



Belmont Quarry Development – Part B

Substantive Application
Appendix B.8 – Landscape and Visual Assessment
Winstone Aggregates

16 August 2026

Boffa Miskell



Belmont Quarry Overburden Disposal Area

Landscape Effects Assessment
Prepared for Winstone Aggregates

4 August 2026





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Executive Summary

Boffa Miskell was engaged by Winstone Aggregates (April 2025) to assess the landscape, natural character and visual effects of a proposed Overburden Disposal Area (OBDA) immediately north of Belmont Quarry, within the Dry Creek Block of Belmont Regional Park (DOC land administered by GWRC), and progressed as part of a Fast Track Approvals Act application (including a proposed land exchange).

The proposal responds to an initial land exchange assessment for which the area of land is obtained and used for the deposit of 15.7 ha area of OBDA to accommodate approximately 2.7 million m³ of overburden over 40 years. This is proposed to be constructed in 10 progressive stages to a final landform of RL 230 m, with topsoiling, stabilisation, hydroseeding/revegetation as stages are completed.

This assessment approach follows Te Tangi a te Manu (adopting a 7-point scale), using site visits, ZTV, and visual simulations prepared from nine representative public viewpoints. No access to private property other than within the existing Belmont Quarry has been obtained.

Key findings:

- **Natural character (streams/margins):**
The proposed removal and replacement of several intermittent and ephemeral headwater streams will result in **low-moderate adverse** effects during operation which will become **very low** or **neutral** at closure with riparian restoration.
- **Landscape effects:**
The proposed landform/vegetation change necessary to deposit overburden is incremental and localised, extending an existing modified landform designed to integrate within the Belmont Hills and support native revegetation. This will result in **low-moderate adverse** during operation, reducing to **low adverse** and trending neutral/beneficial as indigenous cover establishes.
- **Visual effects:**
The highest visual effects occur from nearby elevated locations (notably within Belmont Regional Park, along Kaitangata Crescent and from elevated views along the Eastern Hutt Hills). These views range between 400 m – 1.4 km. During operation visual effects will peak at **low-moderate adverse** when exposed works are most visible prior to progressive rehabilitation. At closure, visual effects are **no more than low adverse**, with some locations remaining **neutral throughout** due to screening.

Overall, any long-term and cumulative landscape and visual effects resulting from the proposed OBDA are assessed as low, given the existing containment of the Site and its adjacency to an already modified landscape. The completed project will remain subject to progressive rehabilitation and long-term closure.

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1.0 Introduction

1.1 Scope of the report

Boffa Miskell Limited (BML) has been engaged by Winstone Aggregates in April 2025 to undertake a Landscape Effects Assessment (LEA) for a proposed Overburden Disposal Area (OBDA) at Belmont Quarry, Kelson Lower Hutt (otherwise referred to as The Site in this report). The Site is located within land classified as a recreation reserve, owned by the Department of Conservation (DOC) and administered by the Greater Wellington Regional Council (GWRC) as part of Belmont Regional Park.

The application for land exchange is being advanced at the same time as the resource consent applications. Winstone can only develop the OBDA if the land exchange is approved.

This LEA assesses the landscape, natural character and visual effects of the proposed OBDA on the immediate and surrounding environment. This report has been prepared in accordance with the Environment Court Practice Note 2023 (Code of Conduct for Expert Witnesses) and complied with that Code.

1.2 Project background

Belmont Quarry is a principal source of aggregates for the Wellington region. The quarry is essential for meeting ongoing demand for roading, housing and development materials. Continued access to aggregate resources requires controlled removal and placement of overburden.

BML was previously engaged to assess the expansion of Belmont Quarry through Plan Change 33, approved in 2014. Subsequently, BML were engaged with the expansion of the Cottle Block enabling an increased deposit of overburden as part of the ongoing quarry operation which was consented in 2017. More recently, BML advised Winstone Aggregates on the consideration of this alternative site for the OBDA, once it became clear that opportunities for OBDA within the Quarry site had been exhausted.

