

# MEMORANDUM

**To:** Wayne Smith

**From:** Simon Cocker - Registered Landscape Architect  
Simon Cocker Landscape Architecture

**Date:** 12 July 2021

**Subject:** ASSESSMENT OF LANDSCAPE VALUES LOT 1 DP 176274 & LOT 2 DP 176274:  
NGAWHA INNOVATION PARK, PRIVATE PLAN CHANGE

**Application #:** -

---

Dear Wayne,

Far North Holdings Limited (FNHL) have purchased acquired Lots 1 & 2 DP 176274 with the intention of incorporating them as part of the Ngawha Innovation and Enterprise Park land (refer to Figure 1). It is proposed that all of Lot 1 and most of Lot 2 be used for agricultural or horticultural related purposes. The north end of Lot 2 bounds the site of the proposed Matawii reservoir and is outside the scope of this investigation.

Simon Cocker Landscape Architecture has been engaged by Far North Holdings, to undertake a landscape assessment to inform a proposed Private Plan Change. The memo will provide a determination of constraints to development and will form the basis for my assessment of landscape effects (to be included in the Plan Change application).

The memo should be read in conjunction with my report titled 'Ngawha Innovation and Enterprise Park, proposed private plan change – landscape assessment, dated 12 February 2019'. It will expand on matters contained in the contained in the aforementioned document, being:

- the description of the landscape context of the site,
- the identified landscape values
- identify potentially affected parties or individuals, and
- provide recommendations for future development of the site.

The assessment has been prepared by a Registered Landscape Architect with reference to the Quality Planning Guidelines Note<sup>1</sup> and its signposts to examples of best practice<sup>2</sup>. In addition, this report has been prepared in accordance with the NZILA (New Zealand Institute of Landscape Architects) Code of Conduct<sup>3</sup>.

For the purpose of this memo, Lots 1 & 2 DP 176274 are referred to as 'the Site'.

---

<sup>1</sup> <http://www.qualityplanning.org.nz/index.php/planning-tools/land/landscape>

<sup>2</sup> Including Guidelines for Landscape and Visual Assessment ("GLVIA") 3<sup>rd</sup> Edition. Landscape Institute (UK) and IEMA 2013

<sup>3</sup> Contained in Appendix 1 of: [http://www.nzila.co.nz/media/50906/registered\\_membership\\_guide\\_final.pdf](http://www.nzila.co.nz/media/50906/registered_membership_guide_final.pdf)

## 1.0 EXISTING ENVIRONMENT

### 1.1 STATUTORY CONTEXT

Refer to *Ngawha Innovation and Enterprise Park, proposed private plan change – landscape assessment*, dated 12 February 2019.

### 1.2 IDENTIFIED LANDSCAPE VALUES

The Far North District Landscape Assessment (FNDLA) identifies Lots 1 & 2 DP 176274 as being contained within the Heritage landscape category. This category covers just one landscape unit; being the Waimate / Okaihau Area (Unit T23). It ranks the sensitivity of this unit as being 6 (out of a possible 7), which, in the assessment equates to 'outstanding'. The extent of this unit is illustrated on Figure 2.

The assessment describes the Heritage landscape category as having a sense of history conveyed by the landscape of the area as its over-riding characteristic, describing this historical character as follows:

*"Evidence of Maori heritage is conveyed by pa site formations on many of the prominent cones within the unit.*

*The most obvious heritage elements of European settlement of the unit are the historic buildings, most graphically represented by the Waimate Mission House and the adjacent church. Other built elements such as stone walls and thorn hedges are widespread throughout the unit."*

With regard to vegetation, the assessment states:

*"Groves of mature indigenous vegetation are surprisingly prevalent. Totara is the prevalent species within the unit, but large specimens of puriri, complete with perching epiphytes, are also prominent. Exotic species such as oaks, pines, macrocarpa, and Norfolk Island pines are scattered around homesteads, but are considerably less conspicuous than the native vegetation"*

The FNLA lists a number of key characteristics which contribute to its landscape values, as follows:

- A pervading natural character
- Historic buildings and associated fences, gardens etc.
- The presence of historic stonewalls and hedgerows.
- Groves of mature native trees.

Notable exotic trees that are associated with historic buildings, particularly specimens of oak and Norfolk Island pines.

The landscape values are also recognised in the Regional Policy Statement, with the volcanic cones to the north east and east of the site identified as being part of the Ohaewai area volcanic field Outstanding Natural Landscape, and the more proximate features (Lake Omapere, Putahi Rhyolite Dome with associated Halloysite, Mangakawakawa Scoria Cone, and Waimimiti Scoria Mounds), as Outstanding Natural Features (refer to Figure 2).

The worksheet for the Ohaewai area volcanic field Outstanding Natural Landscape describes the landscape as comprising:

*"A field of volcanic cones that are frequently inter-related through lowland elements of volcanic origin such as lava flows, rock outcrops, agricultural stone walls and stonefields"*

And:

*“The volcanic field is an area of very rich historical activity, with abundant pa sites (including upon 3 of the 4 ONL sites), terraces, stonefields and early European agriculture. That history is graphically portrayed in the contemporary landscape, particularly in the low light levels of early and late in the day. Pouterua pa terracing has lost much of its legibility as the mountain has been overtaken by weed species from its former pastoral cover. The cones are a significant component of the character of the area around Ohaewai, making it a unique area that is not replicated elsewhere.”*

The ecological values of the Kaikohe Ecological District are described in the Protect Natural Areas report for the Ecological District<sup>4</sup>. A portion of the Level 1 ecological site P05/036 (Kopenui Stream Remnants) is located within the subject site, with three others P05/035 (Youngs Kahikatea Remnant), P05/037 (Ngawha Bush) and P05/038 (Remuera Settlement Road Remnants) situated nearby<sup>5</sup>.

### 1.3 LANDSCAPE CONTEXT

Refer to *Ngawha Innovation and Enterprise Park, proposed private plan change – landscape assessment*, dated 12 February 2019.

### 1.4 LANDSCAPE CHARACTER OF THE SITE

Lots 1 & 2 DP 176274 adjoin the south eastern edge of the previously assessed subject Site.

#### 1.4.1 Geology

The underlying geology of the site mainly comprises “Basalt lava flows” (Qvb) with the northern area consisting of “basaltic andesite lava” (Pva). The area towards the western corner of the site is defined as “Poorly to moderately consolidated mud, sand, gravel and peat or lignite of alluvial, swamp and estuarine origin” (eQa). An area of the Whangai Formation (Kkw) is located to the south of the site. This consists of Thin-bedded siliceous mudstone, locally with thin glauconitic sandstone interbeds, minor calcareous mudstone and micritic limestone.

