



**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**

## LANDSCAPE ASSESSMENT

### 1 INTRODUCTION

This report has been commissioned by Stubbs Farm Estate Limited to inform a structure plan and private plan change proposed for the terrain bordering Warkworth settlement's northern margin.

The Warkworth North Structure Plan area (WNSPA) forms a portion of a larger area of land that is defined by the Auckland Unitary Plan - Operative in Part (UPOP) as Future Urban Zone (FUZ) in an effort to provide for up to 2,300 new houses in the Warkworth North area<sup>1</sup>. This strategic direction anticipates and encourages a dramatic shift in the land use and character of the area identified as FUZ in Warkworth North – and the WNSPA as a subset of this FUZ – from its current predominantly pastoral purpose to some form of relatively intensive urbanisation.

Parts of the WNSPA carry a measure of elevated landscape sensitivity, as broad-scale reporting<sup>2</sup> commissioned by Auckland Council has identified. A detailed discussion about that 2013 assessment is provided later in this report. Notwithstanding those findings, Auckland Council has proceeded with assigning a FUZ across the terrain that incorporates the WNSPA, almost certainly informed by its spatial contiguity with existing developed areas, limitations imposed by surrounding areas of flood susceptibility and riparian corridors, relatedness to

existing and future transportation corridors and a range of other factors that influence where best to cater for future urban growth.

Accordingly, this report will provide a detailed description of the defining characteristics of the land and how the most powerful of those may be reflected within future urban development, rather than assessing landscape effects as if the WNSPA were an entirely green-fields site where urbanisation had not been so emphatically signalled.

In developing the structure plan and plan change, the disciplines of ecology, urban design, economics, planning, civil engineering, survey and landscape architecture have worked collaboratively through numerous workshops. That commitment is reflected in the carefully integrated proposal that is being advanced and reinforced by the closely aligned direction that emerges from specialist reporting informing the structure plan and plan change request. Simultaneously, detailed discussions have been held with Council representatives, including three occasions when there has been close dialogue between the author of this report and Auckland Council's landscape architect and with its open space expert.

---

<sup>1</sup> Future Urban Land Supply Strategy (FULSS)

<sup>2</sup> *Rural/Urban Boundary (North and Northwest): Preliminary Landscape Investigation – Explanatory Note*. August 2013. ENPAD. Auckland Council

## LANDSCAPE ASSESSMENT

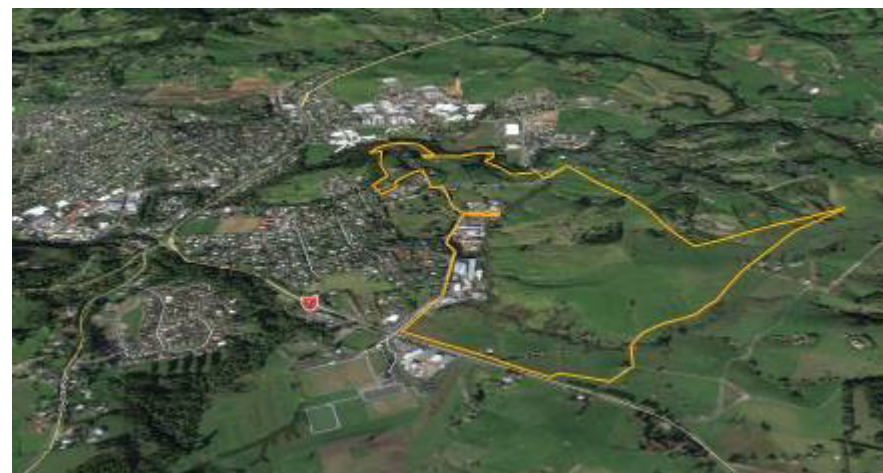
### SECTION A: DESCRIPTION OF STRUCTURE PLAN AREA

#### 2 EXTENT

The WNSPA accounts for almost 120ha of the 324ha FUZ identified at Warkworth North by the Auckland Unitary Plan. It is bordered to the north by the State Highway One corridor, to the west by the Ara Tuhono - Puhoi to Warkworth northern motorway extension designation, to the south by a combination of the Viv Davie-Martin Road rural residential enclave and a segment of the Mahurangi River, and to the east by Hudson Road and the north western edge of Warkworth's existing urban residential area.

The area proposed to be rezoned as part of the Plan Change more or less applies to the WNSPA, with the exception of 141 Carran Road, the western extent of Lot 1 DP 508375, and the existing General Business and Light Industrial zoned land to the east.

The boundaries for the private Plan Change area and the proposed zoning are shown in Attachment 16 to this report. Figure 1, opposite, illustrates the area in relation to surrounding landmarks. These images highlight the way that a combination of existing, residentially-focussed land uses and major transportation corridors spatially define the WNSPA.



**Figure 1:** High oblique view with the WNSPA indicatively highlighted. SH1 cuts diagonally across the lower part of the image, the Hudson Road light industrial area is seen in the centre, and the Warkworth CBD seen to centre left. Source Google Earth Imagery 2017

#### 3 EXISTING PHYSICAL CHARACTERISTICS

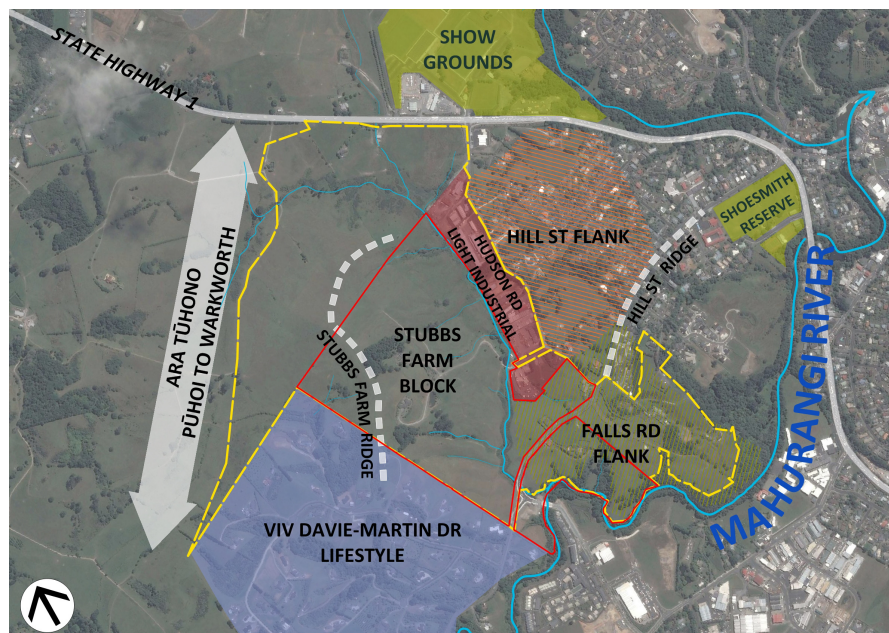
##### 3.1 Geology

The majority of the WNSPA lays across terrain founded upon Neogene sedimentary rocks of the Pakiri Formation, as seen in Attachment Four. This material is categorised within the Warkworth Subgroup of the Waitemata Group, which covers a large expanse reaching almost 100km north of central Auckland. Locally, the Pakiri formation underlays the majority of the more elevated terrain of Warkworth and its immediate environs.

# WARKWORTH NORTH STRUCTURE PLAN AND PROPOSED PLAN CHANGE

## LANDSCAPE ASSESSMENT

Lower lying topography on the eastern margin of the WNSPA alongside SH1 and north east of there, is founded upon Motatau Complex allochthonous rocks. These, as their title indicates, have been displaced from their origin some distance north of Whangarei and share a sedimentary structure with the neighbouring geology.



**Figure 2:** Points of reference used in descriptive text about the WNSPA.

Lowland areas associated with the course of the upper Mahurangi River are differentiated by Holocene River Deposits. That geology is very narrowly

associated with the southern margin of the WNSPA where it skirts the river near Mansel Drive.

### 3.2 Soils

Attachment Five illustrates the soil types present. Not surprisingly, these are reflective of the displaced, allochthonous nature of the parent material found to the north of the WNSPA, with some of the loams, silt loams and clay loams that exist being named for their origins much further north.

The main body of the WNSPA is characterised by Warkworth clay and sandy clay loam, which are moderately acidic soils with relatively low levels of natural fertility. Those soils without a loam component are poorly drained, so the matrix of very minor overland flow paths over parts of the WNSPA are illustrative of that impeded permeability.

### 3.3 Landform

Slope analysis maps making up Attachments Eleven and Twelve graphically depict the topography of the Warkworth FUZ. A hierarchy of colour fills have been used to highlight the relative steepness of the land across this broader area that encapsulates the WNSPA, with red denoting the steepest of slopes that lie at a grade of 20% or more, a pale pinkish yellow identifying the flatter terrain with a grade of less than 12.5%, and a moderate orange hue covering the slopes between these two extremes. Attachments Thirteen and Fourteen progressively zoom into the WNSPA to display that terrain in greater detail.

## LANDSCAPE ASSESSMENT

Examination of these images reveals that much of the WNSPA is moderately steep and, interestingly, shares close parallels with the landform crested by Hill Street to the south, which peaks at 87m elevation.

The main body of the WNSPA, lying within the Stubbs Farm property, rises from surrounding flood-prone lowlands to a clearly defined central spine which reaches an elevation of just over 80m above sea level at its apex. The northern faces of this landform have a reasonably uniform slope, whereas the topography that drops to the south east (i.e. towards Hudson Road) is considerably more complex and variable. This diverse terrain can be seen in the foreground and mid-ground of the image on the cover of this report, and within Panoramas VP5 and VP12 of Attachment Nine.

The south-western portion of the WNSPA which lies between Falls Road and the Mahurangi River corridor, shares similar complexity the southern faces of the Stubbs Farm block, with an undulating landform that is punctuated by several minor watercourses. Panorama VP8 illustrates this topography.

### **3.4 Hydrology**

The primary, legible watercourses that exist within the WNSPA are shown in Attachment Three (Landscape Elements) and include many that are ephemeral or intermittent. Attachment Fifteen provides a more detailed analysis of the drainage patterns present, based upon Auckland Council GIS data. Included amongst these are the most subtle of minor flow paths, many of which are barely discernible when

walking over the land embodied in the WNSPA. The dense pattern of tiny tributaries that characterise the catchment which underlays most of the WNSPA is reflective of the poorly drained soils that are present over that area.

Hydrological patterns found within the lowest lying parts of the WNSPA are considerably simpler, with the drainage of surrounding slopes feeding directly into tributaries of the Mahurangi River, such as the small creek skirting the toe of the Hudson Road industrial enclave, or directly into the Mahurangi itself.

All of the watercourses appear to cut through relatively soft material and have correspondingly soft beds. The Bioreserches ecological reporting<sup>3</sup> contains a detailed description of the various primary watercourses found within the WNSPA.

### **3.5 Vegetation**

Those parts of the WNSPA that are not already developed predominantly lie under a cover of pasture, as can be seen in Attachment Three: Landscape Elements. Totara (*Podocarpus totara*) is the prevailing species found within the pockets and belts of indigenous vegetation that are illustrated in Attachment Three, bringing a canopy typically in the order of 15 to 20 in height. Other species found within these areas include puriri (*Vitex lucens*), karaka (*Corynocarpus laevigatus*), kahikatea (*Dacrydium dacrydioides*), rewarewa (*Knightia excelsa*), rimu (*Dacrydium*

---

<sup>3</sup> *Ecological Assessment: North Warkworth Area* (2017) Bioreserches

## LANDSCAPE ASSESSMENT

*cupressinum*), kauri (*Agathis australis*) and large specimens of kanuka (*Kunzea robusta*).

The understorey of these native groves tends to be relatively open as a result of recent and past grazing. Where present, indigenous subcanopy species comprise typical examples such as mahoe (*Melicactus ramiflorus*), hangehange (*Geniostoma ligustrifolium*), *Coprosma rhamnoides* and ponga (*Cyathea dealbata*). Shade tolerant weed species, particularly Chinese privet (*Ligustrum sinense*), are often more numerous than native subcanopy species.

Outside of these concentrated areas of natural indigenous flora, vegetation tends to consist of exotic species such as a belt of willows (*Salix sp.*) that lines some of the main tributary running parallel to Hudson Road, areas of gorse (*Ulex europaeus*), a short string of Lombardy poplars (*Populus nigra* "Italica") to the east, and some substantial pines (*Pinus radiata*), particularly in the midst of the Stubbs Farm property. Isolated and scattered native specimens are positioned occasionally in association with some of the minor tributaries. A pocket of manuka (*Leptospermum scoparium*) occupies the damp lower slopes associated with the stream margin near State Highway One.

A planted swathe consisting almost entirely of manuka is found at the opposite, southern portion of the WNSPA, where it is developing a role as a riparian buffer to the primary tributary stream. This planting was installed as a condition applying to the Watercare water take consent for the Warkworth town supply, but is understood to not be under the protection of a covenant.

Amenity plantings feature around the homesteads found within the WNSPA, either in the form of curvaceous borders or as demarcating shelterbelts.

The photograph on the cover of this report encapsulates the various forms of vegetation found across the area, with the pines and outliers of an indigenous forest pocket seen in the foreground, riparian margins and residential sites in the midground, and fingers of totara extending up beyond Falls Road from the banks of the Mahurangi a little further back. Panoramas VP, VP6, VP8, VP9, VP11 and VP12 are also useful in observing vegetation patterns and composition.

The Bioresearches assessment contains a detailed description of each area of vegetation present, and its composition.

### 3.6 Land use

In its current form as pastoral grassland, the majority of the WNSPA is devoted to agricultural grazing, particularly on the largest landholding of Stubbs Farm. Parts of this property that are least suited to pastoral use, such as some minor watercourse margins and the dampest areas to the north east are excluded from grazing and are characterised by rank grass and invasive shrubby weeds as a result.

A few houses are scattered across the area, typically with usual residential elements such as driveways, outbuildings, and garden plantings.

Hudson Road's well established light industrial zone sits rather incongruously as a narrow belt below the road corridor, contrasting with the currently agricultural

## LANDSCAPE ASSESSMENT

character of Stubbs Farm to the west and the predominantly residential nature of the Hill Street\Albert Road flank to the east. This light industrial area contains a number of quite large buildings, as can be distinguished in the aerial photograph of Attachment Three, along with works yards, a storage facility and wastewater management infrastructure associated with Sanderson Road.

### **SECTION B: CHARACTERISATION OF SETTING**

#### **4 DEFINING ELEMENTS / LANDSCAPE CHARACTER AREAS**

The wider structure of Warkworth's existing urban area and immediate hinterland can be categorised into a series of defining elements and landscape character areas. Attachments One and Two respectively illustrate the location and extent of these. Topographic characteristics inform the elements and character areas, so reference to Attachment 11 adds to an understanding of their arrangement relative to contour.

A southern gateway element is identified on the brow on State Highway 1, where McKinney Road joins from the east. Cresting this low spur when travelling north reveals much of Warkworth's urban area laid out across lower terrain ahead. It is a point where a prevailing pastoral rural character suddenly gives way to the presence of the settlement. Similarly, Warkworth's northern spatial gateway is approximately 2.5 km north of the village turnoff and is marked by the combined

physical presence of the crossing over the upper Mahurangi River and passing through the defining frame of a waterside strip of indigenous forest. Panorama VP1 in Attachment Nine shows this gateway looking north. For people travelling south on SH1, this transition point marks the switch between the rural valley that descends from the Dome Forest range and the first indicators of the upcoming settlement, taking the form of the house construction yard and neighbouring marine service business lying alongside Goatley Road.

The Mahurangi River is one of Warkworth's most memorable and strongly defining elements. It becomes progressively narrower as it extends over 15km inland to the north west from its mouth, retaining a tidal influence all the way up to the settlement. A combination of a rocky shelf and a weir creates a transition to the fresh water portion of the river before it splits into its Left Branch, which arcs west around the WNSPA and then swings east to punctuate the northern gateway described earlier. The Right Branch, meanwhile, veers south to drain the foothills associated with Moir Hill. A number of lesser tributaries contribute to the Mahurangi's presence, also relying heavily upon belts of riparian indigenous forest for their expression.

#### **4.1 Urban Centre and Commercial / Industrial Margins**

Warkworth's commercial centre is closely associated with the saline reaches of the Mahurangi River. The village's underlying historic themes and modest scale are a reflection of the settlement's earliest days when maritime transport was the prevailing means of travelling around the region. The continued presence of the

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**

restored scow the Jane Gifford, seen in the background in Photograph 8, is a reminder of that heritage.

Its modest built scale and the relative coherence of its commercial buildings reflects and village's heritage and the planning provisions that have perpetuated that character whilst allowing Warkworth to remain subservient to the forested escarpment which lines the upper Mahurangi's northern shoreline. Photograph 1 below illustrates how that relationship is experienced from many parts of the township. The manner in which several perpendicular road corridors, including Mill Lane, Percy Street, Bertram Street, and Liburn Street, project beyond the main street, pockets of open space run to the river beyond, and narrower pedestrian corridors create more subtle linkages to the waterside, all serve to reinforce this intrinsic relationship between the village and its northern backdrop.

The sequence of Warkworth's residential progression is expressed in the format of its street network. A grid rising to the south-west of the commercial centre and river, along with a similarly rectilinear pattern running a short distance north from the apex of Hill Street, represent the settlement's earliest housing development. Photograph 2 below, provides a typical streetscape view. These areas feature wider streets and more generous lot sizes (typically around 800m<sup>2</sup>), well established garden vegetation and numerous Victorian-era houses interspersed amongst homes representing subsequent ages through to the 1970s. As such, the more mature neighbourhoods bring a measure of both heritage and variety.



**Photograph 1:** looking north down Neville Street, with the northern escarpment providing a backdrop to the low commercial buildings fronting the road.

