower in the catchment.

The area to the west of the site contains the old Waitakere Quarry, which is now closed and non-operational, with land further west (beyond the Quarry) forming part of the Waitakere Ranges Regional Park (ARK in the Park).

All properties within the immediate surrounding area are zoned either Waitakere Foothills Zone or Rural: Waitakere Ranges Zone or Open Space – Conservation Zone (refer Figure 2, above).

5.0 Background/Site history

The application site has a long and complex planning history and has been the subject of a number of Environment Court decisions. For many years the Auckland Council (previously the Waitakere City Council) were involved in exploring the development potential of the land as part of structure planning/special area process.

In this section a brief summary of the history is provided for context, however it is noted that the current application will be assessed on its own merits, against the planning provisions that are in place now. The purpose of this section is for information purposes and it is relevant to the existing environment as described further in section 9.1.1 below.

By way of background, on 17 February 1994 subdivision consent (SPW17935) was granted to subdivide the original wider property into 20 rural lots under the Transitional District Plan. The subject land under consideration at that time had a total area of 122.386 hectares and the minimum lot size of 5 hectares was complied with for each of the proposed lots. Two of the proposed lots had areas in excess of 10 hectares and so were capable of being further subdivided to create two extra lots (potentially resulting in a total of 22 lots).

In early 1994, a notified subdivision application was lodged to undertake a non-complying subdivision of the same 122-hectare lot as an alternative proposal. The original proposal involved a cluster subdivision creating 23 lots with an average area of 5 hectares with two large lots (lots 22 and 23) to be retained in the ownership of the owner and operated as a commercial exotic forest.

The Council considered the proposal on 9 June 1994 and resolved that consent should be granted on 15 July 1994. This decision was subsequently appealed by the Auckland Regional Council.

On 6 March 1995, consent for 24 lots was granted by way of a consent order. The majority of these sites are located at the end of Anzac Valley Road. The consent was approved prior to the notification of the former Waitakere District Plan and was based on a 5 hectare **average** approach. While many sites smaller than 5ha were created, the average was achieved by creating two large jointly owned lots, as noted above. As a result of the consent order, most of the two jointly owned lots (then known as Lots 22 and 23) were combined to create Lot 8, DP166619. This Lot is the subject of this current application.

There was a subsequent application (SPW 20760) in September 1999 which involved the subdivision of Lot 8 DP 166619, and a number of boundary adjustments and was granted resource consent by Council on the basis that the provisions of the Proposed Plan, which allowed a 4 hectare minimum site size (c.f. the 5 hectare minimum site size of the Transitional Plan), and meant that a further 6 lots could be achieved within the land area, without compromising the averaging of at least 4 hectares, in accordance with the minimum lots allowance of the former Waitakere District Plan.

This subdivision application was granted consent under delegated authority, subject to conditions, on 5 April 2000. The original application was essentially in three parts and involved the subdivision of a 58 site (Lot 8 DP 166619) into six lots each with a minimum site area in excess of 5 hectares and a maximum site area less than 8 hectares (Part III), the subdivision of Lot 23, DP 178797 into three lots (Part II), as well as boundary adjustments over 15 existing rural-residential lots (Part I). Access to the new lots was via new roads leading off Anzac Valley Road and Bethells Road to vest in Council as well as the use of part of a network of private roads. The subdivision was assessed as a controlled activity under the Proposed Plan and was dealt with on a non-notified basis.

An application to vary the subject consent to allow the title to issue for one of the new lots (Lot 933) was received by Council and granted consent on 3 October 2002. This effectively created Lot 933 (95-115 Anzac Valley Road) and the residual land that is subject of this current application. The remaining five lots approved under the subdivision consent (SPW 20760) were not given effect to.

At around the same time, the site was also subject of an appeal to the former Waitakere District Plan. In this process, the site, which was mainly contained within the Dilworth Catchment, was referred to as the Dilworth Special Area (DSA). During this planning process, the (then Waitakere City Council) acknowledged in the Environment Court Decision NZEnvC405 (attached at **Appendix C**) that *"there was some potential for development beyond the 4ha subdivision rule*."[5] Despite this clear acknowledgement from the Council and the substantial advances made by it in developing a potential subdivision layout for the Dilworth Special Area (coupled with a set of associated development provisions for the Special Area) the DSA provisions were never incorporated into the then Waitakere City Council District Plan, due to uncertainty around land ownership within the DSA and the associated workability of implementing the DSA provisions on this basis.

[5] Environment Court Decision NZEnvC405 – Para 11 – Page 4

The DSA provisions put forward by the Council were based on achieving significant ecological and environmental gains through protection and revegetation of large areas in exchange for additional development rights (termed by the Court as the *'quid pro quo'*).

The principle of *'quid pro quo'* coined under the Environment Court decision (NZ EnvC 405, 2010) is of some historic relevance given the current proposal is based on a similar principle of enabling additional development rights in exchange for significant environmental enhancement.

It is acknowledged that this matter has no statutory relevance, with the Unitary Plan now being the statutory framework in which to consider this current proposal, but it does provide a useful background to the site history and the fact that the principle of a *quid pro quo* development has been contemplated on this site for a number of years.

An Existing Use rights Certificate (pursuant to Section 139A of the Resource Management Act) was granted by Auckland Council on 1 November 2019 and confirms the forestry use and access activities (as described in the certificate) attached at **Appendix S** are allowed under section 10 of the RMA, without the need for district resource consents. A copy of the Environment Court Forestry rights decision is also attached as **Appendix U.** Following the lodgement of this resource consent the Council has queried that status of the existing forestry access. A series of maps attached to the Environment Court decision confirm the existence of these roads and the associated culverts on the site. This includes an existing access and culvert that runs through an area that is identified as SEA (Figure 11a).

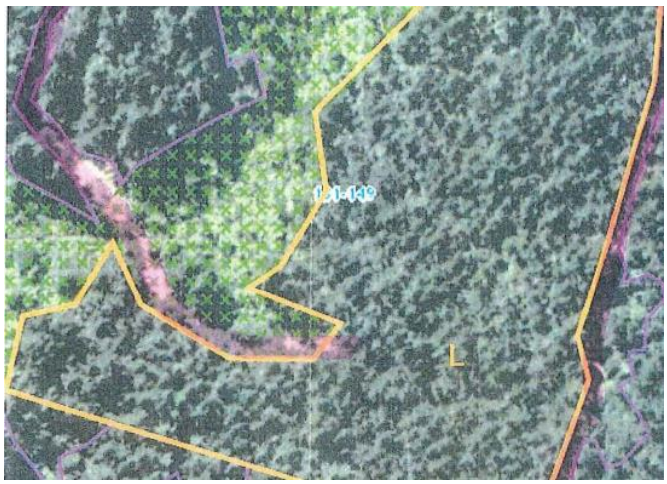


Figure 11a – Existing forestry access through SEA

6.0 Description of the Proposal

6.1 Subdivision layout

This application is for a seven stage subdivision of the 51.48 hectare property. As part of Stage 1 of the subdivision, consent is sought for a boundary adjustment subdivision between the subject site (131-149 Anzac Valley Road) and two adjoining properties, 62 Bethells Road (Lot 4 DP 162886) and 68 Bethells Road (Lot 24 DP166619). The boundary adjustment between the subject site and 62 Bethells Road proposes an equal land swap (1,034m²). The boundary adjustment with 68 Bethells Road is required to enable the revised accessway design to improve visibility and to enable the access to be formed away from steeper parts of the site. The boundary adjustment will also correct historic land encroachments. The proposed boundary adjustment subdivision will involve the creation of a number of new ROW easements as indicated in the easement schedule provided with the scheme plans attached at **Appendix D**.

The proposed fee simple, in-situ subdivision will be undertaken in seven stages, as outlined in detail below, and will create 40 new rural/residential lots in a clustered arrangement and includes the creation of a private road network (largely utilising the existing network of forestry roads/tracks which run throughout the property) to enable vehicular access to each of the 40 lots.

A key feature of the subdivision is the proposal to permanently retire the land from its current forestry use, enabling the rehabilitation of approximately 27.72 hectares of degraded and weed infested cut-over land on the site and the permanent protection of both this land and the existing areas of native bush (6.23 hectares), shrubland (2.35 hectares), and wetlands (1.03 hectares) on the site. This permanent restoration/rehabilitation and enhancement of 37.33 hectares of the site would be delivered in exchange for the additional subdivision development rights afforded by the subdivision (‘*the quid pro quo’*).

The development is split into seven stages as outlined in the Scheme Plan and Staging Plan prepared by C & R Surveyors Limited and attached at **Appendix D.** The staging plan is also replicated in Figure 12 below.

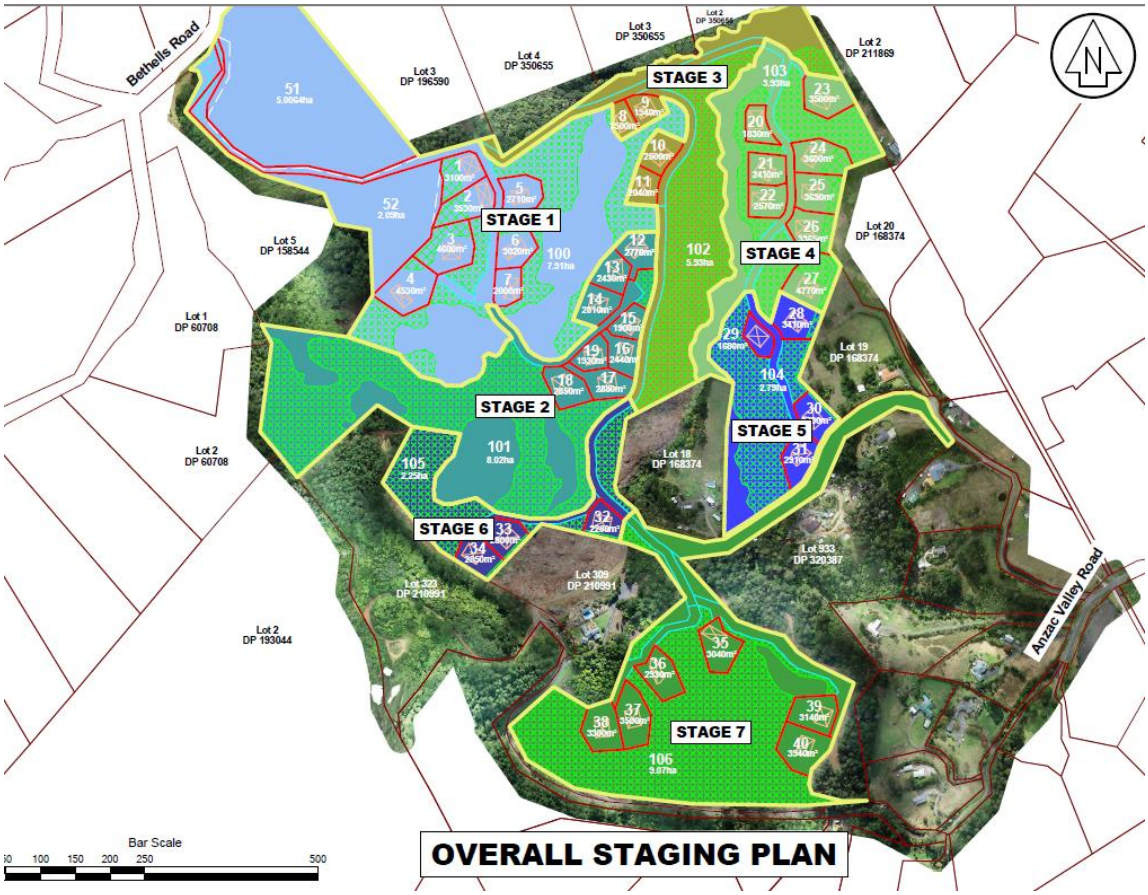


Figure 12 – 40 lot staging plan including staged rehabilitation of balance land

The subdivision is to be staged to allow for the incremental development of the site and to break the project into manageable sections that are realistic, practical and economic to implement. The plan below (Figure 13) is taken from the Restoration Report prepared by Scrub Consultants and attached at **Appendix E**, and shows the location of the land to be covenanted and restored in each stage, along with the lots created.

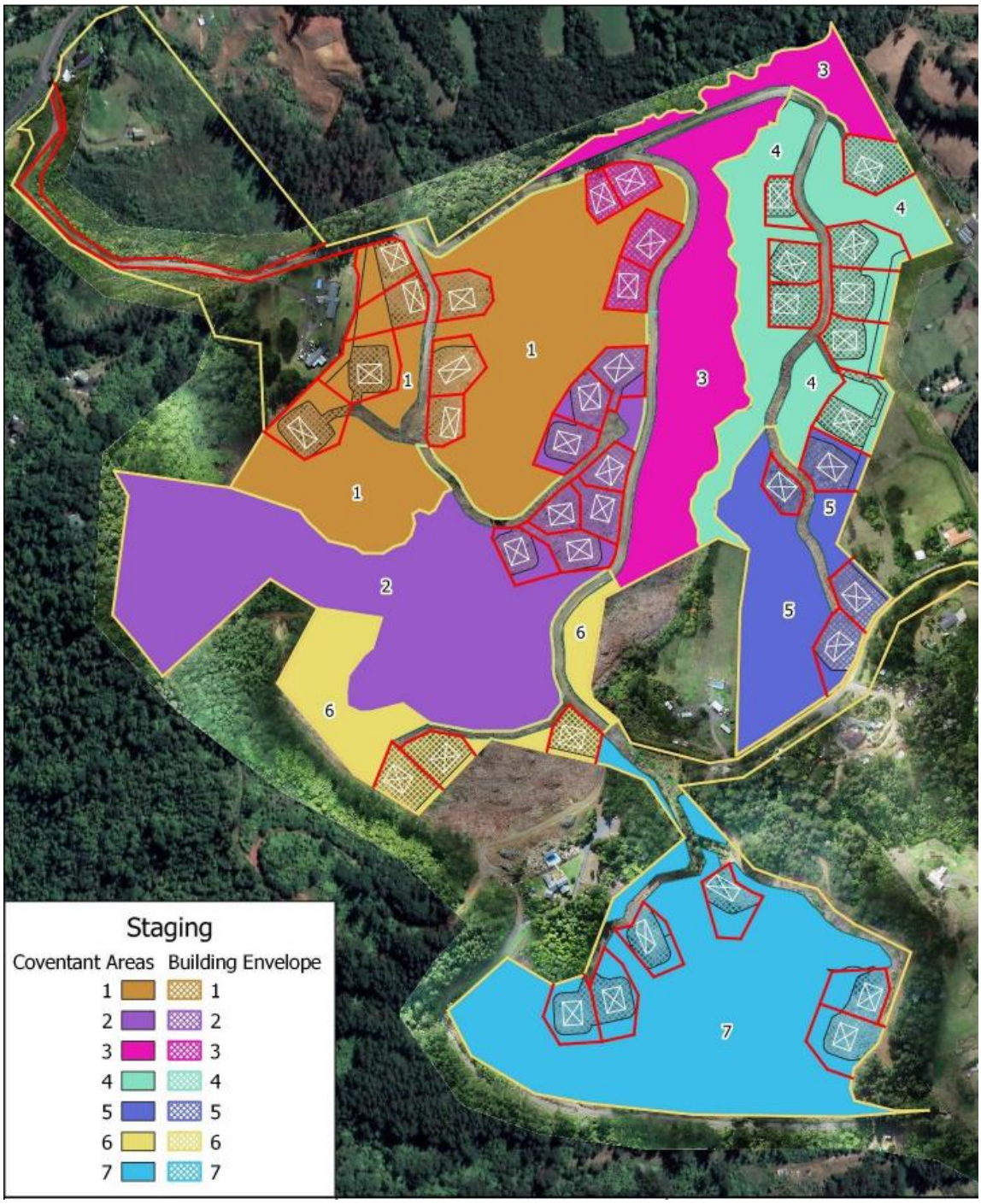


Figure 13 – Plan showing the 7 stages proposed (Source: Figure 5 – Scrub Consultants Restoration Report)

The Stages and associated restoration objectives are outlined briefly below, with a comprehensive analysis contained within the Restoration Report prepared by Scrub consultants and attached at **Appendix E**.

- **Stage One** – Boundary Adjustment Subdivision with 62 and 68 Bethells Road and creation of Lots 1-7 located close to the north-western site boundary on both sides of an existing formed access road.

  As outlined in the Restoration Report prepared by Scrub Consultants, the Stage One restoration focuses on the high value bush habitat that stretches up the Jonkers Stream and includes the full extent of SEA_T_4367, the small wetland on the southern side of the access road (0.037 ha) and 3.49 ha of adjoining land proposed for native rehabilitation. Stage One Restoration also includes specific screen planting along the rear boundaries of Lots 1-4.

- **Stage Two** – Lots 12-19 further along the access serving Stage One on the south-western side of the central ridge.

  Stage Two seeks to connect Stage 1 up to the property's western boundary and in the process reinstate an ecological connection with the adjacent Waitakere Quarry Scenic Reserve Land and the Ark in the Park Mainland Island Project. This in turn connects through to the expansive Waitakere Ranges Forest Park a further 1.3kms south of this Stage 2 area. This stage would also see the SEA_T_2011 area fully protected (1B) along with forest fragments 2A and 4B.

  Stage Two planting also includes specific screen planting along the eastern boundary (adjacent to Lots 24-28 and Lot 30, in Stages 4 and 5) and to the south and south-east of Lots 32-34 (lots just above the 130m contour).

- **Stage Three** – Lots 8 – 11 at the northern end of the central ridge.

  Stage Three restores the podocarp riverine swamp forest in EMU 2C, the northern wetland (EMU 3B), and the small northern piece of wetland in EMU 3C, along with the large eastern side of the central ridge road. Stage Three establishes connectivity with the Stage 1 and 2 covenant areas and incorporates high value swamp forest and wetland to the north.

- **Stage Four** – Lots 20-27 located in the Dilworth Stream Catchment and close to the eastern boundary. These lots are accessed off the eastern access road (Accessway 3).

Stage Four focuses on restoring the large high value Dilworth wetland system (EMU 3A) and its associated stream tributaries (including wetland area 3G) flowing in from the east, along with the remnant shrubland (4E).

- **Stage Five** – Lots 28-31 located at the head of the Dilworth Stream gully.

  Stage Five extends the restoration upstream from Stage Four to include the remnant shrubland in EMU 4C and the balance of the riparian and hillside environments to be protected in this portion of the property.

- **Stage Six** – Lots 32-34. These lots are located just above the 130m contour line and will be accessed off the central ridge road (Accessway 1, then Accessway 4).

  Stage Six restores a block of land north-west of Lots 33 & 34 and includes several small portions of restoration either side of lots 33 and 32. This completes the buffering of the Stage 2 area, adding additional robustness to the protected areas.

- **Stage Seven** – Lots 35-40. These lots are all located within the southern, Anzac Valley catchment.

  Stage Seven is the full extent of the southern portion of the property and includes the high value kauri stand, the 2 remnant wetland areas and a large expanse of restoration area spanning several side gullies.

6.2 Geotechnical/Stability

The site has been the subject of a detailed geotechnical assessment, undertaken by EGL Geotechnical Engineers. EGL Geotechnical Engineers has completed the following reports in support of the proposed subdivision:

- EGL Preliminary Geotechnical Report for the subdivision of 131-149 Anzac Valley Road, Waitakere, reference 8841, dated 5th June 2019.
- EGL Geotechnical Report for Proposed Stage 1, 7 Lot subdivision of 131-149 Anzac Valley Road, Waitakere, reference 8841, dated 13th February 2020.
- EGL Geotechnical report for culverts along the accessway for the subdivision of 131-149 Anzac Valley Road, Waitakere, reference 8841, dated 16th March 2020.
- EGL Geotechnical Investigation for Proposed Stages 2-7, 33 Lot Subdivisions of 131-149 Anzac Valley Road, Waitakere, reference 8841, dated 3 August 2020

- EGL – Proposed Stages 1-7, 40 Lot Subdivision of 131-149 Anzac Valley Road Geotechnical Comment letter, reference 8841, dated 6 April 2021.

As can be seen, above, a number of separate geotechnical assessments have been prepared in relation to the subject site, all of which are attached as **Appendix F.**

The geotechnical analysis has assessed site stability and informed the decision making process around selecting the location of the designated building platform on each of the 40 lots within the subdivision, whilst also providing a global analysis of stability across the site as a whole.

At the request of Council the geotechnical specialist also addressed the potential liquefaction risk on the property and concluded (based on the drilling of 56 hand auger boreholes and various site walk over inspections) "*considering the age of the residual soil deposits (i.e. generally Miocene age) the cohesive nature of the residual soil and alluvial deposits and the thickness of the non-liquefiable crust (i.e. more than 5m depth) it is considered that the effects of liquefaction on the property are unlikely*."[6]

The geotechnical assessment concludes for both Stage 1 (lots 1-7) and subsequent stages of the subdivision (Stages 2-7) that, subject to a number of specific recommendations *"the ground within and surrounding the building platforms and within the designated BRLs are suitably stable for development*"[7] and the site is suitable for the proposed development in stability terms.

6.3 Services and Utilities

A Stormwater and Infrastructure Assessment (and associated Engineering Plans) has been completed by ACH Consulting Engineers and is attached at **Appendix G.** This report details the relevant infrastructure that will service the proposed subdivision and addresses flooding, earthworks, access, the management of stormwater, water supply and wastewater disposal within the subdivision. The report should be referred to for a comprehensive outline of the proposal in terms of services and utilities.

In summary, the development proposes the following:

[6] Para 5, EGL Geotechnical Comment letter dated 6 April 2021
[7] Section 6.2 -Page 11, last paragraph – Stage 2-7 Geotechnical Report, EGL

- **Water supply** - will be via on site water tanks designed to capture water from roof areas. Water tanks will be appropriately sized to provide spare capacity for fire-fighting purposes. A private fire-fighting system is proposed for the subdivision to ensure the requirements of Standard SNZ PAS 4509:2008 are met. The necessary measures are to be secured by way of consent notices, as outlined in section 7.2 of the ACH Consultants Report.
- **Stormwater disposal** - to meet the requirements of AUP E8, the primary means of stormwater management both in terms of volume mitigation and treatment will be provided by a combination of active revegetation (planting of the site in native bush) and native bush restoration via a minimal intervention approach, enabling natural regeneration of existing native fauna to occur. Based on the total post development impermeable area, 17.6 ha of bush restoration is required (Section 4). The proposed development intends to restore 27.72ha of native bush, which is 158% of what is required, thus the 17% increased rainfall resulting from climate change has been factored in. *Adequate planting has been proposed for each of the seven stages of the development to be able to occur in isolation.*[8] Further treatment of roads is provided through vegetated swales and roof areas are mitigated through stormwater harvesting. Table 3 of the ACH Engineering Report (Page 11) illustrates the proposed staging of stormwater mitigation across Stages 1-7.
- **Flooding** – All proposed residential lots are situated a minimum of 20m from the natural watercourses on the site (Jonkers, Dilworth and Kumeu streams). A flood risk analysis undertaken by ACH Consultants has confirmed that none of the proposed building platforms or driveways are within any predicted flood plains. The analysis also confirms that the proposal will not exacerbate any existing natural hazard as no flood storage will be lost as a result of the development. A number of lots (lots 6, 17, 18, 27, 31 and 33) within the subdivision are affected by minor OLFPs. The ACH Consultants report outlines a methodology for addressing this potential hazard to ensure development of these lots is not restricted. Where development (i.e. access roads) crosses the OLFP potential flood risk has been appropriately mitigated through design to ensure flood depths and velocities do not increase. In accordance with AUP E36, a flood risk assessment related to the named streams, and overland flow paths (OLFP) demonstrates that there is no risk of flooding or impediment to vehicular access during a 1% AEP (1 in 100 year) rainfall event.

[8] Section 1.1, Para 5 – ACH Stormwater & Infrastructure Assessment

- **Wastewater** – Land disposal is proposed for each new lot. The ACH Consultants Report notes that all on-site wastewater disposal within the development are capable of meeting the criteria for a permitted activity under AUP E5 (Section 8). Clearances from: boundaries, surface water, stormwater tank overflows and building platforms adhere to the recommendations within Auckland Regional Council Technical Publication 58, On-site Wastewater Systems: Design and Management Manual (TP58). The slopes of the primary disposal fields and reserve field areas have been outlined on the attached engineering plans (A-950 – A-966) also meet the requirements specified within TP58.
- **Access** – All private access roads have been designed to meet relevant Unitary Plan standards in terms of gradient, with passing bays to be provided at a minimum interval of 100m. Recycling bins are proposed to be collected via Council's waste collection service from a dedicated, communal collection point at the entrance on Bethells Road (at the top of Access Road 1) whilst general rubbish would be collected by a private waste collection service from the designated area at the intersection of Access Road 1 and Access Road 2 within the site. The construction of shared accessways will require the upgrading of existing culverts, and the installation of new culverts. All new and existing culverts that are situated on permanent streams will provide fish passage, either through embedment, or by providing spat ropes (Section 5.1). It is also recommended that a previously culverted section of the Jonkers Stream be daylighted. Methodology (Section 5.1.2) for culvert removal will ensure that the ecological condition of the stream is not damaged as result of the culvert removal and will meet the permitted activity criteria under AUP E3.

6.4 Earthworks

Earthworks for the subdivision are limited to the formation of the shared vehicle accessways and slope stability works as recommended in the geotechnical report. The current forestry tracks will be improved, to create the accessways. The formation of the accessways and slope stability works will be broken down into seven stages of earthworks consistent with the overall development plan. The total area of earthworks across all seven stages is approximately 35,000 m². The earthworks areas and volumes have been summarised in Table 11 of the ACH Consultants report and in Figure 14, below.

Table 11 Earthworks areas & volumes

Stage	Earth Works Area m^2	Earthworks Volume m^3	Cut Volume m^3	Fill Volume m^3
1	6,414	1,966	1,151	816
2	4,528	3,869	2,645	1,224
3	9,745	3,284	1,442	1,842
4	3,065	831	585	246
5	2,811	782	513	269
6	3,353	981	522	459
7	5,600	2,530	1,157	1,373
Totals	***35,516***	***14,243***	***8,015***	***6,229***

Figure 14 – Table showing earthworks areas and volumes (Source: ACH Consultants Stormwater and Infrastructure Report)

The Stormwater and Infrastructure Report prepared by ACH Consultants Limited confirms that earthworks covering a total area of approximately 35,000m² will be required in association with the formation of the private road access network for the subdivision. The total volume of earthworks is calculated at 14,243m³ comprising of 8,015m³ of excavation and 6,229m³ of fill. Earthworks plans across the entire site and across each stage, which detail the location and extent of excavation/filling proposed in association with the access formation are provided within the package of engineering drawings prepared by ACH Consulting Engineers, attached at **Appendix G**. In addition, a detailed Erosion and Sediment Control Plan has also been prepared for the development, by MND Planning Limited. This is attached at **Appendix W.**

6.5 Culverts

In association with the proposed road formation works a number of existing culverts in place across the site will require upgrading/replacement or removal. Likewise, additional forestry infrastructure such as corduroy or skid bridges will also need to be removed to enable formation of the private road network.

The Ecological Assessment Report prepared by Bioresearches (attached at **Appendix B**) identifies existing culverts and skid sites (also referred to as skid bridges) on the site, in Figure 5.8.17 (and replicated below, in Figure 15). Culverts are numbered and shaded yellow (30-32 on the adjacent land to the south) and skid bridges are referenced by way of the letters SB (A-B) and coloured grey.