The overlying soil types for the Whangaroa-Kaikohe area are underlain by Waiotu friable clay towards the northern side of the site, Whakapai friable clay loam to the south, Ruatangata friable clay towards the west and likely Otaha clay further to the west of the site.

#### 1.4.2 Hydrology

The southern part of Lots 1 & 2 DP 176274, with its gentle contour, contains a number of wetlands. Near State Highway 12 are two small headwater wetlands which drain east to the Ngawha Stream which flows east to the Waiaruhe River before joining the Waitangi River.

#### 1.4.3 Topography

The northern edge of the site is defined by a ridge – a part of the Te Pua Crater – some 360 metres in height. Secondary ridges extend to the south from the ridge as far as the Kohenui Stream, and this watercourse marked the boundary between the steep ridge landform, and a more modest, but strongly undulating landform of between 250 and 260

---

<sup>4</sup> Conning, L. and Miller, N. 1999. Natural areas of Kerikeri Ecological District Reconnaissance Survey Report for the Protected Natural Areas Programme. Department of Conservation, Northland Conservancy, Whangarei. 254 pp

<sup>5</sup> Refer to NZ Environmental. Assessment of Ecological Values Lots 1 & 2 DP 176274. 27 May 2021.

metres in height (refer to photos 1a and 1b).

Figures 3 and 4 clearly illustrate the transition between these two landform types. The northern edge of the Site (being Lots 1 & 2 DP 176274) overlays the southern edge of the steep ridge landform, whilst the majority of the Site is characterized by the undulating landform.

This forms a transition between the ridge steeper flank and the gently undulating landform within the southern third of the Site, adjoining (and exposed to views from) the State Highway (refer to photos 2, 3a – 3d and 4).

#### 1.4.4 Vegetation

The existing vegetation within the site is described in detail in the ecological reports<sup>6</sup> and the general vegetation patterns are illustrated on Figure 5.

The ecological report that focuses on Lots 1 & 2 DP 176274 identifies three main areas of ecological value as follows :

- *Forest. There are two large forest areas on the Lots. In the north is podocarp forest which is included as a portion of the Kopenui Stream Remnants identified by Conning and Miller (2000). The Youngs Kahikatea Remnant Forest also identified by Conning and Miller (2000) is located in the south-east area.*
- *Wetlands. There are two areas where drainage is impeded, and wetlands have formed. These are on the low gradient area. We note that the Youngs Kahikatea Remnant Forest is identified as a swamp forest (i.e. wetland habitat).*
- *Individual mature puriri, tōtara and taraire trees or small stands of puriri, totara and taraire within the areas of pasture.*

From a landscape perspective, the forest areas provide separation between the pastured areas associated with the strongly undulating landform type, within the northern part of the Site, and the pastured gently undulating landform type within the southern part of the Site.

In providing separation, this vegetation also buffers views of the strongly undulating landform type from the wider landscape to the south, south west and south east (refer to photos 1a and 1b, 5 and 6).

The wetlands, pockets of forest and individual trees within the gently undulating landform type lend the landscape a legible structure, and help to fragment the areas of pasture within the type (refer to photos 3a – 3d).

#### 1.4.5 Land use

The Site is unused exclusively for grazing, although the varied terrain influences the quality of pasture. The site also contains three dwellings, also identified on Figure 6.

#### 1.4.6 Perceptual and sensory aspects of landscape character

As alluded to above, the site comprises three clearly definable character areas within the Site which can be based on a commonality of topographical patterns, hydrology and vegetation patterns. These three character areas are illustrated on Figure 7, and each of the identified character areas is considered to be a sub-set of the Heritage Character Area – as delineated in the Far North Landscape Assessment (and as previously described in section 1.2). Whilst on a regional level,

---

<sup>6</sup> NZ Environmental. *Assessment of Ecological Values of land owned by Grazing North Limited at Ngawha to inform a proposed Plan Change.* 5 February 2019. And NZ Environmental. *Assessment of Ecological Values Lots 1 & 2 DP 176274.* 27 May 2021

the broad landscape character of the site reflects the attributes of the Heritage Character Area, on a detailed site level, areas of divergent character can be identified

- Elevated hill slope heritage character area. Comprising the steeply sloping south facing flanks of a ridge, it is overlain by the extreme northern edge of the Site. This character area ranges in elevation between some 250 and 360 metres.
- Undulating heritage character area. This character unit occupies the mid portion of the Site and varies in height between around 240 – 260 metres. Strongly undulating, this landform, and associated native vegetation provides a sense of containment. The vegetation patterns reflect and emphasise the landform, with vegetation occupying steeper slopes and gullies, which the more gentle slopes are under pasture.
- Low-lying heritage character area. Characterised by a gently undulating terrain, this character unit is predominantly under pasture, but is lent structure by groves of native trees and wetlands. This character unit is open to views from the State Highway and properties adjoining the road.

## Visibility

Given the scale, varied topography and varied vegetation cover, some parts of the site have a more extensive visual catchment than others. The visibility of each character unit is described below. The location of properties referred to in the discussion below are identified on Figure 6.

### *Elevated Hill Slope Heritage Character Unit and Undulating Heritage Character Unit*

As is evidenced by photos 1a and 1b, panoramic views are available over the undulating landscape. To the south west, south and south east, the catchment is relatively extensive and encompasses the hills associated with Ngawha Springs to the south. More proximate views are possible from the State Highway, from the golf course (refer to photo 6) and from dwellings located close to the eastern boundary of the Site (as identified on Figure 7 but including dwellings within Pt Taumatakuku 2, Lot 1 DP 139257, Lot 1 DP 134190, Taumatakuku 1, and Orauruwharo 8). This elevated portion of the Site is visible from the prison access road when approaching the State Highway (refer to photo 4), and from locations along the State Highway (refer to photos 1a – 1d).

Views from the landscape to the south west, south and south east are buffered by forest remnants which separate this character area from the Low-lying heritage character area

### *Low-Lying Heritage Character Unit*

Adjoining the State Highway, this character unit is principally subject to proximate views from the road corridor, from properties adjoining the Site to the east (as identified above), and from locations to the south such as the golf course.

Figure 2 evidences how north west – south east trending secondary ridges to the east of the Site block views to this lower-lying landscape from the landscape further to the east and north east, whilst vegetation precludes views from the south west (refer to Figure 6).

## Aesthetic qualities

Sensory and perceptual qualities are the way individual's experience landscapes. Thus, the views, sounds and smells of grazing livestock and linked rural activities, and the sense of spaciousness and privacy experienced when observing the surrounding landscape are all of relevance to these attributes.

As described, the landscape context of the site displays a strong rural character, although the context of the site, is influenced by clusters of rural residential settlement on its margins, and also by the presence of activities and developments which reflect the site's urban fringe location. These include the Ngawha Prison and Speedway Track.