In 2025, BML was further engaged to provide a comparative landscape assessment for a proposed land exchange application to swap a 23.86ha area of DOC land within Belmont Regional Park, with a 34ha contiguous area of adjacent land owned by Winstone Aggregates. The landscape values and effects of the land exchange are set out in a separate report dated 1 December 2025¹.

To ensure long-term solution for overburden management, Winstone Aggregates is seeking to develop a new OBDA adjacent to the existing Belmont Quarry. This assessment is based on placement of the OBDA in the land subject to the proposed land exchange.

¹ Boffa Miskell (2025). *Belmont Quarry Overburden: Land Exchange: Landscape Assessment*. Report prepared for Winstone Aggregates.

1.3 Assessment Process

This assessment follows the concepts and principles outlined in *Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines*². A full method is outlined in **Appendix 1** of this report. In summary, the effects ratings are based upon a seven-point scale which ranges from very low to very high.

This assessment is based on a combination of site visits by Landscape Architects at Boffa Miskell in 2025, and a desktop analysis of the project description, photographs and aerial mapping. An accompanying Graphic Supplement is provided, in which the location and context of the proposal are included.

A series of visual simulations were prepared to understand the extent of visibility of the project and the potential impact on the surrounding viewing audiences. Visual simulations (**VPs 1 to 9**) show the extent the completed OBDA is visible in the surrounding landscape alongside sequential rendered simulations showing the proposed 10 stages of overburden disposal as seen from **VP 2 (VPs 2a - 2k)**, both of which are included within the Graphic Supplement. Visual simulations have been prepared in accordance with NZILA Best Practice³ and adhere to BML's internal Visualisation Guidelines to assist with an accurate understanding of the proposed visual change.

2.0 Existing Environment

2.1 Site Location

The Site occupies part of the existing north-eastern area of Belmont Regional Park, north of the Belmont Quarry which is subject to the proposed land exchange (see **Figure 1**).

To the south of the Site, Belmont Quarry is accessed off Hebden Crescent approximately 1.7 km to the south-west of the Belmont Regional Park entrance at Dry Creek. Belmont Quarry occupies part of the western escarpment defining the edge of the Hutt Valley and part of the lower slopes of the Belmont Hills, approximately 6 km north-east of the Lower Hutt Central Business District.

The proposed Site would be accessed directly from Belmont Quarry within the Dry Creek Block (see **Figure 2**). Buchanans Road Tramping Track passes in the vicinity of the northern edge of the Site and provides access between Boulder Hill and the eastern most park access at Dry Creek. As part of the existing Belmont Regional Park the Site is zoned General Recreation Activity Area adjoining the Extraction Activity Area in the District Plan (see **Figure 3**).

² 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022.

³ NZILA Best Practice Guide, Visual Simulations BPG 10.2, February 2010.

2.2 Landscape Description

Landform

The existing topography within the Site ranges between an RL⁴ of approximately 160 and 216 and comprises a rolling ridge flanked by the upper reaches of steep undulating gullies.

The existing topography of the Site is illustrated on **Figure 4**, demonstrating that the Site forms part of the lower eastern flanks of the Belmont Hills within the western hills of Hutt City. The topography to the east of the Site is associated with the Wellington Fault scarp, a regionally legible land feature. In the local context, this contains a series of gullies and steep spur faces which collectively rise from the Hutt Valley floor. The summit of Boulder Hill is located approximately 1.3 km to the north-west of the Site and forms a significant geological feature associated with a broader ancient, uplifted erosion surface as well as an important visual and recreational feature in the Belmont Hills landscape.

The soils of the area have been classified according to the New Zealand Land Resource Inventory Sheets into predominantly Ngaio silt loam extending into Korokoro hill soils to the west⁵. These soils conform to the Central Yellow Brown earths formed of greywacke and are differentiated by varying soil depths, related to steepness and altitude. In the vicinity of Belmont Quarry, areas of terracing reflecting existing and historic quarrying are also visible alongside steeper areas of less modified and vegetated terrain.