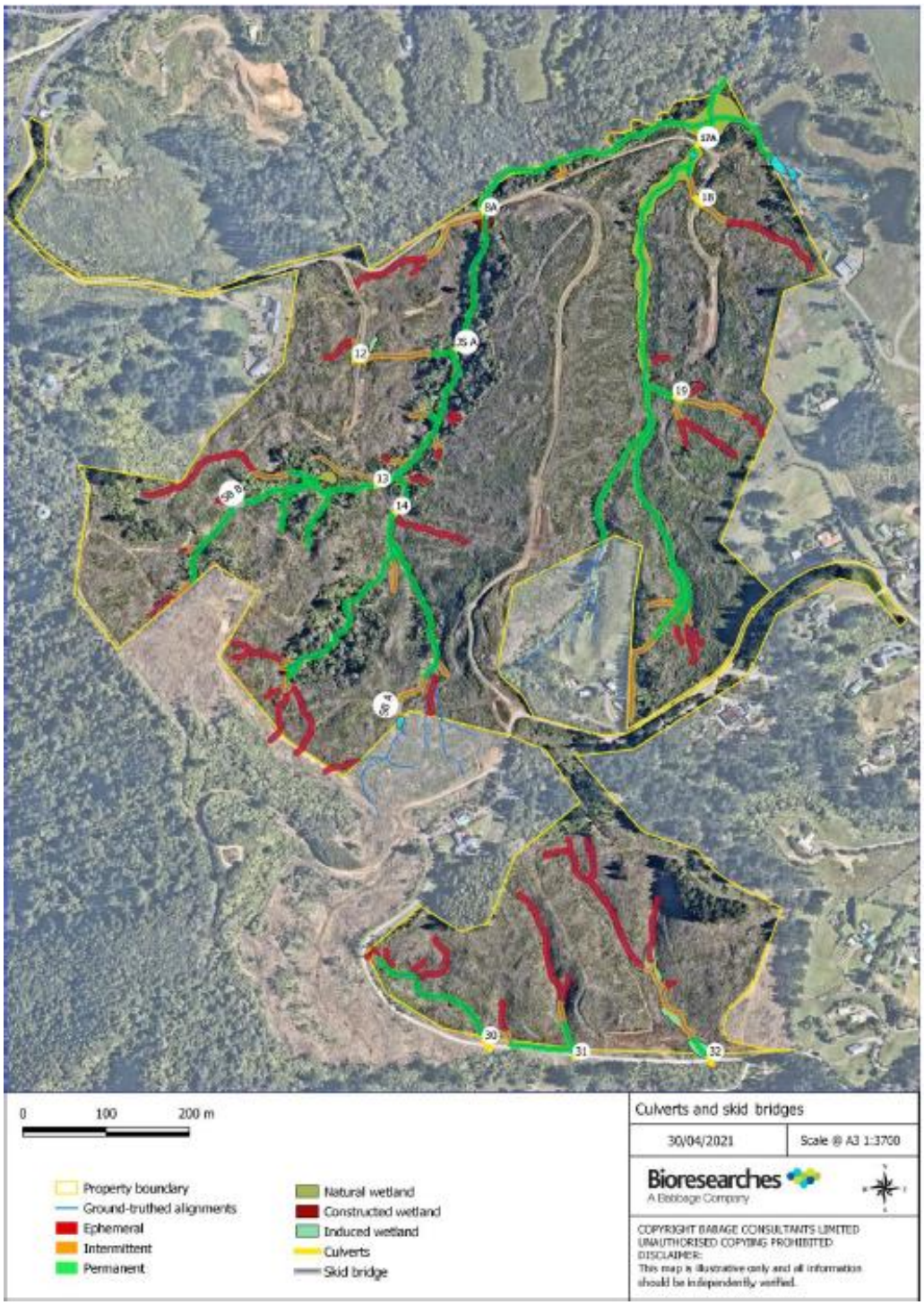


Figure 15 - Aerial photograph showing location of existing culverts and corduroy sites (Source: Bioresearches Ecological Assessment Report – Figure 5.8.12)

The above diagram shows that there are eight existing culverts located within the site, five of these occur in the Jonkers Stream (Culverts 8A, 12, JSA, 13, 14,) and three in the lower reaches of the Dilworth Stream (Culverts 17A, 18 and 19). Three additional culverts (Culverts 30, 31 and 32) were identified just south of the southern boundary on

neighbouring land to the south. All the water draining from the upper Kumeu River Catchment in the southern part of the site is conveyed through these culverts beneath the gravelled road.

Several other culverts exist or are proposed on site (please refer to Table 8 – Culvert Details, within the ACH Stormwater and Infrastructure Report) but these would either remain unaltered or would be installed for stormwater management purposes and do not require any ecological assessment/commentary.

The Ecological Assessment Report prepared by Bioresearches contains a detailed description of each of the existing culverts and skid bridges (refer Table 5.8.3) which outlines which culverts are to remain intact/unaltered, which are to be upgraded and which are to be removed.

The proposed subdivision seeks to:

- upgrade two of the eight culverts identified in this report (Culverts 18, and 19);
- install box culverts or similar above existing culverts (Culverts 8A and 17A);
- remove one existing culvert (Culvert JS A) to restore the natural stream channel;
- remove Skid bridge A and install a new culvert (Culvert 23); and
- remove Skid bridge B and restore the natural stream channel.

The term corduroy (or skid bridges) is defined/explained in the Restoration Report prepared by Scrub Consultants Limited as indicated below:
"Corduroy is a term that describes the use of logs laid parallel to each other to form a 'raft' to support the weight of heavy logging machinery during forestry operations. It is often used in high-use areas on skid sites, and also in wetter areas where excavators and skidders would sink or generate significant effects on watercourses as a result of repeated crossings carrying heavy loads."[9]

It is noted in the Bioresearches Ecological Assessment Report, that in addition to the proposed upgrades/new installations outlined above, which form part of the proposal, that the applicant has recently upgraded Culverts 13 and 14 (both of which are located within the SEA overlay area). *"These culverts now represent 900 mm Ø and 1050 mm concrete pipes, respectively that are positioned flush (cf. embedded) with the substrate. Spat ropes have been provided to offer some fish passage assistance. These works were*

[9] Section 8.3.4 – Restoration Report, Scrub Consultants Ltd

undertaken under existing use rights (plantation forestry) and involved the upgrading of existing culverts."[10]

The Bioresearches Report notes that Culvert 13 was installed in May 2020 and meets the general permitted activity standards under the AUP and as the culvert was installed prior to 3 September 2020, when the NES-FW became operational the NES-FW regulations do not apply. Culvert 14 was installed in October/November 2020 and also meets the permitted activity standards under the AUP but does not strictly meet the Freshwater NES Permitted Activity standards for fish passage. Since the culvert was installed after 3 September 2020, when the NEW-FW became operational these regulations are applicable. On this basis retrospective consent for a discretionary activity, pursuant to regulation 71 (1) is sought.

A series of mitigation measures are proposed as part of the subdivision to effectively manage the potential effects of culvert installation/skid bridge replacement on the freshwater environment. These have been fully outlined in section 6.3.2.4 of the Bioresearches Ltd Ecological Assessment Report. These include:

- The potential adverse effects of culvert installation on native fish can be largely avoided or mitigated by preparing a native fish recovery and relocation plan and implementing programme prior to the commencement of any stream works.

- Most new and upgraded culverts would meet the general permitted standards under the AUP OP (one exception – Culvert 23) and comply with the NES-FW PA standards (three exceptions – Culverts 14, 18, and 23) ensuring free passage of native fishes and other aquatic organisms.

- It is recommended that the riparian margins of all intermittent and permanent watercourses and wetlands, be enhanced through active replanting or managed regeneration. Riparian margins should be 20 m wide on average (measured from the edge of the stream banks or wetland edges), but no less than 10 m wide in any one location, over the lengths of all watercourses (Figure 6.3.1). It is likely that riparian margin restoration would form part of the site-wide restoration plan, discussed in detail by Scrub Consultants (2020a).

- Sediment and erosion control measures should be in accordance with Auckland Council Guidance Document 05 - *Erosion and Sediment Control Guide for Land*

[10] Para 3 – Section 6.2.2.1 Culverts – Bioresearches Ecological Report

Disturbing Activities in the Auckland Region (Leersnyder *et al*., 2016) to mitigate the potential effects of sediment and contaminants entering nearby waterways.

6.6 Access

Design of the internal private road network has been undertaken by ACH Consulting Engineers. Commute Traffic Engineering Consultants have completed a technical assessment of both the proposed internal private road network and the design of the vehicle access into the subdivision, off Bethells Road.

Vehicle access into the site will be via a newly design loop entranceway (refer Figure 16, below) off Bethells Road.

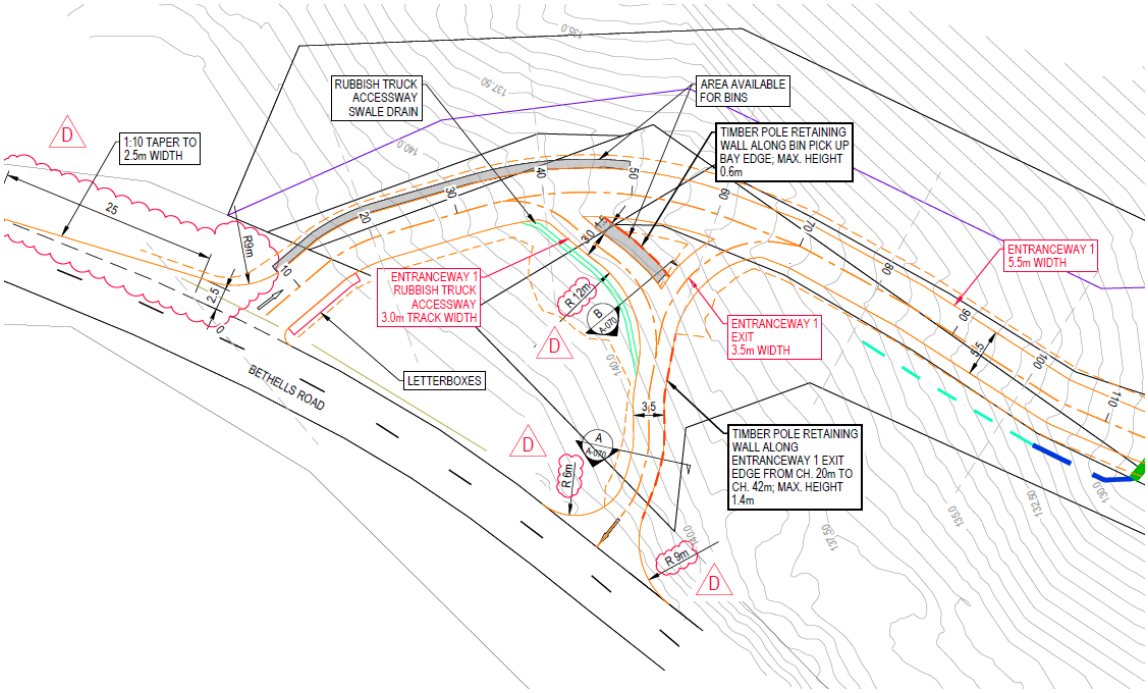


Figure 16 – Proposed new site entrance (Source ACH DWG No. A-050)

Design features of note in the new design include the following:

- The egress shown on the plans is proposed to be only one lane wide, and will cater for both left and right turning vehicles;
- The egress is proposed to be constructed at an angle of approximately 90 degrees with Bethells Road, which is considered to be acceptable to allow for safe visibility along Bethells Road in either direction; and
- Planting and landscaping within the sight lines of a vehicle queued at the egress is non-existent/low height.

The new access road requires some minor modifications to be made to the side of Bethells Road. The concept design in Figure 16 above shows some minor tapering to improve the ease of access to entering vehicles and deceleration into the site.

The proposed internal road network consists of a total of eight private access roads as shown in ACH Consultants drawing A-040. The road widths have been designed to be of an appropriate width and gradient (20% maximum gradient) so as to ensure safe access throughout the development. Truck turnaround areas have been incorporated at the end of all dead-end roads within the development.

The roads incorporate passing bays at appropriate intervals. Consent is sought for a minor infringement of the access standard given that the passing bays do not meet the 15 metre length specified in Table E27.6.4.3.1. The TA concludes that, notwithstanding this infringement, given the rural nature of the site and low expected traffic volumes, *vehicles will be able to physically pass one another and will have sufficient sight distance and time to enable passing manoeuvres to occur safely on the site."*[11] Commute has reviewed this design and notes *"the parking bay layouts are considered acceptable"*[12] and considers that there are *"no traffic planning reasons for precluding approval of the proposed residential subdivision development."*[13]

6.7 Ecological Restoration

The application documents which outline the restoration intentions of the project include a Restoration Plan and a Plant & Animal Pest Management Plan, both prepared by Scrub Consulting Limited, and attached at **Appendix E** and **Appendix H** respectively.

Section 3 of the Restoration Plan outlines the aim and objectives of the restoration project, as follows:

> Restore natural ecosystem processes throughout a network of bush and wetland remnants and associated rehabilitated land on site, to improve ecological integrity and functioning across a total of 37.33 ha of land.

[11] Section 6.1, Para 2, Page 17, TA, Commute Transportation Consultants
[12] Section 9, Bullet Point 8, Page 19, TA, Commute Transportation Consultants
[13] Section 9, Last Para, Page 20, TA, Commute Transportation Consultants

The Restoration Plan confirms that the above aim will be achieved through implementation of eight objectives;

- Natural succession - *Where natural regeneration is evident encourage this via a minimum interference approach to ecosystem restoration with a focus on animal & plant pest control.*
- Control of Environmental Plan Pests/Weed Species – *Initial and ongoing control of plant pests in the form of site preparation and ongoing maintenance.*
- Animal Pest Control - *Establish and maintain on a regular basis an animal pest control network throughout the natural areas on the property, targeting mustelids, rats, possums via best practice.*
- Reinstating Native Plant Cover - *Reinstate native plant cover via native revegetation planting where natural regeneration is absent or minimal.*
- Eco-sourcing - *Maintain genetic diversity within the local native plant population by using only eco-sourced native plant species and minimise the planting of climax species*
- Restoration of habitat value in streams and wetlands - *Enhance the habitat values of the stream and wetland areas for birds and other fauna/ flora.*
- Legal Protection in perpetuity - *Protect the 37.33 ha of land proposed for restoration and management in perpetuity by way of a legal covenant registered on the title of the land.*
- Monitoring and Adaptive Management to ensure long term project success - *Ongoing maintenance and monitoring of the wider restoration programme for a minimum of 5 years per Stage, or until the performance criteria set in the consent conditions are met.*

The subdivision proposes that areas that are not identified for dwellings, dwelling curtilage area or accessways are required to be restored to functioning native ecosystems. The Restoration Report separates the 37.33 hectares that has been identified for legal and physical protection and restoration into broad ecological zones, based on the assessment completed by Bioresearches, with additional classifications made to further separate out different age classes and blocks of vegetation. These zones include, the Native Bush Zone, the Wetland Zone, the Shrubland Zone, the Restoration Zone and the Fire Retardant/low growing zone.

The Restoration Report then splits the Ecological Zones into the following six Ecological Management Units (EMU's):

- EMU 1 = Native bush (SEA)
- EMU 2 = Native Bush (non-SEA)
- EMU 3 = Wetland
- EMU 4 = Native shrubland
- EMU 5 = Restoration (natural regeneration)
- EMU 6 = Restoration (native revegetation)

The use of the EMU's is designed to aid the operational implementation and management of the restoration project and the subdivision is to be staged, as is the overall site restoration project, to allow for the incremental development of the site. Each of the seven stages contains a mix of some/all of the EMU types identified on the property, as outlined in Table 1, below, (taken from Section 7 of the Restoration Report) below:

Table 2. Area calculations for the natural areas proposed for staged restoration on the WFL property.

EMUs		Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6	Stage 7	Total
EMU 1	Native Bush (SEA)	3.39	0.41						3.80
EMU 2	Native Bush (Non-SEA)		1.22	0.87					2.43
EMU 3	Wetland	0.10		0.28	0.51			0.15	1.03
EMU 4	Shrubland		0.76		0.63	0.46		0.50	2.35
EMU 5	Restoration (Natural regeneration)	0.91	2.23		0.44		0.84	2.91	7.33
EMU 6	Restoration (Native revegetation)	2.48	4.12	3.74	2.61	2.26	1.06	4.12	20.39
Totals		6.89	8.75	4.88	4.19	2.72	1.90	8.02	**37.33**

Table 1 – Area calculations for the natural areas proposed for stage restoration (Source Table 2 – Scrub Consulting Restoration Report)

A map identifying the overall extent and location of the EMU's is provided in Figure 4 of the Restoration Report and is reproduced below, in Figure 17.

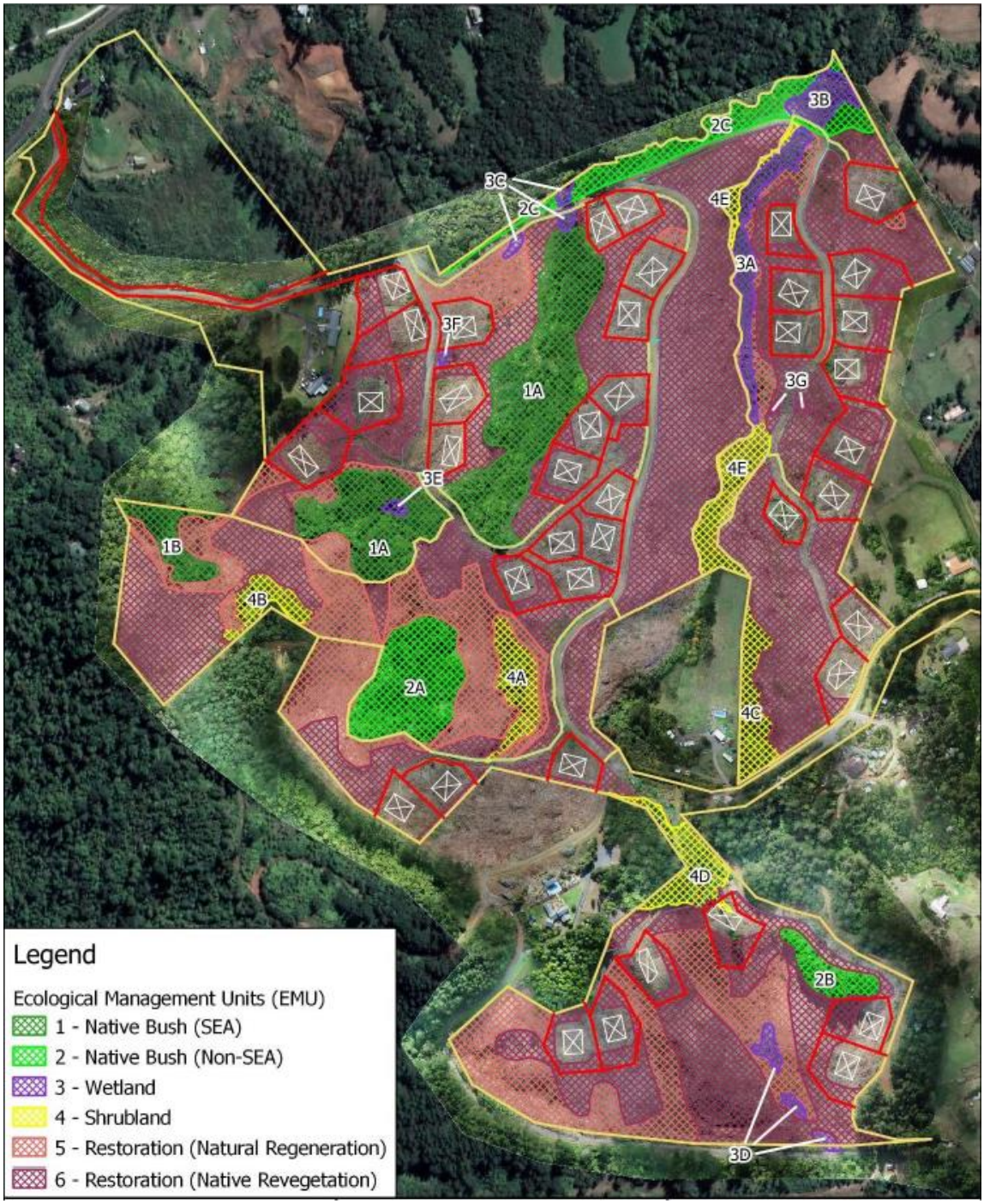


Figure 17 - Aerial photograph with overlay identifying the location of EMU's on the subject site (Source: Figure 4 – Scrub Consulting Restoration Report)

The Restoration Report acknowledges that significantly higher biodiversity gains are able to be achieved by utilising natural regeneration of native species preferentially and supplementing this with native revegetation where this is required. The Restoration Report details the best approach to restoration across each of the Management Units,

either promoting a minimal intervention approach, or active management, or in some cases a combination of the two.

The Restoration Plan outlines a series of steps (or management specifications) that will be implemented as part of the development to enable restoration of the 37.33 hectare block to occur and to ensure restoration is managed effectively on an on-going basis until the land is appropriately rehabilitated and the ecological benefits secured. These steps are outlined in the Table below (taken from Section 8 of the Restoration Report):

Step 1	**Undertake site-wide initial plant pest (weed) control**	targeting woolly nightshade, pampas, ginger, pine, gorse and other localised environmental weed species
Step 2	**Establish a site-wide animal pest control network**	targeting possums, rats and mustelids
Step 3	**Reinstatement of residual forestry Infrastructure and managing residual forestry vegetation**	removal of corduroy where appropriate, ripping of ex-forestry tracks, rehabilitation of skid sites and management of residual forestry slash
Step 4	**Boundary fencing and no-stock covenants**	Confirm property boundary is stockproof where stock pressure exists, and register a non-stock covenant over the site to enable demarcation fencing
Step 5	**Continue resourcing weed and animal pest control operations**	proactively resource the ongoing management inputs required to keep the restoration project on track and to adhere to the recommendations made in the stage-specific Restoration Plans
Step 6	**Undertake revegetation planting where appropriate**	in those EMU's identified as requiring active management intervention either via this document or as a result of the stage-specific Restoration Plans
Step 7	**Undertake regular monitoring**	regular monitoring by experienced restoration ecologists to prioritise work, adapt the work programme and anticipate future management inputs
Step 8	**Undertake well-planned and executed maintenance over the 5-year performance period for each stage**	maintain ongoing and regular effort on site-wide animal and plant pest control as the restoration programme progresses

Table 2 – Key management steps in the restoration of the subject site (Source: Section 8 - Table 3 - Scrub Consultants Restoration Plan)

To enable the comprehensive and effective native restoration of the 37.33 hectare 'balance area' of the Waitakere Farms Limited site, the Restoration Report makes a series of recommendations which are to be implemented. These are contained within Section 10 of the Restoration Report and are summarised below:

- Stage Specific Restoration Plans prepared with specific targeted programme for the restoration areas within each stage
- Undertake site-wide pest control work in the build up to Stage 1
- Remediation of residual forestry infrastructure
- No-stock covenants and demarcation fencing
- On-going resourcing of pest control
- Revegetation planting
- Monitoring
- Maintenance
- Incorporated Society managing covenant areas

Section 9 of the Restoration Report proposes a set of performance standards specific to the site which are designed to measure the performance of the restoration project and to aid Council in determining when each stage has achieved an adequate level of native regeneration (to enable the granting of 224c completion certificates and the issue of titles for each stage of the subdivision).

The performance standards will be formulated to be specific to each stage, but can be summarised as:

- An animal pest control network is in place within the relevant stage area and is located, and being run with the same methodologies, as specified in the Plant and Animal Pest Management Plan.
- Plant pest/ weed control is underway and there are no adult plants (capable of seeding) of any environmental weed species present in the relevant stage area, and records are provided that show ongoing control at the frequencies noted in the Work Programme (Section 8.9).
- Any revegetation planting, screening planting, fire-retardant/ low-growing planting or road margin/ verge planting that is identified in any given stage (and subsequently in the Stage Specific Restoration Plans) must be implemented (and evidence provided of the implementation) and a 12-month establishment timeframe allowed to lapse before 224c can be granted.

- A Planting Completion Report is provided at the time any and all planting associated with the relevant stage is complete.
- Plant survival rates and planting coverage is to be assessed no sooner than 12 months after planting is complete.
- When the planting has been in the ground for a minimum of 12 months, a Final Completion Report is prepared and submitted with the application for 224c, which will trigger a Council inspection of the various ecology works associated with that stage (e.g. animal and plant pest control, revegetation planting, demarcation fencing etc). This Final Inspection Report is to include records that show ongoing plant and animal pest control is occurring at the frequencies noted in the Work Programme (Section 8.9) and in the submitted Plant and Animal Pest Management Plan
- When Council's inspection report is approved, the Applicant may establish a bond to allow for early release of the titles associated with the stage. This bond secures and provides for the on-going maintenance and replacement of plants until such time as 75% canopy cover and 90% survival of planted numbers is achieved. It also ensures a sufficient standard of weed control is maintained in order to ensure the bond is refunded.
- In areas where natural regeneration is occurring and there is a mix of natural regeneration and native revegetation planting, the performance standard of 75% canopy cover will take into account all native vegetation whether it is planted or naturally occurring.

6.8 Ecology

A detailed ecological assessment has been undertaken which assesses the existing ecological values present across the site and analyses the effects of the development on this ecology. The report, prepared by Bioresearches, is attached at **Appendix B** and includes a detailed appraisal of the site ecology. A very brief summary is provided below and the Bioresearches Report should be referred to for a detailed analysis.

Avifauna

"*Overall the avifauna within the project area was dominated by exotic and common native birds. While the forest and wetland habitats appear to provide important resources for some species of native birds (e.g. kereru, tui, spotless crake) it is considered*

unlikely that the site in its current state provides important habitat for threatened birds or those with a national conservation concern."[14]

Land snails

Kauri snails were not detected on the site and review of the kauri snail distribution records shows that the species range does not extend as far north as the subject site. *"The presence of contiguous native forest habitat throughout the Waitakere Ranges suggests that population expansion northwards would be possible"*[15], but likely very slow (at a snail's pace). Other species including Amborhytida dunniae, were also surveyed for and were not encountered, however a single empty shell belonging to a mature Rhtida greenwoodi was found.

Herpetofauna (Reptiles and amphibians)

No indigenous lizards were detected over the course of the survey period. Plague skinks (noted as an unwanted organism) appeared widespread across the site. The Ecological Report notes that the impact of this species are *"not clearly understood and thus the presence of plague skinks in the project area neither adds nor detracts from the existing ecological values"*[16] of the site. The report notes that "*based on historic records from the local landscape and the presence of seemingly suitable habitat for native lizards on-site, up to six species could be present."* [17] It goes on to state that *"it is likely that at least forest gecko (M. granulatus), elegant gecko (N, elegans), pacific gecko (D. pacificus) and copper skink (O. aeneum) are present – probably at low abundance – in the indigenous forest/shrubland fragments and/or in areas of rank exotic grassland along roadside and riparian margins of watercourses. Other species such as ornate skink (O. ornatum) may also be present although, historical records of these species from the wider surrounding landscape are sparse. Despite this, there is an abundance of suitable habitat to support several indigenous taxa and their potential presence on site cannot be dismissed."*[18] Potential presence of striped skink (O. striatum) could also not be dismissed. The report notes that the 'At-Risk – Declining' Hochsetter's frog is unlikely to be present on the site.

Bats

The bat survey results revealed the presence of long-tailed bats on the site (listed as 'Nationally Critical' under the NZ threat status assessment – the highest threat category before extinction). The results indicate that the site provides an important habitat for

[14] Section 5.3.4, Page 31 – Ecology Report - Bioresearches
[15] Section 5.4, Page 32 - Ecology Report - Bioresearches
[16] Section 5.5.2.3, Page 40 - Ecology Report - Bioresearches
[17] Section 5.5.1, Page 34 - Ecology Report - Bioresearches
[18] Section 5.5.2.3, Page 40 - Ecology Report - Bioresearches

the local long tailed bat population and "*suggest that bat activity (both commuting and foraging behaviour) on site is correlated with forest edges, gullies and wetland habitats."*[19] The Bioresearches Report notes that *"Forest edges provide natural linear landscape features that bats use to commute along, and riparian and wetland habitats provide important foraging areas for bats due to the abundance of small flighted insects (e.g., mosquitos, midges) that occur near freshwater. The two main gullies of Jonkers Stream and Dilworth Stream are providing important commuting routes for bats utilising the northern part of the site, with less activity recorded high up on the ridgelines. In the southern part of the site, the south-facing forest edges appear to be important commuting and foraging pathways for bats navigating the large open area of recently cleared pine plantation."*[20]

The Bioresearches Report states that suitable roost trees are abundant on the site, however "*no of use by bats such as staining, scratches and guano around cavities and at the base of the tree was observed."*[21] The report notes that the abundance of potentially suitable roost trees and project time constraints presented limitations to the confirmation or otherwise of roosts. Generally, the kauri stand, SEA_T_4637 and Fragment A supported high numbers of large trees that could offer potential roosting habitat, as do the larger trees in Fragment B, SEA_T_2011 and around the northern wetland. The report states, that based on the acoustic data, "*there was little support for communal roosting on-site and at other sites around the country where long-tailed bats persist in modified landscapes (e.g., outskirts of Hamilton and in South Canterbury), bats readily select the largest and oldest trees available in the landscape for roosting behaviour. The extensive forested areas of the adjacent Waitākere Ranges provide an abundance of higher quality roosting habitat for long-tailed bats compared to the subject site. Notwithstanding, the possibility that individual bats may be roosting solitarily in the forest fragments on-site cannot be dismissed."*[22]

Exotic mammals

An investigation into the presence and abundance of exotic mammals on-site was not carried out as part of the Ecological Assessment, however the report notes that the site is expected to support a full suite of species including mice, rats, stoats, hedgehogs and feral cats. The report notes *"adverse ecological impacts of exotic mammals on native flora and fauna are well documented and much of New Zealand's biota has suffered*

[19] Section 5.6.5.1, Page 52, Para 2 - Ecology Report - Bioresearches
[20] Section 5.6.5.1, Page 52, Para 2 - Ecology Report - Bioresearches
[21] Section 5.6.5.1, Page 51, Para 3 – Ecology Report - Bioresearches
[22] Section 5.6.5.1, Page 51, Para 4 – Ecology Report - Bioresearches

severe range contractions or extinctions as a result of predation and competition pressures. There is little doubt that exotic mammals are influencing the structure, function or composition of local indigenous plant and faunal communities on-site but to what extent remains unknown."[23]

Conclusion

The Bioresearches report concludes that the overall ecological value of the site is considered to be high due to it having high values with respect to Representativeness, Diversity and Pattern, Rarity/Distinctiveness and Ecological Context (refer Table 3 below).