Radiating out from the original residential cores with their gridded streets are the more recent residential neighbourhoods, largely of the 1980s to 2000 period, with a contrasting shift to more curvaceous primary roads feeding minor cul-de-sacs.

A broad belt containing the south eastern side of Warkworth's current settlement largely contains this period of the settlement's residential growth, along with the enclave fed by Melwood Drive to the north of the Mahurangi River and pockets associated with Hill Street to the west.



**LANDSCAPE ASSESSMENT**



**Photograph 2:** A typical suburban street looking uphill from above the CBD. Note contribution of mature trees, many exotic, and associated with some of Warkworth's older homes.

Typical characteristics of these residential areas are slightly smaller lot sizes, a greater uniformity of building forms and materials, and carefully tended gardens with vegetation that is largely of modest scale, bringing an overall sense of pleasant but undistinctive uniformity. The Melwood Drive neighbourhood is separated from this norm by benefiting from a containing framework of indigenous forest associated with adjacent stream courses and the Matakana Road corridor.



**Photograph 3:** the carefully tended properties found in the Melwood Drive neighbourhood, with its containing forest seen in the background.

Most of the recent development in the settlement has occurred on its southern margin around the area of John Andrew Drive, and in small pockets to the west of SH1. Site development continues in this latter area and includes extensive use of timber pole retaining to overcome geotechnical challenges and create suitable residential sections, as seen in Photograph 5 further below. It would appear that many of these most recent residential neighbourhoods have been developed by group building companies, with the resulting formula of building design and materials bringing a "sameness" to street character.

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**



**Photograph 4:** A street of recent residential development on the hill to the west of Warkworth, showing a greater level of density and little vegetation that has the capacity to reach a defining scale.



**Photograph 5:** New residential areas under development in the John Andrew Drive area. Note the need for extensive retaining in this moderately sloping topography.



**Photograph 6:** A view into the tight mesh of light industrial land use associated with Woodcocks Road.

Most of Warkworth's light industrial development is situated on gently sloping terrain in the south western quarter of the town alongside Woodcocks Road, much of it long-established. The character of this area is typical of most light industrial enclaves found in comparably sized settlements, with its numerous small tenancies, discordant buildings, plethora of signs and generally low levels of urban visual amenity.

Allied development, in the form of large format retail buildings and sizeable industrial premises, is now pressing west, and includes recent commercial buildings being developed on Mansel Drive, as seen in Photograph 7 below, drawing that form of land use into close proximity with the WNSPA.

## LANDSCAPE ASSESSMENT



**Photograph 7:** The recently developed Mitre 10 store on Mansel Drive. Roadside vegetative screening and verge street trees are relatively effective in buffering the presence of this loading area.

Almost the entire western frontage of Mansel Drive is devoted to a retirement village complex which is currently undergoing a significant extension to the south. The course of the Mahurangi River and the scale of its riparian vegetation in the area at the northern end of Mansel Drive creates a visual division between the main body of that road (as partially seen in Photograph 7 above) and the WNSPA.

### 4.2 Estuarine Mahurangi River and Valley

This landscape character area covers the progressively narrowing, tidal Mahurangi River as it runs up to Warkworth from its mouth in Kawau Bay, along with its immediately associated landforms. It terminates at the River's transition from saline to fresh on the western edge of Warkworth's village centre.



**Photograph 8:** Looking downstream along the Warkworth wharf, with the forest-clad flank beyond forming a natural backdrop.



**Figure 9:** A view upstream towards the natural rock shelf and weir in the Mahurangi River, with the main, Elizabeth Street Bridge seen beyond.

## LANDSCAPE ASSESSMENT

A marked distinction exists between the western, more developed edge of the river where the township, boatyard and old cement works sit, and the predominantly natural scarp to the east with its cladding of podocarp-dominated forest (regularly punctuated by kowhai). This eastern margin to the river forms the inland apex of a much larger outstanding natural landscape that stretches to the mouth of the Mahurangi as identified in the UPOP.

### **4.3 Riverine and Alluvial Lowlands**

As Attachment Two illustrates, this landscape character area extends north along the State Highway One corridor to the toe of the Dome Hills and is punctuated by the northern gateway highlighted in Attachment One and seen in Photograph 10 below. Largely contiguous belts of riparian forest – predominantly podocarp species – are a powerful feature that highlights the presence of the watercourses that they enshroud. The way that the highway parts that well-developed pattern of vegetation emphasises the road gateway seen below.

Small portions of the character area extend north east alongside watercourses that feed into the upper reaches of the Mahurangi, but the main body of the character area lies across the more extensive flats found to the south west and flanked by Woodcocks Road and Kaipara Flats Road.



**Photograph 10:** the “northern gateway” and crossing over the upper Mahurangi River, as seen from the Warkworth side. The Dome range is visible in the background.

The productive capacity of the loamy soils found throughout this character area is expressed through the tightly gridded fencing patterns, protective shelterbelts, and range of rural land uses established across much of the area. The new motorway linkage connecting to State Highway One is aligned to capitalise upon this low-lying, regular topography, so its course will see it somewhat bisecting these riverine flats when constructed.

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

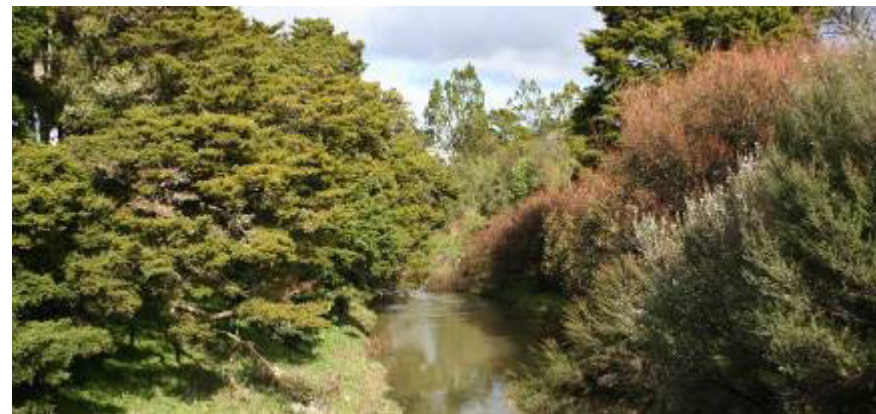
**LANDSCAPE ASSESSMENT**



**Photograph 11:** Low-lying terrain in the northern quarter of the plan change area, as witnessed from the edge of State Highway One. The northern motorway extension designation lies in the centre of the image, where the Lombardy poplars are seen.



**Photograph 12:** Warkworth Showgrounds' sports fields have been developed on the flats to the east of State Highway one. Kraack Hill and The Dome loom in the background beyond the intervening northern foothills.



**Photograph 13:** Mahurangi River and its riparian vegetation as it meanders along the southern margin of the WNSPA near Falls Road. Note willows and other scattered invasive species amongst native flora.

#### **4.4 Southern, Low Rolling Foothills**

This area lying between the southern margin of Warkworth settlement and the forested foothills just beyond Perry and Thompson roads consists of a swathe of gently undulating, low terrain. Land cover is largely pastoral but includes some reasonably substantial tracts of native forest that include the Parry Kauri Park and Avice Miller Reserve. Scattered elements of indigenous and exotic vegetation are a consistent theme, as seen in Photograph 14, below.

Being relatively close to Warkworth itself, a few commercial activities like a golf driving range and well drilling company's yard, are established alongside the state highway. Further south at Valerie Close, a vineyard has been developed on the

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**

gentle, north facing slopes found a short distance to the west of State Highway One.

Warkworth’s “southern gateway”, as identified in Attachment One, lies on the northern margin of this character area, where it marks the transition from rural countryside to the urban nature of the settlement. Photograph 15 below is taken from the midst of that gateway.



**Photograph 14:** looking south towards the Southern Low Rolling Hills, as seen when looking left from SH1 travelling north and just before the “southern gateway”.



**Photograph 15:** looking north towards the southern part of Warkworth settlement, which is emerging from between the low terrain and associated vegetation found at the southern, SH1 entrance to Warkworth.

**4.5 Eastern, Low Rolling Hills**

To the north east of Warkworth’s urban area lies a second block of rolling, predominantly grazed landscape which is consistent with the southern low hill country that has just been described. The two character areas are separated from each other by the Mahurangi River, but would otherwise figure as a unified whole.

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**



**Photograph 16:** A view south across the Eastern Low Rolling Hills found between Warkworth township and the Warkworth Golf Course. This image was taken from Matakana Road a short distance west of Golf Road.

Once again, a proximity to Warkworth has seen minor commercial ventures established alongside Matakana Road and the Warkworth Golf Club course developed across the undemanding terrain about 3km of the township. Vineyards are a feature in the slight depression that Matakana Road drops into en route to its namesake village.

Collectively, the Southern and Eastern Low Rolling Hills provide a strong rural frame which Warkworth comfortably sits within.

**4.8 Forested/Plantation Framing Northern Hills**

A broad range of steep, elevated terrain that links Omaha Forest to the east with Dome Forest extending west to beyond State Highway One, serves as a mid-

distance backdrop to the WNSPA (as seen in earlier Photograph 11 and Panoramas VP, VP9, and VP11 of Attachment Nine) as a result of its prevailing elevation in excess of 200m and peaks of over 300m.



**Photograph 17:** A close northward view of The Dome range which, along with the plantation-clad Kraack Hill terrain – unseen to left – prevails as a backdrop over the WNSPA sitting some distance to the south of where this photograph was taken from.

Strengthening the coherence of this range of hills is a consistent cover of vegetation that is typically indigenous bush associated with the loftiest topography and production pine forest across the lower terrain. It is to be noted that Dome Forest is identified in Schedule 7 of the UPOP as being an outstanding landscape (ID 32) in recognition of the prominence and complexity of its topography, and for its large area of intact mature indigenous forest. It also fills a vital role as the

## LANDSCAPE ASSESSMENT

defining backdrop to Warkworth and a considerable area to the east and west of the settlement.

This range of hills, and particularly the native forest the east of the State Highway One corridor, play a strong role in the travelling experience moving through Dome Valley between Warkworth and Wellsford. Heading south on that section of road brings a sensation of weaving through a narrow cleft amongst steep hillsides that rise to either side, and an experience of that containment diminishing as one descends the southern face of the hills to join the progressively opening landform that discharges to the flats immediately north of Warkworth.

### **SECTION C: WIDER OPEN SPACE NETWORK**

Attachment Six illustrates the open space context that the WNSPA fits within, with colour coding differentiating between those areas with a Sport and Active Recreation Zone, Informal Recreation Zone, and Conservation Zone.

Two primary themes stand out; the largely contiguous riparian reserve strips associated with the Mahurangi River and an unnamed tributary, lying between SH1 and Melwood Drive, as they move through the existing urban extent of Warkworth, and the two blocks of Sport and Active Recreation Zone centred upon the Warkworth Showgrounds and Hill Street. Helpfully, the active recreation areas adjoin the riparian corridor system, offering potential for those using these active

areas to arrive on foot or by cycle if the path infrastructure were to be fully developed in the future. Another benefit of the active zone reserves relating to the riparian corridors is that they provide the scope to act as a prominent and legible “gateway” to the streamside strips.

The Warkworth A and P Showgrounds offer a multifaceted recreation space, catering for a range of active team sports, equestrian activities, the A and P Show, and a spectrum of other uses that are encouraged by the flexibility of the fields available. Photograph 12, above, provides a view across some of the fields within the reserve, highlighting that much of the Showgrounds has been recently developed to a high standard, including areas of sealed car parking, ablutions, paths, fencing, floodlighting and well graded sports fields. Collectively, these amenities are considered to qualify the reserve as a Suburb Park under the Auckland Council Open Space Provision Policy<sup>4</sup>. Auckland Council has been undertaking community consultation in recent years as it plans for further expansion to cater for Warkworth’s growing recreation needs, and these include provision to expand facilities alongside SH1 in a former roadworks depot.

Shoemith Reserve in Hill Street is also seen to meet Auckland Council’s criteria for a Suburb Park, featuring a playground and ablutions building, multiple sports fields, a scout den, tennis club and bowling club. The park has sensibly been established immediately alongside Warkworth Primary School to also meet the

---

<sup>4</sup> *Open Space Provision Policy 2016*. Auckland Council



**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**

school's open space needs. The reserve has two road frontages, with the Shoesmith St cul-de-sac serving as the access to the various community buildings and providing parking areas.

Well over 90% of the WNSPA lies within a 1 km radius of either the Showgrounds or Shoesmith Reserve. The Community Facilities report that informs the proposed change addresses the provision of open space more fully.



**Photograph 18:** Shoesmith Reserve on Hill Street, which serves the neighbouring Warkworth Primary School and complements the larger Warkworth Showgrounds Reserve.

Whilst few of the waterside public open space strips around Warkworth have been developed for pedestrian use, the continuity of those corridors and the very high amenity values on offer through their predominant cover of indigenous forest and

the presence of Mahurangi River and its contributing streams, provide a strong imperative for capitalising upon that opportunity. The Adopted Greenways Plan 2017 illustrates and references this potential.

As Attachment Six illustrates, the catchment pattern found within the WNSPA provides for the established theme of riparian reserves to be extended as a coherent pattern.



**Photograph 19:** A waterside path leading downstream through riparian forest toward Warkworth's wharf.

## LANDSCAPE ASSESSMENT

### SECTION D: LANDSCAPE OPPORTUNITIES AND CONSTRAINTS

The preceding analysis of the characteristics of the WNSPA and its wider context imply a range of opportunities and constraints for the future development of that extent of FUZ. Key landscape\habitat-driven imperatives that underpin the arrangement of the proposed structure plan are as follows:

- A distinctive character and spatial arrangement that currently exists in Warkworth and relating the format of the WNSPA to the best aspects of that context. This also provides a cue for integrating, where practicable, the edges the WNSPA with adjoining areas so that natural patterns and open space corridors can continue seamlessly and be strengthened where possible.
- The local identity contributed by the broad topography of the WNSPA, particularly the Stubbs Farm ridgeline as shown on Attachment 3. That topographic context influences how road corridors and development densities are configured, with roads primarily oriented across the natural contour rather than perpendicular to it and concentrating the highest densities of potential development in the lower-lying topography.
- The presence of some pockets and belts of indigenous vegetation that provide a somewhat fragmented frame to the WNSPA. These provide an

anchor to build further vegetative patterns from, along with an established element of naturalness and scale.

- Some of the best-developed natural watercourses have a landscape presence and measure of ecological sensitivity. The majority are very subtle and substantially compromised but provide a starting point for stitching together a more coherent matrix of riparian corridors.

The proposed WNSPA format and the anticipated configuration of the elements that would constitute the three-dimensional form of the resulting urban environment are addressed by a Neighbourhood Design Statement<sup>5</sup>. This assessment is therefore deliberately narrow in its scope to comment particularly upon spatial, urban landscape dimensions and the functioning of adapted biotic systems within this new frame.

---

<sup>5</sup> *Neighbourhood Design Statement: Warkworth North Structure Plan.* (2019) Pacific Environments Architects

## LANDSCAPE ASSESSMENT

### SECTION E: SPATIAL PLANNING APPROACH

The preceding section sets out the primary characteristics of the WNSPA and wider setting that have influenced the zoning pattern being proposed. Alongside those direct drivers has been a desire to configure the layout of the WNSPA to optimise opportunities for high-quality urban environments, strong landscape identity and high levels of amenity.

Photographs that are interspersed through this section are provided as an example of principles that have been incorporated into urban development elsewhere and which illustrate the sorts of initiatives envisaged as being embodied within the area addressed by this plan change.

## 5 PROPOSED WNSPA COMPONENTS

### 5.1 Residential – Single House Zone

This most traditional form of urban residential development is proposed for the western portion of the Stubbs Farm property (including the primary ridgeline) and the undulating terrain associated with the Falls Road portion of the WNSPA. There is the potential for new, conventional subdivision of this scale to convey a sense of “sameness” whereby the character of a new street is largely indistinguishable regardless of where it is set. For example, a recently developed urban street in Christchurch is likely to have a very similar feel to a new road of houses located on

the outskirts of Auckland due to close similarities in the design and fabric of new homes, coupled with expectations to follow a conventional arrangement of street elements such as road widths, kerb details, footpath positioning, and the like.

There are opportunities to bring a distinctive and locally relevant character to these new single houses through their forms and materials, as demonstrated by Photograph 20 below. In the southern, Falls Road portion of the WNSPA the proximity of the relic native forest areas and future strength of riparian corridors create scope for drawing those vegetative themes into streetscape plantings that provide a greater potential for a local context.



**Photograph 20:** An example of a contemporary single house on the southern margin of Kaukapakapa, illustrating the benefits of seamless integration between public and private spaces, and achieving a measure of unity in building forms and finishes.

## LANDSCAPE ASSESSMENT

Some of this proposed zone abuts the motorway corridor, raising the challenges of buffering noise and minimising visual intrusion (in both directions). Whilst containing a stream corridor, the designation is of generous width – as can be seen in Attachment Sixteen – and offers more than adequate scope to mitigate the effects of the future road within that allocated space. It also offers potential for a narrow strip of intervening development which could, of itself, be designed to act as a buffer between the motorway and single house residential development that is proposed by the proposed plan change for much of that northern portion of the WNSPA.

### 5.2 Residential – Mixed Housing Suburban Zone

A belt of Mixed Housing Suburban Zone is proposed to lie along the mid to upper slopes of the western flank of the Stubbs Farm block. Here, it would act as an intervening transition and density between the Single House Zone to the west and the proposed adjoining Mixed Housing Urban Zone immediately to the east. Preliminary analysis of how this residential type can be designed to respond to the slopes present on this part of the WNSPA shows that buildings can be stepped within their footprint and incorporate more minor stepping in the road interface.