### 1.4.7 Associative aspects

Refer to *Ngawha Innovation and Enterprise Park, proposed private plan change – landscape assessment*, dated 12 February 2019.

## 1.5 RURAL CHARACTER

In the opinion of the author, rural character is derived from a number of attributes:

- *An inherent sense of spaciousness; of a landscape dominated (usually) by open spaces and pasture or other agricultural activities;*
- *The presence of domesticated animals, crops, shelterbelts and functionally related buildings and structures (such as fencing and accessways);*
- *Limited buildings and residential development in general (with a very high ratio of open space to such development) with considerable separation between houses and buildings relative to those found on neighbouring properties;*
- *An absence of urban forms and infrastructure;*
- *A generally high degree of visual permeability and openness; and*
- *Awareness of the landforms and terrain that underpin individual land units.*

There is some flexibility in the strength or influence of each of these attributes depending on the density or dominance of built form and there is a continuum between a truly rural landscape with very little evidence of settlement, through to a more built rural residential character landscape. Importantly however, rural character constitutes attributes that are experienced by humans, but also attributes that can be affected in the absence of human viewers. Primarily, this includes the productive capacity of land – including the lot size and use.

Within areas which include the above attributes, the character tends to be quiet and rustic with built form being reasonably well integrated into its landscape setting. The observer is aware that the landscape is settled – informed by glimpses of dwellings, gardens and entrances, however there is a predominance of vegetation and open space with significant visual coherence and a level of natural character in evidence.

The site displays an openness and lack of built form which reflects its pastoral land use, and therefore positions it at the 'rural' end of the continuum. At present, whilst it appears that the quality of the grazing varies throughout the site, the productive capacity of the site is paramount to its appearance and function.

## 2.0 ANALYSIS AND EVALUATION

### 2.1 ASSESSMENT OF LANDSCAPE VALUES

Previous sections have described the landscape in terms of its geographic aspects, its perceptual aspects and its associative aspects. In this section, the landscape character units will be evaluated to assign a value to each, to identify those characteristics that give the landscape its value, and to assign a level of sensitivity to each.

The table below assesses each of the character units against a series of attributes that have been derived from the 'WESI'<sup>7</sup>. This enables a detailed understanding of what constitutes the values, and therefore sensitivities of each of the character units.

Character Unit	Landscape type	Elements, patterns, processes	Natural Science Factors			Aesthetic Values			Visibility
			Geological, topographical	Ecological	Dynamic	Memorability	Naturalness	Expressiveness	
Elevated Hill Slope Heritage Character Unit	<b>Cultured nature (hill country)</b>	Modified hill slopes denuded of native vegetation. Remnant wetland associations in drainage channels	<b>Moderate / high.</b> Comprises a large tuff ring with a large crater	<b>Low.</b> Wetland areas denuded by grazing and vegetation clearance.	<b>Moderate.</b> Backdrop to views from the wider landscape to the south due to elevation of unit, and contrast with lower lying land to south.	<b>Low to moderate</b> Linkages to and relationship with volcanic and cultural landform features within the wider landscape.	<b>Low</b> due to modified nature of slopes.	<b>Low</b> due to modified and denuded nature of slopes.	<b>High.</b> Visible from extensive catchment to the south and south west. Elevation of unit, and lack of vegetation renders the unit highly sensitive to change.
Undulating Heritage Character Unit	<b>Cultured nature (lowland)</b>	Retention of indigenous vegetation reinforces topography. Low levels of built modification	<b>Moderate / High</b> Clearly defined sequence of low ridges, steep slopes and remnant forest framing valleys and stream corridors. Relatively dramatic topography	<b>Moderate</b> Pronounced sequence of native forest cover linked across ridges and slopes together with stream corridors.	<b>Moderate</b> Amalgam of strongly dissected to rolling terrain and native forest cover intermixed with lower lying stream corridors and areas of pasture to create a clearly defined	<b>Moderate</b> Combination of terrain and vegetation cover creating a clearly defined matrix, with a relatively high level of cohesion and continuity.	<b>Moderate</b> Pockets of relatively intact regenerating forest cover and stream corridors.	<b>Moderate</b> Very clearly defined relationship between topography and vegetated land cover creating a quite distinctive and Northland	<b>Low</b> Largely internalised due to topography and vegetation patterns providing screening. Some glimpse views from elevated land to the south west of site.

<sup>7</sup> Wakatipu Environmental Society Inc v Queenstown Lakes District Council C180/1999 [2000]

					structure and pattern				
Low-Lying Heritage Character Unit	<b>Cultured nature (lowland)</b>	Pattern of remnant vegetation interplayed with pasture creates a human scale and sense of containment. Interesting interface between rectilinear pattern of fields and shelterbelts and informal groves of trees.	<b>Low / moderate</b> Gently undulating landform contrasts with topographical variation to north. Patterning of wetland areas lends structure to the landscape and emphasises the subtle variations in topography.	<b>Low / moderate</b> Presence of forest remnants and areas of wetland.	<b>Low</b> Structure afforded by forest remnants, groves of trees, scattered specimen trees and wetland areas lends some interest to the landscape,	<b>Low / moderate</b> 'Arcadian' character of the landscape afforded by groves of trees and their interplay with pasture, and glimpses to volcanic features within the wider landscape.	<b>Low / moderate</b> Presence of forest remnants and areas of wetland signals some level of naturalness, but this contrasts with the cultured character of the pasture and rectilinear human patterns.	<b>Moderate</b> Structure afforded by forest remnants, groves of trees, scattered specimen trees and wetland areas signals the 'heritage' character of the landscape which is reminiscent of landscapes around Waimate and Okaihau.	<b>Moderate to high</b> Much of unit open to views from the State Highway and adjoining properties. Where vegetation is established, then this affectively screens and contains views.



## 2.2 DETERMINATION OF LANDSCAPE SENSITIVITY AND RECOMMENDATIONS

The table above has determined what constitutes the values, and therefore sensitivities of each of the character units. The following table distils this information, assigning an overall 'sensitivity' ranking to each character area, identifies the potential threats for each of the character units, and provides recommendations for future development and for the mitigation of potential adverse effects. The sensitivities of each Unit are mapped on Figure 8, and the recommendations shown (in part) on Figure 9.