Attributes contributing to ecological value	Assigned ecological value	Ecological features
Representativeness & Diversity and Pattern	Moderate	• A diversity of vegetation and habitat types are present, which support indigenous flora and fauna. • Vegetation fragments are dominated by indigenous plant species and are largely representative of the natural forest cover and ecosystem type that would have existed on-site historically (i.e., *WF11*). • The riparian margins and freshwater environments of Jonkers Stream largely reflect the natural historic landscape. • The riparian margins and freshwater environments of Dilworth Stream and tributaries of the Kumeu River poorly reflect the natural historic landscape. • Some guilds of indigenous species are present, but the biodiversity is lower than what would be expected from intact ecosystems of the types that occur on-site. • Many wetland environments are largely natural with high plant diversity and native species prevalence.
Rarity/ distinctiveness	High	• Two 'Nationally Critical' species • Three 'Nationally Vulnerable' species • Two 'At Risk' species • Potentially five 'At Risk' species
Ecological context	High	• Site provides ecological connections (i.e., is an ecological steppingstone) with the wider surrounding landscape. • Large site supports important resources for indigenous taxa. • Site encompasses a substantial portion of the headwaters of the Kumeu River and has important management implications for the wider receiving environment downstream.

Table 3 - Table summarising the Ecological Values within the subject site (Source: Table 6.1.1 –Page 89, Bioresearches Assessment of Ecological Values and Effects)

[23] Section 5.7, Page 55, Para 2 - Ecology Report - Bioresearches

7.0 Resource Consents Required

7.1 Auckland Unitary Plan (Operative in Part)

To enable this development resource consent is required under the AUP (OIP) for the following reasons:

E39 Subdivision - Rural

Activity Table E39.4.1 (A4) states that boundary adjustments not exceeding 10 percent of the original site area and meeting standard E39.6.3.2 require consent as a **controlled activity**.

The proposed boundary adjustments would create new lot boundaries that do not exceed 10% of the original lot sizes. Lot 4 DP 162886 (62 Bethells Road) would retain its current site area (of 5.0064 hectares) with an equal land swap of 1034m² with 131-149 Anzac Valley Road proposed by the boundary adjustment. Lot 24 DP16619 68 Bethells Road) would gain an additional 425m² which would transfer from Lot 1 DP 320387 (131-149 Anzac Valley Road) increasing the site area of this lot from 2.0524 hectares to 2.0949 hectares and reducing the area of 131 – 149 Anzac Valley Road from 51.4860 hectares to 51.4435 hectares.

Activity Table E39.4.1 (A8) states that the subdivision of land within any of the following natural hazard areas requires consent as a **restricted discretionary activity**.

- 1% AEP floodplain
- Land which may be subject to instability.

The proposed subdivision contains land within the 1% floodplain and areas of land which may be subject to instability.

Activity Table E39.4.1 (A9) states that any subdivision listed in this table not meeting standards in E39.6.1 requires consent as a **Discretionary activity**. The proposed subdivision fails to meet the following general standards:

- Standard E39.6.1.1(3) - The specified building area must meet all of the following:
  a) include a single area of at least 2,000m^2 clear of all of the following:
     i. all yards;

ii. one per cent annual exceedance probability floodplain areas;
iii. land affected by coastal storm inundation one per cent annual exceedance probability;
iv. land affected by coastal storm inundation one per cent annual exceedance probability plus 1m sea level rise;
v. land which may be subject to coastal hazards;
vi. land which may be subject to land instability;
vii. access to all proposed building platforms or areas; and
viii. on-site private infrastructure required to service the intended use of the site.

b) be able to be linked by adequate and appropriate vehicle access to a formed public road;
c) be identified as the only place within the site where dwellings, any accessory buildings, and related parking and manoeuvring areas can be located; and
d) be located outside of the Quarry Buffer Area Overlay.

- *A 2,000m² specified building area is not provided on any of the rural/residential lots. Each of these lots is provided with a dedicated area of* ***approximately 500m²*** *for a future building platform and associated development. Note; Lot 36 has a reduced dedicated building area of 400m² as a result of geotechnical recommendations. The designated building platform has been designed to be clear of all yards (with the majority of lots required to provide a 3m setback from site boundaries, with the exception of Lots 3 and 4 being over 4,000m² and are required to have 10m setbacks). All designated platforms, would comply with the riparian yard setback and would be at least 20m from the edge of permanent and intermittent streams.*
- *The designated building platform for Lot 38 would be located within the Quarry Buffer Area overlay.*

The platforms would be on stable land, will be clear of overland flow paths (or the overland flow path will be realigned) and have been sized to accommodate private infrastructure. Pursuant to E39.4.1(A9) any subdivision listed in this table, not meeting standards in E39.6.1 requires consent as a **discretionary activity**.

Activity Table E39.4.5 (A32) Subdivision in Rural Zones (Rural – Waitakere Foothills Zone) creating site sizes less than 4ha in site area and not complying with Standard E39.6.3.2,

unless otherwise provided for in D12 Waitākere Ranges Heritage Area Overlay, requires consent as a **discretionary activity**.

The proposal would create a total of 40 rural/residential lots ranging in size from 1,500m² to 4,7700m² (see Table 4, below).

Lot	Area m²	Type	Lot	Area m²	Type	Lot	Area m²	Type
1	3,400	Residential	15	1,900	Residential	29	1,690	Residential
2	3,650	Residential	16	2,440	Residential	30	2,700	Residential
3	4,600	Residential	17	2,880	Residential	31	2,910	Residential
4	4,530	Residential	18	2,850	Residential	32	2,280	Residential
5	2,710	Residential	19	1,930	Residential	33	2,800	Residential
6	3,020	Residential	20	1,830	Residential	34	2,850	Residential
7	2,000	Residential	21	2,410	Residential	35	3,040	Residential
8	1,500	Residential	22	2,570	Residential	36	2,980	Residential
9	1,940	Residential	23	3,500	Residential	37	3,500	Residential
10	2,500	Residential	24	3,600	Residential	38	3,300	Residential
11	2,040	Residential	25	3,630	Residential	39	3,140	Residential
12	2,770	Residential	26	3,365	Residential	40	3,940	Residential
13	2,430	Residential	27	4,770	Residential	ROW	13,500	Roading
14	2,810	Residential	28	3,410	Residential	Restoration	374,900	Bush/Wetlands

Table 4 – Proposed Lot areas (Source: Table 1 - ACH Stormwater and Infrastructure Report)

The balance land (37.33 hectares) is to be rehabilitated and restored to a native bush ecosystem, covenanted and protected in perpetuity). It is noted that the WRHA Overlay does not provide any additional/specific subdivision provisions for this site and there are no precinct provisions relating to development in this location.

E11 – Land disturbance – Regional

Table E11.4.1 states that earthworks greater than 2,500m² within the Sediment Control Protection Area (50 metres landward of the edge of a watercourse, or wetland of 1,000m² or more) requires consent as a **Restricted Discretionary Activity**.

The engineering drawings indicate that earthworks covering an area in excess of 2,500m² (approximately 19,312m²) would be required within the SCPA (across the 7 stages of the subdivision, as outlined in Table 5, below) to enable formation of the private road network.

Earthworks areas within 50m of a water course	
Stage 1	*6,361 m²*
Stage 2	*1,506 m²*
Stage 3	*3,338 m²*
Stage 4	*2,038 m²*
Stage 5	*2,811 m²*
Stage 6	*3,258 m²*
Total	***19,312m²***

Table 5 – Earthworks within SCPA

E12 – Land disturbance – District

Table E12.4.1 states that earthworks of greater than 2,500m³, covering an area in excess of 2,500m² require consent as a **Restricted Discretionary Activity** in the Rural - Waitakere Foothills zone.

The proposal will require a total of 14,244m³ of earthworks (8,015m³ of cut and 6229m³ of fill) over an area of approximately 35,500m² to enable the upgrading and formation of the private road network and the construction of stormwater infrastructure.

D27 Quarry Buffer Area Overlay

Table D27.4.1 states that dwellings within the Quarry Buffer Area Overlay require consent as a **Controlled Activity**.

The proposal seeks consent as a controlled activity for a <u>future</u> dwelling to be established within the specified building platform (BP38 on Sheet 11 of the Scheme Plan prepared by C & R Surveyors Ltd). No building plans are available for the site currently, but it is considered that all adverse effects associated with the future establishment of a dwelling in this location will be fully addressed as part of the subdivision consent approval and therefore it is pragmatic to seek approval under this section of the AUP (as a controlled activity) at this stage. Note we are seeking an extended consent period of 10 years given that Lot 38 is located within Stage 7 (the last stage) of the subdivision.

E3 Lakes, rivers, streams and wetlands

Activity Table E3.4.1 deals with works on structures lawfully existing (before September 2013) and the associated bed disturbance or depositing of any substance, diversion of water and incidental damming of water. (A23) States that replacement, upgrading or extension of existing structures complying with the standards in E3.6.1.12 is a **Permitted Activity** outside the SEA Overlay or a **Restricted Discretionary Activity** within the SEA Overlay. (A23) states that any activities not complying with the general permitted activity standards in E3.6.1 or the specific activity standards in E3.6.1.10-E3.6.1.13 require consent as a **Discretionary Activity** outside the SEA or a **Non-complying Activity** within the SEA Overlay. Please refer to Table 6, below, for a brief summary of compliance (or otherwise) of each proposed/existing culvert, against the relevant standards in the AUP (OiP) Section (E3).

The proposal would involve the upgrading of two of the eight existing culverts (Culverts 18 and 19), and installation of box culverts (or similar) above existing culverts 8A and 17A. Fish passage will be maintained for Culverts 8A and 17A.
The upgrade of Culvert 19 provides fully for fish passage and constitutes a ***Permitted Activity.*** *The upgrade of Culvert 18 will for provide partial fish passage (in most flow conditions) and would therefore not 'prevent' the passage of fish E3.6.1.12(5) representing a partial barrier only. On this basis the proposed works are considered to have met the general permitted activity standards in E3.6.1 and specific activity standards in E3.6.1.12. On this basis they constitute a* ***Permitted Activity****.*

Note: *The upgrades to Culverts 17A and 8A are novel methods that retain the existing culverts and account for higher flow events (flooding) by installing a box culvert above each of the existing culverts. The engineers have designed these to avoid any need for stream works. Therefore, they technically don't need to comply with NES or AUP, as the culverts aren't being upgraded/ replaced.*

The proposal would also involve the removal of two existing skid bridges (SB A and SB B). Skid Bridge A would be replaced with a culvert (Culvert 23) a 300mm, 8m long concrete culvert and is located outside the SEA. The replacement structure would not result in adequate fish passage under low, normal and high flows. These works require consideration as a ***Discretionary Activity*** *(pursuant to A26) as the replacement structures fail to comply with the specific activity standard in E3.6.1.12 (5) relating to fish passage.*

Note: *Removal of Skid Bridge B would restore the natural stream channel and is in accordance with the relevant standards E3.6.1.10 and E3.6.1.13 and therefore constitutes a* ***Permitted Activity****.*

Note: *Two culverts (Culverts 13 and 14) located within the SEA overlay area have also recently been upgraded to 900mm and 1050mm concrete pipes respectively, positioned flat with the substrate. These culverts were replaced in May 2020 and October/November 2020, respectively. It is noted in the Bioresearches Ecological Assessment that although the two culverts do not provide for full fish passage (under all flow conditions). Culvert 13 would likely provide full fish passage under normal flow; however, under both low and high flow conditions passage would likely be restricted. For Culvert 14, under normal flow conditions, the culvert provides full fish passage; however, under high flow the undersized culvert is likely to restrict flow, resulting in water velocities too high for some fish species/ life stages to traverse. As they will not prevent the passage of fish and represent only a partial barrier, these works (already undertaken) are considered to have met the general permitted activity standards in E3.6.1 and specific activity standards in E3.6.1.12. On this basis they constituted a* ***Permitted Activity*** *and no retrospective consent is required under the AUP provisions.*

Culvert no.	Section E3 (AUP) Complies?	Activity status/standard not met
Culvert 17A	Complies	N/A
Culvert 8A	Complies	N/A
Culvert 18	Complies	N/A
Culvert 19	Complies	N/A
23 (SB A)	Does not comply – Discretionary Activity	E3.6.1.12 (5)
SB B	Complies	N/A
JSA	Complies	N/A
Culvert 13	Complies	N/A
Culvert 14	Complies	N/A

Table 6 – Table summarising consent triggers/activity status under Section E3 AUP

E15 Vegetation management and biodiversity

Activity table E15.4.1 states that

- (A16) vegetation alteration or removal within 20m of rural streams; and

- (A18) vegetation alteration or removal within 20m of a wetland, in the bed of a river or stream (permanent or intermittent) or lake

is a **Restricted Discretionary Activity**

*It is anticipated that some minor clearance of riparian vegetation would be required in association with the proposed upgrading of the existing road network and installation of replacement/upgraded culverts. The removal of vegetation would be restricted to no more than 0.5m – 1.0m either side of the culvert centreline. This requires consideration as a **Restricted Discretionary Activity**.*

Activity table E15.4.1 (A10) states that:
"Vegetation alteration or removal, including cumulative removal on a site over a 10-year period, of greater than 250m² of indigenous vegetation that:

a) is contiguous vegetation on a site or sites existing on 30 September 2013; and
b) is outside the rural urban boundary"

Removal of a mix of exotic and native vegetation (including regenerating native shrubs and trees <2 m high) would be required for the development of the new entranceway on Bethells Road. It is difficult to determine the total extent of indigenous vegetation being removed, so, for the avoidance of doubt, given that the total area of vegetation exceeds 250m² (being an area of approximately 658m²) of both exotic and indigenous vegetation and the site is located outside the RUB, consent is sought for a ***Restricted Discretionary Activity***.

E27 Transport

Activity Table E27.4.1 (A2) states that parking, loading and access which is an accessory activity, but which does not comply with the standards for parking, loading and access, requires consent as a **Restricted Discretionary Activity**.

The proposal provides passing bays at appropriate intervals, not exceeding 100 metres, but the length of the passing bays falls short of the 15 metres specified in Table E27.6.4.3.1.

E8 Stormwater Discharge and diversion

Activity Table E8.4.1 (A10) states that the diversion and discharge of stormwater runoff from impervious areas outside an urban area in excess of 5,000m² require consent as a **Discretionary Activity**.

The proposal would result in stormwater discharges from a total impermeable area (at maximum probable development) of 3.5 hectares (35,000m²).

7.2 National Environmental Standard for Freshwater - NES (F)

As outlined above, the development proposes installation of a number of new culverts to replace/upgrade existing culverts or in place of existing skid bridges. The installation of the majority of the new culverts would be carried out in accordance with the permitted activity conditions contained in section 70 (2) of the NES (F) and would constitute a **permitted activity**.

Note: The upgrades to Culverts 17A and 8A are novel methods that retain the existing culverts and account for higher flow events (flooding) by installing a box culvert above each of the existing culverts. The engineers have designed these to avoid any need for stream works. Therefore, they technically don't need to comply with NES (or the AUP, as outlined above) as the culverts aren't being upgraded/ replaced.

Two recently upgraded culverts (Culverts 13 and 14) which convey water in Jonkers Stream beneath a newly formed forestry access road, one culvert replacing an existing culvert (Culvert 18), and one culvert replacing an existing Skid Bridge (Culvert 23) do not meet the permitted activity conditions contained in section 70 (2) of the NES (F).

It is noted that Culvert 13 was installed prior to the NES (F) becoming operative (May 2020) and therefore these provisions were not applicable at the time the culvert was installed, with only the standards contained under the AUP (E3) being of relevance. As outlined above, the installation of Culvert 13 was classified as a permitted activity under the only relevant provisions at the time and on this basis no retrospective consent for these works is required.

Culvert 14 was installed soon after the NES became operative (October/November 2020) and therefore retrospective consent is sought for these works and for the installation of Culverts 18 and 23, as a **discretionary activity**, pursuant to regulation 71 (1).

We have taken a very conservative approach in relation to the works associated with the proposed upgrades to/replacement of existing culverts and the installation of new culverts. As a number of these will also occur within 100m of a natural wetland and may involve the "*taking, use, damming, diversion, or discharge of water within, or within a*

100m setback from, a natural wetland" for the avoidance of doubt, we are all seeking consent as a **non-complying activity** pursuant to regulation 54(c).

The Bioresearches report notes that the quantum of vegetation lost in association with the replacement and/or upgrading of each culvert would be very limited (0.5m-1.0m either side of the culvert centreline with the affected riparian vegetation comprising predominantly exotic vegetation and grasses with low ecological value. Notwithstanding this, any vegetation clearance within, or within a 10m setback from a natural wetland; earthworks within, or within a 10m setback from, a natural wetland also requires consideration as a non-complying activity pursuant to regulations 54(a) and (b). For the avoidance of doubt, we are seeking consent a **non-complying activity** under Regulations 54(a) and (b).

7.3 Overall Activity Status of the Application

The proposal requires consent as a **Discretionary Activity** under the Auckland Unitary Plan (Operative in Part).

Consent as a **Non-Complying Activity** is required under the provisions of the recently introduced National Environmental Standards for Freshwater (2020).

Overall, the application falls to be considered as a **Non-Complying Activity**.

8.0 Consultation

Consultation with a number of the immediately surrounding neighbouring properties has been undertaken including 62 Bethells Road, 68 Bethells Road, 70 Bethells Road, 53A Anzac Valley Road, 77 Anzac Valley Road and 117 Anzac Valley Road. These landowners expressed a number of concerns around effects such as increased noise (from traffic and from the increased proximity of residential activities) and an associated loss of privacy and rural amenity.

The applicant has attempted to address these concerns by proposing specific amenity/screen vegetation along the affected site boundaries (as shown on the scheme plan (attached at **Appendix D** and as detailed in Section 8.6.2 of the Restoration Plan, attached at **Appendix E**) The screen planting would be implemented during the early

stages of the subdivision (stages 1 and 2) to ensure it establishes quickly to provide maximum screening benefit in advance of the construction of dwellings on the lots. Broader consultation, beyond those immediately adjoining sites has not been undertaken and the application has been lodged on a publicly notified basis.

It is noted that the written consent of the owners/occupiers of the property at 193-197 Anzac Valley Road has been obtained and is attached at **Appendix I**.

Consultation with Mana Whenua (specifically Te Kawerau a Maki) has been undertaken and at the request of Iwi a preliminary archaeological assessment of the site was undertaken. This assessment, attached at **Appendix J** did not identify any archaeological evidence indicating early occupation of the site. The Iwi has provided written endorsement of the application (subject to consent conditions requiring the appropriate protocols to be followed during the construction/development phase). Evidence of this consultation is attached at **Appendix K**.

Consultation with other potentially interested community organisations has also been undertaken. These groups included NZ Forest & Bird (Nick Beveridge) and ARK in the Park (Gillian Wadams). The applicant's project manager, Ron Law, met with Nick and Gillian on Friday 20 September 2019 to discuss the proposed subdivision. Evidence of this consultation is attached at **Appendix L**

Both representatives of these organisations indicated that they saw merit in the proposal acknowledging the potential environmental and ecological benefits associated with potentially extending the Ark in the Park Buffer zone (refer Figure 18, below) to include the subject site and possibility of further strengthening the NorthWest Wild link ecological corridor (refer Figure 19, below) from West Auckland to the Hauraki Gulf. The *"Buffer Zone project is a collaboration between Ark in the Park and members of the surrounding community to extend the safe zone for wildlife and reduce the number of predators invading the sanctuary. It includes Bethells Valley and Scenic Drive."*[24]

[24] Buffer Zone – Ark in the park.org.nz website

Figure 18 – Map showing the proximity of the site to the existing targeted buffer zone and Ark in the Park

The main objective of the North-West Wildlink aims to "*restore, create and connect healthy habitats in the North-West, so that our native birds and wildlife can thrive once again.*"[25] The website notes that the Hauraki Gulf Islands and the Waitakere Ranges sanctuaries provide safe breeding grounds for native birds and other at risk species and because of these safe havens we are starting to see a return of more native birds to the mainland. The North-West already has great habitat stepping stones where wildlife can travel and breed safely between the Hauraki Gulf Islands and the Waitakere Ranges. The subject site could become another valuable stepping stone within the North-West corridor.

[25] North-West Wildlink.org.nz

Figure 19 – NorthWest Wild Link graphic illustrating the subject site falls within the North-West Wildlink corridor

ARK in the Park, the Waitakere Ranges Local Board and Forest & Bird requested that restrictions on cat ownership be included as part of the subdivision. Restrictive covenants prohibiting cat ownership are supported by the applicant given the proximity to the Waitakere Ranges and the extensive rehabilitation proposed across the site, to mitigate the known adverse effects on native fauna and are proposed as part of the application.

The applicant also met with a representative from the Waitakere Ranges Protection Society (WRPS), John Edgar and a legal representative of the WRPS, Douglas Allan, on Saturday 19th September 2020 to look over the site and the proposed subdivision layout. Following that meeting WRPS advised that it appreciated the ecological and landscape goals that the applicant was seeking to promote through the proposed development. This correspondence is attached at **Appendix N**. It acknowledged that ecological rehabilitation can be very expensive and would need to be funded through development returns. WRPS advised that is *"will need to consider the proposal and the supporting information carefully, and to obtain independent advice on some aspects (notably ecology and landscape matters), before forming a view. It is possible that WRPS will be more comfortable with some parts of the development than others."*

A Pre-Application Meeting was held with the Auckland Council on 12th December 2019 (ref PRR00033362) where a draft concept plan for the proposed 40 lot subdivision was presented. The minutes of this meeting are attached at **Appendix M**.

9.0 Section 104 Assessment

A consent authority must have regard to a number of matters under section 104 of the Resource Management Act 1991 when considering an application for resource consent.

In the case of the subject application those considerations include;

- the actual and potential effects of an activity on the environment;
- any measure proposed or agreed by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any potential adverse effects;
- the relevant provisions of a district plan, regional policy statement or other relevant statutory document; and
- any other matter the consent authority considers relevant and reasonably necessary to determine the application.

The following assessment addresses all relevant considerations under sections 104 and 104C of the RMA. A 104D assessment is also addressed later in this report.

9.1 Actual and Potential Effects on the Environment

The effects of the proposal on the environment have been evaluated as required by Section 88 of the Resource Management Act 1991.

9.1.1 The existing environment

As previously noted, an Existing Use rights Certificate (pursuant to Section 139A of the Resource Management Act) was granted by Auckland Council on 1 November 2019 and confirms the forestry use and access activities (as described in the certificate) attached at **Appendix S** are allowed under section 10 of the RMA, without the need for district resource consents.

Existing use rights are considered to be relevant to the 'existing environment' against which the application is assessed. An EUC is treated as a resource consent for the purposes of the existing environment assessment.

The applicant utilises the existing network of forestry tracks that cover the sites. While a number of these roads these will be upgraded, they do form part of the existing environment and landscape character. Similarly, ongoing forestry activities on the site would have range of actual or potential adverse effects which ultimately this consent will seek to mitigate, particularly in terms of the range of environmental enhancements outlined in this application.

9.1.2 Effects on landscape and rural character

A detailed landscape and visual assessment (LVA) of the proposed visual impact of the subdivision has been completed by Jan Woodhouse (Woodhouse & Associates Landscape Architects). This assessment should be referred to for an in depth analysis of the visual and landscape effects of the development, and is attached at **Appendix O**.

The proposal involves the creation of forty new rural/residential lots on the site and the restoration and enhancement of a comprehensive native ecosystem. The layout of the subdivision has been carefully considered, with the final layout clustering small groups of rural/residential lots together in a manner which aims to take advantage of the natural screening effect afforded by the undulating topography of the site, existing vegetation and the installation of vegetation between and around clusters to create a high sense of seclusion across the development.

This design approach would maintain a strong natural setting for the clusters and would minimise their visibility. The LVA notes that *"none of the dwellings will be visible on the skyline. All will have a background of landform and vegetation and all will be framed by vegetation."*[26] This approach ensures that future built development will be subservient to the natural environment and when future built development is viewed from neighbouring properties, only small groups of buildings would be visible from any one site. No one property would have views of all 40 lots, given the terrain and the careful positioning of the lots.

The subdivision also minimises the number of lots on the upper slopes of the site with development above the 130m contour being limited to three lots (lots 32-34). The LVA

[26] Para 157 – LVA, Woodhouse Associates, Landscape Architects

notes that: *"particular care was taken to limit the number of sites across the upper slopes and to cluster them close to existing development. Lots 32-34 are all located on relatively flat ground, are all backgrounded by landform and dense vegetation, will have height limits (5m rolling height) and colour controls over them and are in an intended cluster with the property at 193-197 Anzac Valley Road."*[27] Ms Woodhouse notes that whilst the future dwellings *"will be visible from the north, the closest viewpoints along the Bethells Road ridgeline are over 750 metres away."*[28] Screen planting is proposed to the rear of lots 32-34, to be established early in the subdivision, at Stage 2. The LVA notes that this planting is proposed "*to help integrate future dwellings on these lots into the more elevated setting by providing an immediate vegetative setting for each dwelling which creates a connection visually with the bush to the south. Over time the regenerating and revegetated bush across this section of the site is anticipated to complete this integration ensuring that dwellings on these lots do not stand out."*[29]Ms Woodhouse concludes that any impact on landscape character would not be adverse given the compensatory benefits of the environmental enhancement and restoration around these lots.

The LVA concludes that the site *"sits in a small basin that has a northerly aspect. It has a relatively discrete viewing audience; views into the site are limited and views of the entire site are also limited by landform and existing vegetation."*[30] The LVA goes on to state that "*none of the surrounding landowners will see all of the new dwellings on the proposed lots. None of the buildings will be obtrusive or stand out when completed. The re-establishment of native bush across the site will reinforce integration of buildings into their receiving environment."*[31]

The LVA acknowledges the principle of 'quid pro quo' inherent in this application, where a higher density of development is considered acceptable in exchange for overall extensive ecological rehabilitation of the site. The assessment concludes "*development of the type proposed will not be incongruent in this landscape"*[32]. It is the opinion of Ms Woodhouse that the proposed development *"will generate a new type of landscape with positive values, not the least of which is linking and connecting disparate areas of bush together – the undisturbed bush to the south and west and regenerating bush across the northern boundary between the site and Bethells Road."*[33]

[27] Para 229 - LVA, Woodhouse Associates, Landscape Architects
[28] Para 230 - LVA, Woodhouse Associates, Landscape Architects
[29] Para 140 - LVA, Woodhouse Associates, Landscape Architects
[30] Para 226 – LVA, Woodhouse Associates, Landscape Architects
[31] Para 235 – LVA, Woodhouse Associates, Landscape Architects
[32] Para 240 – LVA, Woodhouse Associates, Landscape Architects
[33] Para 240 - LVA, Woodhouse Associates, Landscape Architects

The Rural – Waitakere Foothills zone covers the area between the developed urban part of Auckland and westwards to the bush covered Waitakere Ranges. The zone includes a mix of rural/pastoral landscapes and more natural bush covered areas. Activities within the zone include forestry, vineyards, orchards, dwellings and pasture land.

The site's landscape and visual context is discussed in detail within the LVA. It is noted that the relatively recent harvesting (in the summer of 2018/2019) of the previous pine plantation on the site has left the site with a disturbed nature, basically rural in character but with this rural character significantly eroded as a result of the felling of pines and the associated presence of cut over pine slash, earth worked areas and bulldozed forestry access roads/tracks throughout the site. The landscape character of the site is also currently impacted by exotic weed infestation including wilding pine, ginger, gorse and woolly nightshade.