Incorporating level changes *within* the structure of the houses and their private outdoor realm avoids much of the need for large, isolated retaining walls which would otherwise bring potential adverse effects upon public space amenity and

landscape impacts from overtly fragmenting the profile of the landform. Cross sectional drawings prepared by BSW Architects that are contained within the Neighbourhood Design Statement illustrate how this could be achieved.



**Photograph 21:** Established moderate density housing on the Te Atatu peninsula. Note role of modest carriageway scale, indented parking bays and suitably scaled roadside vegetation in counter-balancing potential domination by built fabric. It is these sorts of design strategies that are anticipated for the WNSPA

Streetscape plays an increasingly important role in the quality of urban space as residential density increases and less reliance can be placed upon private space to contribute to overall amenity. In recognition, there is an intention to incorporate elevated levels of design resolution and heightened spatial qualities to the movement corridors that would run through the Mixed Housing Suburban Zone and nearby

**WARKWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**

Mixed Housing Urban Zone. Such measures are likely to include generous areas of vegetation, neighbourhood seating areas and a sense of “borrowed space” to be enjoyed from the more constrained site sizes of the Mixed Housing zones adjoining.

**5.3 Residential – Mixed Housing Urban Zone**

As the highest density of proposed residential activity, the Mixed Housing Urban zone wraps along the lowest lying toe of the Stubbs Farm slope where it would address the link road. It is intended that this zone would be developed comprehensively in the form of terraces of 2 to 3 stories in scale. A comprehensive development approach brings with it the opportunity to manage materials and modulate building form to bring interest and variety to the related street spaces.

When combined with the intensity of streetscape resolution anticipated for both the link road (as indicated by a plan and cross section contained in the Neighbourhood Design Statement) and a more intimate laneway running parallel to the link, the Mixed Housing Urban Zone is expected to provide a cohesive urban landscape with a high quality of amenity. It is intended that the laneway would be configured as a low speed road environment that fosters pedestrian involvement whilst providing a pleasing interface with adjoining dwellings.



**Photograph 22:** A portion of higher density residential development at Millwater, south of Orewa. This construction illustrates a well-balanced interface with the public road corridor



**Photograph 23:** Another Millwater example of compact housing, demonstrating skilful stepping of structures up the inclined landform,

## LANDSCAPE ASSESSMENT

### 5.5 Business – Neighbourhood Centre Zone

Occupying a strategic, central location in the lower lying portion of the Stubbs Farm site alongside the link road, this compact zone would serve as the nucleus of the WNSPA. In this position the Neighbourhood Centre Zone would relate to neighbouring Mixed Housing Urban and to an adjoining urban park described more fully in section 5.6 of this report. With a volume of between two and three stories, the neighbourhood centre would bring a scale that is similar to that established in Warkworth's traditional centre, as seen in Photograph 24 below.



**Photograph 24:** Old and new neighbours in the Warkworth CBD show the value of a coherence of built scale and form in contributing to the amenity of the related street. These structures are of a similar height and modulation to those envisaged for the WNSPA's Neighbourhood Centre Zone.

Connecting to the Neighbourhood Centre Zone are a pair of open space riparian corridors (one across the urban park), which would draw the most "natural" components of the WNSP into its most urban portion. Their presence also provides for excellent pedestrian access between the shopping/business hub, surrounding residential areas within the WNSPA, and the wider context to schools and larger recreation areas. Once again, the planting and hard element design of the link corridor offers potential for heightened landscape and urban amenity, along with a powerful theme to draw from when resolving public corridors and outdoor spaces that relate most closely to the neighbourhood centre block.

### 5.6 Open Space – Informal Recreation Zone

The configuration of the WNSPA proposal has been considerably influenced by the pockets and belts of indigenous vegetation that remain within the area, and by the significantly compromised primary watercourses that exist largely outside of those bush areas.

These forest pockets and riparian corridors offer substantial scope for recreational use, pedestrian/cyclist movement, stormwater management and habitat restoration and fit perfectly within the definition of Connection and Linkage Open Space contained in the Auckland Council Open Space Provision Policy 2016.

## LANDSCAPE ASSESSMENT

The relationship between these proposed corridors of open space and the wider context of reserves is shown on Attachment Six. Potential off-road walking and cycling linkages within the WNSPA are seen in Attachment Seven, where wider connections are also illustrated. Those broader linkages align with the larger scale routes identified by Auckland Council's recent strategic planning for greenways in the area and illustrated by a wider map that is included in the Neighbourhood Design Statement.<sup>6</sup>



**Photograph 25:** A modest pocket of open space at Hobsonville. An example of a reserve that is well connected to street and pedestrian corridors, benefiting from excellent passive surveillance, and offering versatility through its simplicity.

---

<sup>6</sup> *Rodney Greenways – Paths And Trails Plan Puhoi to Pakiri* (2017) Auckland Council

It is expected that there will be numerous opportunities for Pocket Park types of amenities to be established throughout these linear open space corridors. Another area where there is potential for Pocket Parks – albeit within legal road – is at street junctions, where careful configuration can allow for small spaces containing a seat or two to foster community interaction, continuing a theme that currently exists around some of the more established parts of Warkworth.

The gradient of the hill slopes within the WNSPA significantly limits opportunities to create spacious areas of flat recreational land suitable for developing a Neighbourhood Park, whilst the flood prone nature and riparian sensitivity of the primary creek lying between Hudson\Falls Roads and the main body of the WNSPA substantially limits opportunities in that area.

There are two areas where there is potential for some flat land to be devoted to recreation. One is near the southern pocket of bush on the Stubbs Farm block. With the introduction of a measure of retaining, a modest area of level space could be created which, whilst unlikely to achieve the 900m<sup>2</sup> sought by the Open Space Provision Policy, would represent a relatively generous allocation in light of the topographic constraints of the WNSPA.

A second, much more spacious area of open space is proposed in conjunction with the neighbourhood business centre, where it would take on a more versatile, urban focus role that is likely to include greater areas of hard surfacing, seating and built amenity elements such as small shelters or pergolas. A sizeable portion of flat, grassed land in excess of 900m<sup>2</sup> is intended to serve as a “village green” as part of

**LANDSCAPE ASSESSMENT**

this reserve development. The potential amenities of this and the other recreation spaces are set out in a table which follows.

A further area of relatively flat terrain is contained in a second portion of open space associated with the northern bush block on Stubbs Farm. Much of that area has a cover of scattered kanuka and young indigenous specimens. Rather than entirely clear that desirable cover, it is instead proposed that the area be developed as a more informal, shady picnicking and sitting area that capitalises upon the amenity of the trees and adjacent watercourses. The integral position of the indicated Neighbourhood Parks within a wider network of riparian corridors and trails serves to amplify the spatial extent of each whilst optimising access.

Between them, these three areas of Neighbourhood Park lie within 400m walk of all of the high and medium density residential areas proposed by the WNSPA and within 600m of the entire structure plan area, other than the southern extremities of the Falls Road block.

<b>Table 1: Summary of open space area types</b>	
<b>Open space area/type</b>	<b>Intended key characteristics</b>
Primary north-south riparian corridor	<ul style="list-style-type: none"> <li>• Riparian habitat restoration and enhancement.</li> <li>• Provision for flood zone.</li> <li>• Major off-road pedestrian and cycle corridor.</li> </ul>

	<ul style="list-style-type: none"> <li>• Scattered seating and pleasure areas.</li> <li>• Relatedness to adjoining residential areas to heighten amenity and CPTED dimensions.</li> </ul>
Tributary riparian corridors	<ul style="list-style-type: none"> <li>• Optimising channel habitat.</li> <li>• Creating vegetated riparian margins.</li> <li>• Scrubbing and conveying overland flow.</li> <li>• Low-key pedestrian connections down slope and across contour between residential areas to either side.</li> <li>• Optimising passive observation for security.</li> <li>• Providing intimate spaces to pause and contemplate.</li> </ul>
Bush remnant areas	<ul style="list-style-type: none"> <li>• Conserve existing indigenous vegetation.</li> <li>• Manage invasive species, with particular attention to removing current weed infestations.</li> <li>• Supplementary planting to “seal” edges and buffer microclimatic and moisture regimes.</li> <li>• Create ecological connections through tributary riparian corridors.</li> <li>• Develop low impact pedestrian routes and discourage foot traffic through the majority of the forest floor (largely through signage/education).</li> <li>• Emphasise as a key identity feature of the area and draw upon that resource to inform planting elsewhere within the WNSPA.</li> </ul>
Hillside neighbourhood parks	<ul style="list-style-type: none"> <li>• Strongly related to adjoining Bush Remnant Areas.</li> </ul>



**LANDSCAPE ASSESSMENT**

	<ul style="list-style-type: none"> <li>• Minor play equipment, fitness trails or the like.</li> <li>• Provision of modest areas of grassed open space (likely to be less than 900m<sup>2</sup> as a single extent).</li> <li>• Provision of seating and picnicking facilities.</li> <li>• Configured to optimise connectedness to related road corridors and nearby residential development.</li> <li>• Serving as an emphasised entry point to the Tributary Riparian Corridor path network.</li> </ul>
Neighbour centre urban park	<ul style="list-style-type: none"> <li>• Primary public focal space in core of WNSPA.</li> <li>• Strongly related to adjacent Neighbour Centre Zone commercial activities (eg, cafes, offices overlooking).</li> <li>• Actively address the road corridors that it fronts.</li> <li>• Provision of abundant parking and optimised access for all abilities.</li> <li>• Developed urban character, but likely drawing in natural elements from wider setting (bush remnants, riparian corridors).</li> <li>• Strongly connected to all pedestrian and cycle routes.</li> <li>• Provision of extensive seating, shade etc. Potential for skatepark, petanque terrain and similar amenities.</li> <li>• Well-lit and configured for use in varied weather conditions.</li> <li>• Large central grassed space that is versatile to cater for a range of uses, but avoids appearing barren whilst lightly used.</li> </ul>

**5.7 Roads and related community spaces**

Street corridors have been arranged to limit disruption to the broad landform – particularly the Stubbs Farm ridgeline – and primary watercourse pattern of the WNSPA, and to avoid impacting pockets and belts of bush that are present. Aligning roads to broadly run across the natural topography allows the “grain” of that infrastructure and the following built development to reflect the contour, rather than being experienced as stacked up the slopes.

Another driver for the positioning of roads has been to follow watercourse routes wherever practicable. That strategy applies particularly to the relationship between the link road and the tributary at the toe of the Stubbs Farm block. Apart from important CPTED considerations for allowing passive surveillance, developing a close relationship between roads and watercourses provides for superior stormwater treatment and management, a role for the reserve to act as a physical buffer to nearby residential areas, and for the planted riparian corridors to make a significant contribution to the landscape character of these movement areas.

There are opportunities to incorporate a suite of “low impact urban design” initiatives within the street design, including periodic kerb-line rain gardens, infiltration medians, permeable parking bays and access drives, and less formal stormwater management devices leading into reserve areas for ultimate discharge.

## LANDSCAPE ASSESSMENT

There is also a number of stormwater retention ponds anticipated. It is intended that all of these devices and areas will be designed to seamlessly integrate with the setting so that they heighten landscape amenity and are expressive of their function, rather than being a structure that is merely inserted as an isolated element.



**Photograph 26:** This boulevard in Te Atatu demonstrates how a broad, well planted median can minimise the dominance of the carriageway and contribute considerably to the amenity of the road corridor.

Carriageways ranging from nominal one-way lanes, through conventionally scaled suburban roads, to the more substantial link, are expected. Each brings a spatial character and role that is highly influential upon the landscape character of the area that they pass through.

For all of these road types there is ambition for the street environment and landscape ambience to moderate driving speeds, particularly through the one-way lane and the single house zone. The use of structures such as speed tables, texture changes, and rain garden projections from the kerb line, will reinforce more subtle design techniques just mentioned.



**Photograph 27:** a narrow, one-way road at Millwater flanked by moderate density residential development. This constrained road surface allows adjoining planted areas to play a greater role in the character of the streetscape, as envisaged within the WNSPA.

Streets are envisaged as being as much inhabited spaces, where people are enticed to sit, walk, cycle and enjoy from their adjacent properties, as they are movement corridors utilised by vehicles. Roads are also recognised as providing opportunities to draw unifying themes through the broader neighbourhood, largely by substantially drawing upon the vegetative character that either exists within the

## LANDSCAPE ASSESSMENT

WNSPA in its current form, or that is introduced through riparian restoration efforts. High intensities of planting are envisaged throughout the roading network. All such vegetation would need to be responsive to sightlines for both road safety and personal security in relation to CPTED matters.



**Photograph 28:** This generous roadside path employs street trees and related infiltration beds as a device to physically and visually separate the non-vehicular space from the road.



**Photograph 29 opposite and below:** A small, informal seating area on the margin of a larger public concourse, illustrating how a modest area and simple composition can encourage urban areas to be “inhabited”. Such spaces are anticipated within linkage open spaces or roadside pockets in the WNSPA.

### 5.8 Watercourse corridors

A connected network of minor waterways, seen largely in Attachment Three, is proposed to be conserved and enhanced within a system of reserves that is illustrated in Attachment Six. As has been outlined in preceding descriptions, these corridors are amongst the most important defining characteristics of the WNSPA and would be developed and managed to fulfil a spectrum of roles.

## LANDSCAPE ASSESSMENT



**Photograph 30:** Wetland areas at Millwater serve as the focus of an open space belt and corridor for pedestrians. It is this sort of outcome that the stormwater management collection areas in the WNSPA can aspire to.

Riparian protection and restoration, as recommended by the Bioresarches ecological assessment, would serve to enhance habitat values, including the potential for watercourses to act as a corridor for the movement of flora and fauna. Correspondingly, broad scale planting along those streams that are currently devoid of vegetation of any scale will serve to build a spatial frame that unifies the WNSPA, whilst also creating “natural” divisions that subdivide the area to a number of distinct neighbourhoods.

A further role is to provide continuity with the watercourse associations that exist in adjoining areas, thereby recreating patterns that have been lost through past development of the land for grazing and providing a new frame for anticipated urban development within the WNSPA.



**Photograph 31:** even highly designed and structured stormwater management facilities such as this example in Waitangi Park, Wellington, bring a sense of naturalness and diversity.

It is expected that established indigenous plant associations found alongside local watercourses would inform species mixes for those restorative efforts. Responding to those local cues would provide for authentic plant communities to evolve and provide future residents to enjoy a heightened natural experience when passing through or sitting within those corridor spaces.

In areas where minor flow paths navigate the more “built” spaces stepping down the steep slope to the urban hub of the WNSPA, there is scope for quite structured treatments that bring a built character to the watercourse and for vegetation within those structures to inject a measure of naturalness, as seen in Photograph 31 above.

## LANDSCAPE ASSESSMENT

### 6 ALTERNATIVE SCENARIOS

The proposal for the WNSPA under this private plan change involves a relatively complex mesh of land use types, as illustrated by Attachment Sixteen. The location and extent of each of those proposed zonings have been informed by the detailed analysis and spatial planning rationale set out in this and other technical reports informing the plan change proposal.

Other approaches to the development of the WNSPA that have been considered and dismissed by the team preparing this private plan change proposal have included:

#### ***Light industry zone***

In addition to the economic and urban design implications addressed by other technical reporting, a fundamental determinant for appropriate land use is the topography of the area. The GIS slope analysis commissioned for this plan change proposal and contained in Attachments Eleven to Fourteen highlights the prevailing steepness of the land, with the majority of the terrain outside of the riparian corridors being in excess of 12.5% slope. The Neighbourhood Design Statement describes the requirements for generous footprints needed by light industry land use. Attempting to develop those large, flat areas upon the topography present across most of the WNSPA would involve massive earthworks and considerable retaining, resulting in considerable impacts upon the landform of the site and corresponding significant landscape effects.

A further landscape consideration of applying light industrial use across most of the area is that the volume of resulting buildings would dominate the subtle scale and texture of the area's natural characteristics, such as the bush remnants and riparian corridors. The greater mass of industrial buildings would also impose more forcefully upon the Stubbs Farm ridge than smaller-scale residential development.

In terms of the character and amenity implications of an expansive light industry zoning, it is likely that the resulting urban spaces would become amorphous, lacking in the variety of scale and experience that is represented by Warkworth's existing urban identity.

#### ***Light industry and Single house/Mixed housing suburban zones***

Providing for a mix of uses where the light industry occupies the lowest terrain and the residential zones apply to the steeper topography, provides for a measure of site-responsiveness and variety. It is, however, an unduly simplistic approach, which overlooks the diversity of urban landscape character that can be driven around the spine of the intended link road that would slice through the WNSPA. It also results in the wider Warkworth North area being without a community and commercial focus, leaving it reliant upon the existing Warkworth town centre which is both spatially and physically disconnected from this future part of the settlement by the intervening Hill Street landform and the division created by State Highway One/Great North Road, and physically limited in its ability to expand to serve a growing population.

## LANDSCAPE ASSESSMENT

With its great range of proposed land uses set within a framework of open space/ecological corridors, the structure plan format promoted by the plan change proposal is considered to be a resolved response to the range of landscape constraints and opportunities presented by the WNSPA.

### SECTION F: EFFECTS ASSESMENT

Preceding sections describe the characteristics of the WNSPA and its setting. These are followed by a description of the proposed structure plan as an entity and its component parts. The purpose of *this* section of the report is to define the effects of the proposal upon the WNSPA and its setting, to consider how the proposal would impact upon the experience of people viewing development that would result from the plan change from outside of the site, and to comment upon the resulting level of effect upon landscape character, visual amenity and natural character in the context of the FUZ.