Character Unit	Sensitivity to change	Landscape Character: Threats	Options for mitigating effects and enhancing landscape character
Elevated Hill Slope Heritage Character Unit	High.	Unit comprises a part of an identified volcanic feature which has been identified in the Far North District Plan as an Outstanding Natural Feature, and categorized as a regionally significant feature in the Regional Policy Statement. The unit has been modified as a result of vegetation clearance and grazing, but is devoid of built structures. The unit is visible from within an extensive catchment and as such, activities such as earthworks, the construction of buildings or roads will be difficult to integrate.	<p>There is potential for limited development within the lower parts of the unit, where the contour is more gentle, although consideration should be given to avoiding adverse effects watercourses on the southern edge of the unit.</p> <p>Retention of existing native vegetation is key to mitigation of adverse effects.</p> <p>In addition, the planting of the riparian margins of the watercourses within the unit will strengthen the landscape patterns, and elevate the landscape values of this unit.</p> <p>Mitigation of effects of activities which require significant earthworks or construction at higher elevations will be challenging.</p>
Undulating Heritage Character Unit	Moderate	Maintaining the landscape character and values of this unit requires the retention of the existing landform and vegetation patterns. Extensive earthworks that affect the intricate landforms or vegetation and hydrological patterns have the potential to detract from the landscape character and amenity of the unit.	<p>It is recommended that, if development is to occur within this unit, then it is restricted to flatter land that is currently under pasture, and that accessways, where possible, follow existing tracks and races.</p> <p>As with the previous Unit, retention of existing native vegetation is key to mitigation of adverse effects.</p> <p>In addition, where possible, it is recommended that any development be allied to the enhancement of vegetation patterns, including the planting of riparian margins, wetlands and forest remnant margins. Such planting should seek to both strengthen vegetation linkages, and also provide containment and</p>

			screening for proposed built structures.
Low-Lying Heritage Character Unit	Moderate to High	<p>This unit forms a part of the sequence of views that is experienced from the State Highway on one of the key approaches to Kaikohe. The landscape has a distinctive rural character and is highly sensitive to change.</p> <p>The unit is also visible from a number of private properties which border or adjoin the site. Where existing vegetation – be it groves of trees, native forest remnants or shelterbelts exist, then the opportunities for integrating built development are significantly increased. The eastern ‘leg’ of the unit is open along its southern edge and has a high level of visibility from the State Highway.</p> <p>The western ‘leg’ of the unit is not visible from the State Highway, and existing vegetation within the southern half of the unit offers potential screening for development from the majority of potential viewers situated to the south and south west. Views from Te Pua Road and Willis Road will, however be harder to mitigate, as will the effect on neighbours of activity on the access to the State Highway.</p>	<p>The existing vegetation patterns within this unit reflect a cultured nature which has been influenced by humans and land use. Where possible, the existing areas of wetland, forest remnants and specimen trees should be retained and protected. There is the potential to mimic the existing vegetation patterns – creating new areas of forest remnant, new groves of trees – to facilitate the screening of development within this unit.</p> <p>It is recommended however, that a planted buffer comprising native species be planted along the State Highway frontage of the Site (to a depth of 3 – 5m).</p> <p>Where possible, the design of ‘internal’ mitigation planting should, therefore be closely allied to the planning of built development within the site. Low mounding for screening purposes may be appropriate, but only where mound slopes are gentle and mimic naturally occurring existing landforms. Unnatural ‘bunds’ are not appropriate.</p> <p>Mitigation planting must comprise native vegetation to mimic the existing vegetation character. Where possible, plantings should seek to extend existing vegetation, or be allied with existing landscape features such as wetlands.</p>

## 2.3 POTENTIAL EFFECT ON RURAL CHARACTER

It is the opinion of the author that – based on a broad understanding of the eventual likely development scenario that will be facilitated by the Plan Change – the potential visual amenity effects resulting from that development can be mitigated, and the visibility of development resulting from the Plan Change, internalised.

The proposal will, however result in a reduction in the productive capacity of the property, and this will inevitably result in some level of rural character effects. Such effects can be managed and minimised if built development within the site – and land taken out of production – is clustered in discrete locations, whilst balance areas are retained for productive purposes. This may include its existing use, or alternative productive uses.

In addition, the recommendations contained above, and in the ecology report<sup>8</sup> regarding the protection and enhancement of the remnant natural areas within the site, if implemented also have the potential to result in positive rural character effects.

### 3.0 CONCLUSIONS

Far North Holdings seeks to undertake a Private Plan Change to facilitate development of the Ngawha Innovation and Enterprise Park. The Plan Change will encompass the 204.7 ha that was the subject of my previous assessment, and also includes Lots 1 & 2 DP 176274 – the subject of this memo.

The memo should be read in conjunction with my previous assessment ('Ngawha Innovation and Enterprise Park, proposed private plan change – landscape assessment, dated 12 February 2019').

Three distinct character units have been identified within the subject Site, and these form sub-units, sitting within the Heritage Landscape Unit as described in the Far North District Landscape Assessment. Each of the units have distinct and separate characters, sensitivities and values and these have been evaluated to determine the best options for the integration of future development from a landscape and visual perspective.

The Elevated Hill Slope Heritage Character Unit, is generally considered too exposed and sensitive to accommodate significant change. The assessment has determined that the Undulating Heritage Character Unit has the potential to accommodate discrete development within limited areas.

The Low-Lying Heritage Character Unit has been identified as being sensitive by virtue of its vicinity and existing character, but that opportunities exist to mitigate potential adverse landscape, rural character and visual amenity effects, and as such, carefully located and clustered development can be accommodated within this unit, in association with planting screens along the State Highway frontage.

The assessment also recommends that the existing hydrological and vegetative features of the site be managed and enhanced so that the landscape values of the site can be heightened, and potential landscape effects offset or mitigated.