The current proposal includes the permanent protection by way of protective bush covenants a total area of 37.49 hectares comprising of the existing areas of SEA on the site (3.90 hectares of native bush) and a balance area proposed for revegetation/rehabilitation. This 'balance' land area, totalling 33.59 hectares, comprises of 2.43 hectares of high value native bush (non-SEA), 1.67 hectares of wetland, 2.23 hectares of regenerating native shrubland and 27.26 hectares of ex-pine/post-harvest land regenerating in a mix of native and exotic vegetation. This balance area of land would also be permanently protected by way land covenant restricting the ability for any further subdivision of the site and the land would be permanently retired from its previous forestry land use.

Whilst the Rural – Waitakere Foothills zone limits the establishment of rural residential sites (with an area of less than 4 hectares) on the basis that such subdivision fragments rural resources, changes rural character and potentially creates conflict with rural production activities, the Foothills zone does specifically provide for a greater density of subdivision as a discretionary activity, particularly where environmental benefits (such as the creation or protection of significant areas of indigenous vegetation or wetlands) are able to offset the potential adverse effects on rural character and significant environmental benefits are secured.

It is acknowledged that the character/appearance of the landscape changes considerably as a result of the productive cycle of forestry land use, with the felling of the mature pine plantation (representing the end phase of a 20+ year cycle) being the time where the most evident physical changes to this landscape become apparent. The

felling of the mature pine plantation during the summer of 2018/2019 has opened up views into the site and has altered the longstanding character of the land that was attributed to the productive forestry use. The character of the land can now be described as a predominantly open, visually degraded rural landscape, featuring a mix of denuded slopes, including pine slash and weed areas and roughly formed, exposed forestry tracks associated with the harvesting activity with pockets of partially regenerated native bush also existing across the site.

It is my opinion that the proposed development of 40 rural/residential lots in a 'cluster' type arrangement will not detract from this existing rural character, but it will alter it, forming a 'bush living' type character. This change to existing character is considered, on balance, to be positive, as it enables significant restoration of the degraded native environment to occur across the site.

The proposal provides an opportunity for the rehabilitation of the currently degraded rural landscape, with the aim of the restoration project being to "*restore natural ecosystem processes throughout a network or bush and wetland remnants and associated rehabilitated land on site, to improve ecological integrity and functioning across a total of 37.33 hectares of land.*"[34]

This rehabilitation programme, as outlined in detail in the Restoration Report prepared by Scrub Consultants Limited and attached at **Appendix E** will be undertaken in a staged manner, alongside the physical works associated with the establishment of the private accessways and associated infrastructure. The proposed development will result in creation of a 'bush living' type environment and it is anticipated that the development will be viewed (and physically linked, through extensive rehabilitation of the native vegetation on the site) as part of the Waitakere Ranges environment rather than the less vegetated, semi-productive foothills environment. The LVA states that the proposal *"responds and reflects the Objectives and Policies in the Auckland Unitary Plan by recreating a type of non-urban landscape character and by reinforcing the visual buffer between urban Auckland and the forest ranges and coast."*[35] The LVA goes on to conclude that the *"protection and revegetation of the natural elements, patterns and processes will result in a positive change to ecological quality and thus landscape character, and the development will fit seamlessly into the natural environment once mature."*[36]

[34] Page 7, Section 3 – Aim & Objectives – Restoration Report, Scrub Consultants Limited
[35] Para 232 – LVA, Woodhouse Associates, Landscape Architects
[36] Para 238 – LVA, Woodhouse Associates, Landscape Architects

Alongside the ecological rehabilitation of the land, the LVA has identified the need for specific mitigation measures to be incorporated into the subdivision to minimise the impact of future built development on landscape and rural character. A number of both site wide restrictions and 'lot specific' restrictions are proposed as part of the subdivision to ensure buildings and physical infrastructure (particularly accessways) are successfully integrated into the landscape. The development proposes the following 'site-wide' measures to be secured by way of consent notices on the title:

- each lot has a clearly identified (approximately) 500m² specified building area, being the only part of the site that is able to be built upon; and
- buildings are limited to a single dwelling only (no accessory buildings permitted); and,
- each lot has a maximum building footprint of 300m² per lot; and
- colour reflectivity standards are applicable to all buildings.

In addition to the above 'site wide' restrictions a number of 'lot specific' measures are also proposed, to be secured by way of consent notices on the relevant titles:

- 5m maximum building height on Lots 10-12, 15, 16, 26-28, and Lots 30-34; and
- Screen/amenity planting is required in the following locations:
    - along the rear of Lots 1-4 (adjacent to the shared boundary with 68 Bethells Road (to be established during Stage 1 of the subdivision); and
    - along the rear of lots 24-28 (to be established during Stage 2 of the subdivision); and
    - along the rear of lots 32-34 (to be established during Stage 2 of the subdivision).

Subject to the implementation of the proposed site wide rehabilitation works and the restrictions on future built development the LVA concludes that, "*because the development repairs the vegetative cover on the site, landscape character will change from the productive landscape type into a bush living type of character. The preceding discussion illustrates that the proposed development will enhance rather than detract from the biophysical elements that are valued in this type of environment. It will not change their underlying characteristics or attributes; and will not adversely affect key values in the landscape that surrounds the site.*" [37]

[37] Para 202 - LVA, Woodhouse Associates, Landscape Architects

The report also concludes that, "*although rural character will change as a result of the development the revegetation of the site will ensure that the change in character moves it back towards a more 'Natural character' type of environment. The land use elements that contribute to rural character type will disappear and an environmentally more sustainable bush living type of environment will emerge, providing a resilient natural buffer to the native forest in the ranges.*"[38]

Overall, it is considered that effects on landscape and rural character arising from the subdivision, although representing a change to landscape character, would not generate any long term adverse effects that are more than minor.

9.1.3 Effects on Amenity

Effects on amenity can be split into the following areas, visual effects, effects on privacy, and general amenity/disturbance effects associated with the change from a productive rural land use to the rural/residential use of the land. This report addresses each of these separately below.

9.1.3.1 Visual Effects

The visual effects of the subdivision and development are considered in detail within the LVA prepared by Woodhouse & Associates Landscape Architects, attached at **Appendix O**. The LVA uses the following rating scale to assess the degree of effects:

- Extreme: *total loss of the existing character, distinctive features or quality of the landscape resulting in a complete change to the landscape or outlook*
- Very High: *major change to the existing character, distinctive features or quality of the landscape or a reduction in the perceived amenity of the outlook*
- High: *noticeable change to the existing character or distinctive features of the landscape or reduction in the perceived amenity or the addition of new but uncharacteristic features and elements*
- Moderate: *partial change to the existing character or distinctive features of the landscape and a small reduction in amenity*
- Low: *a slight loss to the existing character, features or landscape quality*

[38] Para 205 - LVA, Woodhouse Associates, Landscape Architects

- Very Low*: the proposal is barely discernible with little change to the existing character features and landscape quality*
- Negligible: *The proposed development is barely discernible or there are no changes to the existing character, features or landscape quality.*

The LVA completes a detailed analysis of the visual impact of future built development on all immediately adjacent and surrounding properties from which the development would be visible. This analysis states that *"because visible development will be located at a considerable distance from most potential viewers – whereby it does not form an important component of their overall scene – viewers located more than 1.5km away were discarded because the proposed [future] dwellings will be absorbed into the landscape at that distance by utilising design features such as:*

(a) Limiting the scale/size of individual buildings,
(b) Limiting the height of buildings close to the ridges and
(c) Imposing colour controls on all buildings so they blend in to their settings."[39]

The LVA concludes that given the above built design restrictions, coupled with the staged nature of the development, and the revegetation of large tracts of the site proposed, that from distances of more than 1.5 kilometres the development will be *"integrated into the setting and it will be very difficult to identify."*[40]

The LVA also analyses the impact of the proposal on motorists, identifying two locations where the site will be fleetingly visible from Bethells Road (refer Para 190-192 of the LVA). The LVA concludes that future development of the site *"will not draw the eye because the motorist must concentrate on negotiating the road past the Waitakere School in the Waitakere Village initially and then the winding and narrow Bethells Road which is fringed with tall vegetation and/or landform. The site is also below the elevation of some of the road and the distance will result in structures seen against a background of landform and vegetation being rapidly integrated into their setting. Within 10 years, they will not be legible in the landscape because they will be surrounded by bush."*[41]

The LVA concludes the any adverse visual effects would be very low. Based on that assessment and given the fleeting nature of the views into the site from motorists travelling along Bethells Road and the objective of rehabilitating the native vegetation

[39] Para 122 – LVA, Woodhouse Associates, Landscape Architects
[40] Para 123 – LVA, Woodhouse Associates, Landscape Architects
[41] Para 194 – LVA – Woodhouse Associates, Landscape Architects

of the site over time to screen and obscure built development, it is my opinion that any adverse visual impact on motorists would be negligible.

With respect to more immediate neighbours, the LVA analyses the visual effects of the proposed subdivision on the following individual properties (or groups of properties) as listed below:

- To the west - 68 Bethells Road
- To the north - 48, 50, 53A, 60 and 62 Bethells Road
- To the east – 53A, 77 and 87-93 Anzac Valley Road, plus two properties further east at 53 and 67 Anzac Valley Road
- To the south-east – 117 and 95-115 Anzac Valley Road
- To the south – 15, 17, 84, 90-96, 98-106 and 102-114 Anzac Valley Road

A table, summarising the visual impact on the identified viewing audiences is also included within the LVA. This table, provided in Figure 20 below, concludes that with appropriate mitigation adverse visual effects would be low or very low within 5 years.

EFFECTS SUMMARY

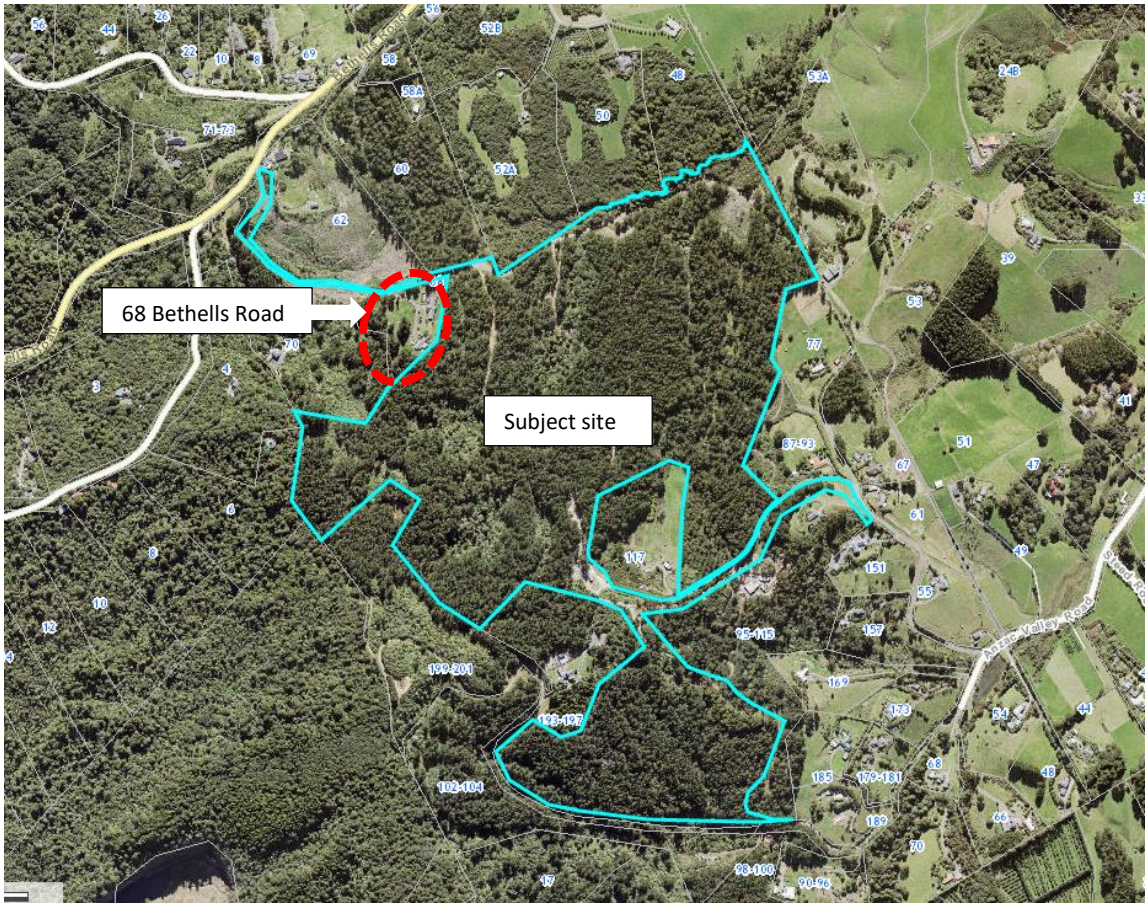
Location	Road Number	Visual effect	Visual effects Rating	Specific Mitigation required	Form of mitigation offered
Residents off Bethell's Road	68	Dwelling on Lot 3 clearly visible from boundary. Lots 12, and 15—19 also visible	Moderate to High initially-- low within 5 yrs.	yes	Dense screen & general revege planting on boundary
Residents on Bethell's Road	48, 50, 52A, 58 & 60	Dwellings on north facing lots (lots 3 & 4, 6 & 7; 10—19, 24—34 potentially visible but not all together	Moderate to High initially— Low within 5 yrs	no	Planting and Colour controls
Residents of Anzac Valley Road (North side of the ridge)	53, 53A 67, 77, 87—93	Initial visibility from paddocks and boundary fence. Elevated dwellings in stage 1(Lots 3 and 4:5), dwellings on central ridge (Lots 10—13 and 15 & 16). Up to 5 dwellings on eastern boundary—Lots 24—28	High initially. Low within 5 yrs.	yes	Dense screen planting along the eastern boundary. Building height limits & colour controls
117 Anzac Valley Road	117	Dwellings on Lots 12, 15 & 16 and on Lots 23 to 28 potentially visible initially in midground.	High initially rapidly reducing to Low within 5 years	yes	General revegetation planting along eastern side of central ridgeline in Stage 3 plus building height and colour restrictions on 12, 15 & 16.
95-115 Anzac Valley Road	95—115	dwellings seen from access road only. Lots 12, 15 & 16 and Lots 30 & 31	High initially rapidly reducing to Very low	no	Building height restrictions, colour controls and general revegetation planting
Anzac Valley Road (South side of the ridge)	15,17,84 90—96, 98— 100, 102-104	All dwellings on Lots 35—40 seen against background of landform and vegetation	High initially. Very low within 5 years	no	General revegetation planting & colour controls
Motorists on Bethell's Road views	2 VPs identified— west of 69 & east of Dilworth bridge	Views fleeting and at a right angle to the viewer	Very Low	no	General revegetation planting and colour controls

Figure 20 – Table summarising Visual effects taken from page 30 of the LVA prepared by Woodhouse Associates, Landscape Architects

The visual effects of the proposed subdivision on the above properties have been comprehensively assessed within the LVA (attached at **Appendix O**) and this document

should be referred to for a detailed analysis of the visual effects of the proposal. A brief summary of the visual effects on these landholding/groups of landholdings is also provided below and aerial photographs (Photograph 6 – 12) show the proximity of each site, relative to the subject site.

To the west of the subject site - 68 Bethells Road



Photograph 6 – Aerial photograph showing the position of 68 Bethells Road, relative to the subject site.

The LVA notes that the residents of 68 Bethells Road are *"potentially the most affected viewers."*[42] The dwelling at 68 Bethells Road is orientated towards the north and north-west (away from the subject site) but is immediately adjacent and within 50m of the closest of the Stage 1 lots. Currently some native vegetation exists along the eastern (common) boundary which provides a partial screen between their property and the subject site. The LVA notes that the landowners at 68 Bethells Road may be able to see future dwellings established on Lots 3 and 4 (as these are the more elevated of the proposed lots within Stage 1) but the remaining future dwellings on Lots 1 and 2 and 5-7 would be screened by landform and by the existing vegetation located along the

[42] Para 143 – LVA – Woodhouse Associates, Landscape Architects

boundary. The LVA notes that future dwellings on the west face of the subdivision, below the central ridge (lots 12 and 15-19) may also be visible initially to the residents of 68 Bethells Road. Development in this area falls within Stages 2 and 3 of the subdivision.

In order to mitigate the potential visual impacts of the development (and future buildings) on the property at 68 Bethells Road the applicant proposes to establish screen planting (having a depth of 10m) along the rear boundaries of Lots 1-4. This proposed screen planting will be implemented during the first stage of the subdivision and will be covenanted, to be maintained in perpetuity. Table 5e of the Restoration Report (and included at Figure 21, below) provides details of the plant species to be utilised for screening. It is noted that larger plant sizes (2L) will be utilised in these locations (as opposed to the areas of regeneration planting) and plants will be spaced at higher densities (1.2m) to achieve a more effective screening effect in the shortest possible time frame.

Table 5e – Screening planting indicative species mix for Waitakere Farms Ltd

Common name	Botanical name	Spacing (m)	Size (L)	Mix %
Coprosma macrocarpa/ C.lucida	Karamu/ shining karamu	1.2	2	30
Pittosporum eugenoides	Tarata	1.2	2	20
Aristotelia serratus	Wineberry	1.2	2	15
Pseudopanax arboreus	Whauwhaupaku/ five-finger	1.2	2	15
Carpodetus serratus	Putaputaweta	1.2	2	5
Fuchsia excorticata	Kotukutuku	1.2	2	5
Hebe stricta	Koromiko	1.2	2	5
Piper excelsum	Kawakawa	1.2	2	5
				100

Figure 21 – Screen planting species schedule (Source : Table 5E, Page 41 -Restoration Report, Scrub Consultants)

It is anticipated that the above screen planting will effectively screen future built development on Lots 1, 2 and 5-7 of Stage 1 and future development in Stages 2 and 3 of the development whilst also screening and integrating future built development on Lots 3 and 4 into the landscape, minimising adverse visual impacts to a low level within 5 years, as indicated in the Effects Summary Table contained within the LVA.

The LVA notes that the adverse visual effects associated with construction of the road network and infrastructure and future dwellings in Stage One will initially result in a

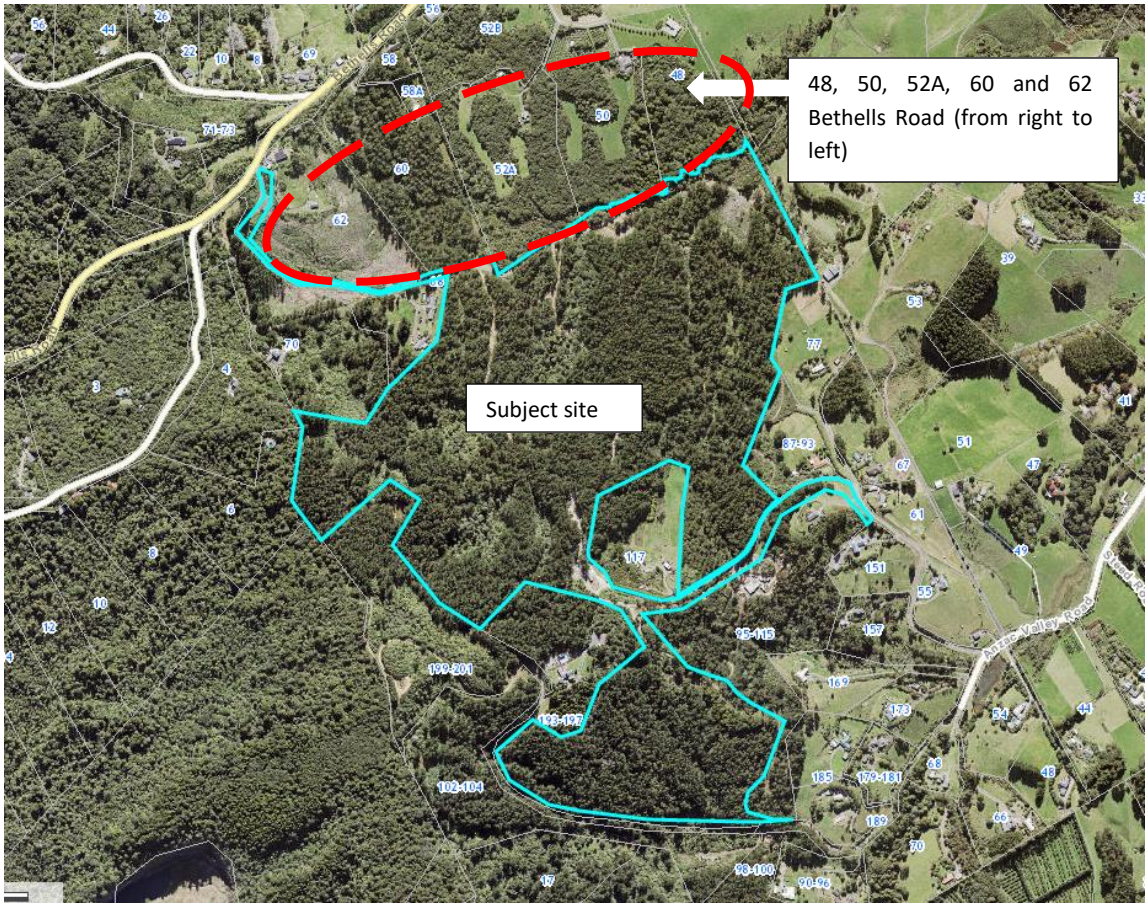
significant change to the existing character, distinctive features and quality of the landscape, but the assessment concludes that these changes will reduce to low effects once planting is established. The LVA notes that after the planting is well established (within 2-5 years) the built form will be *"barely discernible."*[43]

As previously noted, the proposal also incorporates a raft of design controls (to be implemented by way of consent notices on individual titles) throughout the subdivision, which relate to future built development. These measures (limitations on building scale, and the proliferation of buildings (i.e. only a single building permitted, with attached garaging) limitations on building height (specific to certain lots) and building colour/reflectivity controls) have been designed to supplement the screen planting and native restoration programme being implemented across the site, to ensure that future built development is able to be absorbed into the landscape without being visually obtrusive. A separate attachment (**Appendix T**) outlining matters which the applicant proposes are to be secured by way of consent notice (draft wording) is included with the application.

Subject to the implementation of screen planting as indicated on the Scheme Plan (in Stage 1 of the subdivision) and the restrictive controls on future built development, any adverse visual effects associated with the subdivision (and the subsequent built development) on the property at 68 Bethells Road, would be no more than minor.

[43] Para 154 – LVA – Woodhouse Associates, Landscape Architects

To the north of the subject site – 48, 50, 52A, 58 and 60 Bethells Road



Photograph 7 – Aerial photograph showing the position of the properties at 48, 50, 52A, 60 and 62 Bethells Road, relative to the subject site.

The above properties are located to the north of the subject site. The LVA notes that *"not all of the dwellings on these lots are visible from the site as many are screened by native vegetation located either around the dwellings or between the house and the site on other properties. None the less it is anticipated that most of the residents will be able to see the site from the south side of their dwellings or from cleared paddocks on their properties."*[44]

It is noted that there is good level of separation between the subject site and established buildings on the adjacent sites to the north, with the closest lots on the lower sections of the site (lots 8 and 9) being approximately 250m. The LVA assessment notes that it may be possible for residents of these properties to see much of the proposed development except for dwellings at the lowest elevations (Lots 1, 2, 5, 6, 8 and 9 and the lots in the southern valley, being lots 35-40). All lots will be visible in the distance

[44] Para 155 – LVA – Woodhouse Associates, Landscape Architects

and will be at elevations that are lower than the viewer, with the exception of lots 30-34, which will be higher. These lots will be visible, but from a considerable distance of approximately 700m.

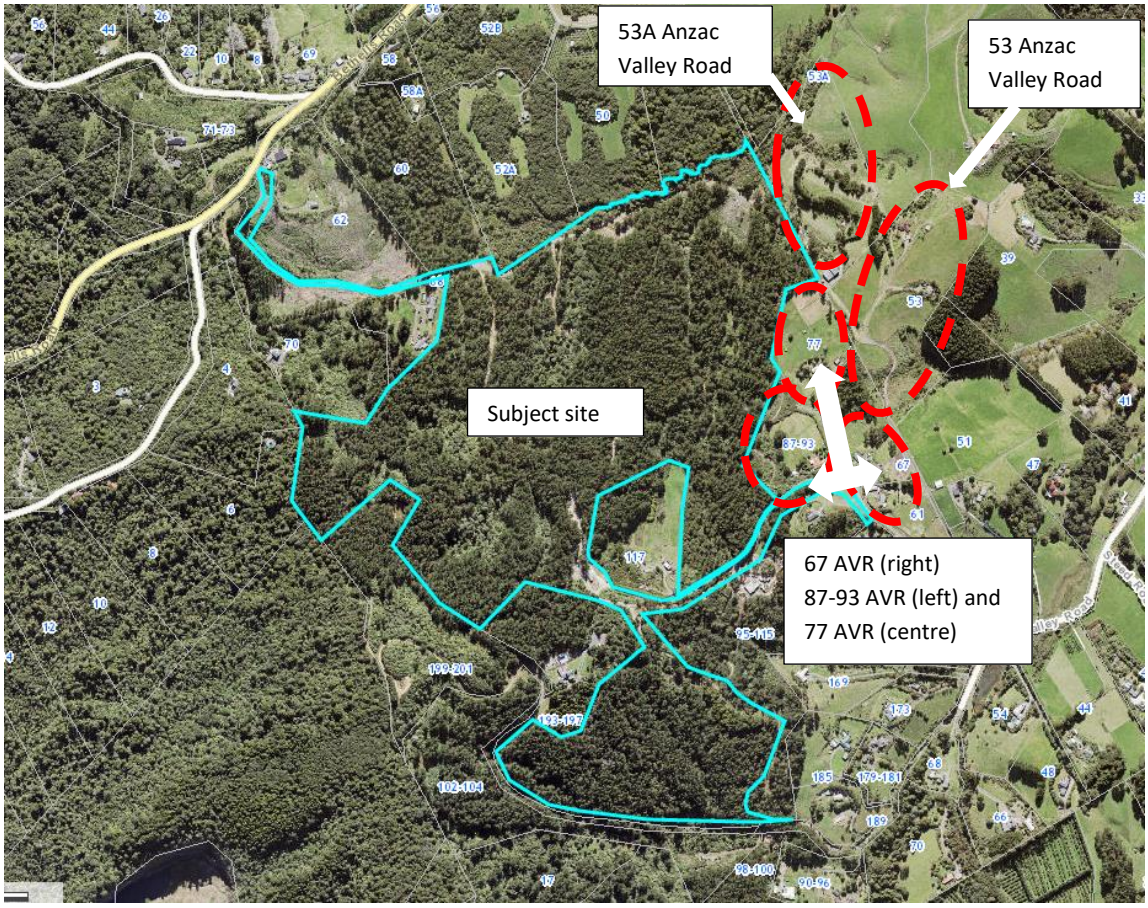
The LVA assessment states that the insertion of dwellings into the landscape as a result of the creation of the new rural/residential lots will change the current visual outlook in the short term as the future development will be noticeable (i.e. excavated landform, framing materials colour contrast) prior to the revegetation of the site having the opportunity to establish and mature. The LVA concludes that *"in the longer term, each of the clusters of development will be screened by native vegetation and their integration into the landscape will be assured by careful placement of each building."*[45]

Adverse visual effects on the identified residents to the north, are considered to be low, once the planting proposed within the Restoration Plan is installed and has had the opportunity to become well established. The LVA concludes that the *"landscape character that will develop will be regarded as an extension of the bush environment and it will be similar to the emerging 'bush living' environments that exist to the north – but without the open space or pasture. This is an emerging character in the foothills environment."*[46]

Overall, it is concluded that adverse visual effects would be low (or no more than minor) when the screen planting is installed and well established and the future built development is viewed alongside the extensive areas of native restoration being undertaken across the majority of the site.

[45] Para 159 - LVA – Woodhouse Associates, Landscape Architects
[46] Para 160 – LVA – Woodhouse Associates, Landscape Architects

To the east of the subject site – 53, 53A, 67, 77 and 87-93



Photograph 8 – Aerial photograph showing the position of the properties at 53, 53A, 67, 77 and 87-93 Anzac Valley Road, relative to the subject site.

The above sites are located to the east of the subject site. The LVA notes that the residents of 53A, 67, 77 and 87-93 Anzac Valley Road may each see a small portion of the site from the north-western sides of their dwellings but they will have greater visibility of the subject site from the paddocks on their properties. The LVA also notes that all the future building platforms on the proposed lots along the eastern boundary line (lots 23-28 and lots 30 and 31) are set below the elevation of the eastern boundary line.