Prior to providing that description however, it is necessary to acknowledge a preliminary background technical report that Auckland Council commissioned to assist its decision-making in relation to this and other FUZ's in the region, prior to notification of the Proposed Auckland Unitary Plan (PAUP). That landscape investigation assessed landscape character, sensitivity, and capacity to absorb urban development in relation to the rural urban boundary to the north and north-

west of Auckland<sup>7</sup> (the ENPAD report). The findings of that investigation that apply to the WNSPA were that whilst the perimeter of that part of what was subsequently assigned as a FUZ has moderate to strong capacity to accommodate built urban form, the area defined as the "Falls Road Hills" (being the central portion of the WNSPA occupied by Stubbs Farm) was deemed to have limited capacity for further built development. ENPAD documents are appended to the section 32 reports for the PAUP.

The FUZ has since been applied over the entire WNSPA in response to submissions through the hearings process. Other spatial and urban development drivers, such as contiguity with existing urban margins and the definition of the relevant parts of the FUZ by existing and intended major road corridors, have outweighed landscape sensitivity in relation to the Stubbs Farm landform in the mind of Council. The sensitivity identified by the ENPAD assessment has been recognised during the formulation of this structure plan/plan change proposal, with key facets of the overall landscape form and pattern becoming drivers for the layout being advanced.

Further influencing consideration of the effects of the development provided for under the proposed plan change are the existing, but largely undeveloped, zonings that apply in the immediate context. Provision for commercial development to the north west of the Hudson Road / SH1 intersection combines with a broad swathe

---

<sup>7</sup> *Rural\Urban Boundary (North and Northwest): Preliminary Landscape Investigation – Explanatory Note*. August 2013. ENPAD. Auckland Council

## LANDSCAPE ASSESSMENT

covering approximately 64 ha of Business – Light Industry live zoned land stretching from the Warkworth Showgrounds north to Goatley Road. Preliminary works are underway on the motorway connection on the other side of the Highway, so that piece of substantial road infrastructure will soon add to the rapidly changing northern context of Warkworth from its current, predominantly rural state. The planned Matakana Link Road will further reinforce that shift in character.

**Adverse effects** impact negatively on the landscape and result in landscape or visual amenity values being diminished. **Benign or neutral effects** are those in which a proposed change neither degrades nor enhances the landscape setting when considered in the whole. In circumstances where **positive effects** arise from a development, the changes that have been brought are deemed to be beneficial relative to the landscape state of the site prior to that change.

Effect ratings that will be used:

**Very high:** resulting in a dramatic or total loss of the defining landscape characteristics of the site/context, or visual amenity associated with that setting.

**High:** leading to a major change in the characteristics site or setting, or significantly diminishing key attributes, and/or comparable impacts upon visual amenity.

**Moderate – high:** an interim measure of effect in which impact of the development results in a change of some significance to the qualities or perception subject landscape.

**Moderate:** a self-explanatory magnitude in which effects sit midway between the extremes this spectrum of magnitude. Can also be considered as an “average” level.

**Moderate – low:** impacts on landscape characteristics and attributes are relatively contained. The threshold defining “minor” in relation to the S104D gateway test sits within this level of magnitude, typically towards the lower end of its spectrum.

**Low:** effects are generally very limited and do not result in compromising the characteristics of a landscape or perceptions of it in a more than subtle way.

**Very low:** negligible or imperceptible effects result upon the landscape and/ or perceptions of it.

## 7 VISUAL AMENITY EFFECTS

### Viewing audiences / affected parties

To assist with predicting the level of visual and landscape effect that the proposal would generate, publicly accessible vantage points in the area were selected to be broadly representative of each of the following identified audience groups, selecting worst-case views wherever possible. Photographs for each vantage point are found in Attachment Nine. These will be referred to in the following commentary. Their location is marked in the aerial photograph comprising Attachment Eight.

## LANDSCAPE ASSESSMENT

The degree of adverse visual / landscape effect generated by a proposed change or development depends upon the character of the surrounding landscape (the context), existing levels of development on the application site, the contour of the land, the presence or absence of screening and/or backdrop vegetation, and the characteristics of the proposed development.

### ***Travellers on State Highway One***

Approximately 14,000 vehicles per day use the stretch of highway immediately north of the Hudson Road intersection, making this the most substantial viewing audience by a significant margin.

Northbound traffic is largely buffered from the majority of the WNSPA by the Hill Street landform and the orientation of the Highway. Panorama VP3 serves as a proxy for the view experienced by northbound traffic. It should be noted that the orientation of focus in this image is towards the Stubbs Farm ridge, other than along the line of the Highway as would be the reality for car-bound northern travellers. Almost half of the frontage of the WNSPA to SH1 is occupied by a live Business – General Business zoning and it is understood the plans are afoot to develop a supermarket on that site. As such, even with the limited awareness of the WNSPA by those travelling north, their experience of the wider area will be substantially conditioned by that upcoming development and by the existing service station on the opposite corner of Hudson Road.

The south easterly orientation of the State Highway means that it is southbound travellers who witness the extent of the WNSPA more fully. Panorama VP2 was captured from near the north eastern corner of the WNSPA and just south of where the motorway extension will emerge onto the Highway. Roadside vegetation and trees established on adjacent paddocks almost entirely obscure views to the area from the Highway further north of this point.

The linear southward straight in SH1 from this vantage point tends to focus the attention of those in cars. Some of the large light industrial buildings alongside Hudson Road are seen to the left of this view, backed by the flank running up to Hill Road, where scattered housing is visible amongst reasonably mature vegetation. Sweeping north from this moderately developed area, views track across the eastern end of the spur descending from the Stubbs Farm ridge and the intervening low-lying land proposed to be zoned as General Business. The close parallels between the Stubbs Farm portion of the WNSPA and the Hill St landform mean that developing the WNSPA will see the current urban margin “jump” north, albeit at a higher intensity than currently witnessed on the Hill St flank.

Developing this northern portion of the viewed terrain as an urban area – as encouraged by the FUZ – will bring a significant change to this view and result in high visual effects, regardless of the format of that development. That impact would be tempered, however, by the construction of the supermarket that is planned for the corner of Hudson Road and SH1, which would feature as part of the view seen in VP2.



## LANDSCAPE ASSESSMENT

### ***Users of Warkworth Showgrounds reserve and neighbouring commercial area***

A combination of roadside vegetation, including a modest hedge bounding the Business – Light Industry zone, buildings already within that zone and small structures on the Showgrounds itself, serve to largely block views back to the WNSPA from within the reserve, leaving the main area of exposure as being the view for those in cars exiting the Showgrounds on the primary road access, as seen in Panorama VP3.

Development of the Business – General Business zoned land on the northern corner of the Hudson Road intersection is likely to see a building/s of a scale sufficient almost entirely block views to the main body of the WNSPA. The relatively modest scale of the service station canopy seen on the opposite side of Hudson Road in this image provides a gauge for comparison.

Collectively, these existing and future screening elements serve to almost entirely isolate the Showgrounds from the structure plan area. As such, adverse visual effects upon this viewing audience are predicted to be in the range of very low to low.

### ***Hudson Road travellers and occupants of neighbouring light industrial sites***

In its position sidling along the toe of the flank that addresses the southern slopes of the Stubbs Farm block, Hudson Road provides periodic glimpses between largely continuous belts of roadside vegetation, typically coinciding with driveways down to industrial premises below. As Panorama VP4 illustrates, industrial

premises in the foreground tend to significantly condition views out to the Stubbs Farm portion of the WNSPA beyond.

Ultimately, riparian planting alongside the stream that lies just beyond these industrial sheds will reach a scale that largely blocks views to the flank beyond. In the interim, development on these eastern slopes of Stubbs Farm will represent a significant change from the current pastoral view.

The limited opportunities for views to the WNSPA from Hudson Road, and likelihood that existing roadside vegetation will continue to develop, mean that visual effects resulting from the proposal will be low. Light industrial premises are lower lying than the road and it can be assumed that those working in these properties will be primarily focussed upon their commercial tasks, rather than taking in views to surrounding terrain. Accordingly, visual effects upon that audience group are also assessed as being low.

### ***Residents on the Hill St /Albert Road northern flank***

As seen looking south from Panoramas VP1 and VP2, this moderate slope is perceived as being largely wooded and with houses periodically contained amongst that relatively mature vegetation. Inspection from the adjacent roads and of aerial imagery reveals that there is a surprising number of homes established on this flank and that there are still quite large and subdivided titles remaining. Development pressures in recognition of the pleasant amenity, northerly aspect, and proximity to most of Warkworth's community facilities suggests that

## LANDSCAPE ASSESSMENT

these areas of vacant land are likely to contain more housing in the near future. Any development is likely to be accompanied by the removal of a reasonable portion of the existing vegetation of scale to free space for buildings and provide better sunlight access and views.

Homes on this flank appear to either enjoy unimpeded views over the Stubbs Farm block or be heavily contained by surrounding vegetation. Although many of the houses are quite elevated, most are likely to look out over the roofs of the industrial buildings along Hudson Road, which will tend to condition those views in terms of the extent of built fabric are exposed to.

Those properties that presently enjoy a northerly view will experience a significant change, and corresponding high to very high adverse visual effects, in that outlook under any realistic application of live zoning to Stubbs Farm. Other properties that are currently concealed from that vista may become exposed as vegetation is removed during the continued urbanisation of the Hill St flank, and so would be similarly affected.

Measures to conserve the primary Stubbs Farm ridgeline, to graduate the intensity of land use ascending the southern flanks of that block, and to build a vegetative frame founded upon drainage patterns, will all serve to maintain a level of amenity in this northern outlook as the area responds to urban growth requirements and provide a measure of visual connection with the Dome range backdrop.

### ***Travellers on Falls Road***

Descending from its junction with Hudson Road as it tracks to the west, Falls Road serves as a division between what can be seen as the main body of the WNSPA centred around Stubbs Farm, and the slightly discreet enclave to the south of Falls Road.

Panorama VP5 those the expansive view across Stubbs Farm from Falls Road just below its intersection with Hudson Road, whilst VP6 is taken looking up Falls Road short distance west of its junction with Mansel Drive. This latter image illustrates the role of totara-dominant belts of vegetation as a framing and screening structure to the south of Falls Road in particular. That vegetative structure is clearly seen in Panorama VP8 and serves as a significant moderating element to the potential impact future development of this block.

Once again, the expectation of the FUZ presents a significant shift from the pastoral vista represented by these images, seeing land to either side of the road corridor convert from rural to residential use.

Initiatives underlying the zoning proposal for WNSP, such as road corridor enhancement, potential framing vegetation (including further strengthening the presence of the riparian belt as it addresses the road), and the application of Single House zoning to the more sensitive Falls Road portion, would serve to contain adverse visual effects relative to what might otherwise occur in an indiscriminate development under a zoning pattern that is less responsive to the characteristics of the land.

## LANDSCAPE ASSESSMENT

### ***Users of Viv Davie Martin Drive and its residents***

This narrow cul-de-sac climbs slightly to the West the apex of a spur that descends to Falls Road. As Panorama VP13 demonstrates, the rolling terrain of this area combines with belts of semi-mature native forest and extensive amenity plantings to focus views out to the south from the majority of homes and road corridor itself.

Panorama VP10 is taken from the south western boundary of the WNSPA and shows a sequence of homes positioned upon beyond the spur that is paralleled by Viv Davie Martin Drive. Whilst it would appear that these homes tend to capitalise upon views to the south from their elevated position, and to focus outdoor living in a contained way to their north, each will inevitably have a strong sense of connection with the Stubbs Farm flank a short distance to the north east. Inevitably, any form of comprehensive urban development upon the Stubbs Farm property, as predicated by the FUZ that applies, will bring a significant change to this rural outlook and correlating high to very high adverse visual effects.

The fact that Viv Davie Martin Drive shares FUZ zoning with the WNSPA highlights Auckland Council's expectation that these small rural residential lots will undergo a significant shift in character to a more intensive urban form where lots currently occupied by a single dwelling may contain 3 or 4 additional homes, where terrain allows. Under that scenario, the contrast and related visual effects between a rural residential and new urban landscape within the WNSPA would be considerably muted.

### ***Mansel Drive area***

Despite the level of containment that recent built development brings to the margins of Mansel Drive, the orientation of this road when moving north is such that there is a glimpsed view to the most elevated parts of the WNSPA over the roofs of the retirement complex to the west. Within a modest amount of time, the street tree planting and vegetation being established within the retirement village, and as seen in VP7, will serve to limit views to that brink and focus solely on the apex of the Dome aligned on the axis of the road.

Whilst the development of the Stubbs Farm ridgeline and spurs, as facilitated by the FUZ, will have a relatively prominent impact upon this viewing audience – and a consequent prediction of moderate-high visual effects - its commanding presence will diminish as more immediately local vegetation gains stature. Once again, the nature of urban form that eventuates within the WNSPA portion of the FUZ has some bearing upon the magnitude of effects. The proposed mix of the zoning and resultant ability to largely conserve key elements of the underlying landform is helpful in avoiding more significant intrusions into the primary ridgeline that would probably eventuate if, for example, the land was to be developed primarily for business land uses.

### ***Rural land owners/occupants to south of Kaipara Flats Road***

Panorama VP11 was captured from midway along the Stubbs Farm ridgeline and takes in the terrain that lies to the north west beyond the motorway corridor. Buildings seen to the left of this image are situated in the north eastern portion of

## LANDSCAPE ASSESSMENT

the Viv Davie Martin Drive block. This image demonstrates that there are very few houses existing within the area of farmland that is orientated to take in the northern flanks of the WNSPA. It also illustrates the relationship between the WNSPA and the proposed motorway corridor through the floor of that valley.

Other than its extremely small viewing audience, the relationship between this neighbouring terrain and the WNSPA is similar to that described for the Hill St flank. Urban development under the FUZ will result in a dramatic shift in character and related high to very high adverse visual effects. That change will be accompanied by the construction of the motorway, which will also introduce a substantial change to this quiet, discrete portion of rural landscape as it currently stands. Integration and mitigation measures expected to be introduced to address the motorway link's effects, including the possibility of pockets of development within the widest parts of that corridor, are almost certain to have an incidental role in also buffering the impacts of the WNSPA – particularly in relation to the lowest-lying part of the visual catchment.

### **8 LANDSCAPE EFFECTS**

Landscape effects are those impacts upon the structure, pattern and character of landscape that result from a development or change in land use. As discussed in the introduction to this section, the FUZ applying to the area is a clear statement of Auckland Council's broad expectations that the land will be developed for urban purposes. Shifting land use from an open, rural pastoral land use to one that has at

least a moderately high density of urban use inevitably brings elevated levels of landscape and rural amenity effect, notwithstanding that the area is not identified as an outstanding landscape and can be regarded as pleasant but unremarkable peri-urban countryside.

The consideration of landscape effects associated with the WNSP therefore needs to focus primarily upon whether the fundamental topographic and biotic characteristics of the area's landscape are to be conserved/enhanced (or not), rather than the assessment being based upon the area's current, predominantly grazed state. Section A of this report describes the physical characteristics of the WNSPA. Subsequent Section C then sets out the planning and design rationale underpinning the plan change request, commencing with a list of objectives that the proposal seeks to satisfy.

Key considerations in terms of potential landscape effects are that the broad profile of the terrain and ridgeline are to be perpetuated, albeit with subtle modification to allow for roading and allotment development; that any existing areas of indigenous vegetation of substance are to be conserved; and that the primary riparian corridors are to be retained and reinforced with restorative efforts. Together, these measures would serve to perpetuate the principal defining characteristics of the area, other than its currently prevailing pastoral identity and use.

Accordingly, landscape effects are assessed as being of a low level of magnitude within the context established by the FUZ, with proposed riparian initiatives contributing a positive effect of modest level.

## LANDSCAPE ASSESSMENT

### 9 NATURAL CHARACTER EFFECTS

Section 6(a) of the Resource Management Act (1991) states that the following matter of national importance shall be recognised and provided for:

*“The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development.”*

A working definition of natural character is derived from research undertaken for the Ministry of the Environment in relation to Environmental Performance Indicators (Boffa Miskell Ltd 2002). This states that:

*“The degree or level of natural character within an area depends on the extent to which natural elements, patterns and processes occur; and the nature and extent of modifications to the ecosystems and landscape / seascape. The highest degree of natural character (greatest naturalness) occurs where there is least modification. The effect of different types of modification upon the natural character of an area varies with the context and may be perceived differently by different parts of the community.”*

As the preceding extract indicates, natural character exists on a continuum that spans from totally modified at one extreme, to entirely natural at the other.

The oblique aerial image that forms Figure 1 early in this report offers an overview that is informative when considering the current natural character levels of the wider context, whilst aerial images and panoramic photographs of the WNSPA found in the Attachments to this report provide an overview of the natural characteristics of those riverine parts of the WNSPA that need to be considered under s6 of the Act. It is only that portion of the WNSPA to the south of Falls Road that has such characteristics as a result of its relationship with the Mahurangi River.

Intentions to allocate the margin of the River to reserve and to complement that reservation with rehabilitation of the riparian corridor would contribute positively to natural character, notwithstanding that it would do so in the new context of an urban settlement lying beyond the belt of established totara that are a feature of the area.

## SECTION G: CONCLUSIONS

Warkworth is a distinctive settlement that is centred upon its historic town centre and containment in a valley setting defined by rolling low hills. The settlement generally has a clear identity and local character that is most marked in the mature areas where vegetation is well developed and the buildings are representative of their era. The role of the Mahurangi River and its largely contiguous belts of

## LANDSCAPE ASSESSMENT

riparian vegetation – including the flank backing the village – is arguably the most powerful force defining Warkworth’s character.

Set within this context, the WNSPA currently has a predominantly peri-urban, rural nature, displaying some of the elements that are found nearby in terms of its terrain and vegetation patterns/composition. The Area is a pleasant settlement-fringe landscape with a predominantly rural character and, as such, has modest landscape value that falls well short of the identified outstanding landscapes that apply on the flank by the village and the indigenous parts of the Dome.

The WNSPA is contiguous with the northern margins of Warkworth’s urban extent and coincides with significant roading projects in the form of the motorway connection and planned Matakana Link Road, which will serve to somewhat redefine the northern approach to Warkworth regardless of any changes to the use of adjacent terrain.