Yours sincerely,



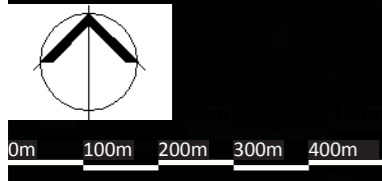
Simon Cocker



---

<sup>8</sup> Ibid. Section 76

## ATTACHMENT 1 – FIGURES

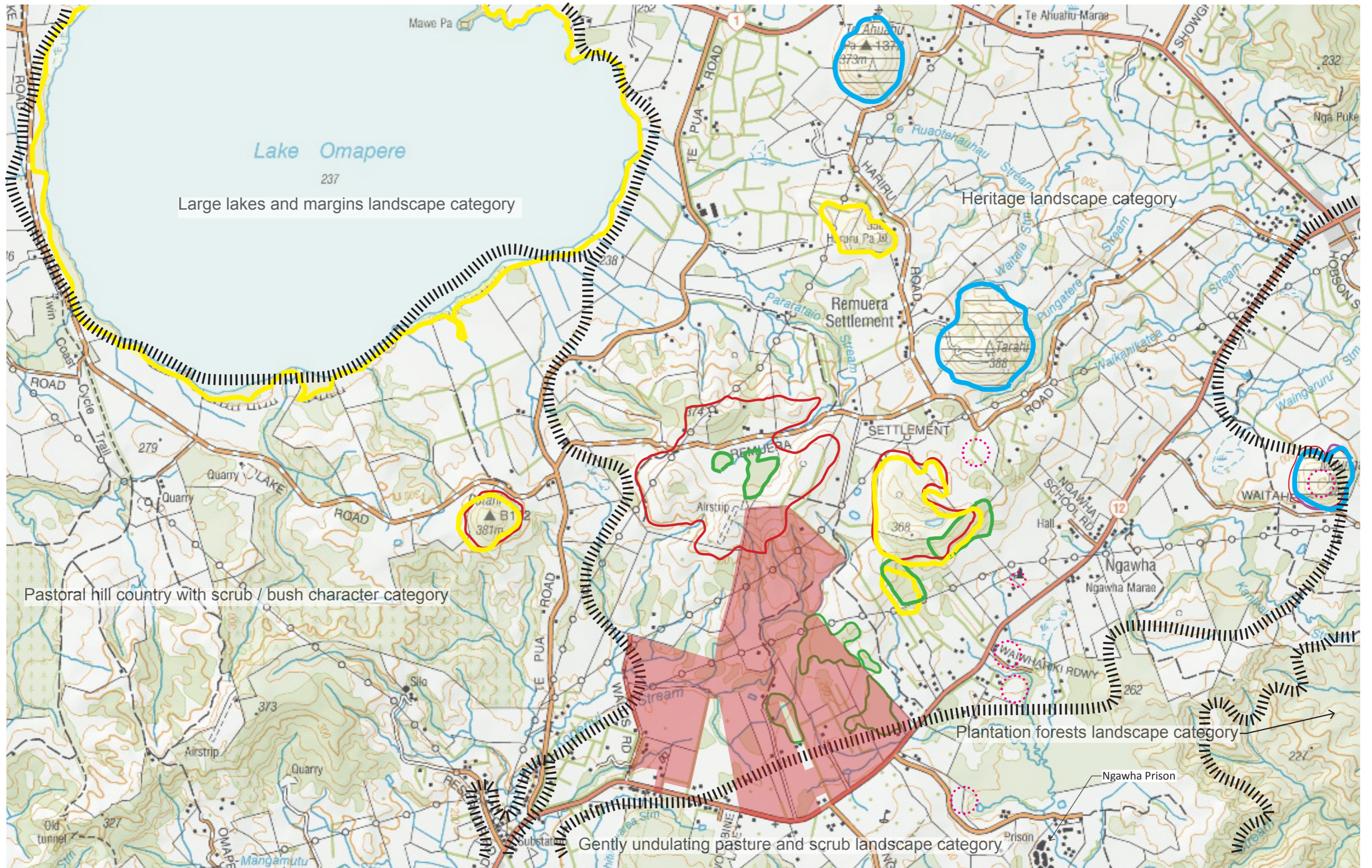


vp 08 Photograph locations

# Ngawha Innovation Park Plan Change

FIGURE 1: Location of the site and photo locations



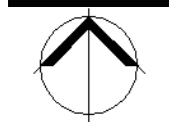
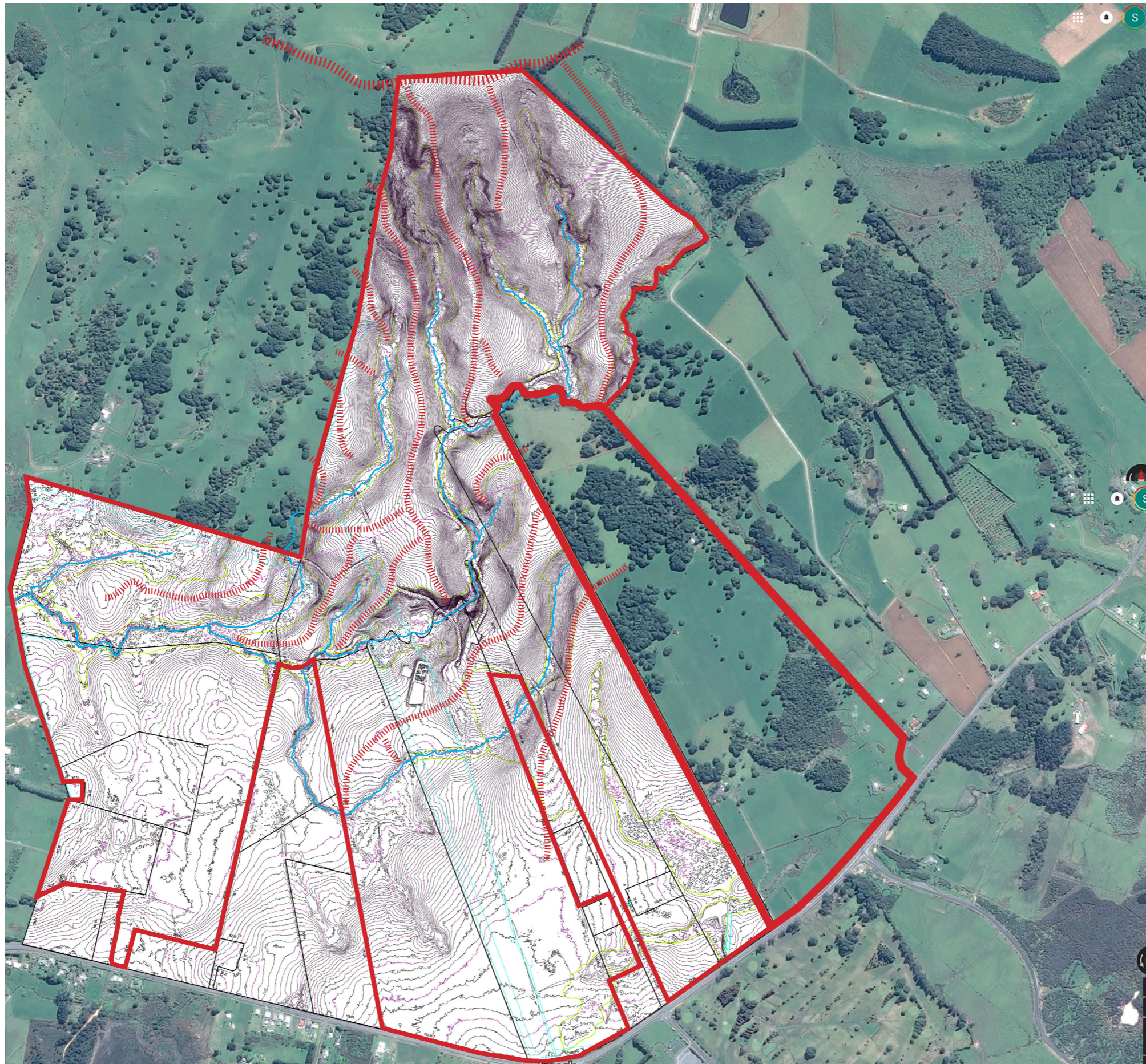