The LVA notes that a 10-metre wide swathe of screen planting is proposed (to be implemented in Stage Two) along the length of the eastern boundary from Lot 24-the northern half of lot 27. The screen planting (as outlined in Figure 19, above) will then reduce to a width of 6m along the southern half of lot 27 and into Lot 28. The early implementation of this screen planting (prior to the development of lots along the eastern boundary, being within Stage Four of the subdivision) is intended to ensure that adequate screening will be in place and well established (i.e. 1.5-2 metres in height) prior

to the construction of any dwellings on the lots within Stage Four. The LVA acknowledges the staged nature of the subdivision and that development in each stage will be the consequence of successful establishment of vegetation in earlier stages. Ms Woodhouse states *"Development of the lots in the Dilworth Valley catchment is not anticipated to occur until Stage 4 at the earliest, by which time the screening vegetation to be planted on the eastern boundary in Stage 2 will be 1.5-2m high."*[47]

The LVA notes that the imposition of a 5 metre maximum rolling height restriction on the height of future dwellings on Lots 10-13, 15 and 16 and Lots 25-28, combined with the site-wide restrictions on building reflectivity, and building footprint, and *"will combine with the revegetated areas planted along the eastern facing slope in the Dilworth catchment and the screen planting along the eastern boundary line (between Lots 24 and Lot 28 and along the eastern boundary of Lot 30) to reduce the visibility of the dwellings, blending them into the backgrounds."*[48] The fact that all building platforms are set below the level of the eastern boundary also minimises the potential for buildings to be visually obtrusive when viewed from the receiver sites.

The LVA concludes that the *"revegetation and the construction of buildings in this landscape will be part of a sequence of change that has and is still occurring in the landscape. It is agreed that the insertion of dwellings into this landscape would change its current characteristics to a High extent – but only if all of the proposed lots were to be built on simultaneously and if they were to be left without screening."*[49] This is not the case. Whilst visual change might be high initially, adverse effects on these properties will reduce to low once the planting has established. Given the staged nature of the subdivision, the design controls on built development, the early implementation of screen planting and the significant rehabilitation planting planned across the balance of the site it is considered that any adverse visual effects on these properties are able to be successfully mitigated to a level where the visual impact would be no more than minor.

[47] Para 169 – LVA – Woodhouse Associates, Landscape Architects
[48] Para 171 - LVA – Woodhouse Associates, Landscape Architects
[49] Para 172 – LVA – Woodhouse Associates, Landscape Architects

To the south of the subject site - 117 Anzac Valley Road

Photograph 9 - Aerial photograph showing the position of the property at 117 Anzac Valley Road, relative to the subject site.

The property at 117 Anzac Valley Road is at the top of the Dilworth Stream catchment and contains a number of residential buildings which have outlook across their site to the north (down the gully). The LVA notes that views to the west from this site are partially obscured as a result of topography and existing vegetation on the site, but that Lots 10-13 and possibly the roofing on lots 15-16 would be visible until the intervening revegetation areas are established and mature. Other lots that may be visible will be Lots 20-27 and possibly 28 in the mid-ground, but these would be at a considerably lower elevation than the viewer. The LVA also notes that development on these lots will be seen as conflated built form (i.e. one behind the other with vegetation between the clusters).

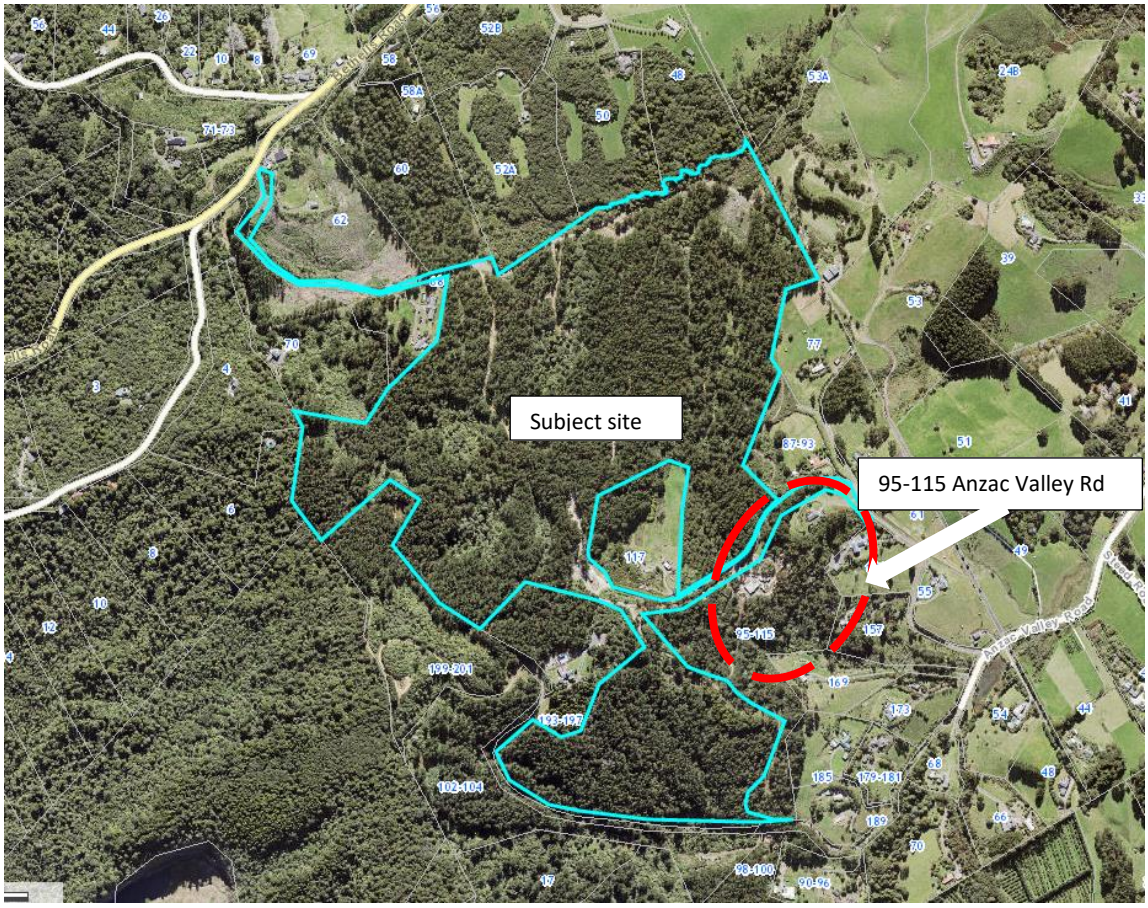
Although in the short term a number of the lots (and associated future dwelling houses) would be visible in the distance from the subject site, the LVA notes that *"buildings in the Dilworth Stream Catchment will be located at a much lower elevation than the viewer, which lessen visual impact, will be recessive in colour and will be seen against a*

background of landform and vegetation. They will also be seen in association with a landscape that is being reclad in native vegetation." [50] The LVA concludes that *"The Stage 3 planting along the eastern side of the central accessway will combine with the height and colour controls imposed on buildings on Lots 10-13 and 15 & 16) to ensure that these buildings do not become visually overpowering or dominant. An increasingly dense vegetative cover around and between each cluster of buildings in the Dilworth Stream catchment will at first help integrate, and then completely screen buildings on lots 24-29 into their landscape from all viewpoints. Once the vegetation proposed for the upper Jonkers Stream catchment reaches 2m in height- it will screen all views out from the access road."*[51] (The LVA is referring to the viewpoints at 117 and 95-115 Anzac Valley Road).

The LVA concludes that the change to the existing character of the site will be noticeable (high) initially as development of accessways and the appearance of the first structures occurs, but that these visual effects will be *"quickly softened by the increasing density of the emerging native vegetation across the site. As this vegetation grows it will combine with the controls on building height and colour to integrate all of the structures into the landscape."* [52] Visual effects overall will decline over time as vegetation establishes and are considered low, or no more than minor.

[50] Para 181 – LVA – Woodhouse Associates, Landscape Architects
[51] Paras 182 and 183 - LVA – Woodhouse Associates, Landscape Architects
[52] Para 185 - LVA – Woodhouse Associates, Landscape Architects

To the south of the subject site – 95-115 Anzac Valley Road



Photograph 10 - Aerial photograph showing the approximate position of the property at 95-115 Anzac Valley Road, relative to the subject site.

The site at 95-115 Anzac Valley Road is located south of the site and below the level of the shared access road/drive which provides access to both this site and the site at 117 Anzac Valley Road. Future built development on Lot 31 will be visible from this site but views of the future dwelling on Lot 30 from the westernmost buildings on the site will be screened because tall pine trees screen the views to the north. It is likely that the future buildings on both lots would be visible from the shared access drive. During the initial development stages (prior to vegetation re-establishing on the site) views would also be available from the access road, towards future buildings on Lots 10-13 and Lots 15 and 16 adjacent to the central ridge road which runs through the development. Future dwellings on lots located in the Dilworth Stream Catchment (Lots 20-29) would also be visible from the western end of the access road. As noted above, the LVA states that *"buildings in the Dilworth Stream catchment will be located at a much lower elevation than the viewer – which lessens visual impact, will be recessive in colour and will be seen against a background of landform and vegetation. They will also be seen in*

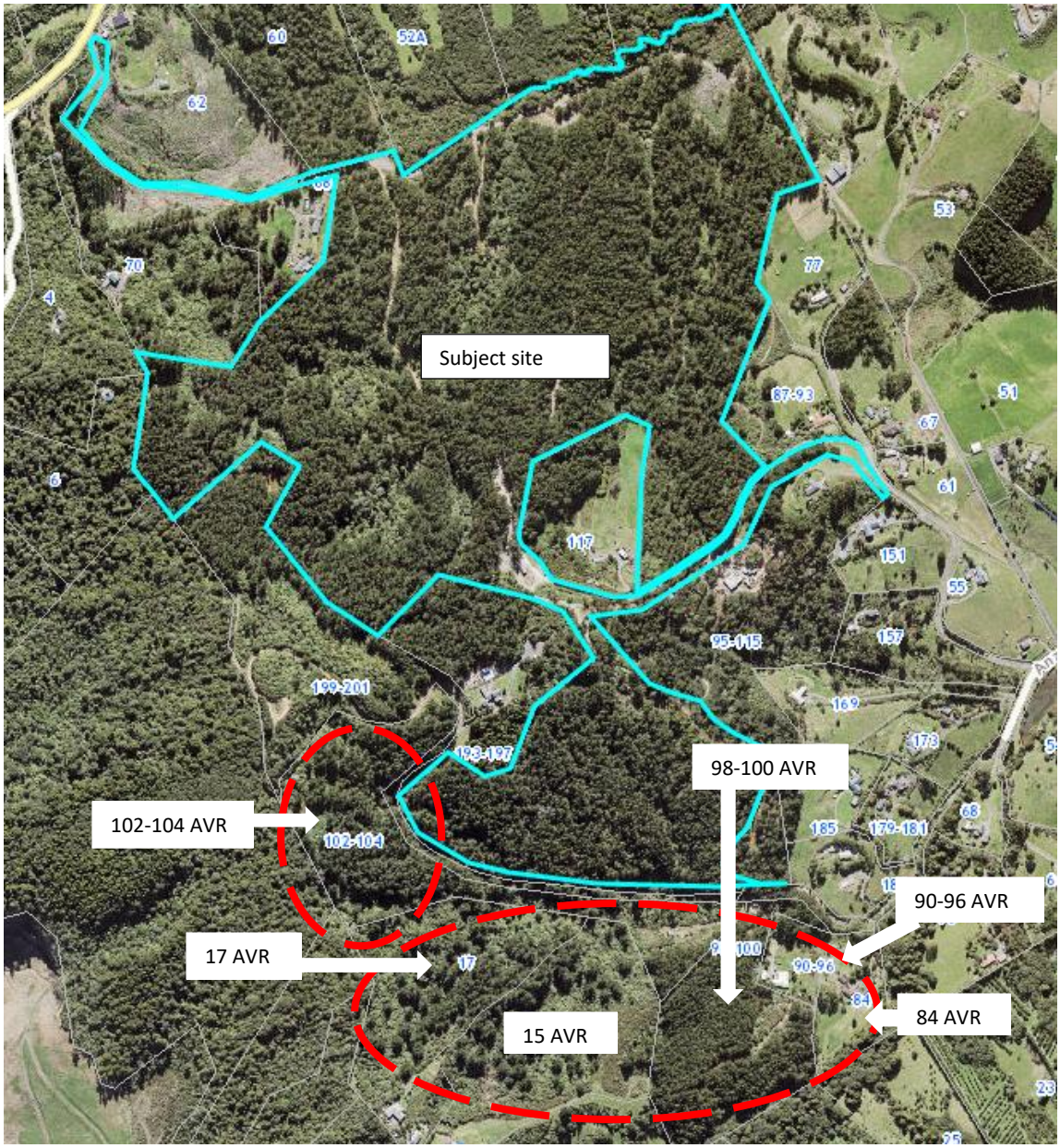
association with a landscape that is being reclad in native vegetation."[53] As indicated in the assessment above relating to 117 Anzac Valley Road, the LVA prepared by Ms Woodhouse notes that *"the Stage 3 planting along the eastern side of the central access way will combine with the height and colour controls imposed on buildings (on Lots 10-13 and 15 and 16) to ensure that buildings on these lots do not become overpowering or dominant. An increasingly dense vegetative cover around and between each cluster of buildings in the Dilworth Stream catchment will at first help integrate, and then completely buildings on Lots 24-29 into their landscape from all viewpoints."*[54]

The LVA notes that consent notices imposing a maximum height restriction of 5m (rolling height) will be placed upon future built development on Lots 30 and 31 and that these dwellings will be set at a level that is approximately 4 metres below the level of the shared access drive. These mitigation measures will ensure that the future buildings do not become overpowering or dominant when viewed from the access road.

The LVA concludes that although changes to visual character will be 'high' or noticeable initially, over time the future built development will be integrated into the landscape as a result of the revegetation of the site and in the longer term, will completely screen the clusters of buildings. Subject to the proposed mitigation measures; the extensive rehabilitation/revegetation of the majority of the site (with the exception of building platforms and curtilage area and the site access roads) and restrictions on the scale, height, location and colour/reflectivity of built development) any long term adverse visual effects on this property are considered by Ms Woodhouse to be low. It is therefore considered that any adverse visual effects on this property would be no more than minor.

[53] Para 181 – LVA – Woodhouse Associates, Landscape Architects
[54] Paras 182 and 183 – LVA – Woodhouse Associates, Landscape Architects

Residents on Anzac Valley Road to the south of the subject site – 15, 17, 84, 90-96, 98-100, and 102-104 Anzac Valley Road



Photograph 11 Aerial photograph showing the approximate position of the properties at 15, 17, 8, 90-96, 98-100 and 102-104 Anzac Valley Road, relative to the subject site.

The group of properties highlighted in Photograph 11, above, are located at a lower elevation than the six proposed lots (Lots 35-40) that would be developed in the Anzac Valley catchment. Each of the future dwellings on these lots would be set below existing forest on the ridge and the slopes and gullies below and to the south and south-east of them will be revegetated as part of the final stage (Stage 7) of the subdivision. Access into these six lots (Lots 35-40) will be via (upgraded) existing forestry tracks rather than

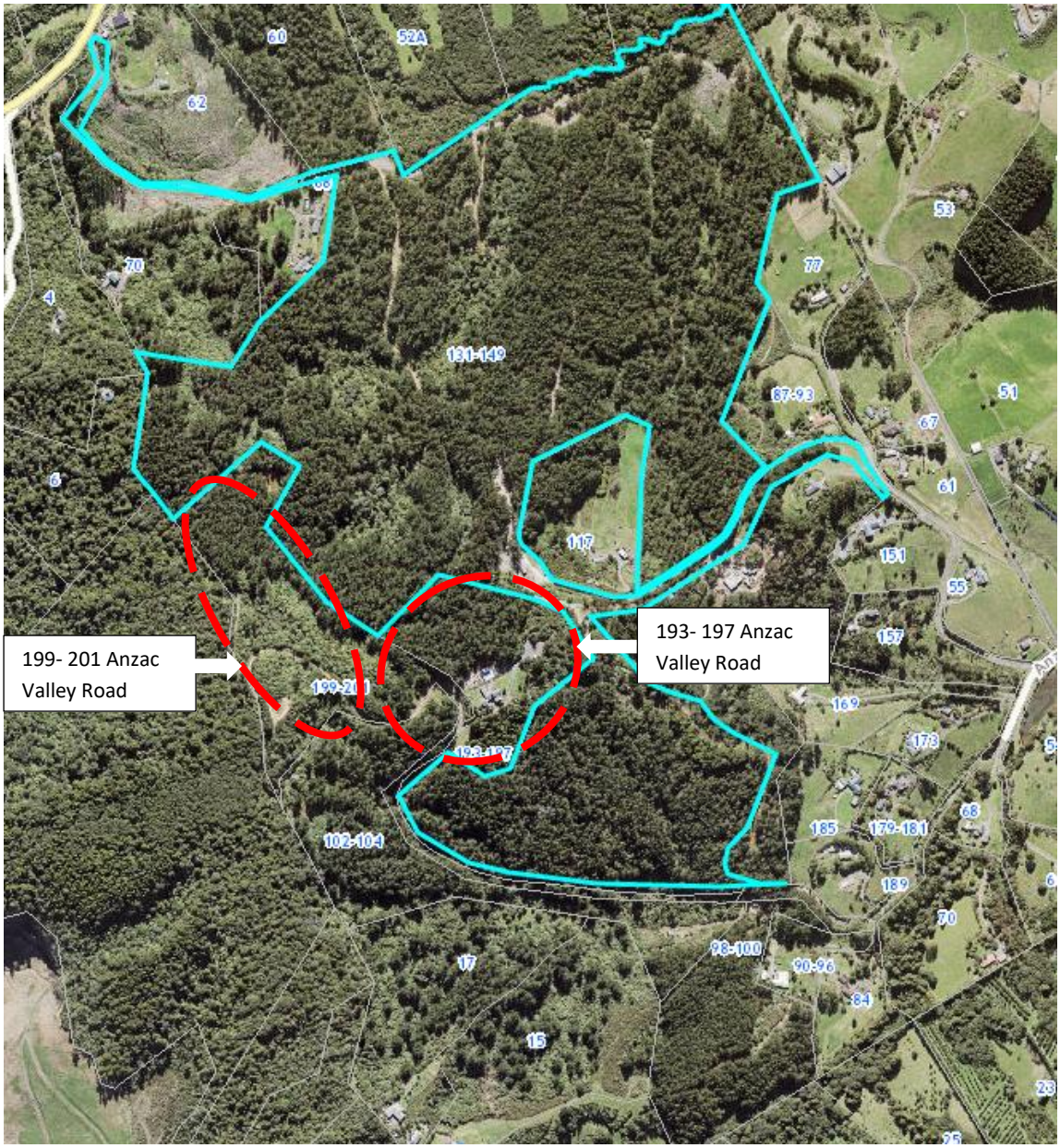
from Anzac Valley Road, further minimising the extent of visual change experienced by this viewing audience.

The LVA notes that the properties at 15, 17 and 102-104 Anzac Valley Road are not considered to be adversely affected by the proposal *"as dense bush and pine trees create a screen between the viewer and the site, or as in the case of 102-104, the property has not been developed."*[55]

It is noted that a good level of separation (approximately 200m) would be achieved between the two closest lots within the subdivision (Lots 39 and 40) and existing dwellings on Anzac Valley Road, located at 90-96 and 98-100 Anzac Valley Road. The LVA notes that tall pine trees will screen any development on these lots but that future built development on lots 35-38 will be visible from these viewpoints. The LVA notes that future buildings on these lots will be located on elevated sites and given the topography, all buildings *"will be below the ridgeline and they will be backgrounded by landform and mature native vegetation"*[56] further minimising the potential for adverse visual effects. The LVA notes that *"the slopes and gullies below and to the south and south-east of them will be revegetated and the buildings will be subject to colour controls."*[57]The LVA assessment concludes that the revegetation of the site, combined with the application of site-wide restrictions on built development will enable buildings to *"be quickly integrated into the site."*[58] The assessment concludes that visual effects during the construction phase would be more noticeable given the higher visibility of framing timber viewed against a vegetated backdrop, but that these effects would be temporary in nature reducing to very low, post construction. As such, it is considered that any adverse visual impact on these properties would be no more than minor.

[55] Para 187 – LVA, Woodhouse Associates, Landscape Architects
[56] Para 188 – LVA, Woodhouse Associates, Landscape Architects
[57] Para 188 – LVA, Woodhouse Associates, Landscape Architects
[58] Para 189 – LVA, Woodhouse Associates, Landscape Architects

Land to the south and east of the subject site – 193-197 Anzac Valley Road and 199-201 Anzac Valley Road



Photograph 12 - Aerial photograph showing the approximate position of the properties at 193-197 Anzac Valley Road and 199-201 Anzac Valley Road, relative to the subject site.

The two properties identified above are located to the south and east of the subject site. Any adverse effects of the proposal on both these properties have been disregarded as the written consent of the owners of 193-197 Anzac Valley Road has been obtained and is attached at **Appendix I**. The property at 199-201 Anzac Valley Road is owned by the applicant and no further consideration of the impacts on this property are therefore considered necessary.

9.1.3.2 Effects on privacy/outlook

In the majority of instances, future built development on each of the 40 proposed rural/residential lots will be physically well separated (both horizontally and vertically) from existing established homes on the adjoining landholdings. Given the fact that the site sits in a small basin and has a diverse and undulating topography, views into the site are limited with no one property having a view of all of the future lots.

The positioning of the lots and the clustering approach was carefully thought out to minimise both visual impact and the potential for loss of privacy to adjacent sites. The creation of the clusters of development provides the opportunity for large tracts of land across the site to be rehabilitated and revegetated enabling built development to occur in discrete locations that can be successfully absorbed into a rehabilitated rural/bush landscape.

Where consultation with neighbouring properties highlighted specific concerns in relation to outlook and privacy additional screen planting has been proposed to maintain, as much as possible, a bush clad outlook, similar to the outlook these properties would have benefitted from when the site was utilised for forestry and they looked out over plantation pine forest at varying stages of maturity. It is intended to deliver the screen planting as early as possible;

- in Stage 1 (in the area along the western site boundary adjacent to lots 1-4) to screen the buildings from the property at 68 Bethells Road; and
- in Stage 2 (for a depth of 10m along the eastern boundary adjacent to lots 24-28) to provide effective screening to the properties along the eastern boundary; and
- in Stage 2 (for a depth of 5m to the rear of lots 32-34) *"to help integrate dwellings on these lots into the more elevated setting by providing an immediate vegetative setting for each dwelling and creates a connection visually with the bush to the south."*[59]

This mitigation/screen planting is coupled with the programme of weed eradication and rehabilitation/regeneration planting that will occur across the balance of the site (with the exception of the access roads and building platforms/building curtilage areas). The

[59] Para 140 – LVA – Woodhouse Associates Limited, Landscape Architects

screen planting is designed to obscure buildings from view and to maintain, as much as possible, a natural, bush clad outlook for adjacent landholdings.

The proposed screen planting is teamed up with a raft of design restrictions on built development across the subdivision (as outlined previously) which will combine with the screen planting to maintain a natural bush outlook and also to preserve the sense of rural seclusion that is currently enjoyed by the adjacent residents. It is considered that the mitigation/screen planting, combined with the restriction on the scale, colour and height of built development should in most instances obscure views of future buildings, or at a minimum, ensure that the buildings are set down below the level of adjacent buildings, avoiding any potential for loss of privacy and are of a form that is visually unobtrusive and well integrated into the natural landscape. The LVA notes that *"all of the buildings will be nestled into their settings by bush and none of them will draw the eye because of their height or colour."*[60] Any adverse effects on privacy or loss of outlook are considered minimal.

9.1.3.3 Effects on rural amenity

The site is presently undeveloped, in the commonly understood sense of the word, but has been modified from its original state through the development of forestry haul roads and associated tracks and other forestry infrastructure such as corduroy and skid sites associated with the past forestry operations undertaken. The forestry operations have currently ceased and the site is now covered in the remnants of this past use as well as with regenerating native vegetation and exotic weeds. No buildings are present on the site.

Introducing a new activity into this environment constitutes a change to this status quo (not necessarily adverse) and has the potential to impact on the 'general' rural amenity currently enjoyed by residents of the adjacent landholdings. It is noted that dwellings and farm buildings form part of the existing environment, with a mix of built development present alongside established pastoral uses and bush-clad sites, in the immediate vicinity. Dwelling houses and accessory farm buildings are specifically provided for within the AUP and are anticipated in the zone.

[60] Para 210 – LVA - Woodhouse Associates, Landscape Architects

Establishment of a single dwelling and a single minor household unit are noted as permitted activities under Table H20.4.1 (A35) and (A37). Continued forestry is also provided for as a permitted activity.

The introduction of rural/residential land uses into this environment whilst representing a change is not necessarily adverse. The adjacent landholdings would see comparatively higher levels of activity/noise associated with the daily comings and goings from dwellings on the site than they currently experience (given the site is currently in the phase of being reassessed for replanting). They would also experience a perceived loss of peace and quiet and privacy as there are currently no dwellings established on the subject site. The development would also increase light levels at night. It is noted that the subdivision does not propose any street lighting along the private road network but outdoor lighting of future dwellings is anticipated. The increase in light levels at night can be managed/reduced to minimise its impact on rural amenity, and is discussed further in Section 9.1.7.1.2 – Effects on Fauna. It is proposed to require all future dwellings to utilise bat sensitive lighting (e.g. lighting hoods to project light downwards). This approach will minimise light disturbance to neighbouring properties and will reduce the visual impact of additional light sources into the landscape.

As outlined in the previous visual/character assessments views of all future buildings will be screened/obscured over time as a result of the combined screen vegetation and programme of native restoration being undertaken and the restrictions on built development imposed as part of the development. Furthermore, future buildings are (on the whole) well removed from established dwellings on the adjacent landholdings. Some visibility of and exposure to activity from residential buildings, is anticipated by the AUP which provides for the establishment of residential dwellings as a permitted activity. It is the level or 'intensity' of this development which is of relevance when making an assessment of rural amenity.

It is my opinion that the intensity of the proposed subdivision is appropriate. The 40 lot density is required to enable the planned regeneration of the site to occur, with the additional dwellings being predicated on the environmental benefits provided by the protection and enhancement of existing native bush and wetland features and the rehabilitation of the balance of land on the site. This rehabilitation/regeneration would be unlikely to occur without the significant investment proposed in pest and weed management and in the implementation of the native regeneration/revegetation, Restoration Plan. In the absence of these measures, the biodiversity of the site would be likely to deteriorate. Any future built development (undertaken as part of a

controlled activity subdivision of the site) would not be subject to the same rigour in terms of measures to protect the landscape values or visual amenity of adjacent sites, nor would it need to encompass the considerable ecological benefits that underpin the current proposal.

Further to this, it is noted that the subdivision has been carefully designed and sensitively laid out, with residential lots clustered in a manner which responds to the topography of the site to maximise natural screening opportunities and to enable a large tracts of balance land (37.33 hectares) to be restored over time (either by way of natural native regeneration, or by revegetation, or a combination of the two) and to provide a predominantly 'bush clad' outlook for residents of adjacent sites. The clustering approach also minimises the exposure of adjacent sites to large numbers of dwellings, with most of the neighbouring landholdings directly adjoining only two or three lots. None of these landholdings would have views out over all 40 lots within the development.

An extensive range of restrictions on future built development are also included within the application, imposing controls on the form, scale and appearance of future dwellings and limiting light spill from outdoor lighting. These measures, combined with the subdivision design and layout and the overall regeneration programme for the site will minimise any adverse effects on rural amenity to a level that is considered acceptable.

9.1.4 Transportation and Traffic Effects

Commute Transportation Consultants have assessed the traffic and transportation effects of the proposal, with ACH Engineering Consultants being involved in designing the private road network which will serve each of the 40 proposed lots within the subdivision. The Traffic and Transportation Assessment (TA) is attached at **Appendix P**.

9.1.4.1 Access and safety

The TA outlines the characteristics of the road environment, with Bethells Road classified as an arterial road in the AUP (OIP). The section of road between Te Henga Road and Waitakere Road is an open road with a speed limit of 100km/hr.

Vehicle access is proposed to be located in the location of the existing vehicle access, split into a separate ingress and egress vehicle crossings to form a loop at the top of the site, with a hardstand area in between for recycling bin storage. The access will connect

to a 6.0m wide private road leading into the site. A concept design of the access has been prepared by ACH Engineering Consultants (DWG No. A-050) and is included with the Engineering drawings attached to the Stormwater and Infrastructure Report, at **Appendix G**. The design incorporates some shoulder widening in the westbound direction for vehicles entering the site.