Land to the east of the highway on this northern margin is already under a live Business zoning and the FUZ applies across a broad swathe that incorporates the live zone, WNSPA and terrain beyond in either direction. That extent of urban zoning provision is necessary to accommodate the ambitious residential and employment capacity that Auckland Council has documented as its intention for this northern margin of Warkworth, as expressed in the *Future Urban Land Supply Strategy Refresh* document 2017.

A broad-scale assessment commissioned when the Council was determining its RUB for the draft Unitary Plan identified much of the Stubbs Farm block as having elevated landscape sensitivity and limited capacity to absorb future development. The Stubbs Farm ridgeline was amongst the elements specifically mentioned. Despite that technical advice, Auckland Council subsequently applied an FUZ across all of Stubbs Farm as part of a broader zoning pattern. The application of this zoning signals an expectation of significant change from the current character of the area that it applies to and effectively takes that area beyond being considered as a “greenfields” site when assessing effects.

The proposal defined by the WNSP/plan change, has emerged from considerable interdisciplinary analysis and collaboration, with urban design and landscape inputs being particularly influential in the resulting pattern. It also reflects discussions with Auckland Council specialists and the directives of Council staff. The zoning proposed responds to landform and natural patterns whilst also addressing the range of other spatial relationship, movement, economic and topographic drivers that need to be accommodated. Conserving the primary areas of indigenous vegetation, riparian corridors and ridgeline profile of the WNSPA have been anchoring principles of the proposal from the earliest stages of its resolution.

A FUZ caters for a spectrum of land use scenarios, including mixtures of zones. The pattern proposed by the WNSPA is considered to be an optimal response to the topographic, landscape and biophysical characteristics of the Area. The level of spatial planning resolution that underpins the proposal demonstrates the testing

**WARWORTH NORTH  
STRUCTURE PLAN AND PROPOSED PLAN CHANGE**

**LANDSCAPE ASSESSMENT**



and analysis that has been undertaken when developing the zoning pattern that is sought.

Whilst any urban land use applied over the Area will unavoidably bring with it a significant shift in character and resultant adverse visual and landscape effects, the proposal is considered to reflect an effective effort to avoid and minimise fundamental impacts so that a locally relevant character would be woven through a new land use scenario.

**Mike Farrow      Registered landscape architect**

# ATTACHMENTS

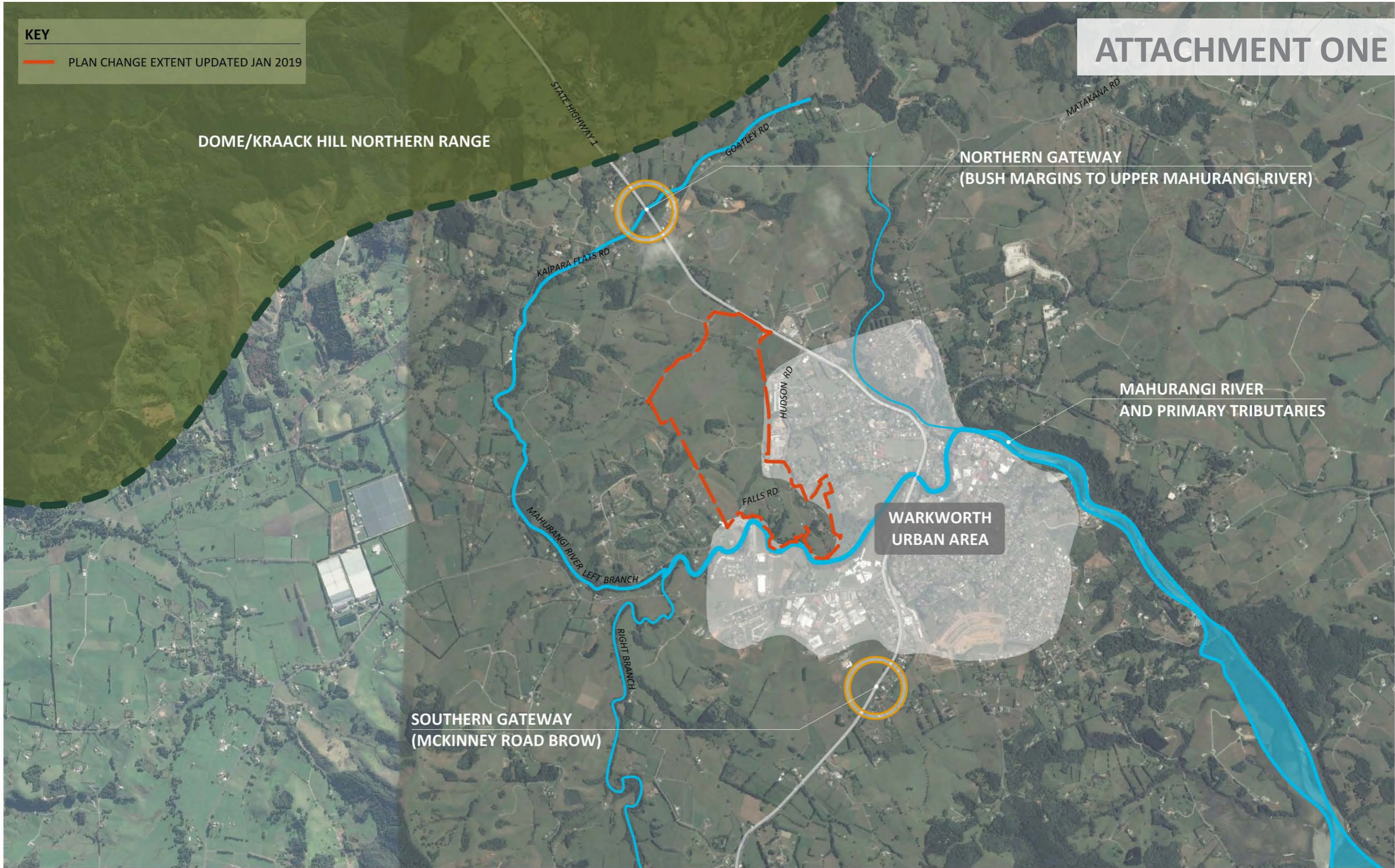
---

WARCKWORTH NORTH STRUCTURE PLAN / PRIVATE PLAN CHANGE  
LANDSCAPE ASSESSMENT

Prepared for SF Estate Ltd



**KEY**  
— PLAN CHANGE EXTENT UPDATED JAN 2019



0 500 1000 m

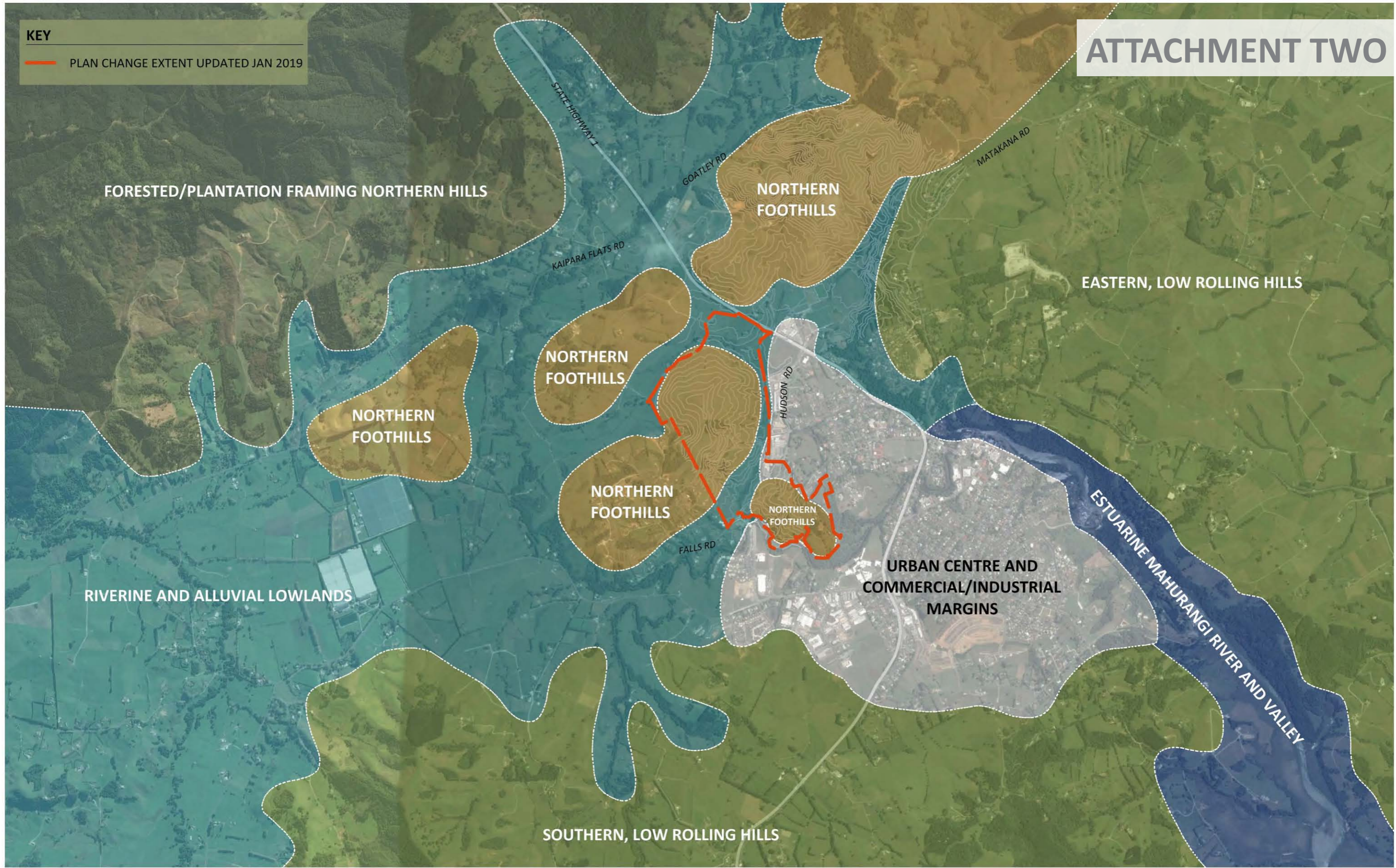
SCALE 1 : 25,000 @ A3

Ref: 1230\_SP\_BROADSCALE\_20190114

## WARKWORTH NORTH LANDSCAPE ASSESSMENT BROADSCALE DEFINING ELEMENTS

Prepared for SF Estate Ltd

KEY  
PLAN CHANGE EXTENT UPDATED JAN 2019



0 500 1000 m

SCALE 1 : 25,000 @ A3

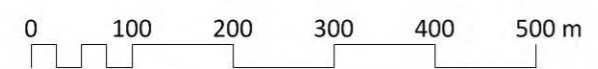
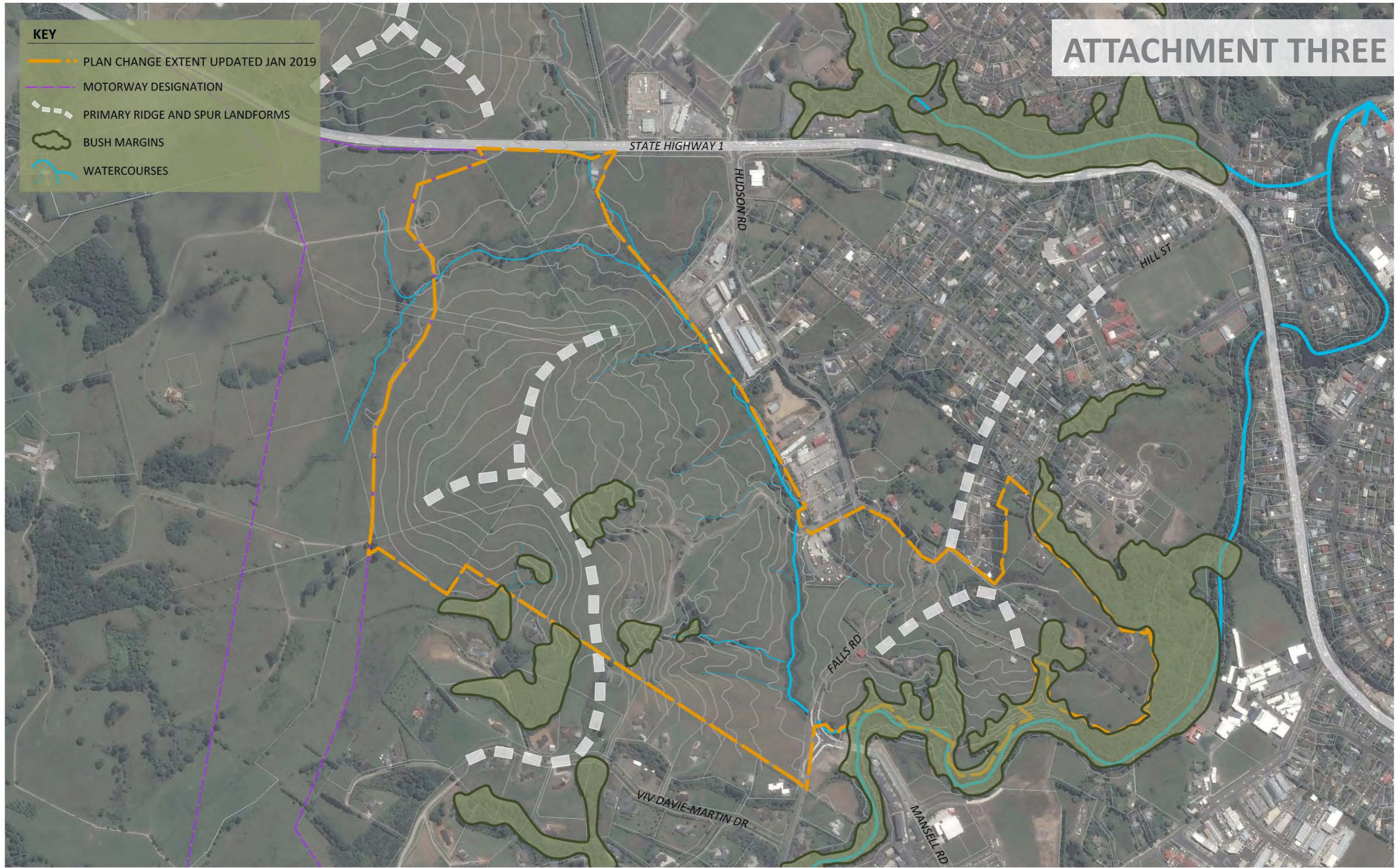
Ref: 1230\_SP\_CHARACTER\_20190114

**WARKWORTH NORTH LANDSCAPE ASSESSMENT  
LANDSCAPE CHARACTER AREAS**

Prepared for SF Estate Ltd

**KEY**

- PLAN CHANGE EXTENT UPDATED JAN 2019
- MOTORWAY DESIGNATION
- PRIMARY RIDGE AND SPUR LANDFORMS
- BUSH MARGINS
- WATERCOURSES

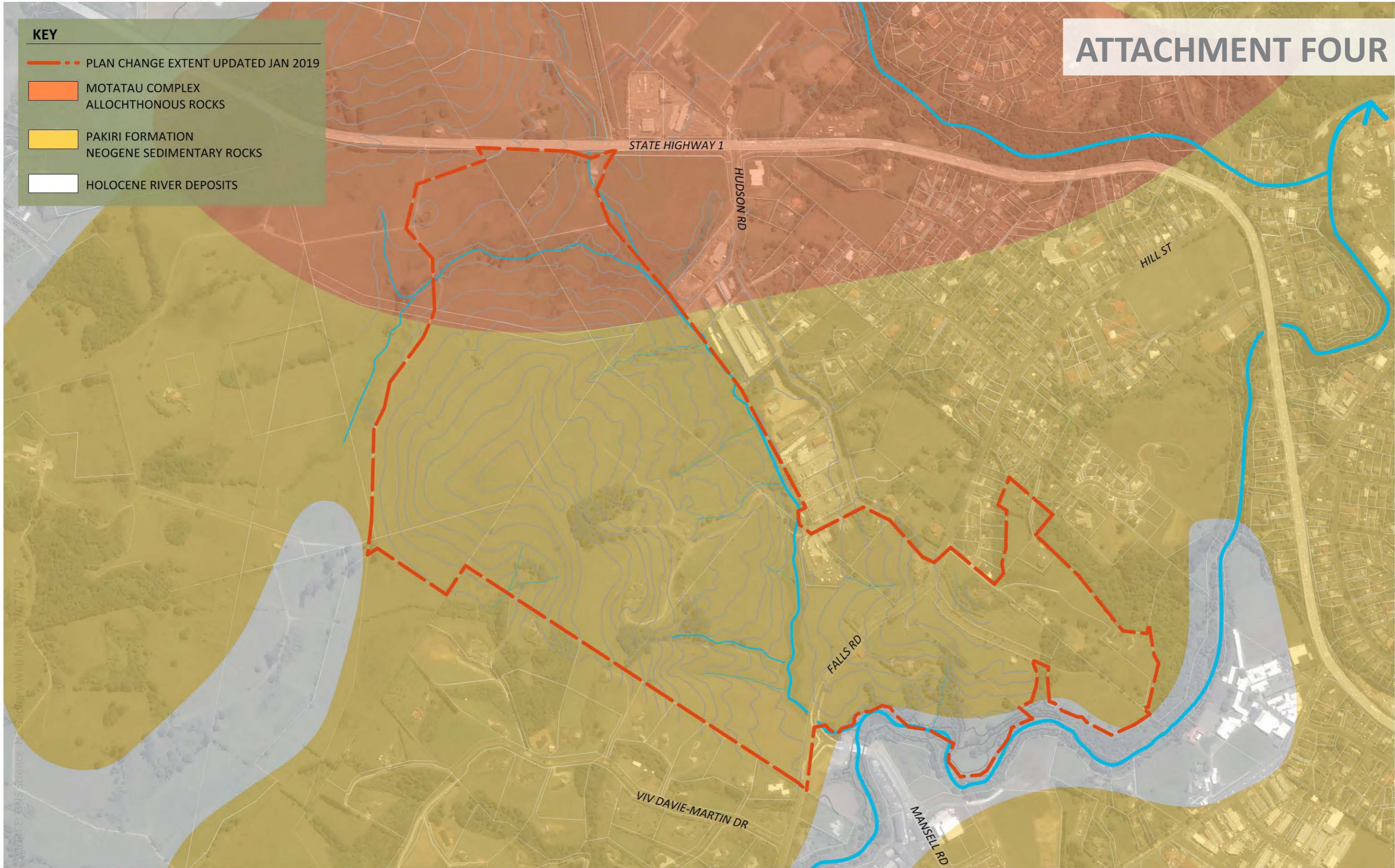


SCALE 1 : 7,500 @ A3  
Ref: 1230\_SP\_OPENSOURCE\_20190114

# ATTACHMENT FOUR

**KEY**

- PLAN CHANGE EXTENT UPDATED JAN 2019
- MOTATAU COMPLEX  
ALLOCHTHONOUS ROCKS
- PAKIRI FORMATION  
NEOGENE SEDIMENTARY ROCKS
- HOLOCENE RIVER DEPOSITS