- Outstanding Natural Feature (RPS)
- Outstanding Natural Landscape (RPS)
- PNAP Level 1 sites
- Landscape character category (FNLA)
- Outstanding Natural Feature (FNDP)
- Outstanding Landscape Feature (FNDP)
- Site of significance to Maori
- Historic site





# Ngawha Innovation Park

## Plan Change

FIGURE 2: Identified Values








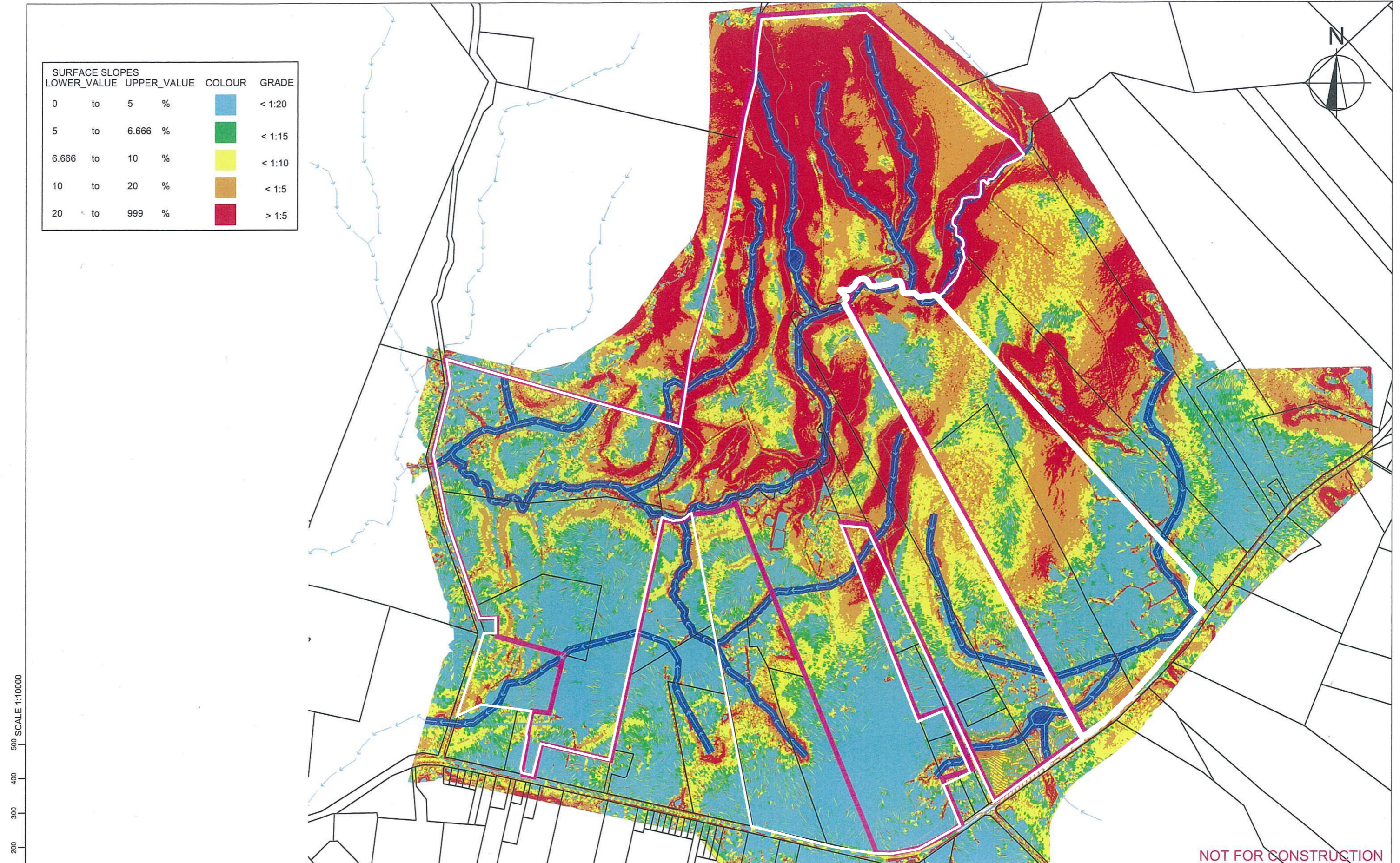
0m 250m 500m 750m 1000m

-  Catchment boundary ridge
-  Secondary ridges
-  The site
-  Watercourses

# Ngawha Innovation Park Plan Change

FIGURE 3: Site features - Landform patterns

SURFACE SLOPES					
LOWER_VALUE	UPPER_VALUE	%	COLOUR	GRADE	
0	to	5		< 1:20	
5	to	6.666		< 1:15	
6.666	to	10		< 1:10	
10	to	20		< 1:5	
20	to	999		> 1:5	