Commute completed a sight distance assessment of the proposed new access drive against the relevant Austroads standard. The assessment was based on first determining the speed environment along this section of Bethells Road. The analysis concluded that the typical speed environment along Bethells Road was 60km/hr.

Photograph 13 – Bethells Road sight distance (looking east)

Photograph 14 – Bethells Road sight distance, looking west

The report concluded: "*it was found that a minimum sight distance of 89 metres is required to be provided in both directions to be aligned with Austroads' Safe Intersection Sight Distance (SISD) recommendations. It was found that this sight distance can be accommodated along Bethells Road, and is therefore considered to be satisfactory.*"[61] Refer to Figure 22, below, which demonstrates the sight distance achieved from the proposed new accessway.

[61] Bullet point 6, Section 9, Page 19 - TA, Commute Transportation Consultants

Figure 22 – Figure demonstrating Austroads Safe Intersection Sight distance

9.1.4.2 Trip Generation

The proposed development, involving a subdivision creating 40 lots, falls under the AUP (OIP) threshold of 100 dwellings in Rule E27.6.1 and therefore a detailed traffic generation assessment is not required. However, the TA does include an estimate of the peak hour trip generation of the proposed subdivision (based on RMS' Technical Directive 2013/04A (TDT 2013/04A). The TA states that *"the proposed 40 dwelling residential subdivision would be expected to generate in the order of 28 vph during the AM peak hour and 31 vph during the PM peak hour. Daily, the proposed development is expected to generate in the order of 296 vpd."*[62]

9.1.4.3 Private road network

The proposal involves a total of eight private access roads, as shown in Figure 23, below.

[62] Section 4, Para 4, Page 8, TA, Commute Transportation Consultants

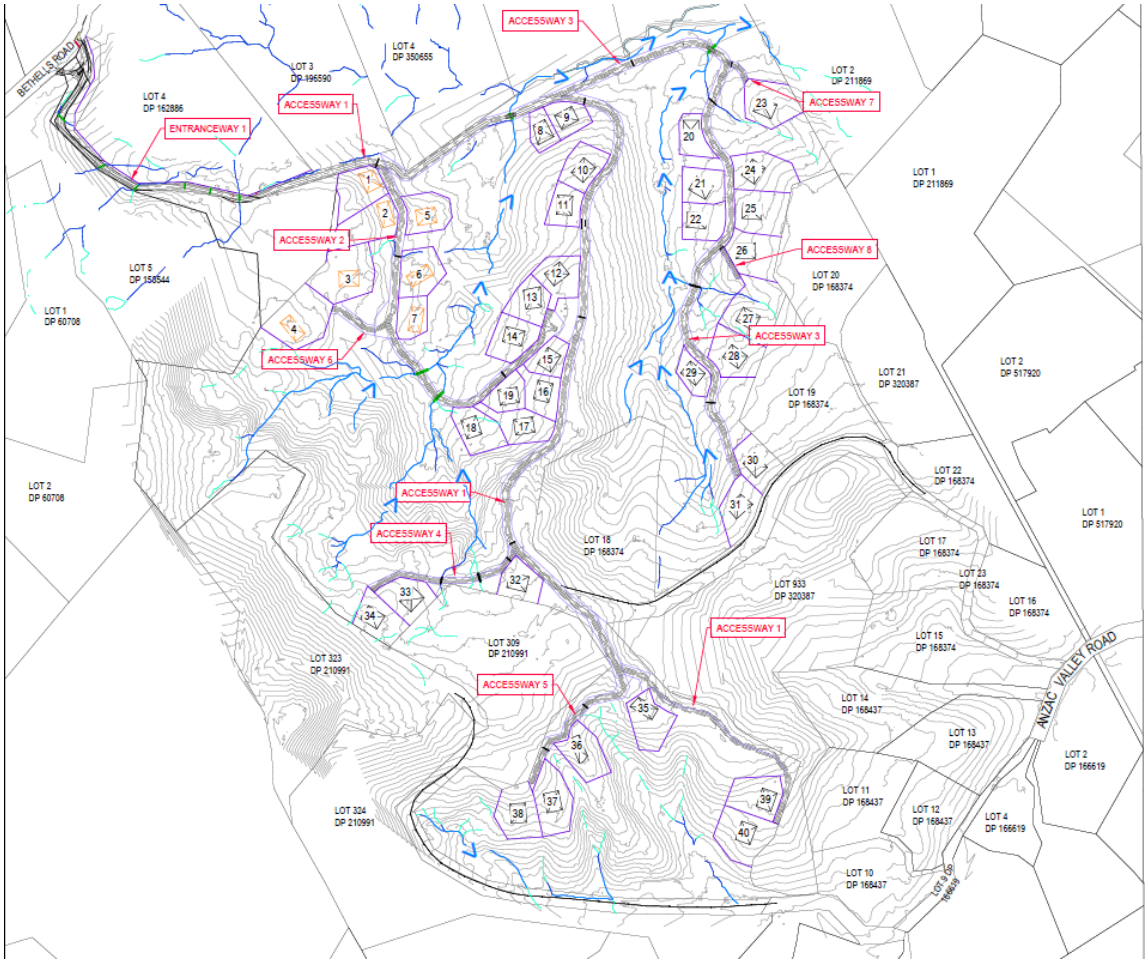


Figure 23 – Figure showing the network of private roads serving all 40 proposed lots

It is proposed to utilise a new access arrangement comprising separate inbound and outbound access off Bethells Road and the TA notes that this access design is compliant with Unitary Plan requirements. The TA notes *"There are no dedicated pedestrian provisions proposed for the road network, as there is expected to be negligible pedestrian traffic within the site. Any pedestrian traffic can be accommodated within the road reserve, which will be carrying low volumes of vehicles at low speeds, and is considered to be an acceptable arrangement."*[63]

High level civil roading plans have been developed by ACH, including horizontal and vertical layouts and are attached to the Stormwater and Infrastructure Report, at **Appendix G**.

All roads will extend from proposed Entranceway 1 (being part of Accessway 1, highlighted red) which will run through the centre of the site (along the central ridge)

[63] Section 6, Para 3, Page 15, TA, Commute Transportation Consultants

towards the south. The private road network will have a maximum gradient of 1:5, with shallower gradients provided wherever possible, with a general width of 5.5 metres for the more critical sections of road, reducing to 3.0 metres with passing bays at intervals of no more than 100 metres (refer Table 2, Page 16 of the TA). The private road network has been designed with vertical curve transitions and K-Values to cater for a low speed traffic environment.

The TA notes that passing bays are required to have a 5.5 metre width for a length of 15 metres. In this instance the proposal does not strictly comply with Table E27.6.4.3.1 in terms of providing 15 metres length of 5.5 metre wide road. Despite this non-compliance, the TA notes *"vehicles will be able to physically pass one another and will have sufficient sight distance and time to enable passing manoeuvres to occur safely on the site."*[64] The TA concludes that the proposed passing bay arrangement is considered to be acceptable given the rural nature of the proposed development and the low likelihood of vehicle conflict.

The development includes truck turnaround areas at the end of all dead-end roads on the site. The turnaround areas are designed such that trucks will be able to enter and exit each of the access roads in a forward direction. It is noted that the expected truck volumes down each of these roads is expected to be minimal and is not expected to cause any disruption to day to day traffic operations within the site.

9.1.4.4 Parking and loading

The TA notes that a total of 40 parking spaces would be required (1 for each of the 40 future dwellings) in order to meet the relevant Unitary Plan standard (outlined in Table E27.6.2.4). It is noted that no maximum rate is applicable in the Waitakere Foothills Zone. Each lot within the subdivision is provided with a specified building area of approximately 500m². It is anticipated that this area will provide more than adequate space for each future dwelling to accommodate sufficient parking (either within attached garaging or uncovered, elsewhere on the site) to meet the standard. Likewise, each site will easily be able to provide the necessary bicycle parking, acknowledging that the cycle parking requirements are considered to be of more relevance in the consideration of higher density developments in more urban locations.

[64] Section 6.1, Para 2, Page 17, TA, Commute Transportation Consultants

A bin storage area is proposed for recycling bins at the top of the access way. This is to be serviced by Council's waste (recycling) collection service. General waste bins will be transported from each property to a separate on-site waste storage area at the bottom of Accessway 1, which is proposed to be serviced by a private waste collection service.

This is a common practice in rural residential subdivisions such as the proposed development which have a long path of travel to transport bins to the collection point of the development from each dwelling. It is considered unfeasible to redesign the entire road network to cater for the maximum gradients that a waste collection truck can travel, and as such the proposed collection point is located at the intersection of Access Road 1 and Access Road 2. The report concludes that these *"waste collection arrangements are considered to be satisfactory to service the site."*[65]

9.1.4.5 Construction traffic

The subdivision is being split over seven stages and, as such, construction related traffic will be limited as the necessary road formation and infrastructure works will not be spread across the site in its entirety, but will be focused in more distinct areas of the site. Given the site's previous use as a productive forestry block, the introduction of heavy vehicles into this environment (in association with the proposed excavation activities) is an everyday occurrence and can be readily absorbed within the road network. Notwithstanding this, the applicant would be prepared to submit a Construction Traffic Management Plan associated with each stage of the subdivision to assist in the reduction of traffic disturbance throughout the construction phase, on the surrounding roading networks.

9.1.4.6 Conclusion

The TA prepared by Commute Transportation Consultants concluded that the development is able to satisfy the majority of the transport rules of the Auckland Unitary Plan and therefore any adverse effects associated with traffic or transportation are considered to be minimal.

[65] Section 8, Para 6, Page 19, TA, Commute Transportation Consultants

9.1.5 Noise Effects

9.1.5.1 Construction noise

The subdivision is staged and therefore construction of infrastructure (i.e. roading and stormwater infrastructure) will be completed in a staged manner across this very large site, minimising the potential disruption to neighbouring landholders, as the site is developed 'piece by piece'. Construction noise would be for a limited duration and it is intended that the proposed construction activity would be subject to a requirement for a Construction and Construction Noise Management Plan, which would address matters such as the construction timetable; dust management; vibration controls; construction noise; access; pedestrian safety and ongoing maintenance of sediment control measures, noting that it is expected that conditions will be attached to manage the earthworks component of the application in order to properly manage the effects of the earthworks activity.

Once approved by Council, the Construction Noise Management Plan would be implemented throughout the construction phases of the project. This process will provide the appropriate mechanisms to ensure that any potential adverse effects from the development linked to the construction phase including the generation of noise/dust will be appropriately avoided, remedied or mitigated and it is my opinion that these effects are able to be managed and would generate no more than minor adverse effects overall.

The site's previous use as a plantation forest was an intensive and inherently noisy operation (particularly during the harvesting stage). Noise associated with construction of infrastructure serving the subdivision, and in the future, built development on each of the 40 lots, would be unlikely to generate noise levels of the same volume when compared against this, the level of noise that is likely to be generated during the staged construction phases of the subdivision is considered negligible in comparison and therefore acceptable.

It is also noted that continued use of the site for forestry is a viable alternative to the current proposal for a rural/residential subdivision. This type of activity, whilst relatively quiet across a number of years of the forestry cycle, also has periods of time, particularly during harvest (or even tree maintenance) when noise associated with felling of the trees and transportation off site, would be significant.

9.1.5.2 Noise associated with rural/residential land use

Rural residential land use is not an inherently noisy activity. As outlined in the section on amenity effects, the current proposal represents a change from the status quo, where the adjacent neighbours enjoy large periods of time with very little activity (i.e. whilst the forestry block grows). In saying that, likewise, there are long periods where the adjacent productive forestry operation would have been excessively noisy (harvesting) and would have attracted a large number of heavy vehicles to the site.

By comparison, the proposed development will generate very little noise, post construction, being limited to the day to day noise generated by each household and the limited traffic movements associated with the comings and goings of household residents. This noise generation is considered acceptable and would be well within permitted activity thresholds. The noise effects of the proposal are considered to be less than minor, particularly when compared with the noise effects generated by the previous forestry operation.

9.1.6 Effects on Rural Productivity

The proposal would result in the cessation of the forestry use of the site that has been in place since the 1950's. The loss of the historic productive forestry use is considered, on the whole, to be beneficial given the level of environmental degradation that has occurred to both native bush remnants and freshwater environments as a result of the more damaging aspects of the forestry activity, particularly associated with the harvest and establishment of forestry access tracks/roads. The adverse impacts associated with forestry are largely unavoidable to enable and support the cycle of forestry activities on the site, from planting through to harvest.

In terms of potential for alternative productive rural land use, it is noted that the land is, in places, relatively steep and contains a series of ridges and gullies (and is dissected by natural watercourses and wetland areas). The nature of the topography and the quality of the soils, reduces the number of viable alternative productive rural land uses available for the site. It is also noted that the site does not contain elite or prime soils and whilst the land could be converted into pasture, is of a size and topography which render it unlikely to be an economically viable, alternative use. Likewise, the quality of the soils and the topography also render it generally unsuitable for horticultural land uses.

On this basis, it is considered that options for continued use of the land for productive rural activities is limited and the environmental benefits to be secured through the comprehensive restoration and legal protection of 37.49 hectares of land outweigh any effects associated with the conversion of the land from a productive use to a rural lifestyle use.

9.1.7 Effects on the Natural Environment/Ecological Values

Dylan Van Winkel of Bioresearches has prepared a detailed Assessment of the Ecological Values and Effects of the proposed development. This document is attached at **Appendix B** and should be referred to for a comprehensive analysis of the ecological effects of the proposed 40 lot subdivision.

The key findings of the Bioresearches report were:

- The site supports eight forest fragments, including two areas designated as Significant Ecological Areas under the AUP OP. It also supports a large network of permanent and intermittent watercourses and approximately 1.0368 ha of wetland environment.
- The site supports seven 'Threatened' or 'At Risk' species of indigenous flora and fauna, and probably supports several others that were unintentionally overlooked during the assessment.
- The overall ecological value of the site is considered **High** due to it having high values with respect to *Representativeness*, *Diversity and Pattern*, *Rarity/ Distinctiveness*, and *Ecological Context*.
- The magnitude of the effects ranged from **Low** (due to the avoidance of high value ecological features, minor clearance of lower value vegetation and low effects on local fauna) to **Moderate/High** (due to potential loss of wetland habitat and subsequent effects on threatened trees).
- The overall level of effects could be reduced to **Low** or even **Negligible** levels if ecological rehabilitation measures as described by Scrub Consultants are delivered effectively and the specific recommendations outlined in this report are adopted.
- It is anticipated that a significant **Net gain** in biodiversity values would be achieved as a result of the proposed development. The proposed ecological restoration would significantly improve the ecological value of the site, both intrinsically through the protection of resident flora and fauna communities and in the context of maintaining biodiversity within the wider surrounding network of protected forests. In the absence of the proposed ecological restoration it is

anticipated that the local biodiversity and ecosystems would deteriorate over time due to the compounding effects of introduced predatory mammals and weed plant competition (i.e. the anticipated ecological benefits would not otherwise occur in the absence of the proposed development).

A brief summary of the ecological effects of the development (as discussed in more detail in the Bioresearches report) is included below, along with a section highlighting the mitigation measures proposed by Mr Van Winkel, which form part of the application.

The Bioresearches Report splits the effects of the proposal into two main parts; effects on the terrestrial environment and effects on the freshwater environment.

9.1.7.1 Effects on the Terrestrial Environment

9.1.7.1.1 Effects on vegetation

The proposed subdivision has been designed to largely avoid all areas of existing established vegetation and forest fragments, utilising the open clear-felled pine areas and the existing forestry road network for development of access roads and building platforms.

The assessment notes that the proposed development *"would see residential lots positioned across the project area but generally clustered on lower gradient slopes below ridgelines where the vegetation communities are dominated by exotic weeds."* [66] The report goes on to note *"that some removal of native vegetation (e.g. regenerating native shrubs and tree ≤ 2 m high) would be necessary for the formation of building platforms and upgrades to the roading network and development of the new entrance way on Bethells Road (approximately 658 m2 of non-protected vegetation removal)."*[67] Noting that the *"affected vegetation communities generally hold little botanical value due to the young age of the vegetation and the predominance of exotic plants"* [68] but observes that a small number of young kanuka or manuka plants (both 'Nationally Vulnerable' species) may also need to be cleared from these areas. Despite this clearance the Ecological Assessment concludes effects on botanical and terrestrial vegetation are low, given the relatively small numbers of kanuka/manuka likely to be lost as a result of the proposal (and their relatively young age) and the *"significant ecological benefits of the*

[66] Section 6.2.1.1, Para 1 – Bioresearches, Ecological Assessment
[67] Section 6.2.1.1, Para 1 – Bioresearches, Ecological Assessment
[68] Section 6.2.1.1, Para 2 – Bioresearches, Ecological Assessment

site-wide restoration programme, which will include the replanting of kānuka and manuka throughout the property." [69]

The riparian and wetland habitats contained on the site would also remain largely unaffected by the proposal however some disturbance to or removal of vegetation in some of these areas would be necessary to upgrade or install culverts.

The report notes that a *"key aspect of the proposed development is the enhancement and rehabilitation of land that includes: the retirement of plantation forestry land; restoration of existing native forest fragments (two of which are identified as Significant Ecological Areas (SEAs; Auckland Unitary Plan Operative in Part (AUP OP)), wetlands and riparian margins; revegetation/assisted regeneration of ca. 32.8ha; and a site wide weed and pest mammal control programme. The overarching aim of the development is to balance rural living with the protection enhancement of local ecological values."*[70]

"It is expected that ecological restoration of the property would have direct environmental benefits in terms of contributing natural areas, wildlife habitat and ecological stepping stones to the North-West Wildlink initiative, and restoring upper-Kaipara catchment water quality by reducing soil erosion and sediment inputs. It is important to recognise that the anticipated ecological benefits of this restoration programme would not otherwise occur in the absence of the proposed development."[71]

Given that kauri (Agathis australis) have been identified in five out of the ten vegetation fragments scattered across the subject development site, and recognising the vulnerability of kauri to a pathogen that causes kauri dieback, a Kauri Dieback Management Plan (KDMP) has been prepared by Bioresearches in accordance with current best practice standards. This document is attached at **Appendix U**. The applicant is prepared to accept a consent condition requiring that this KDMP be implemented during the construction and operational phases of the subdivision to avoid the introduction and or spread of Kauri Dieback Disease.

On balance the Ecological Assessment concludes *"the proposed development seeks to avoid the loss of terrestrial, riparian and wetland vegetation as far as practicable but where the loss is unavoidable, the small extent of clearance means that the associated effects would be **Low** and indeed temporary, given that the site will be subject to an*

[69] Section 6.2.1.1, Para 2 – Bioresearches, Ecological Assessment
[70] Section 2, Para 3, - Bioresearches, Ecological Assessment
[71] Section 6.3.1, Para 1 – Bioresearches, Ecological Assessment

extensive ecological restoration and enhancement programme that includes ecological enhancement of all vegetation communities."[72]

9.1.7.1.2 Effects on fauna

The Bioresearches Report has assessed the impact of the proposed subdivision on local wildlife including birdlife (Avifauna), land snails, lizards (Herpetofauna) and long tailed bats. A brief summary of the findings of the Ecological Assessment is included below:

9.1.7.1.2.1 – Avifauna

The assessment states that *"the highest value habitats for indigenous avifauna within the project area are the indigenous forest fragments, riparian margins and wetlands."*[73] The report notes that on the whole, these habitats would remain intact with very minor vegetation clearance required in association with the roading upgrades and culvert upgrading/installation only. The impact of the roading and culvert works on freshwater environments is assessed separately below.

The report acknowledges that some indirect effects on native avifauna resulting from noise, vibration, dust and increased activity associated with the construction works, could have indirect adverse effects (such as avoidance behaviour or displacement) on bird species in the immediate vicinity of the works.

In addition, the report also acknowledges the potential for direct and indirect effects associated with the increase in human activity on the site (in association with the construction and occupation of future dwelling houses). The report states that these impacts can be temporary (noise and light disturbance from dwellings) or permanent (loss of foraging habitat, heightened predation pressure).

A ban on domestic cat ownership is proposed (to be implemented by way of consent notices registered on the title of each lot) to reduce the potential for increased predation of birdlife as a result of the introduction of residential dwellings to the site. This proposed measure, coupled with the implementation of a site-wide animal pest control programme proposed to be implemented and maintained on an on-going basis, would provide benefits to the local bird community.

[72] Section 6.2.1.1, Para 6 – Bioresearches, Ecological Assessment
[73] Section 6.2.1.2.1, Para 1 - Bioresearches, Ecological Assessment

The above mentioned potential adverse effects on avifauna could be effectively managed or mitigated through implementation of a number of recommended mitigation measures, as outlined below:

- *"Where clearance of vegetation (native or exotic) is required, the removal should take place outside of the bird breeding season (September to February, inclusive), as far as practicable, to avoid disturbance to active native bird nests or mortality of eggs/chicks. Where vegetation clearance cannot be achieved outside of this period, a pre-vegetation clearance bird nesting survey should be carried out by a qualified ecologist. The detection of any active nest of a native bird would require an exclusion perimeter (15 m Ø) to be formed around the nest, with works ceasing inside the exclusion area until nestlings have fledged. Particular attention should be focused on identifying active wetland birds' nests (e.g. spotless crake), as these are often well concealed among dense vegetation."* [74]
- Long term control of animal (and plant) pests through implementation of the recommendations contained in the Scrub Consultants Plant and Animal Pest Management Plan and the introduction of a ban on the ownership of domestic cats throughout all lots within the subdivision via registration of a consent notice on each Certificate of title.

On the basis of the above mitigation measures, the Ecological Assessment concludes that *"the adverse effects of the proposed development on native avifauna, both during the construction phase and operational phases, are considered to be* ***Low****"*[75]. Adverse effects on avifauna associated with the proposed subdivision are considered to be no more than minor, subject to the implementation of the mitigation measures outlined above.

9.1.7.1.2.2 – Land snails

The Ecological Assessment concludes that since the indigenous forest fragments on the site would remain unaffected by the proposed development there would be negligible adverse effects on the two species of land snail (R. greenwoodi and A. dunniae) that are likely present on the site. The report notes that the "*ecological enhancement proposed would result in a marked increase in the habitat for native snails on-site once the*

[74] Section 6.3.2.2- – Bioresearches, Ecological Assessment
[75] Section 6.2.1.1.2.1, Para 5 - Bioresearches, Ecological Assessment

replanted vegetation reaches a stage that offers suitable moist environments for snails."[76]

9.1.7.1.2.3 – Herpetofauna (lizards)

The Ecological Assessment concluded that up to six species of indigenous lizard could potentially occur on the site, although none were detected during the dedicated site survey. The report states that due to the protection and preservation of existing native vegetation fragments on the site (which are likely to harbour the lizards) resident lizard populations are likely to remain largely unaffected by the subdivision.

The report recommends (given the legal protection status of indigenous lizards) that appropriate consideration is given to lizards during proposed vegetation clearance activities associated with road formation and culvert upgrading. Adverse effects although unlikely, can be avoided or mitigated to an acceptable (low) level through preparation of an indigenous fauna management plan to address the protection of indigenous fauna prior to, during and following construction activities. The management plan needs to include *"methodologies associated with avoiding, surveying, salvaging, relocating and monitoring on-site fauna, including but not limited to long-tailed bats and lizards."* [77]

The report concludes that any adverse effects on the lizard population associated with an increase in human activity (i.e. indirect adverse effects through on-going degradation of habitats and/or heightened predatory pressure from exotic mammalian predators) would be mitigated as a result of the following:

- the proposed ecological restoration measures, including a substantial increase in the quantity and quality of lizard habitat through revegetation; and
- preparation of an indigenous fauna management plan; and
- a ban on domestic cat ownership; and
- implementation of the site-wide pest control programme.

The report concludes that the above measures *"would mitigate any adverse effects associated with increase human activity on-site. Furthermore, these measures would provide significant benefits to local lizard populations within the surrounding*

[76] Section 6.2.1.2.2, Para 1 - Bioresearches, Ecological Assessment
[77] Section 6.3.2.1, Para 1 - Bioresearches, Ecological Assessment

landscape."[78] On this basis the report states that adverse effects on herpetofauna would be low, or no more than minor.

9.1.7.1.2.4 – Long-tailed bats

The site supports the long-tailed bat (Chalinobus tuberculatus), listed at 'Nationally Critical' under the NZ Threat Classification system (Townsend et al., 2007). This threat status (the highest threat category before extinction) reflects the drastic and ongoing decline in populations across much of New Zealand due to the loss and fragmentation of habitats and adverse impacts of pest animals.

The results of the bat survey undertaken *"clearly indicate that the project area provides important habitats for local long-tailed bats."*[79] The survey showed that the vegetated gullies along Jonkers and Dilworth Streams were frequently used by bats and that the vegetation edges in the southern part of the project area are also important.

The Bioresearches Report also considered the potential for roost sites on the site (Section 5.6.5.1). The report notes *"Bats emerge from roosts around dusk and re-enter them just before sunrise thus, bat activity close to sunset and sunrise can be indicative of bats roosting close by. While there was a clear peak in activity within the project area in the first hour after sunset, there was no evidence of peaks in bat activity in the hour before sunrise from any of the ABM units. This suggests that there is an influx of bats onto the site early in the evening, with commuting and foraging activity continuing sporadically over the duration of the night. The lack of activity in the early morning appears to indicate that the bats are dispersing away from the site after midnight, returning to their roosting sites via alternative commuting pathways. While these data do not provide an unequivocal assessment of bat roost presence within the project area, the high levels bat activity in the early evening only indicates that roosts are likely present nearby (e.g., Waitākere Ranges) rather than on-site."*[80]

These conclusions are further qualified in the report which refers to recent bat survey work undertaken in the Waitakere Ranges *"that demonstrated that the heavily forested areas in north eastern parts of the Waitakere Ranges offer important roosting habitat and that the Cascades represents the stronghold for the breeding population in the northern Waitakere Ranges." (Davidson-Watts Ecology, 2019). This study also*

[78] Section 6.2.1.2.4, Para 2 - Bioresearches, Ecological Assessment
[79] Section 5.6.5, Para 2 - Bioresearches, Ecological Assessment
[80] Section 5.6.5.1, Para 2 - Bioresearches, Ecological Assessment

demonstrated that long-tailed bats dispersed distances of up to 3.5 km, possibly further (e.g., O'Donnell, 2001 has reported distances of 19 km), from roost sites to foraging areas, frequently utilising small forest blocks in more peri urban habitats and lifestyle sections in the local landscape. Since the subject site lies less than 3.5 km from the Cascades roosting areas, it is plausible that that bats recorded on-site travel there to forage each night but do not rely on on-site habitat for roosting." [81]

The report concluded, based on analysis of the acoustic data, that there was little support for communal roosting on-site as bats are known to select the largest and oldest trees available in the landscape for roosting behaviour. The report notes that *"the extensive forested areas of the adjacent Waitakere Ranges provide an abundance of higher quality roosting habitat for long-tailed bats compared to the subject site."* [82] The report does acknowledge that individual bats may be roosting in the forest fragments but communal roosting was less likely, as explained above.

The report acknowledges that habitat loss associated with the subdivision is not of concern as existing vegetation fragments will be maintained and enhanced as a result of the project. However, the report notes that there "*is potential for commuting and foraging corridors to be disturbed by noise, vibration, lighting and habitat degradation effects during both the construction (temporary effects) and operational (permanent effects) phases of the project. If consideration is not given to these potential effects, disturbance may significantly impact and change the characteristics of the dispersal corridors and high value habitats in and around the development site."*[83]

During construction these effects could be effectively mitigated by; limiting construction activities to daylight hours thereby avoiding the need for artificial lighting; and using lower impact construction techniques to reduce potential vibration and noise impacts as far as is practicable.