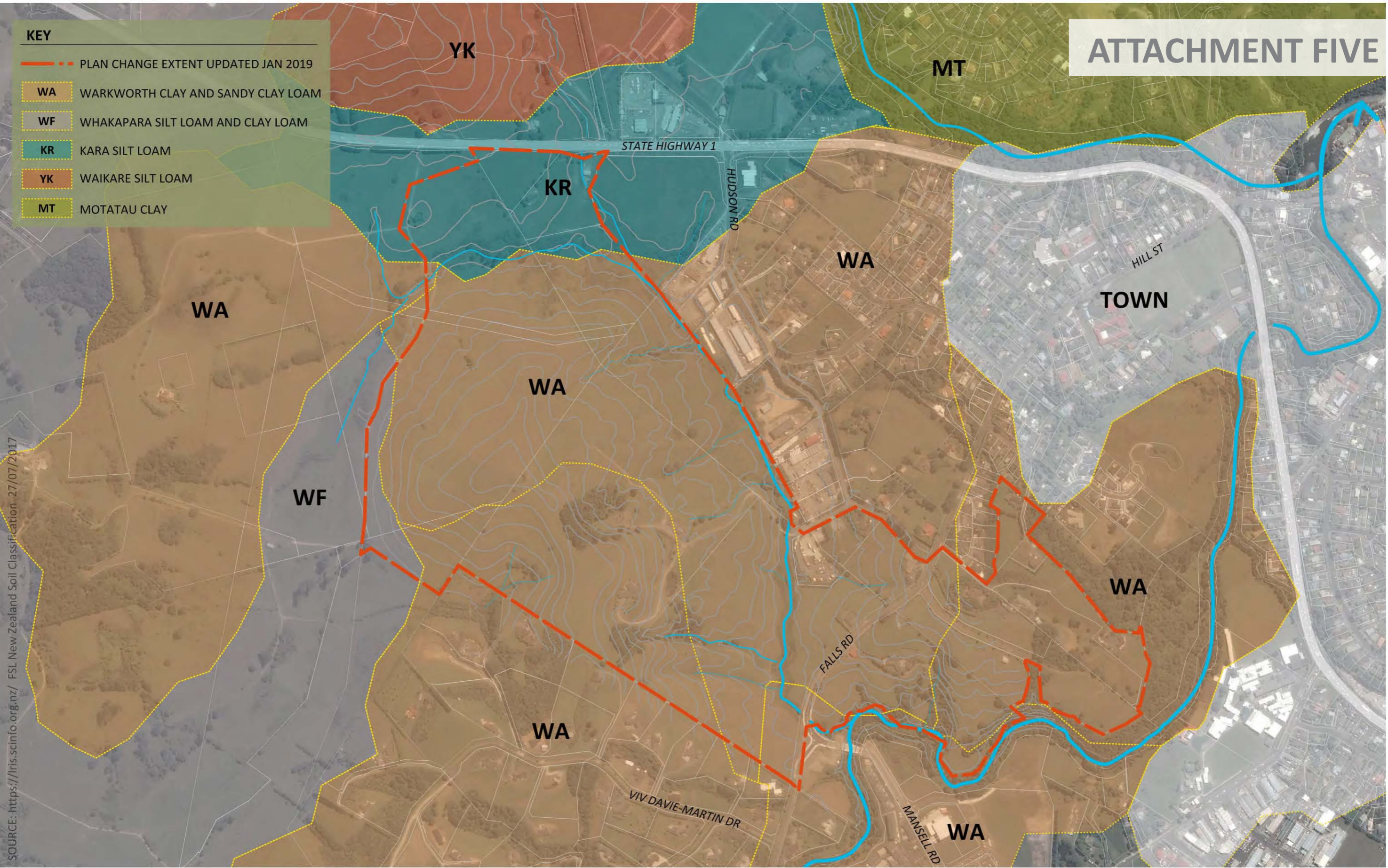
0 100 200 300 400 500 m

SCALE 1 : 7,500 @ A3

Ref: 1230\_SP\_GEOLOGY\_20190114

## WARKWORTH NORTH LANDSCAPE ASSESSMENT GEOLOGY

Prepared for IFS NZ LTD



**KEY**

- - - PLAN CHANGE EXTENT UPDATED JAN 2019
- WA WARKWORTH CLAY AND SANDY CLAY LOAM
- WF WHAKAPARA SILT LOAM AND CLAY LOAM
- KR KARA SILT LOAM
- YK WAIKARE SILT LOAM
- MT MOTATAU CLAY

SOURCE: <https://iris.scinfo.org.nz/> FSL New Zealand Soil Classification - 27/07/2017

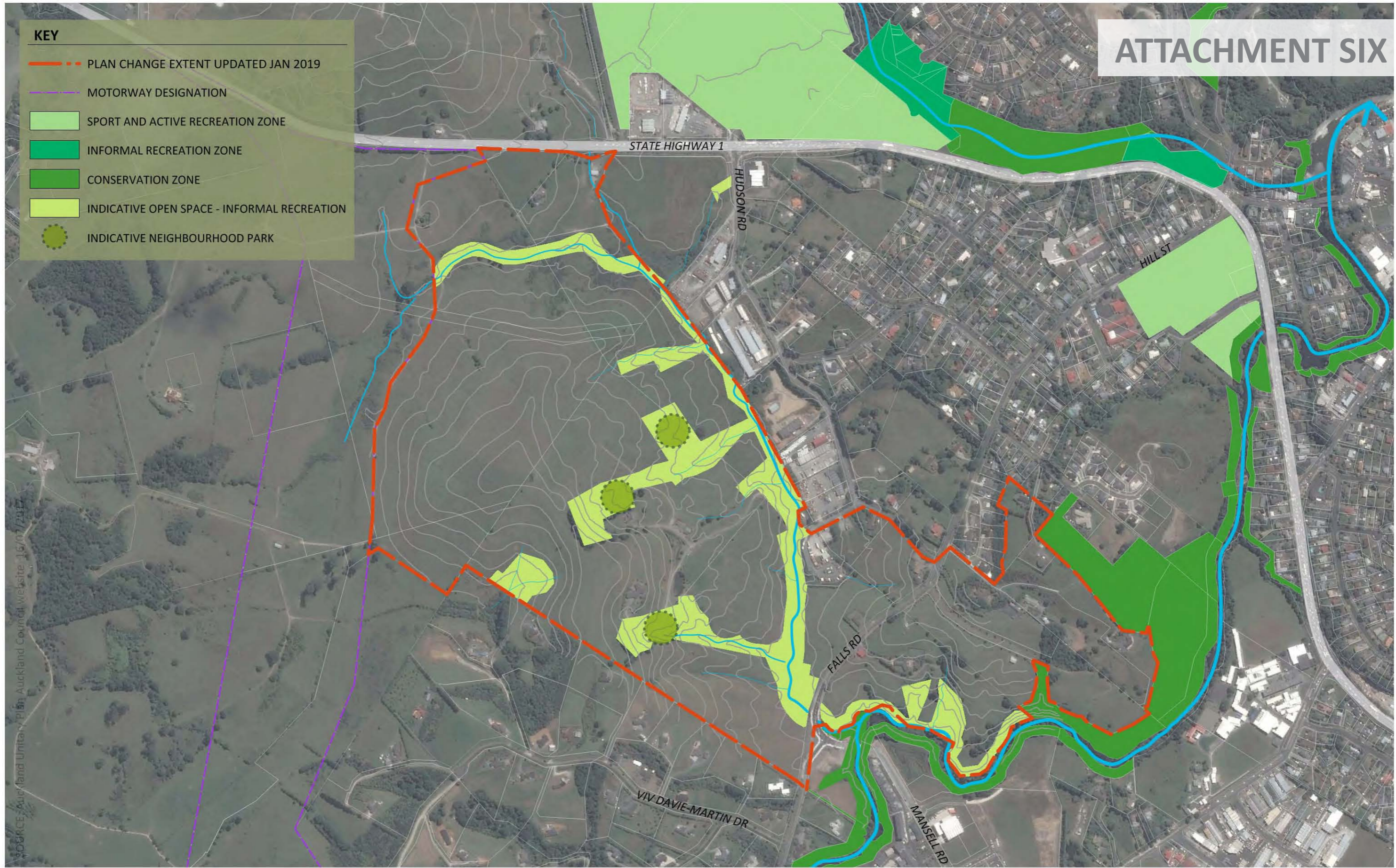
0 100 200 300 400 500 m

SCALE 1 : 7,500 @ A3

Ref: 1230\_SP\_SOILS\_20190114

**KEY**

- PLAN CHANGE EXTENT UPDATED JAN 2019
- MOTORWAY DESIGNATION
- SPORT AND ACTIVE RECREATION ZONE
- INFORMAL RECREATION ZONE
- CONSERVATION ZONE
- INDICATIVE OPEN SPACE - INFORMAL RECREATION
- INDICATIVE NEIGHBOURHOOD PARK