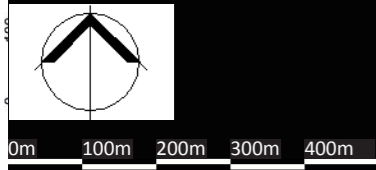
NOT FOR CONSTRUCTION

# Ngawha Innovation Park

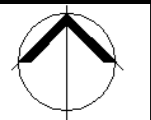
## Plan Change

Drawing prepared by Cook Costello

FIGURE 4: Slope analysis







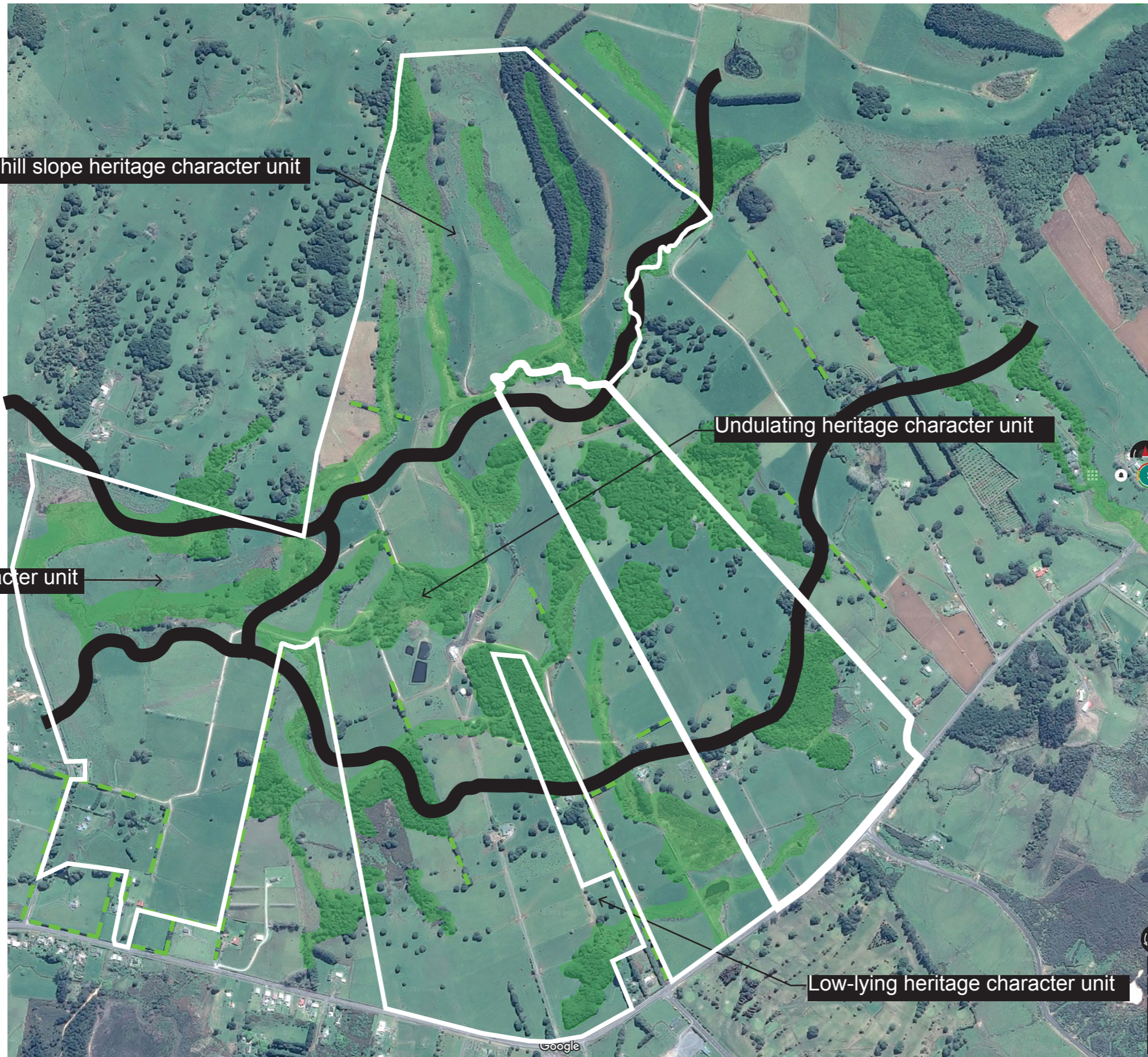
0m 100m 200m 300m 400m

- Indigenous vegetation
- Exotic shelterbelt

# Ngawha Innovation Park Plan Change

FIGURE 5: Site features - vegetation patterns



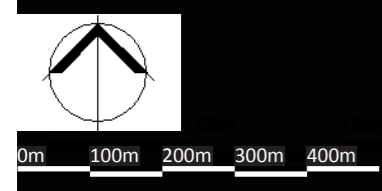


Elevated hill slope heritage character unit

Undulating heritage character unit

Valley floor heritage character unit

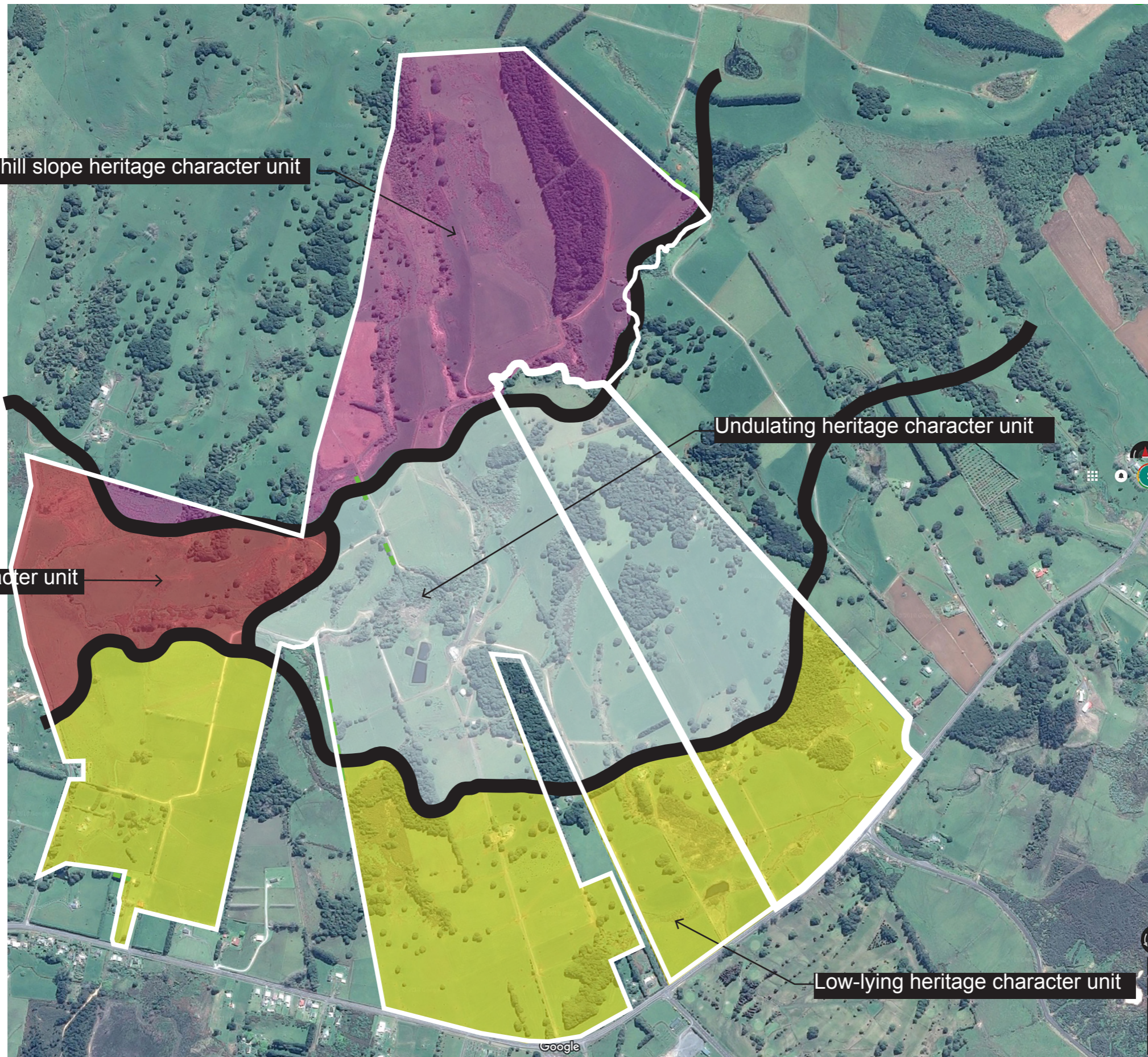
Low-lying heritage character unit



- Boundary of the site
- Potentially significant vegetation
- Shelter belts

# Ngawha Innovation Park Plan Change

FIGURE 7: Landscape character areas



Elevated hill slope heritage character unit

Undulating heritage character unit

Valley floor heritage character unit

Low-lying heritage character unit



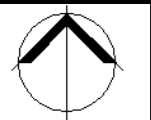
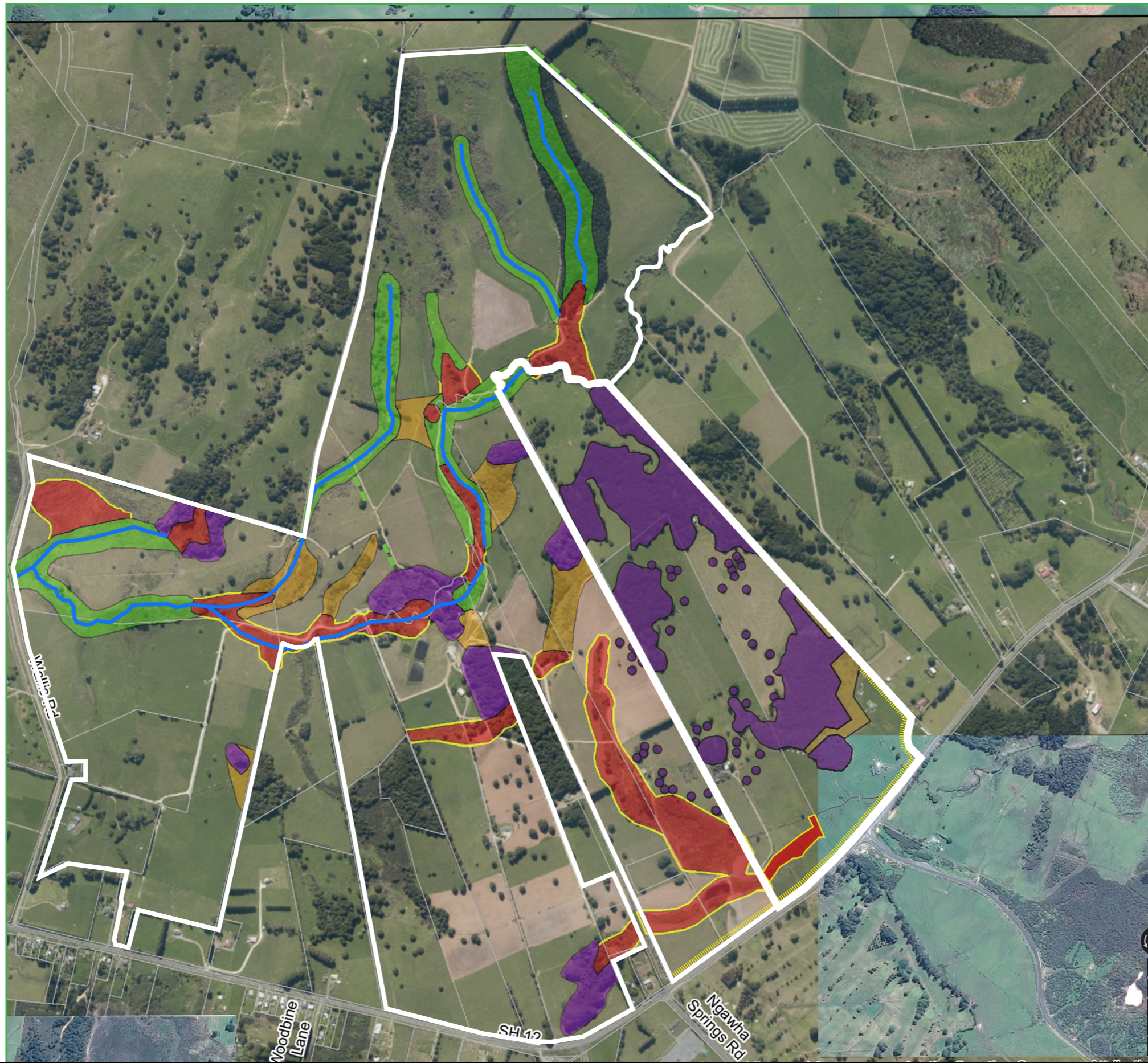
0m 100m 200m 300m 400m

- High sensitivity particularly on upper and mid slopes. Possible potential for change on lower slopes where visibility limited.
- Moderate to high sensitivity. Avoid establishment of built development, earthworks, and roading.
- Moderate sensitivity. Retain and enhance vegetation and watercourses. Development possible within defined areas.
- Moderate to High sensitivity. Retain and enhance vegetation and watercourses. Clustered development possible when associated with mitigation planting.

# Ngawha Innovation Park Plan Change

FIGURE 8: Landscape constraints plan





0m 100m 200m 300m 400m

- Wetland (identified in Assessment of Ecological Values)
- Wetland buffer (identified in Assessment of Ecological Values)
- Forest (identified in Assessment of Ecological Values)
- Ecological linkages (identified in Assessment of Ecological Values)
- Recommended native planting screen 3 - 5m in width

## Ngawha Innovation Park Plan Change

FIGURE 9: Landscape constraints plan



Photo 1a: View from Site to south east (1 of panorama of 2)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)





Photo 1b: View from Site to south (2 of panorama of 2)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Simon Cocker  
Landscape Architecture



Photo 2: View to Site from State Highway (near entrance to #5585)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)





Photo 3a: View to Site from State Highway (1 of panorama of 4)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)





Photo 3b: View to Site from State Highway (2 of panorama of 4)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Photo 3c: View to Site from State Highway (3 of panorama of 4)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Photo 3d: View to Site from State Highway (4 of panorama of 4)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Photo 4: View to Site from Ngawha Prison access road

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Photo 5: View to Site from #5585 State Highway 12

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)



Photo 6: View to Site from State Highway (4 of panorama of 4)

Photo taken 7 July 2021

## Ngawha Innovation Park Plan Change

Photographs (taken with digital equivalent of 50mm focal length unless otherwise specified)