In regard to permanent disturbance effects, the report notes these may arise from increased lighting along road networks, light spill and noise disturbance from residential dwelling houses and vehicular movements along bat flight paths. The report notes that *"it has been demonstrated that lighting can form a barrier to use of habitat by long tailed bats (Dekrout 2009; Le Roux & Le Roux 2012; Dekrout eet al., 2014)."*[84] Notwithstanding this, the report also notes there are accounts of long-tailed bats foraging for flying

[81] Section 5.6.5.1, Para 2 – Bioresearches, Ecological Assessment
[82] Section 5.6.5.1, Para 4 – Bioresearches, Ecological Assessment
[83] Section 6.2.1.2.4, Para 2 - Bioresearches, Ecological Assessment
[84] Section 6.2.1.2.4, Para 4 - Bioresearches, Ecological Assessment

insects around street lights and crossing or flying along roads. Thus, the Ecological Assessment report suggests *"that bats may be at least partially tolerant of some 'urbanised' influences."* [85]

The report acknowledges that research in this area is not conclusive and recommends a number of specific mitigation measures be put in place to ensure that any potential long-term effects on the bat population are minimised and mitigated. It is noted that no street lighting is proposed within the development, but as outdoor lighting of future dwelling houses is likely the application proposes that controls on the design and intensity of lighting be put in place to mitigate/manage any potential adverse effects. The report also notes that a "*crucial component of the current development proposal is the preservation and ecological restoration of forest fragments and riparian corridors. This initiative will maintain and provide additional suitable dark corridors (> 50 m wide) for the movement and foraging activity of long-tailed bats over the medium- to long-term."*[86]

The proposed mitigation measures specified within the Bioresearches Report are outlined below:

- *"a cohesive indigenous fauna management plan (or series of fauna-specific management plans) be prepared to address the protection of indigenous fauna prior to, during and following construction activities. The management plan(s) should include methodologies associated with avoiding, surveying, salvaging, relocating and monitoring on-site fauna, including but not limited to long-tailed bats and lizards."* [87]
- *"The provision of artificial bat roost boxes ('Kent Style' bat boxes), protected by predator bands around trees, to offer additional, safe bat roosting sites within the property boundaries.*
- *Outdoor lighting on residential should be designed to project light downwards using lighting hoods and ensure the light intensity remains below 0.5 lux, to reduce the magnitude of effects on bat activity."*[88]
- Long-tailed bats should be *"monitored within the project area both during and after the construction phase, and for a duration of the operational phase to determine the whether any unanticipated effects have influenced bat presence*

[85] Section 6.2.1.2.4, Para 4 - Bioresearches, Ecological Assessment
[86] Section 6.2.1.2.4, Para 6 - Bioresearches, Ecological Assessment
[87] Section 6.3.2.1, Bullet 1 - Bioresearches, Ecological Assessment
[88] Section 6.3.2.1, Bullet points 1 and 2 - Bioresearches, Ecological Assessment

and activity patterns. Appropriate triggers for additional management to also be provided." [89]

The Bioresearches report concludes that the "*ecological restoration proposed for the site has the potential to significantly enhance habitat for long-tailed bats by providing more forest edges, wide dark commuting corridors, higher quality foraging habitats, and in the longer-term additional roosting opportunities once the planted vegetation has matured. Since the development proposes broadly clustered dwellings, avoids the felling of large trees and retains important habitat features for bats, avoids the use of street lighting and would ultimately enhance habitat values through ecological restoration (including site-wide pest management), the actual and potential effects are expected to be* ***Low***."[90] On this basis and subject to the above mitigation measures being implemented, adverse effects on long-tailed bats are considered to be no more than minor.

9.1.7.2 Conclusion – Mitigation measures – Terrestrial Environment

On the basis of the proposed mitigation measures outlined below, the Bioresearches Assessment of Ecological Values and Effects report concludes that after implementing the proposed mitigation measures outlined below and those outlined within the Scrub Consultants 'Restoration Plan' and 'Plant and Animal Pest Management Plan', *"the overall level of effects could be reduced to low or even negligible levels. A Low level of effect reflects adverse effects that are noticeable but that will not cause any significant adverse impacts and are not normally of ecological concern."*[91]

<u>Management of protected fauna</u>

- A cohesive indigenous fauna management plan (or series of fauna-specific management plans) be prepared to address the protection of indigenous fauna prior to, during and following construction activities. The management plan(s) should include methodologies associated with avoiding, surveying, salvaging, relocating and monitoring on-site fauna, including but not limited to long-tailed bats and lizards.
- The provision of artificial bat roost boxes ('Kent Style' bat boxes), protected by predator bands around trees, to offer additional, safe bat roosting sites within the property boundaries.

[89] Section 6.3.2.1, Bullet 3 - Bioresearches, Ecological Assessment
[90] Section 6.2.1.2.4, Para 9 - Bioresearches, Ecological Assessment
[91] Section 6.4., Para 1 - Bioresearches, Ecological Assessment

- Outdoor lighting on residential should be designed to project light downwards using lighting hoods and ensure the light intensity remains below 0.5 lux, to reduce the magnitude of effects on bat activity.
- Long-tailed bats shall be monitored within the project area both during and after the construction phase, and for a duration of the operational phase to determine the whether any unanticipated effects have influenced bat presence and activity patterns. Appropriate triggers for additional management are also to be provided.

Management of nesting birds

- Where clearance of vegetation (native or exotic) is required, the removal should take place outside of the bird breeding season (September to February, inclusive), as far as practicable, to avoid disturbance to active native bird nests or mortality of eggs/chicks. Where vegetation clearance cannot be achieved outside of this period, a pre-vegetation clearance bird nesting survey should be carried out by a qualified ecologist. The detection of any active nest of a native bird would require an exclusion perimeter (15 m Ø) to be formed around the nest, with works ceasing inside the exclusion area until nestlings have fledged. Particular attention should be focused on identifying active wetland birds' nests (e.g. spotless crake), as these are often well concealed among dense vegetation.

Management of weeds and pest mammals

- Consent notices prohibiting future lot owners from ownership of domestic cats shall be imposed on the titles of the 40 lots created.
- Initial and long term management of plant and animal pests shall be undertaken in accordance with the recommendations of the Plant and Animal Pest Management Plan prepared by Scrub Consultants and attached at **Appendix H**.

9.1.7.3 Effects on the Freshwater Environment

9.1.7.3.1 Culverts and skid bridges

Works associated within or adjacent to existing watercourses and wetland areas will be required to enable upgrading of the existing network of lawful forestry roads and replacement/upgrading or removal of existing culverts. As outlined in the Bioresearches Report, the proposed development seeks to:

- upgrade two of the eight culverts identified in this report (Culverts 18, and 19);
- install box culverts or similar above existing culverts (Culverts 8A and 17A);

- remove one existing culvert (Culvert JS A) to restore the natural stream channel (methodology provided);
- remove Skid bridge A and install a new culvert (Culvert 23); and
- remove Skid bridge B and restore the natural stream channel

The location of the culverts and skid bridges are indicated in the aerial photograph below (Figure 24) taken from the Bioresearches Report (Figure 5.8.17).

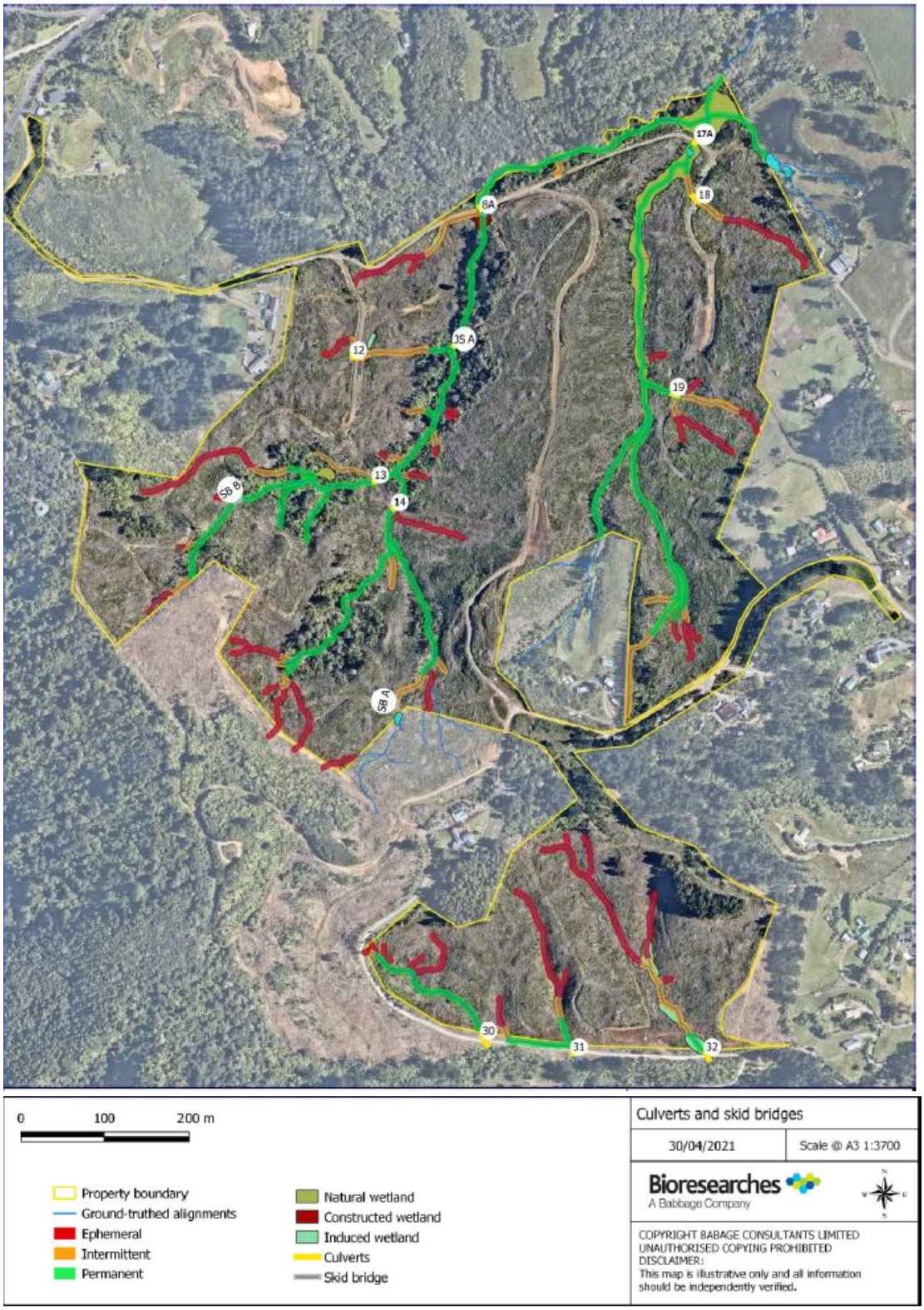


Figure 24 – Figure showing the location of existing culverts and skid bridges to be removed, replaced or upgraded (Source: Figure 5.8.17 – Bioresearches Ecological Report)

These works, if not carefully managed, have the potential to adversely impact the freshwater ecology of the area. Short terms effects such as fish injury or mortality and water quality effects resulting from increased sediment in the water ways may occur if not properly managed during construction activity. Longer term effects associated with post construction phase include the potential for reduced fish passage, water quality effects and changes to hydrology and loss of stream function and habitat area.

As discussed in detail in the Bioresearches Report, *"in their current state all eight identified culverts and the two existing skid bridges could be considered potential barriers to upstream and downstream fish movement due to perched outlets, small culvert diameters, insufficient embedding and or impassable skid bridges."*[92] The proposed development seeks to upgrade two of the eight existing culverts (Culverts 18 and 19); remove one culvert (Culvert JS A); replace Skid bridge A with a new 300 mm, 8 m long concrete culvert; and remove Skid bridge B altogether. Retrospective consent is also sought for culvert 14 as outlined in Section 7 of this report.

"It is anticipated that all new culverts would be designed and installed in a way that considers hydraulic conveyance and prioritises the use of the stream simulation approach. The stream simulation approach creates a natural and dynamic channel through the crossing structure similar in dimensions and characteristics to the adjacent natural channel (Franklin et al., 2018). These crossing types maintain habitat continuity and a diversity of movement pathways for fish, other organisms, sediment, and particulate matter through the stream. Where the stream simulation approach cannot be achieved, it is proposed that mussel spat ropes would be installed to facilitate the passage of aquatic organisms through the culverts."[93] A number of mitigation measures are outlined in Section 6.3.2 of the Bioresearches Report to minimise potential adverse effects on the freshwater environment.

9.1.7.4 Conclusion – Mitigation measures – Freshwater Environment

On the basis of the proposed mitigation measures outlined below, the Bioresearches Assessment of Ecological Values and Effects report concludes that after implementing the proposed mitigation measures outlined below and those outlined within the Scrub Consultants Restoration Plan and Plant and Animal Pest Management Plan, *"the overall level of effects could be reduced to low, and in some instances Negligible levels. A Low level of effect reflects adverse effects that are noticeable but that will not cause any*

[92] Section 5.8.4.3., Para 1 - Bioresearches, Ecological Assessment
[93] Section 6.2.2., Para 6 - Bioresearches, Ecological Assessment

significant adverse impacts (i.e. are considered no more than minor) and are not normally of ecological concern."[94]

- The potential adverse effects of culvert installation on native fish can be largely avoided or mitigated by preparing a native fish recovery and relocation plan and implementing programme prior to the commencement of any stream works.

- Most new and upgraded culverts would meet the general permitted standards under the AUP OP (one exception – Culvert 23) and comply with the NES-FW PA standards (three exceptions – Culverts 14, 18, and 23) ensuring free passage of native fishes and other aquatic organisms.

- It is recommended that the riparian margins of all intermittent and permanent watercourses and wetlands, be enhanced through active replanting or managed regeneration. Riparian margins should be 20 m wide on average (measured from the edge of the stream banks or wetland edges), but no less than 10 m wide in any one location, over the lengths of all watercourses (Figure 6.3.1). It is likely that riparian margin restoration would form part of the site-wide restoration plan, discussed in detail by Scrub Consultants (2020a).

- Sediment and erosion control measures should be in accordance with Auckland Council Guidance Document 05 - *Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region* (Leersnyder *et al*., 2016) to mitigate the potential effects of sediment and contaminants entering nearby waterways.

On the basis of the findings outlined above taken from the comprehensive assessment undertaken by Bioresearches in relation to the potential adverse effects of the subdivision on the terrestrial and freshwater ecology of the site, it is concluded that any adverse effects on the natural environment/ecology of the site can be appropriately managed through the implementation of the mitigation measures outlined above to a level where they would be no more than minor.

[94] Section 6.4., Para 1 - Bioresearches, Ecological Assessment

9.1.8 Flooding Effects

The AUP (OIP) identifies that flooding is recognised as the most common natural hazard facing the region, and seeks to control inappropriate development within flood hazards and to not exacerbate the flooding hazards for other activities either up or down stream of the site.

Figure 9 of this report shows the GIS mapped location of overland flow paths crossing through the site and the associated flood plains which affect the property. The Stormwater and Infrastructure Assessment prepared by ACH Consultants Limited, attached at **Appendix G** includes a flood risk analysis which concludes that it will be possible for future residential development to be situated outside of any OLFPs with appropriate design measures to address this to convey overland flows in a manner which mimics natural processes.

All the proposed residential lots are situated a minimum of 20m from the three streams which traverse the site (Jonkers Stream, Dilworth Stream and Kumeu Stream), ensuring *"there is no risk of flooding for building platforms."*[95]

It is noted that the comprehensive revegetation programme will provide hydrological storage of the catchment, particularly when compared with pasture. The report notes that "*a 1% AEP flooding event will not cause damage to the proposed building platforms, nor does the proposal exacerbate any existing natural hazard, as no flood storage will be lost as a result of the proposed development."*[96]

Likewise, the engineering report states that the culverts beneath the private roadway have been designed with adequate capacity to manage rainfall associated with the 1% AEP rainfall event.

On the basis of the above, any adverse flooding effects as a result of the proposal as considered to be no more than minor and ensure that the flooding hazard is managed appropriately with no significant risks to future residents or adjacent properties.

[95] Section 6.2, Para 2 – Stormwater and Engineering Report, ACH Consulting Ltd
[96] Section 6.2, Para 3 – Stormwater and Engineering Report, ACH Consulting Ltd.

9.1.9 Effects of Stormwater Discharge

The AUP (OiP) seeks to ensure that stormwater discharges are suitably managed to ensure that water quality and flows of streams are maintained or enhanced. In particular when considering any application for discharge Council must be satisfied that the discharge would avoid potential adverse effects such as erosion/scouring or the potential for contaminants to enter the freshwater system they connect into.

The proposed subdivision anticipates (and has designed stormwater mitigation for) future impervious surfaces of up to 3.5 hectares, comprising of 13,135m² of sealed roading. Shared accessways will have sealed widths of 5.5m and 3.5m with passing and turning bays and impervious areas of up to 500m² (including 300m² building coverage) per site, across each of the proposed 40 lots.

A combination of stormwater management devices including vegetated swales, vegetated stony dispersal devices, and dispersal into areas of regenerating native bush (either formally planted or naturally regenerating) will be utilised to manage and treat stormwater runoff prior to it entering into natural watercourses. The Stormwater and Engineering Report notes that *"the extent of the site area being set aside for the restoration of native bush is sufficient to provide mitigation for all impermeable areas at MPD."* [97]

The subdivision has applied the Countryside Living Toolbox: A Guide for the management of stormwater discharges in Countryside living areas in the Auckland Region (April 2010) and notes that given the significant proportion of the site (37.33 hectares) being set aside for native protection and restoration. A significant proportion of this area (20.39 ha) will require an active management intervention approach, with the remaining 7.33 ha also being subject to restoration but through a 'minimal intervention' approach. This equates to a total area of 27.72 hectares of proposed bush restoration.

The Scrub Consultants report defines 'active management' intervention as areas which require *"more intensive weed control and/or restoration planting"*[98] involving native planting where natural regeneration is insufficient or absent. The 'minimal intervention' approach is utilised where, due to a significant amount of native biomass already being present within the previously logged areas of the site, this allows native regeneration to occur through careful weed management with minimal or no 'replanting' required.

[97] Section 4.1, Para 1 – Stormwater and Engineering Report, ACH Consulting Ltd.
[98] Section 4.2.2, Para 2 – Scrub Consultants Restoration Report

Although differing from the traditional 'planting' based approach endorsed by the toolbox, the current mixed approach will achieve the same volume mitigation and stormwater treatment outcomes. The Stormwater and Engineering Report notes that, at *"MPD, 3.5 ha of post development impermeable area will require 17.6 ha of bush restoration. 27.72 ha of native bush restoration is proposed, which is 158% of what is required to achieve mitigation in accordance with the CLT."*[99]

The report notes that *"the proposed mitigation meets the policies and objectives of AUP Chapter E8."* [100] Details of implementation of stormwater mitigation across the seven stages of the subdivision is contained within Table 3 of the Stormwater and Engineering Report.

The Stormwater and Engineering Report notes that revegetation of the site at each stage of the subdivision is of an adequate level to provide stormwater treatment for the entire development. Notwithstanding this, the development also proposes three options for treatment of stormwater from the proposed access roads (ROW) within the development. These include, vegetated swales, vegetated swales with check dams and discharge into revegetated bush areas. These are utilised for stormwater conveyance, primarily as roadside drains in areas without kerbs and channels. The report notes that these stormwater treatment options also provide water quality treatment to reduce the overall impact of the development on the receiving environment. The locations and types of roadside drainage/treatment systems being utilised within the subdivision are provided within Appendix C of the Stormwater and Engineering report attached at **Appendix G**.

The Stormwater and Engineering report concludes that the proposed combination of measures will achieve the required stormwater quality treatment standards, and volume mitigation and will ensure erosion of natural water courses is prevented.

On this basis, it is concluded that any potential adverse effects associated with stormwater discharge are able to be appropriately mitigated and would be no more than minor.

[99] Section 4.1, Para 1 – Stormwater and Engineering Report, ACH Consulting Ltd.
[100] Section 4.1, Para 2 – Stormwater and Engineering Report, ACH Consulting Ltd.

9.1.10 Infrastructure/Servicing Effects

The Stormwater and Engineering Report prepared by ACH Consultants Limited (attached as **Appendix G**) outlines infrastructure provision across the subdivision.

Overall, it is considered that the site can be effectively serviced by the necessary infrastructure, subject to conditions, in a manner that would have no more than minor effects on the environment.

Wastewater

On site waste water treatment is proposed with each lot sized appropriately to be able to accommodate the necessary disposal field and reserve disposal field, outside of the specified building area. The Engineering and Infrastructure Report has demonstrated that the more constrained sites within the development all have sufficient space for both the effluent treatment and disposal field requirements of the AUP. Detailed design specific to each dwelling will be provided at the future building consent stage.

No adverse effects are therefore anticipated with respect to wastewater disposal.

Water Supply

No reticulated water supply system exists in the area. All 40 proposed rural/residential lots will be provided with on-site water tanks to provide for the potable water supply needs of future residents. The Stormwater and Infrastructure Report prepared by ACH Consultants attached at **Appendix G** provides additional details regarding the possible water filtration/treatments systems that are available for use with water tanks.

Fire-fighting supply can be provided when a dwelling is constructed on the site, this could be via dedicated capacity in an on-site water tank or a combination of tanks and sprinklers. In order to meet the requirements of SNZ PAS 4509: 2008 it is intended that a consent notice be placed on each title requiring:

- Any dwelling is to have fire sprinklers installed;
- Install and maintain a minimum permanent water storage volume of 7.5 m3;
- No bush is to be planted, or allowed to regenerate, within 10m of any dwelling
- Revegetation within 20 m of any dwelling is to exclude species identified as moderate to high flammability by the fire service.

Specific details for the provision of potable water and firefighting water supply will be provided at the building consent stage.

No adverse effects are therefore anticipated with respect to the provision of potable water and firefighting water supply. It is noted that the proposal incorporates a number of voluntary fire safety measures, including the use of fire retardant vegetation within a 25-30m circumference of the designated building platform.

Power supply and telecommunications

Power is to be supplied to all sites. 11kv power is available at the Bethells Road entrance to the property and the network will be extended underground with appropriate transformers installed to the Utility provider standards.

Telecoms will be by wireless/mobile service.

9.1.11 Effects on land stability

The AUP (OIP) identifies that Auckland is affected by natural hazards including land instability. Unstable land has the potential to affect people, property and the wider environment. The AUP takes a flexible risk-based approach which seeks to identify and assess the risk to ensure significant adverse effects are avoided. The site has been the subject of a number of detailed Geotechnical Investigations with each of the reports attached at **Appendix F**.

The overall stability of the proposed lots within the subdivision has been carefully considered within the above mentioned geotechnical investigation reports. This detailed geotechnical appraisal has informed decisions around the position of each of the 40 proposed designated building platforms (500m²) on each of the lots within the subdivision. The assessment concludes that the proposed building platforms within the subdivision are suitably stable, subject to strict adherence to a number of detailed recommendations. In addition to analysis of the stability of the proposed designated building platforms within the subdivision, EGL also undertook an assessment of stability of the proposed accessway (in particular the culverts). Specific recommendations relating to culvert design have also been made along with recommendations relating to earthworks and retaining structures. These recommendations are contained in Section 5.0, Section 7.0 and Section 8.1 of the Geotechnical Reports (Culverts, Stage 1 and Stage 2-7, respectively).

In addition to the above noted geotechnical assessment reports, EGL have also explored the potential risk from liquefaction to the property. This assessment letter is also included within Appendix F and concludes *"due to the presence of stiff to very stiff cohesive silt and clay deposits, it is unlikely that liquefaction of the near surface soils will occur during the SLS and ULS events. Considering the age of the residual soil deposits (i.e. generally Miocene age) the cohesive nature of the residual soil and alluvial deposits and the thickness of the non-liquefiable crust (i.e. more than 5m depth) it is considered that the effects of liquefaction on the property are unlikely."*[101]

It is noted that each lot will require a detailed (site specific intrusive) investigation prior to building consent and taking into account proposed earthworks on each lot. A small number of lots within the subdivision have a Building Restriction Line (BRL) imposed upon them (Lots 18, 31, 35 and 36) to ensure provide an additional layer of protection to ensure development remains within the designated building platform only and is kept clear of sloping land on these lots. These BRLs are identified in the Geotechnical Assessment Report (Stages 2-7) and will be registered as a consent notice on the title of each of these lots to advise future owners.

Consequently, it is considered that any potential geotechnical effects will be appropriately managed via the design of the earthworks and construction methodology for and any potential effects would be less than minor.

9.1.12 Archaeological Effects/ Effects on historic heritage

An archaeological assessment of the site has been undertaken by Clough & Associates Ltd, attached at **Appendix J**, which identified an historic heritage site (part of the Kauri Timber Company (KTC) Tramline on the site which was used in the 1920's (refer Figure 25, below).

[101] Para 5, Geotechnical Comment Letter dated 6 April 2021 – EGL

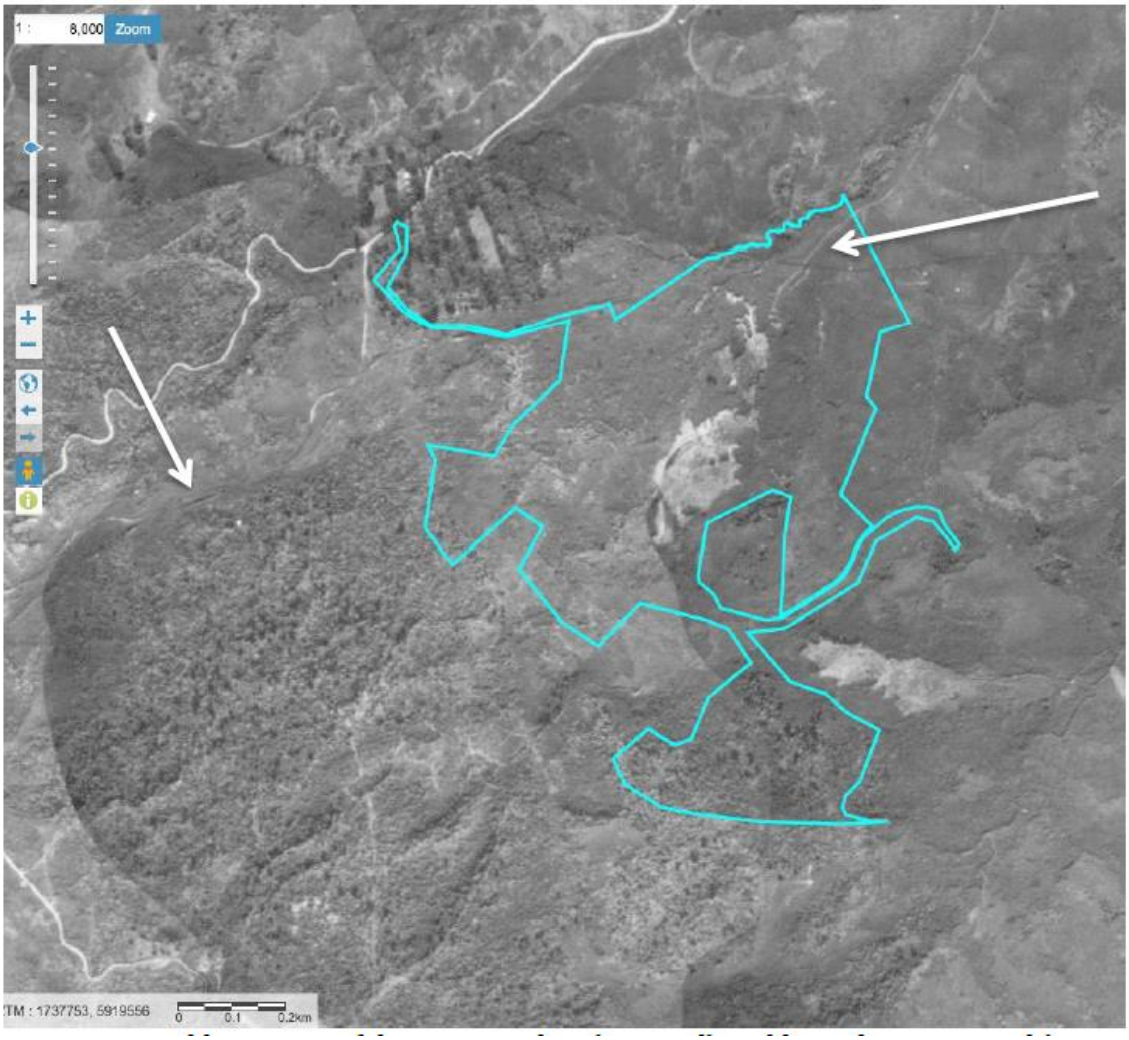


Figure 25 – Possible sections of the KTC Tramline (arrowed) visible on the 1940 aerial photograph (Source: Figure 4 – Clough & Associates Archaeological Assessment)

The site does not come under the definition of an archaeological site under section 6 of the Heritage NZ Pouhere Taonga Act 2014 (HNZPTA). The Clough & Associates report notes that *"physical remains of this Tramline would be of some historic heritage interest."*[102] The report acknowledges that no known archaeological or other historic sites would be affected by the proposed subdivision but as there has been no recent archaeological survey of the property the report recommends an archaeological survey be carried out to identify and record any remnant remains of the KTC Tramline cutting and survey the spur and ridgelines/creek banks to identify possible archaeological remains present on the property. The report acknowledges the likelihood of finding archaeological remains is not high, and on this basis the applicant does not consider it necessary to undertake any further assessment at this stage but would be prepared to

[102] Page 3, Para 1, Discussion – Archaeological Appraisal – Cough & Associates

accept consent conditions requiring the usual archaeological protocols to be adhered to during the earthworks/road formation phases of the subdivision.