SOURCE: Auckland Unitary Plan Auckland Council Website 15/07/2017



0 100 200 300 400 500 m

SCALE 1 : 7,500 @ A3

Ref: 1230\_SP\_OPENSACE\_20190114

## WARKWORTH NORTH LANDSCAPE ASSESSMENT

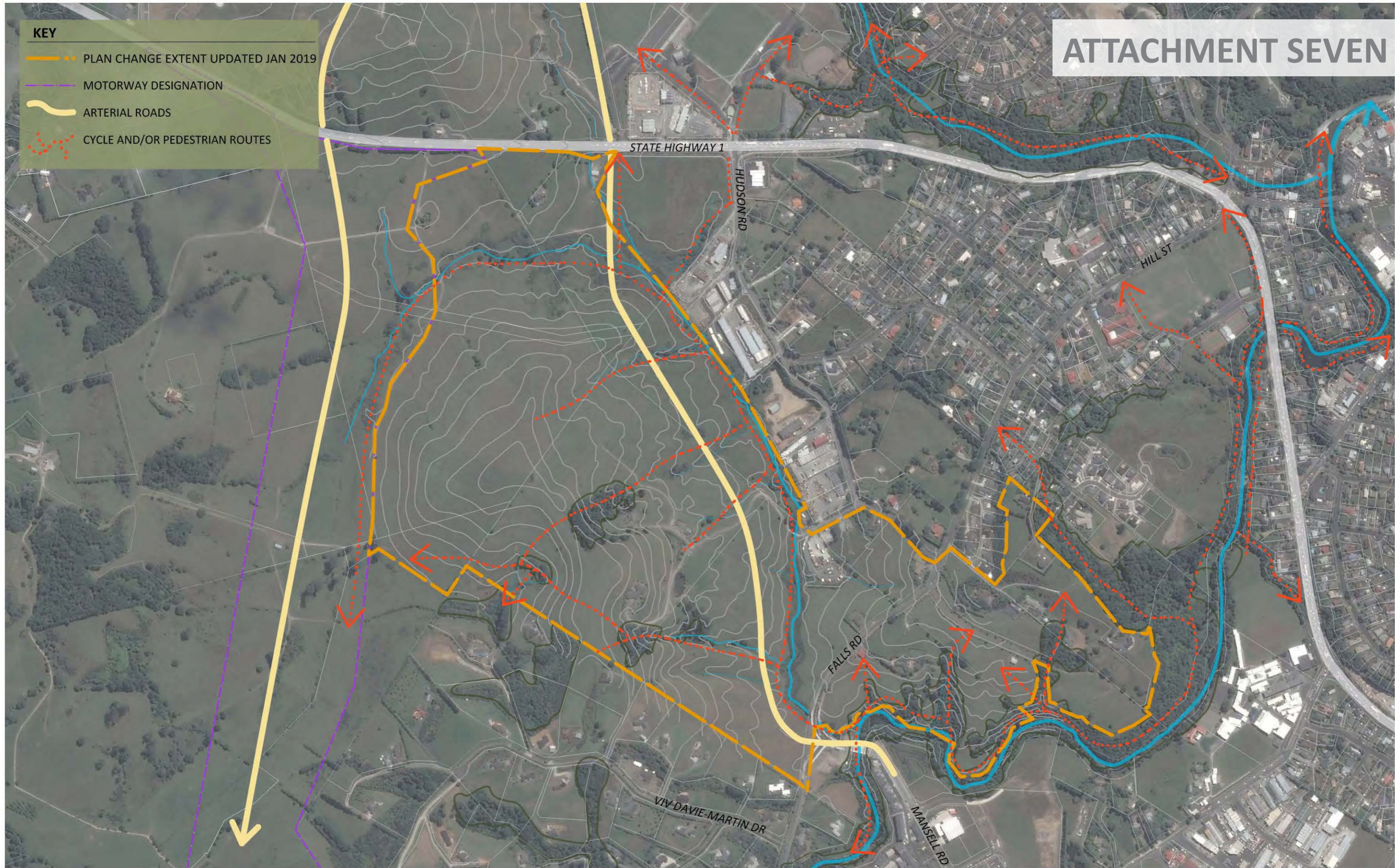
### OPEN SPACE

Prepared for IFS NZ LTD

# ATTACHMENT SEVEN

**KEY**

- PLAN CHANGE EXTENT UPDATED JAN 2019
- MOTORWAY DESIGNATION
- ARTERIAL ROADS
- CYCLE AND/OR PEDESTRIAN ROUTES



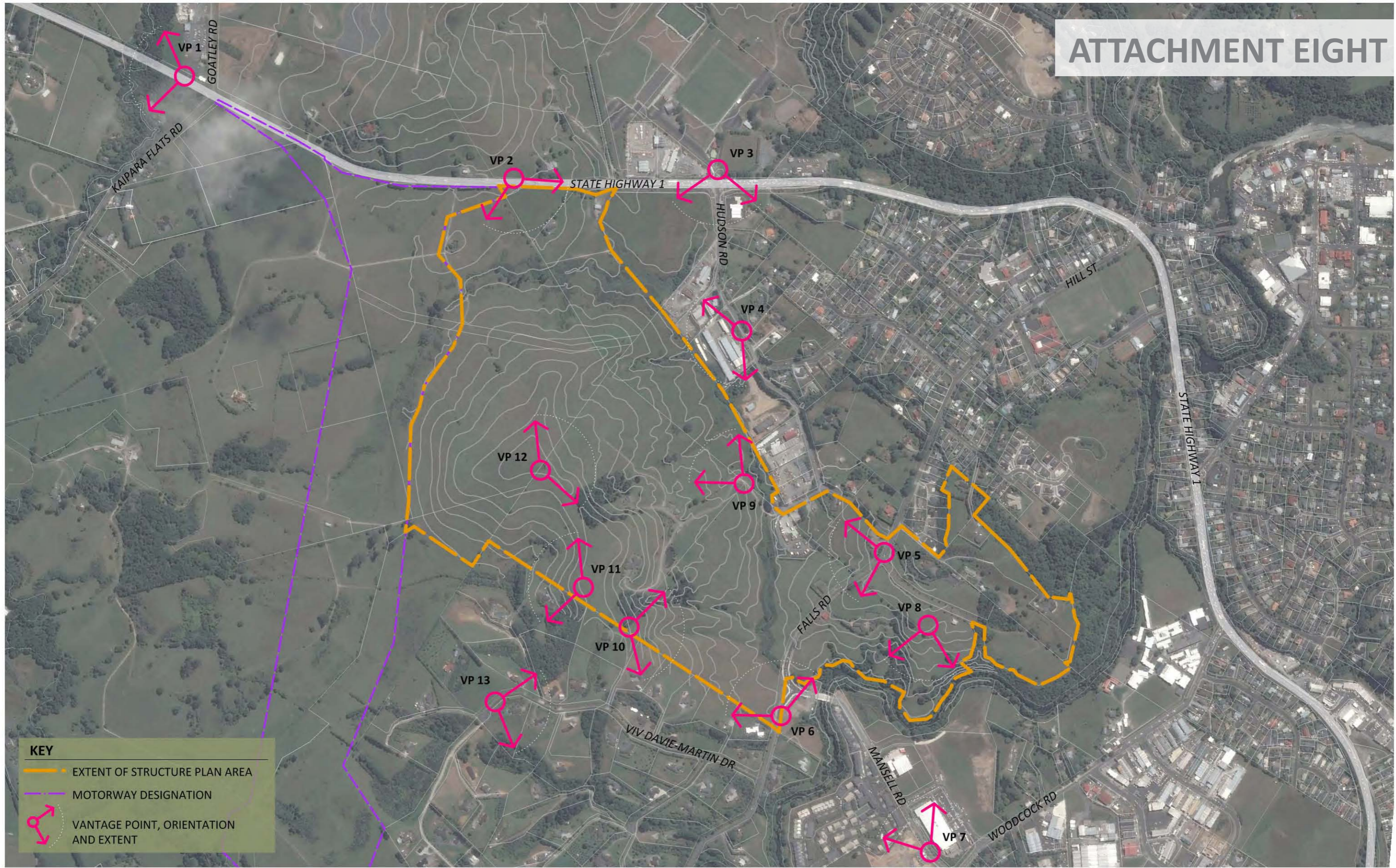
0 100 200 300 400 500 m

SCALE 1 : 7,500 @ A3

Ref: 1230\_SP\_OPENSOURCE\_20190114

## WARKWORTH NORTH LANDSCAPE ASSESSMENT POTENTIAL PEDESTRIAN/CYCLE LINKAGES

Prepared for SF Estate Ltd



**KEY**

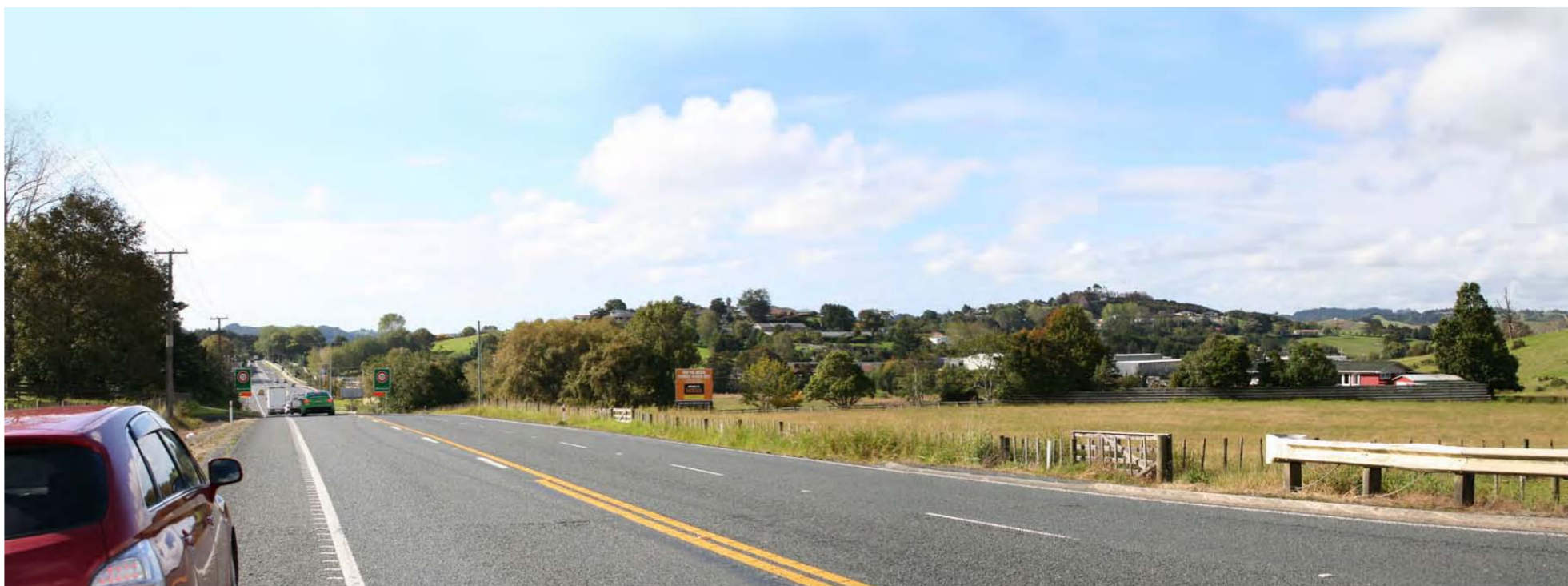
- EXTENT OF STRUCTURE PLAN AREA
- MOTORWAY DESIGNATION
- VANTAGE POINT, ORIENTATION AND EXTENT

0 100 200 300 400 500 m

SCALE AS SHOWN

Ref: 1230\_SP\_PHOTOPOINTS\_20190114





# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP1:**

Looking north to the forested gateway to what is currently the immediate northern hinterland to Warkworth. Image taken from just north of Goatley Road.



**Panorama VP2:**

A view west over the structure plan area from the straight on SH1 as it approaches Warkworth from the north, looking over the alluvial lowlands in the foreground to the grazed hill largely occupied by Stubbs Farm in the centre of the image.



# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP3:**

Sighting due west along the small segment of road accessing the Warkworth Showgrounds, with the end of the Hudson Road light industrial strip seen to the left of the flats of the structure plan area to right and grazed hillside rising beyond.



**Panorama VP4:**

The panorama from Hudson Road where it rises partially above the light industry premises to reveal the upper slopes of the grazed slopes in the core of the structure plan area beyond.



# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP5:**  
Looking over the hills in the core of the structure plan area from just west of the intersection between Hudson and Falls Roads. Houses associated with Viv Davie-Martin Road can be seen on the left margin of the photograph.



**Panorama VP6:**  
A view along the initial portion of Woodcocks Road across the newly constructed Falls Road bend. The Stubbs Farm sector of the structure plan area sits to the left of Falls Road as it ascends the hill, whilst the undulating slopes making up the southern portion of the structure plan area are seen to the right of Falls Road.



# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP7:**

This contextual shot is taken from the southern end of Mansel Drive, looking over the large format retail area to right and retirement complex to left. Just the uppermost portions of the Stubbs Farm block can be made out on the left side of the image, with the two pockets of bush on that farm visible beyond the lamp post seen to the left of the road.



**Panorama VP8:**

A more intimate view from within the area that drops from Falls Road to the Mahurangi River, illustrating the undulating terrain and fingers of totara-dominant vegetation that characterise this portion of the structure plan area.





# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP9:**  
Looking up to the Stubbs Farm slopes from the private drive that extends from Sanderson Road, immediately to the west of the Hudson Road light industry strip.



**Panorama VP10:**  
Viewing east from an elevated part of the structure plan area's south west boundary, looking across the Viv Davie-Martin Drive enclave to left and lower slopes of the Stubbs Farm block to right. Falls Road is seen sidling across the slope in the background, with the south west project of the structure plan area visible beyond.



# ATTACHMENT NINE SITE PHOTOGRAPHS



**Panorama VP11:**

Another view from within the structure plan area, this time looking in a northerly sweep across the western flanks, with the designated motorway corridor sitting immediately before a low lying track leading to a small white building in the midground.



**Panorama VP12:**

Taken from the apex of the hill and northern boundary of the Stubbs Farm property viewing east over the eastern flanks, the Hudson Road light industry area and northern flanks of Warkworth's current urban area.

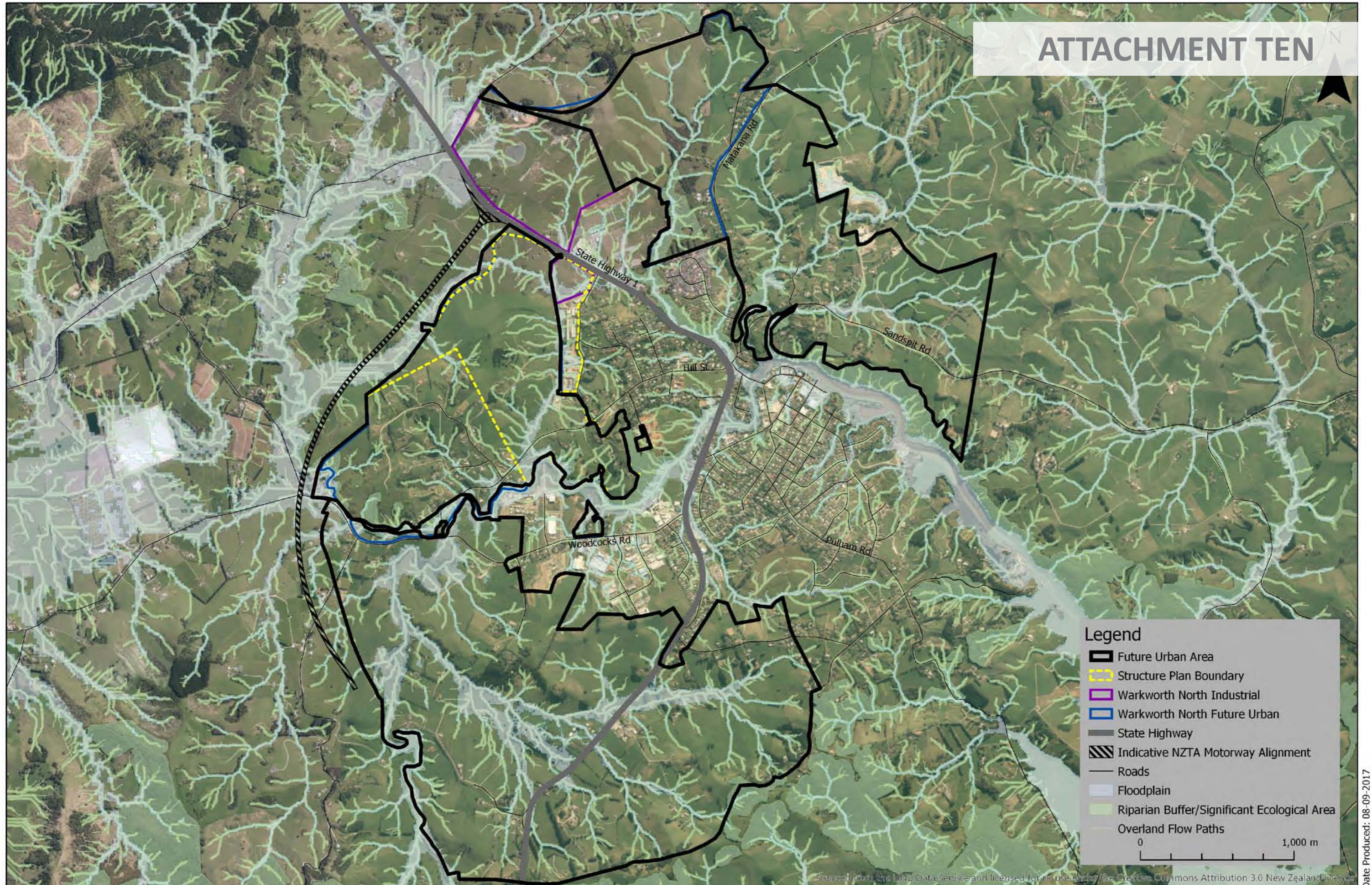


# ATTACHMENT NINE SITE PHOTOGRAPHS



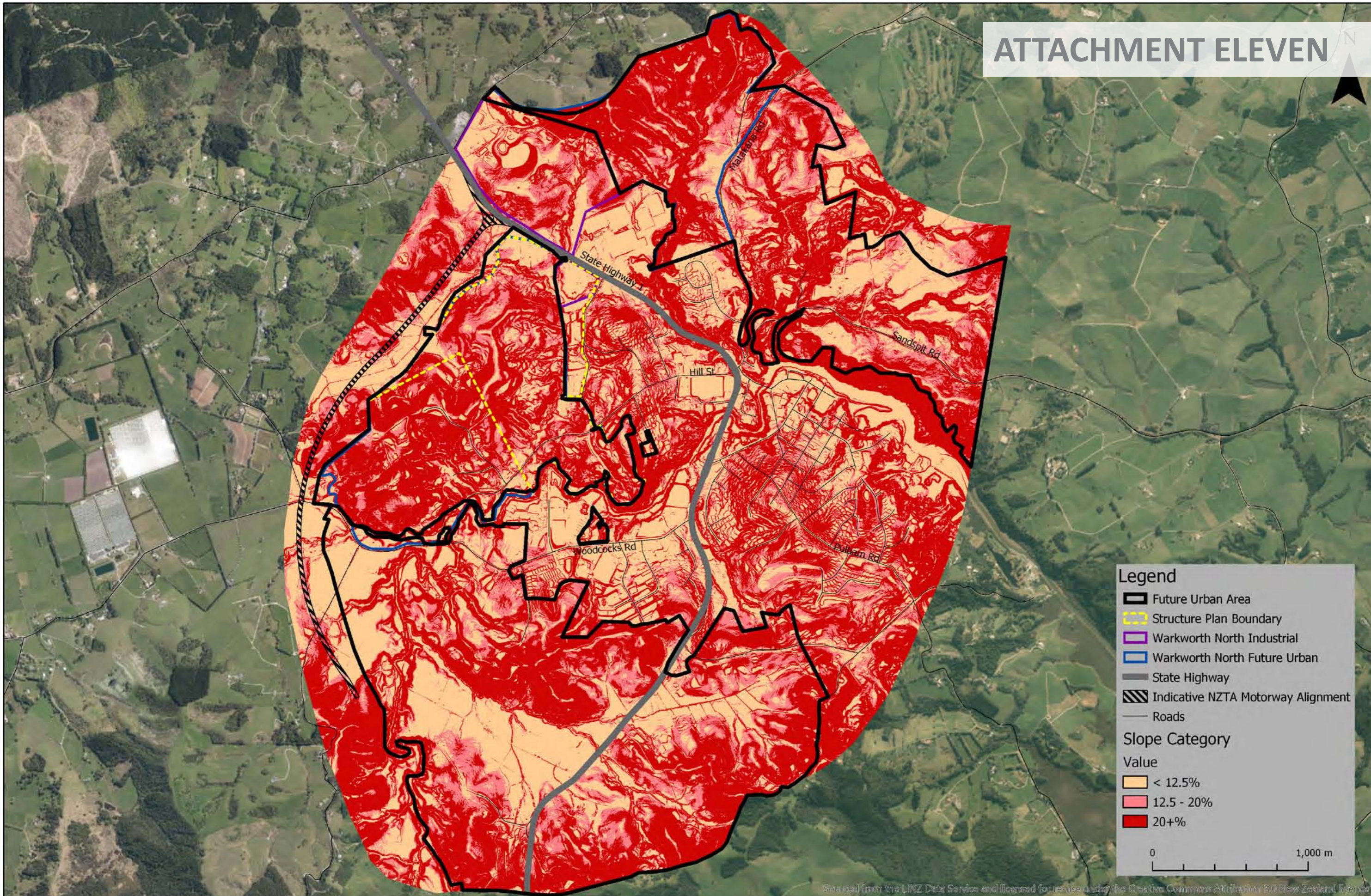
**Panorama VP13:**

A view from the elevated end of Viv Davie-Martin Drive, looking over the large lot residential development and fingers of native forest that typify that area, with the Mansel Drive retirement village and light industrial areas of south east Warkworth seen in the background. The structure plan area is not visible in this image.



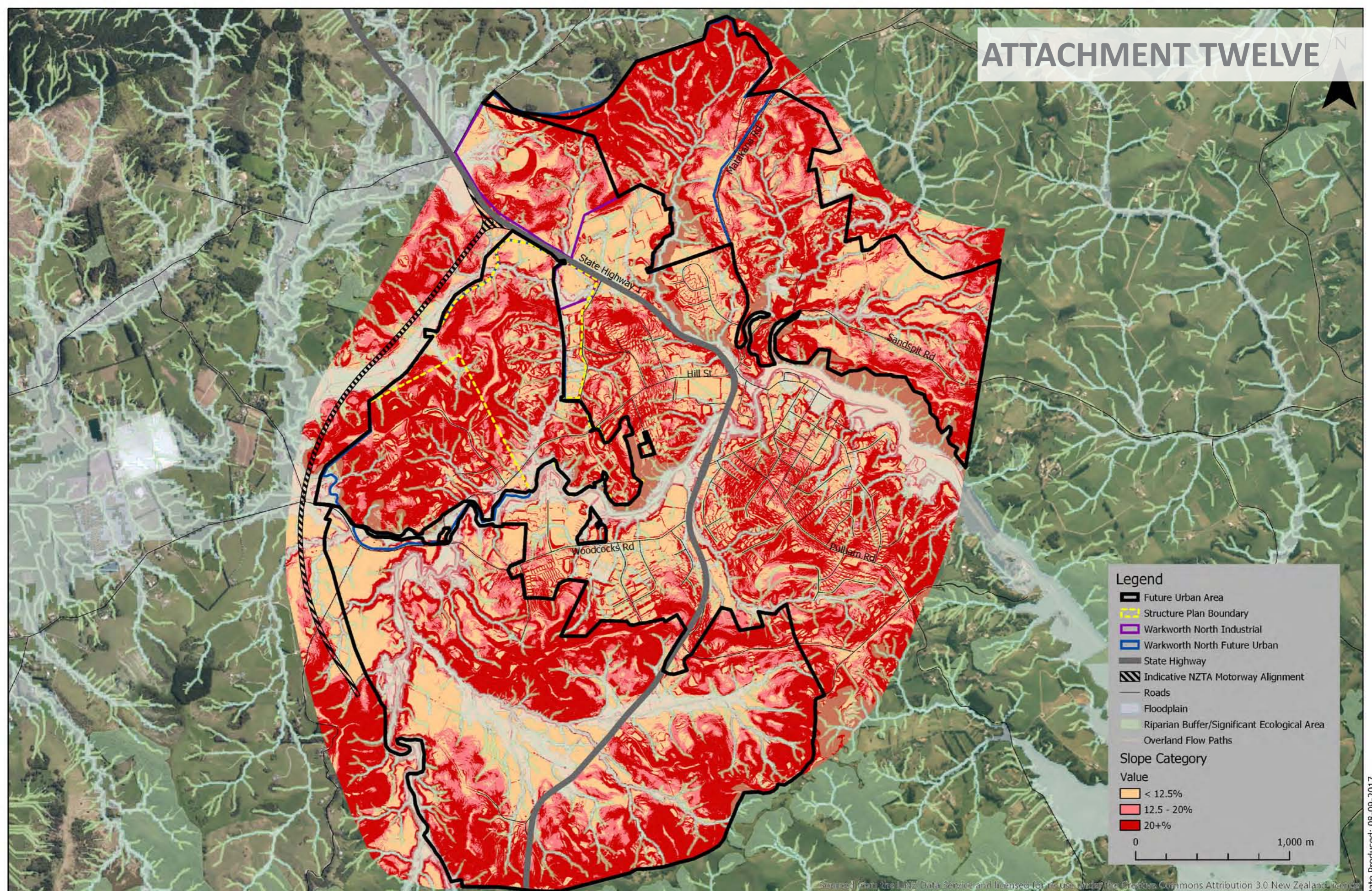
# Drainage Analysis

## Warkworth Future Urban Zone

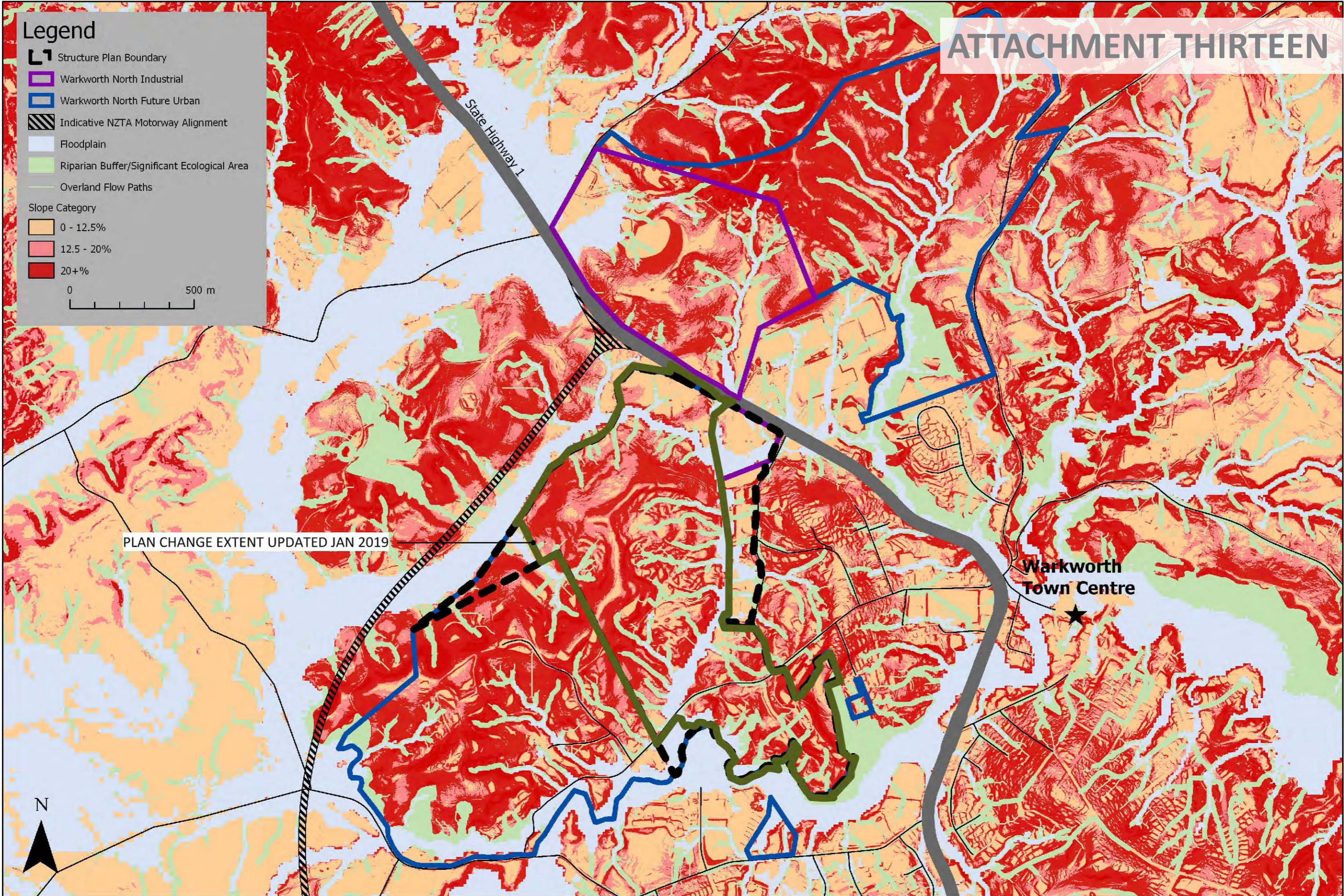


Slope Analysis  
Warkworth Future Urban Zone





Slope and Drainage Analysis  
Warkworth Future Urban Zone

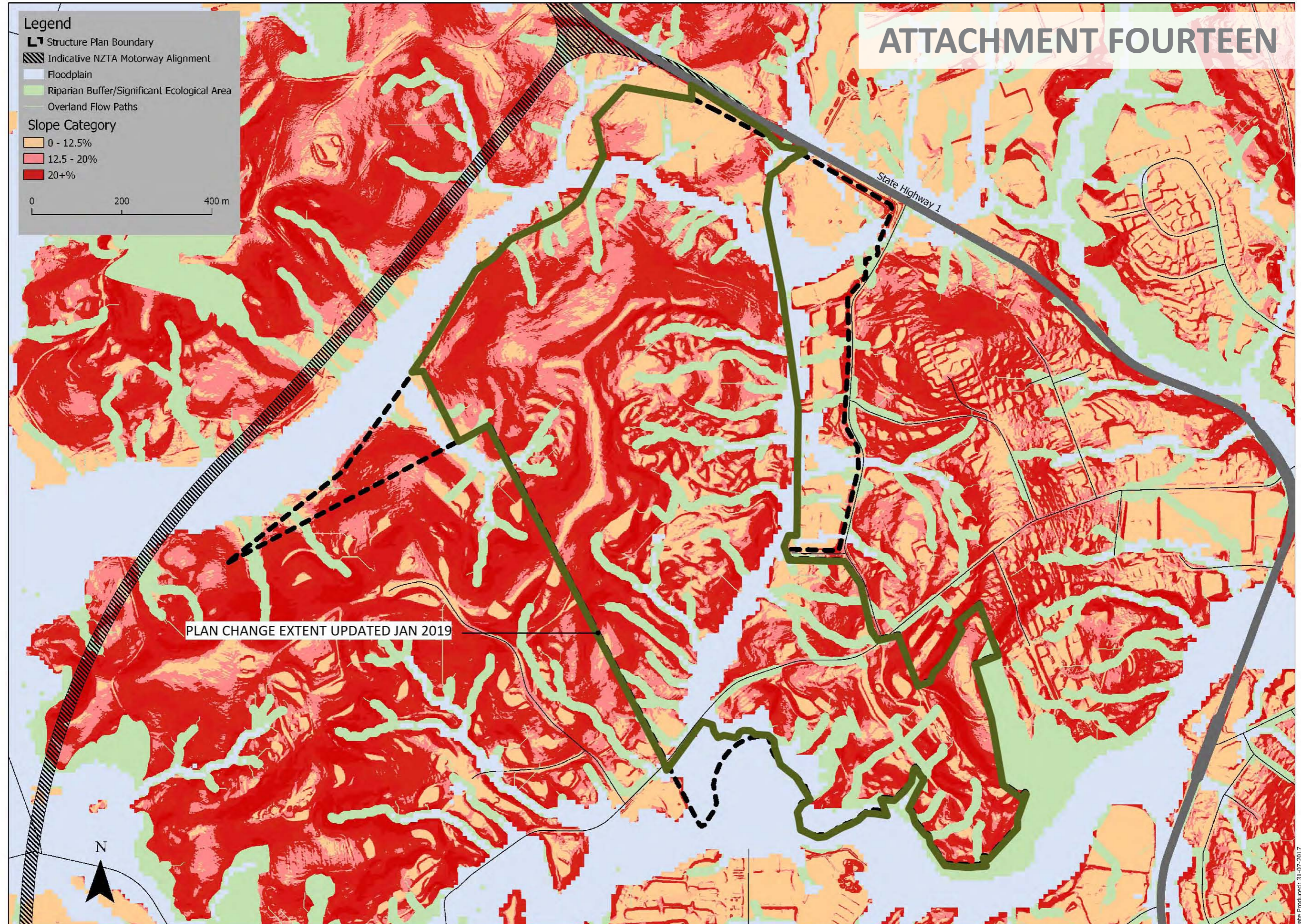


Date Produced: 31-07-2017

# Slope and Drainage Analysis

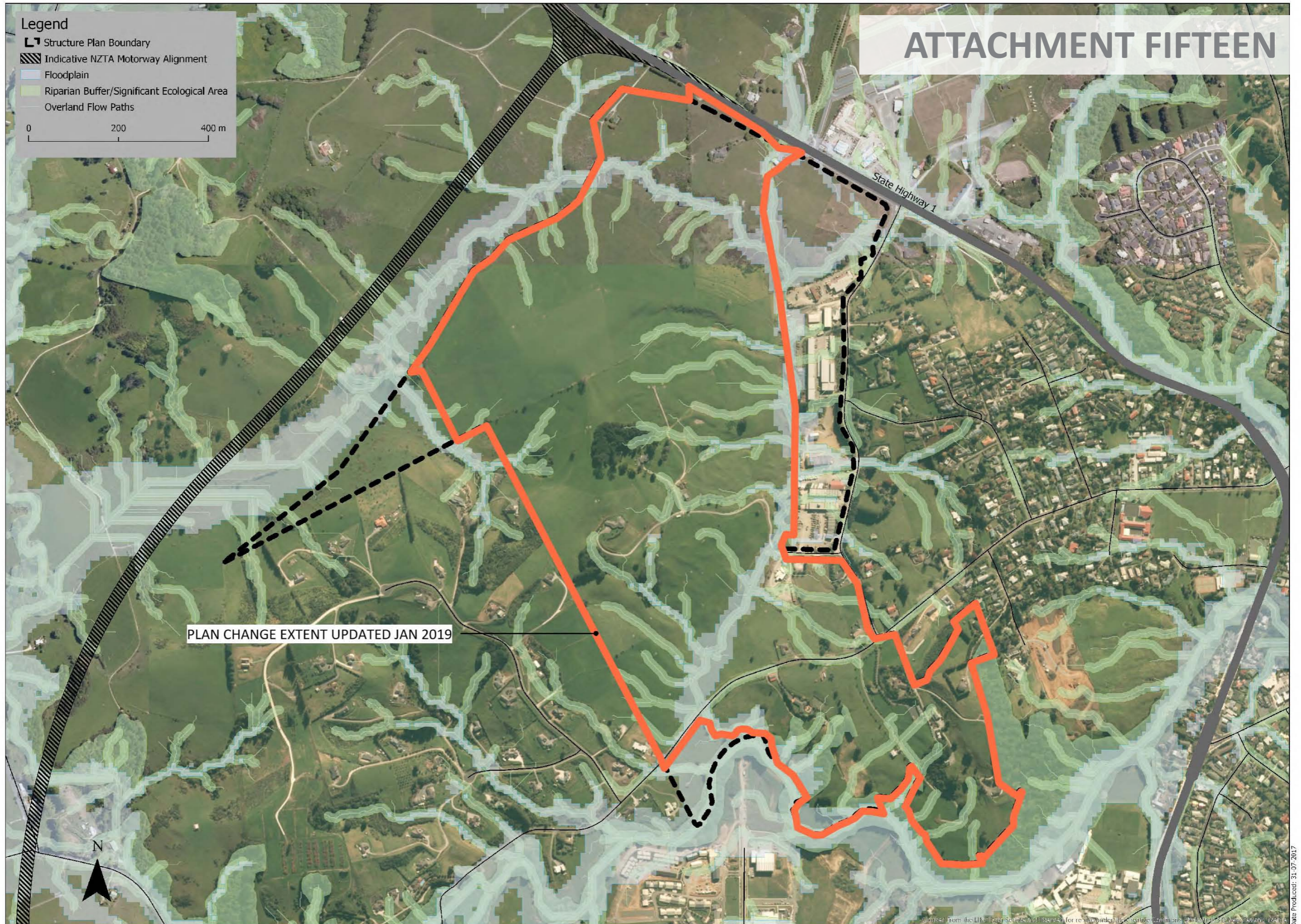
## Warkworth North Site

# ATTACHMENT FOURTEEN



Slope and Drainage Analysis  
Warkworth North Structure Plan Site

# ATTACHMENT FIFTEEN



**Drainage Analysis**  
Warkworth North Structure Plan Site

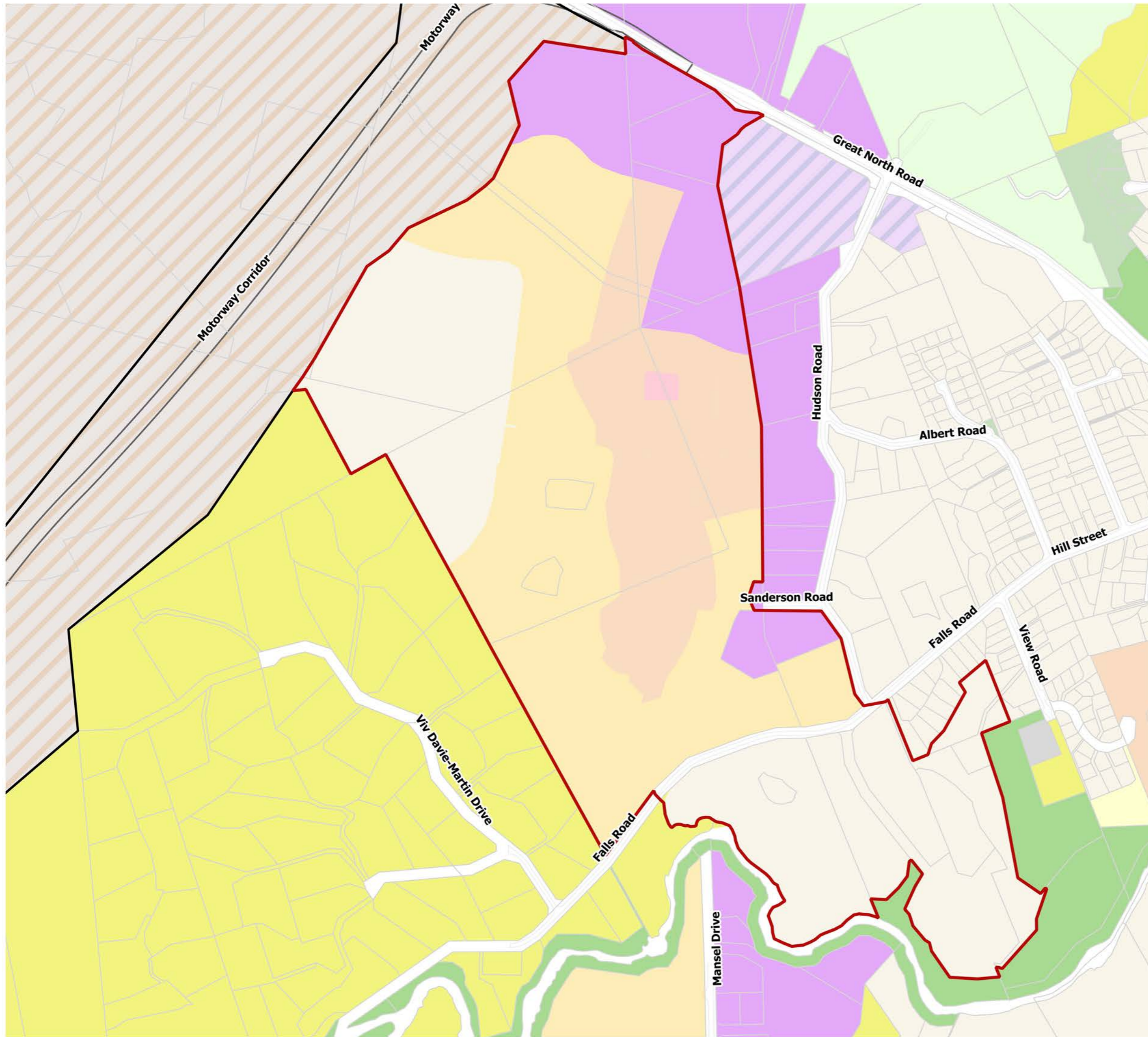
# ATTACHMENT SIXTEEN


## Proposed Warkworth North Plan Change

Date: 11/01/2019

### Proposed Zoning Map

- Plan Change Extent
- Land Parcels
- Unitary Plan Zones**
- Residential - Large Lot Zone
- Residential - Single House Zone
- Residential - Mixed Housing Suburban Zone
- Residential - Mixed Housing Urban Zone
- Open Space - Conservation
- Open Space - Informal Recreation
- Open Space - Sport and Active Recreation
- Business - Neighbourhood Centre Zone
- Business - General Business Zone
- Business - Light Industry Zone
- Future Urban Zone
- Rural - Rural Production Zone
- Rural - Mixed Rural Zone
- Special Purpose - Healthcare Facility and Hospital Zone

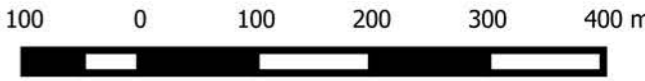




## CHESTER

chester.co.nz | chester.com.fj

REVISION	DATE	COMMENT	CHECK
2	10/10/2018	REVISE ZONES	NJ
3	15/10/2018	SEA AREAS	NJ
4	15/11/2018	ZONE BOUNDARIES	NJ
5	20/12/2018	ZONE BOUNDARIES	NJ
6	11/01/2019	NEIGHBOURHOOD ZONE	NJ



THESE DRAWINGS ARE COPYRIGHT AND REMAIN THE PROPERTY OF CHESTER CONSULTANTS LTD