9.1.13 Effects on the Quarry Buffer Area Overlay

The proposed subdivision results in the siting of one lot (Lot 38) within the Quarry Buffer Area overlay. It is noted that the Quarry ceased operations in 2015/2016 and the site is to be remediated, returning it to native vegetation and a wetland. Reporting in the press (a news article in Stuff 01/02/2018) stated that the road metal aggregate resource within the Quarry has been exhausted in a statement that the quarry *"ran out of aggregate"*. Approval of a lot (and the associated designated building platform for a future dwelling) within this overlay would not generate any adverse effects associated with noise or vibration as the quarry is non-operational. No mitigation measures surrounding noise attenuation, landscaping or screening are considered necessary given this. The proposed subdivision and subsequent residential development would not generate any reverse sensitivity issues for this reason also.

9.1.14 Cumulative Effects

It is also appropriate for the Council to consider whether the proposal may create any cumulative effects, or effects that may arise over time or in combination with other effects.

It is considered that there are no such cumulative effects in this instance particularly given that the subdivision is staged and will be developed in a piecemeal manner alongside the site restoration. The staging of development is necessary to provide adequate development capital to enable the ecological rehabilitation and restoration of the site.

On this basis any adverse cumulative effects will be effectively mitigated as a result of achieving the ecological and landscape enhancement goals of the subdivision. Future built development will, over time, be absorbed into the receiving environment and will create a new 'bush living' type landscape as the site transitions out of its historic land use of productive forestry.

For these reasons, it is considered that the proposal will not give rise to any cumulative adverse effects.

9.1.15 Precedent Effects

There are two important principles that are pivotal to the issue of precedent.

Firstly, there is an expectation that applications are assessed on their merits, in the circumstances that apply. This provides an inherent protection against precedent effects arising following granting of an application for a non-complying activity. If a particular proposal is not worthy of consent on its merits it will not be successful, irrespective of whether other applications may have been granted for rural subdivisions of similar (or lesser or greater) magnitude.

Secondly, and more importantly, it is considered that pressure for recognition of a perceived precedent could only arise where markedly similar circumstances apply. If that were the case, applicants might have a legitimate expectation that successive applications should be treated '*like for like*' by the Council, such that the same outcome will be obtained for successive resource consent applications of a substantially similar nature.

In relation to the first principle, it is considered that the proposal is providing a number of significant environmental benefits, enabled through the additional density provided by the subdivision. These environmental benefits respond sensitively to the particular physical characteristics of the site, preserving areas of existing significant vegetation and enhancing and protecting other areas of the site (such as riparian margins and wetlands) which are currently degraded. Given the sensitive design of the subdivision, it is considered that any potential adverse effects on rural character or landscape qualities are avoided and the ecological and environmental benefits (acknowledged and promoted within the AUP objectives and policies) to be delivered are significant. On this basis, the proposal would not create any undesirable precedent.

The second principle is that a precedent might only be expected where subsequent applications are substantially the same as an application that has been granted consent. If this is accepted, it follows that a precedent will not be set if a particular application seeking consent under the AUP Rural: Waitakere Foothills Zone standards is relatively unique and readily distinguishable from the majority of applications that are promoted in respect of those provisions.

In this respect, it is considered that the characteristics and circumstances of the current proposal readily differentiate it from the substantial majority of other possible proposals that might come before the Council in the future.

Firstly, the proposal is for subdivision of land that has been historically utilised as a productive forestry block and, as a result, already contains much of the infrastructure (in particular the road network) required to deliver a development of this nature. The number of comparable sites within the surrounding Rural - Waitakere Foothills zone is very limited. There are likely to be very few (if any) forestry blocks of a similar size remaining in the Rural - Waitakere Foothills Zone, with the vast majority having already been retired from forestry.

This site is also distinguishable/unique given its long and complex planning history (as outlined in more detail previously in this report). The site was identified by the legacy planning authority (Waitakere City Council) as having additional subdivision potential and significant investment was made to establish a planning framework which would enable delivery of this subdivision potential whilst also delivering a package of significant environmental enhancements. This potential was never realised due to land ownership issues which could not be resolved by the Waitakere City Council or the Environment Court and the draft Dilworth Special Area provisions were never adopted into the planning documents. Notwithstanding this, it is noted that the analysis that was undertaken to inform the draft provisions was comprehensive and included significant evidence around the landscape impacts associated with additional subdivision rights. This process, and the conclusions reached, were formally endorsed by the Environment Court in its 2010 (NZEnvC 405) *'quid pro quo'* decision.

For the above reasons it is considered that there would be very few sites within the Rural - Waitakere Foothills Zone that would have substantially similar characteristics to the proposed subdivision at 131-149 Anzac Valley Road. As such, the circumstances of this site and proposal are unique and distinguishable to the point that the same range of particular characteristics and circumstances are unlikely to be replicated on other sites. Moreover, the elements of the proposal have been assembled in a way that presents no appreciable challenge to the relevant objectives and policies in a way that might otherwise erode the integrity of the AUP. On this basis, a significant precedent effect is not likely to arise and there would be no consequential undermining of AUP integrity.

9.1.16 Positive Effects

The proposal would result in a number of positive effects that should be recognised and considered in the assessment of effects.

- A key aspect of the proposed subdivision is the opportunity it provides for the rehabilitation and restoration of a currently degraded parcel of land that has been degraded as a result of a long history (since the 1950's) of use as a plantation forestry block. *"It is expected that ecological restoration of the property would have direct environmental benefits in terms of contributing natural areas, wildlife habitat and ecological stepping stones to the North-West Wildlink initiative, and restoring upper-Kaipara catchment water quality by reducing soil erosion and sediment inputs. It is important to recognise that the anticipated ecological benefits of this restoration programme would not otherwise occur in the absence of the proposed development."* [103]
- The provision of 40 rural/residential lots providing future additional housing supply in a very constrained Auckland housing market.
- Retirement of the land from its use as a forestry block will remove the adverse effects associated with this use including habitat loss, sedimentation of streams and the proliferation of invasive weed species.
- Although the rural character of the site will change as a result of the development, the revegetation of the site will create an environmentally more sustainable 'bush living' type environment which will provide a resilient natural buffer to the native forest in the ranges.

9.1.17 Overall Conclusion

Overall, and based on the above assessment, it is considered that the actual or potential adverse effects of the proposal on the environment will be no more minor and adverse effects are able to be appropriately managed, mitigated or avoided.

Furthermore it is noted that the proposed subdivision affords an exciting opportunity enabling the comprehensive restoration and enhancement of a currently degraded native ecosystem. This opportunity for ecological gain is only possible as a result of the additional subdivision potential that would be enabled by the proposal, providing the necessary capital to fund the significant restoration works planned. These ecological

[103] Section 6.3.1, Para 1 – Ecological Report, Bioresearches

benefits, both in terms of resident flora and fauna communities and the wider natural environment of the Waitakere Ranges forest land, would not otherwise occur in the absence of the proposed development.

9.2 Relevant Provisions of a Plan or Proposed Plan

9.2.1 Objectives and Policies of the AUP

There are a number of objectives and policies from the Unitary Plan that are particularly relevant to this application. These include the following sections of the AUP (OIP); Section E39 (Subdivision – Rural); Section H20 (Rural – Waitakere Foothills Zone); and Section D12 (Waitakere Ranges Heritage Overlay). A high level assessment against the most relevant objectives and policies has been undertaken below, with a more comprehensive, detailed assessment included in **Appendix Q**.

E39. Subdivision - Rural

Section E39 seeks to ensure that land is subdivided in a manner which achieves the objectives of the zone within which it is located and any relevant overlays whilst minimising any adverse effects of future development on the environment. The Waitakere Foothills Zone seeks to retain/preserve rural character by allowing for low density settlement and maintaining a buffer between the more urbanised areas of Auckland and the forested ranges. It is my opinion that the current subdivision proposal accords with these objectives for the following reasons:

- The proposed subdivision is based on the concept of *'quid pro quo'* or incentivised subdivision where additional development rights are afforded as a result of a comprehensive package of environmental enhancements to areas of existing indigenous vegetation and wetland environments on the site. This approach is supported within the objectives and policies contained in Section E39.
- The proposed subdivision will have the appearance of a 'low density' development as the subdivision proposes a clustered lot layout which incorporates significant areas (37.49 hectares) of native vegetation regeneration and restoration which will serve to screen or soften future buildings and preserve rural character (albeit altered from the current productive forestry character); and

- The subdivision layout takes advantage of the natural undulations/topography of the site to visually contain future built development within the clusters; and
- The application incorporates a number of additional restrictions on future built development (to be placed on specific lots within the subdivision) to minimise the potential visual impact of dwellings; and
- The subdivision utilises the existing network of formed forestry roads and tracks for access to further minimise visual impact associated with the formation of roads and the subdivision layout overall minimises adverse impacts on the natural features of the site, particularly avoiding existing wetlands and watercourses and enhancing and rehabilitating these areas wherever possible; and
- Lots within the subdivision have been positioned sensitively to take advantage of the site's 'basin like' topography to limit the visibility of lots and the number of lots on the upper slopes have been minimised; and
- The subdivision, which enables significant native revegetation of a site that is currently ecologically degraded (as a result of its historic forestry use) will result in the creation of a well vegetated site that is able to act as both an ecological and a visual 'buffer' or transition between the more pastoral land uses contained to the south-east and the Waitakere Ranges to the south and west.

H20. Rural – Waitakere Foothills

Section H20 contains general objectives that are centred round ensuring that activities, development and subdivision within the Foothills Zone achieve the objectives of the Waitakere Ranges Heritage Area Overlay and also acknowledges the applicability of the Rural-Countryside Living Zone objectives and policies for development in the Waitakere Foothills zone. Maintaining rural character through enabling low density non-urban type settlement and preserving the visual buffer of the foothills between urban Auckland and the ranges are also key objectives. The proposal would be consistent with these policies and objectives for the following reasons:

- The proposal would protect and enhance the heritage area and the natural features described in section 7 of the WRHAA (2008) through the comprehensive restoration of the network of streams and wetlands on the site and through the assisted regeneration and revegetation of native bush across a significant proportion of the site. These environmental benefits are able to be delivered in a staged manner across the site as a result of the capital secured by virtue of the additional development rights that would be secured through the subdivision.

- The subdivision has been sensitively designed to preserve the existing landscape features, limiting development on more prominent ridgelines and clustering development to minimise visual impact and to take advantage of the screening effect of the site's natural contours. Restrictions on future built development are also incorporated within the application to further minimise the impact of buildings on the natural landscape. It is considered that these measures, coupled with the significant restoration that is planned across 37.49 hectares of the site, will enhance overall landscape values and will strengthen the visual and ecological connection/relationship with the ranges.
- The proposal has the appearance of a low density, non-urban development (due to a well thought out, sensitive lot layout that responds to the topography of the site, as outlined in more detail in the main body of this report) and the landscape and visual assessment undertaken by Woodhouse Associates, confirms that the site is able to absorb the level of development without compromising the values of the Heritage Area.
- Rural character would be maintained, albeit changing from a productive forestry use to a 'bush living' type of environment. As noted in the LVA *"it is anticipated that the development will be viewed as part of the Ranges environment rather than the semi-productive foothills environment."*[104]

D12 – Waitakere Ranges Heritage Overlay

The overriding objective of the Waitakere Ranges Heritage overlay is to ensure the heritage area and its features (as described in the WRHAA (2008)) are protected, restored and enhanced. The overlay also seeks to ensure that development within the heritage area is appropriately limited/controlled to ensure the distinctive character, natural landforms and landscape features of the ranges are maintained for enjoyment by the wider population. The proposal is considered to be consistent with these objectives for the following reasons:

- The proposed subdivision design is predicated on achieving significant environmental/ecological gains across the site through protection and enhancement of resident flora and fauna communities and in the context of maintaining biodiversity within the wider environment of the Waitakere Ranges. This is achieved by incorporating site wide native regeneration and planting and strengthening and enhancing significant areas of wetland/native bush that already exist on the site.

[104] Para 111 – LVA – Woodhouse Associates, Landscape Architects

In addition to the detailed assessment provided in **Appendix Q**, a number of additional objectives and policies, which are also of some relevance, have also been assessed below with a brief commentary:

E1. Water Quality and Integrated Management

Section E1 has at its core, the following objectives:

(1) Freshwater and sediment quality is maintained where it is excellent or good and progressively improved over time in degraded areas.

(2) The mauri of freshwater is maintained or progressively improved over time to enable traditional and cultural use of this resource by Mana Whenua.

(3) Stormwater and wastewater networks are managed to protect public health and safety and to prevent or minimise adverse effects of contaminants on freshwater and coastal water quality.

The proposed development is consistent with the above objectives for the following reasons:

- The subdivision proposes significant native re-vegetation and restoration across the site with a focus on improving currently degraded riparian areas and enhancing existing wetland areas.
- The proposal enables the removal or upgrading of existing culverts which act as barriers to fish passage and proposes new culverts in areas which currently contain residual forestry infrastructure such as skid bridges and forestry tracks. These restoration works will significantly enhance water quality and will reduce stream bank erosion resulting in significant positive outcomes for indigenous flora and fauna.
- With regard to stormwater management across the site the AUP (OIP) requires that both water quality treatment and volume mitigation be provided for the subdivision. The development proposes to treat water from impervious surfaces via roadside swales before being further treated through dispersal into the large revegetated areas of the site. This sensitive, low impact approach to managing stormwater discharge will prevent/minimise any adverse impacts associated with contaminants entering the natural receiving environment.
- On site wastewater treatment is proposed for each of the 40 rural/residential lots as no wastewater network is available. Each on-site domestic wastewater treatment system has been designed to avoid adverse effects on environmental

health, water quality and amenity values and are sized appropriately to minimise any potential for contaminants to enter freshwater environments.

It is considered that the proposal is generally consistent with the objectives or policies contained within Section E1.

E3. Lakes, rivers, streams and wetlands

Section E3 contains policies and objectives acknowledging the importance of minimising disturbance to natural watercourses, lakes and wetlands and managing pressures on these natural features associated with growth and land use activities. The proposal is considered to be consistent with the policies and objectives of this section for the following reasons:

- The proposal provides an opportunity to restore and enhance the ecology of the streams and wetland features on the site through the comprehensive rehabilitation and restoration proposal which will be implemented alongside the staged subdivision of the property (E3.2(2) and E3.3(3)).
- The proposal will replace/upgrade a number of existing structures (such as culverts) that have a continued operational need to be retained, and will remove those which do not. The process of replacement/upgrading will be undertaken in a sensitive manner (subject to adherence to proposed mitigation measures contained in the Bioresearches Report) in accordance with best practice guidelines (NZ Fish Passage Guidelines and Freshwater NES standards) and to ensure the hydrology of natural wetlands is maintained. (E3.2 (4) and (5) and E3.3(2)).

E11. Land Disturbance – Regional

Section E11 provides reference to the relevant Objectives (E11.2) and Policies (E11.3) of the Land Disturbance section of the Plan. The proposal is considered to be consistent with the relevant policies and objectives listed above for the following reasons:

- The proposal is utilising the existing network of forestry tracks with the aim of minimising the need for earthworks associated with road formation.
- The proposed works will be staged to minimise their overall impacts and disturbed areas will be appropriately reinstated as outlined in the Stormwater and Infrastructure Assessment attached at **Appendix G.**

- The land disturbance works are in proximity to waterways and existing wetland areas so careful management of them is necessary to ensure any potential effects can be appropriately managed. Sediment control measures have been proposed to manage these effects and ensure any adverse effects are avoided as far as practicable.

E12. Land Disturbance – District

Section E12 provides reference to the relevant Objectives (E12.2) and Policies (E12.3) of the Land Disturbance section of the Plan. The proposal is considered to be consistent with the relevant policies and objectives listed above for the following reasons:

- The proposed earthworks will be staged ensuring that the amount of land being disturbed at any one time is minimised and can be more easily managed (E12.3 (2) and appropriate sediment and erosion control measures will be utilised to prevent the migration of sediment off site/into natural waterways. A detailed sediment and erosion control plan has been prepared (and is attached at **Appendix W**) and will be implemented prior to commencement of any earthworks, thereby mitigating and avoiding any potential adverse effects (E12.2 (1) and Policies E12.3 (5) and (6)).

E27. Transport

Section E27 provides reference to the relevant Objectives (E27.2) and Policies (E27.3) of the Transport section of the Plan. The proposal is considered to be consistent with the relevant policies and objectives listed above for the following reasons:

- The subdivision has been designed to utilise a newly constructed access off Bethells Road and will also utilise the existing forestry roads/tracks which run through the site to provide a private road access network to service lots within the subdivision. This existing infrastructure will be upgraded to ensure it achieves the necessary sightlines and access gradients to ensure safe and efficient movement throughout the site and to and from the site (E27.2 (4) and E27.3 (20)).

9.3 Relevant Provisions of Other Statutory Documents

9.3.1 Waitakere Ranges Heritage Area Act (2008)

In considering an application for resource consent in the heritage area the consent authority must have particular regard to the purpose of this Act and the relevant objectives. The Waitakere Ranges Heritage Area Act 2008 defines, in Part 7(2), the heritage features of the WRHA which individually or collectively contribute to its significance. These include (but are not limited to):

- its terrestrial and aquatic ecosystems of prominent indigenous character; and
- the different classes of natural landforms and landscapes within the area that contrast and connect with each other, and which collectively give the area its distinctive character; and
- the naturally functioning streams that rise in the eastern foothills and contribute positively to downstream urban character, stormwater management and flood protection; and
- the quietness and darkness of the Waitakere Ranges and the coastal parts of the area; and
- large continuous areas of primary and regenerating lowland and coastal rainforest; and
- the dramatic landform of the Ranges and foothills, which is the visual backdrop to metropolitan Auckland forming its western skyline; and
- the opportunities that the area provides for wilderness experiences, recreation and relaxation in close proximity to metropolitan Auckland; and
- the subservience of the built environment to the area's natural and rural landscape, which is reflected in—

  (ii) the distinctive harmony, pleasantness, and coherence of the low-density residential and urban areas that are located in regenerating (and increasingly dominant) forest settings; and

  (iii) the rural character of the foothills to the east and north and their intricate pattern of farmland, orchards, vineyards, uncultivated areas, indigenous vegetation, and dispersed low-density settlement with few urban-scale activities

The objectives of the Heritage area are contained in Section 8 of the WRHAA (2008) and have been discussed in detail in the preceding sections of this report and in the

assessment of the policies and objectives of Section D12 of the AUP (attached at **Appendix Q**).

The relevant objectives can generally be summarised as seeking to protect, restore, and enhance the nationally significant Waitakere Ranges Heritage Area and its heritage features, avoiding adverse effects on the heritage features and ensuring that development is of an appropriate character scale and intensity avoiding urban sprawl.

It is considered that the proposed development would not be contrary to the above objectives as the proposed subdivision, although proposing 40 lots, is of a density, character and scale that will create a distinctive cluster style, 'bush living' environment as opposed to a subdivision of a more urban character, with the visual impacts of future built development able to be absorbed into the landscape over time as the regeneration/revegetation of the site is enabled.

Significant ecological gains will be secured as a result of the regeneration/revegetation proposals for large areas of the site (37.33 hectares) reinforcing the visual and physical connection to the Waitakere Ranges. The development will maintain and strengthen the quality and diversity of the landscape preserving the gullies and ridgelines within the site and restoring and enhancing what is currently a significantly degraded landscape affected by the long history of forestry use. The subdivision will change the character of the site, from a productive forestry use, but the carefully thought out placement of lots, the use of the existing network of forestry roads and tracks throughout the site, the comprehensive restoration of large tracts of land and the imposition of a series of controls on future built development will ensure that the change to the landscape associated with the transition from productive forestry to a rural/residential use is managed in an integrated way to retain the character of the Ranges.

Overall, any effects on those features which the WRHAA intended to be protected and enhanced would be acceptable.

9.3.2 Auckland Regional Policy Statement

The Auckland Regional Policy Statement is contained within Chapter B of the Auckland Unitary Plan (Operative in Part) and provides high level guidance with a focus on natural and physical resources, which assists in the consideration of this application.

It is noted that a number of the Rural Environment provisions are subject to appeal and are therefore not operative. Notwithstanding this, an assessment against the relevant objectives and policies of the Regional Policy statement has been undertaken and is provided in **Appendix R**.

Overall, it is considered that the proposed subdivision would not undermine or compromise the rural character, amenity, natural character or landscape values of the site or its surrounds, nor create any significant adverse effects.

9.3.3 National Policy Statement for Freshwater Management (2020)

The National Policy Statement for Freshwater Management 2020 sets out the objectives and policies for freshwater management under the RMA. It came into effect on 3 September 2020 and replaces the National Policy Statement for Freshwater Management 2014 (amended 2017). The statement provides national direction for decisions regarding water quality and quantity, and integrated management of land, freshwater and coastal environments under the RMA. It contains national objectives for protecting ecosystems, indigenous species and the values of outstanding water bodies and wetlands.

The proposed subdivision is considered to be consistent with the objectives and policies of the NPS (FM). The subdivision layout has been formulated around a comprehensive plan for rehabilitation and restoration of the site which includes retirement of land that has been historically used for pine plantation, extensive revegetation and assisted natural regeneration of native species, site-wide protection, restoration of existing forest fragments, including areas of SEA, the establishment of 20m wide riparian margins around all freshwater and wetland features and implementation of a site wide weed and animal pest control plan.

The above measures provide a valuable opportunity enabling significant enhancement of the site to occur in an integrated way, including the above mentioned measures which will ensure the health and wellbeing of degraded areas of the site and freshwater ecosystems are significantly improved, resulting in an enhancement of ecological values both on-site and within the wider environment. The subdivision has considered the network of water courses and their function on a 'whole-of-catchment' basis and proposes appropriate mitigation measures to avoid any adverse effects on the receiving environment.

9.4 Any Other Matters

Section 104(1)(c) requires Council to have regard to any other matter that it considers relevant and reasonably necessary to determine an application.

There are no 'other matters' that are considered to be of relevance in this instance.

10 Section 106

The RMA sets out additional circumstances when a consent authority may refuse subdivision consent. The provisions of section 106 state as follows:

"(1) A consent authority may refuse to grant a subdivision consent, or may grant a subdivision consent subject to conditions, if it considers that—

(a) there is a significant risk from natural hazards; or
(c) sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision.

(1A) For the purpose of subjection (1)(a), an assessment of the risk from natural hazards requires a combined assessment of –

(a) The likelihood of natural hazards occurring (whether individually or in combination) and
(b) The material damage to land in respect of which the consent is sought, other land, or structures that would result from natural hazards; and
(c) Any likely subsequent use of the land in respect of which the consent is sought that would accelerate, worsen, or result in material damage of the kind referred to in paragraph (b).

(2) Conditions under subsection (1) must be—

(a) for the purposes of avoiding, remedying, or mitigating the effects referred to in subsection (1); and
(b) of a type that could be imposed under section 108."

The site has been confirmed to not be subject to any significant risk from natural hazard and the subdivision makes sufficient provision for access, as required by s106(1)(c). As a

consequence, it is considered that the subdivision would not raise any concerns that might prompt the Council to invoke the provisions of s106.

11 Section 104D Threshold Test

Section 104D of the RMA establishes a 'threshold test' that is an additional test that non-complying activities must satisfy before they can be considered in terms of Section 104. In order to pass the threshold test, a consent authority must be satisfied that the adverse effects of the activity on the environment will be minor or the activity will not be contrary to the objectives and policies of the Plan or proposed Plan.

It is considered that the threshold test is satisfied in this case as the assessment of environmental effects has demonstrated that the effects of the proposed development on the environment will be no more than minor providing the recommended mitigation works are undertaken. Indeed, it is considered that the proposal will deliver a range of positive environmental outcomes through the restoration and remedying of the site.

In that context, it is also considered that the proposal will not be contrary to the objectives and policies of the Auckland Unitary Plan and the relevant national standards. It is noted that only one limb of the test needs to be met although, in this instance, it is considered that both are satisfied. As a consequence, the Council can have confidence that it has the necessary jurisdiction to determine the application in accordance with the statutory considerations contained within s104D.

12 Part 2 Matters

All considerations under s104 are subject to Part 2 of the RMA, which sets out the purpose and principles of the legislation.

Section 5 identifies the purpose of the RMA as the sustainable management of natural and physical resources. This means managing the use of natural and physical resources in a way that enables people and communities to provide for their social, cultural and economic well-being while sustaining those resources for future generations, protecting the life supporting capacity of ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

Section 6 sets out a number of matters of national importance which need to be recognised and provided for. These include the protection of outstanding natural features and landscapes, the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna, and the protection of historic heritage.

Section 7 identifies a number of *"other matters"* to be given particular regard by the council in considering an application for resource consent. These include the efficient use of natural and physical resources, and the maintenance and enhancement of amenity values.

Section 8 requires the council to take into account the principles of the Treaty of Waitangi.

The Court of Appeal has recently confirmed (in the R J Davidson Family Trust v Marlborough District Council decision) that when undertaking the section 104 evaluation the Council *"must have regard to the provisions of Part 2 when it is appropriate to do so"*.

It is my opinion that the proposal will be consistent with the purpose of the RMA, this being to 'promote the sustainable management of natural and physical resources'.

It is considered that the proposal is consistent with Section 5 of the RMA. The proposal will enable the restoration and rehabilitation of a site that has been environmentally degraded (over time) as a result of the productive forestry use. In the long term the proposal will sustain the natural and physical landscape and resources

Based on the foregoing assessment, it is considered that subject to conditions, the proposal will provide suitable recognition to the relevant matters of national importance set out under Section 6. Of particular note, the proposal would '*recognise and provide for*' the preservation of the natural character of wetlands and rivers their margins (s6 (a)) and would also enable the permanent protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna (s6 (c)).

The proposal would sit comfortably with the 'other matters' contained in section 7. It is considered to represent an efficient use and development of a currently degraded site, which through careful design and layout maintains and manages effects on amenity and enhances the overall quality of the natural environment through regeneration of native

vegetation and protection of natural watercourse and wetland areas, as required by Section 7.

It is considered that the proposed subdivision would not adversely impact Maori values, historic heritage or any outstanding natural features and takes into account the principles of the Treaty of Waitangi.

Accordingly, it is concluded that the proposal is consistent with the purpose of the RMA in relation to managing the use, development, and protection of natural and physical resources. Overall, it is considered that the application would not offend any of the matters contained within Part 2.

13 Notification Assessment

Section 95A of the RMA sets out a 'step by step' process that Council must follow when determining whether to publicly notify an application for resource consent.

Step 1 sets out the circumstances for mandatory public notification. Section 95A(2)(a) and s95A(3)(a) state that an application for resource consent **must** be publicly notified if the applicant has requested that the application be publicly notified.

In this instance, the applicant is requesting public notification.

As a consequence of the applicant's request, the Council is required to publicly notify the application. Further consideration of the steps under sections 95A and 95B is not required.

14 Conclusion

This resource consent application by Waitakere Farms Limited relates to a proposal to undertake a seven stage, 40 lot rural/residential subdivision on ex-forestry land at 131-149 Anzac Valley Road.

It is considered that the proposed subdivision is appropriate on the basis that it provides for and enables the native regeneration/revegetation, restoration and permanent protection (by way of protective land covenants) of a large proportion of the site

including areas of existing ecological significance, existing watercourses and wetland features on the site.

The proposal will deliver significant ecological gains for local flora and fauna and will strengthen the site's ecological connection to the Waitakere Ranges. The proposal includes a comprehensive package of restrictions on built development designed to ensure that future dwelling houses will have minimal impact on visual amenity and rural and landscape character. The 'clustered' layout of the subdivision, coupled with the planned native regeneration/revegetation of the site will create a 'bush living' type of rural landscape which can be absorbed without compromising rural character.

Any environmental effects associated with the proposed subdivision can be successfully mitigated through conditions of consent. It is considered that the proposal would not give rise to any adverse environmental effects that are more than minor and that, on balance, the positive ecological benefits resultant from the extensive package of environmental protection and enhancement measures provide adequate justification for the increased subdivision potential.

This 'incentivised' subdivision which enables protection of valuable natural features such as existing areas of SEA on the site, natural watercourses and wetland systems, is considered to be consistent with the objectives and policies of the Auckland Unitary Plan being the Operative planning document, as well as protecting and enhancing the heritage features of the Waitakere Ranges as required under the Waitakere Ranges Heritage Areas Act 2008, and the purpose and principles of the RMA.

Approval of this application is therefore considered to be warranted, subject to conditions.

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