Land cover

Vegetation within the Site predominately includes gorse and regenerating native vegetation with pockets of pine and macrocarpa trees also present associated with the Site's former agricultural use. Areas of open pasture which were previously grazed on the more accessible land has gradually been colonised by scrub as grazing has been discontinued.

Regenerating native vegetation is reflective of differing stages of forest regeneration, most likely due to differences in intensity of past farming activity. The changes in land cover over time across the Site is illustrated in the Historical Context shown in **Figure 5**. Of the native scrub and forest species present the seral tree, mahoe, is usually dominant in association with tree ferns, manuka, and a variety of broadleaf species. Large old pines and macrocarpas also remain along the upper ridge and lateral areas and have gradually expanded since the 1940s. A full description of ecological values including a botanical survey of the Site is included in the Ecological Assessment⁶.

Land use

The existing Site forms part of the broader open landscape characteristics of Belmont Regional Park. This part of Belmont Regional Park includes the Buchanans Road Tramping Track which passes to the north of the Site through regenerating vegetation. Within Belmont Regional Park, the Site forms part of the broader green backdrop above the Western Escarpment and includes a series of transmission towers which connect into the Haywards Substation approximately 2

⁴ New Zealand Vertical Datum (NZVD 2016)

⁵ New Zealand Land Resources Inventory (accessed 12 December 2016 from <https://lris.scinfo.org.nz/layer/66-nzlr-soil/>)

⁶ BlueGreen Ecology limited (2026). *Belmont Quarry Expansion: Ecological Values and Effects Assessment*.

kilometres to the north-east of the Site. The Site previously accommodated a small farm building and farm track associated with pastoral grazing however this land-use and associated access has now been abandoned except for the established exotic trees which remain.

When viewed from areas to the east of the Site along the valley floor, existing quarrying activity influences much of the Site's immediate character, manifested as a series of stepped terraces from which material has previously been quarried. Adjoining the quarry, regenerating native vegetation is a key characteristic of this area of western escarpment. A similar framework of regenerating native vegetation typically encloses tracks which extend near the Site through adjoining areas of Belmont Regional Park.

The nearest rural lifestyle properties are located approximately 750 metres to the south-west of the Site along Kaitangata Crescent. Dwellings in this area are typically dispersed throughout areas of pasture and regenerating indigenous vegetation. Further south, a similar enclave of rural lifestyle development is located along Liverton Road beyond the northern edge of Kelson.

To the south-east of the Site, residential development covers much of the Hutt Valley floor, extending east of Te Awa Kairangi / Hutt River. This includes the residential suburbs of Taita and Pomare, which are closest to Belmont Quarry. Most of these properties will have no view of the Site or proposed overburden beyond the vegetated slopes of the Western Escarpment. Over longer distances further to the east, residential development is located on the Eastern Hutt Hills which will have potential views towards the Site. This includes dwellings accessed from Holborn Drive and Manor Drive either side of the entrance to Stokes Valley.

2.3 Landscape Character

The landscape character associated with the Site was previously assessed at a district-wide scale and an earlier landscape assessment considered the landscape character areas which make up Belmont Regional Park.

Hutt Landscape Study: Hutt Character Description

A district-wide landscape assessment was undertaken in 2012⁷ and the boundaries of landscape character areas identified in this assessment are shown on **Figure 6**. This assessment forms the first phase of a subsequent landscape evaluation stage identifying the outstanding natural features and landscapes and special amenity landscapes as set out in the landscape chapter of the Wellington Regional Policy Statement.

In terms of the Hutt Landscape Study, the Site straddles the boundary between the Belmont Hills and Western Escarpment landscape character areas, but nearly entirely within the Belmont Hills. The extracts of relevant character areas are reproduced below.

Belmont Hills Character Area

The Belmont Hills character area includes the rounded hilltops and slopes above the Wellington Fault escarpment, adjacent to the lower reaches of Te Awa Kairangi/Hutt River. The hills with their distinctive flat tops form part of a central plateau separating Wellington Harbour and the Hutt Valley from Porirua Harbour. This plateau is part of an ancient peneplain that has been uplifted and subjected to the freeze-thaw action of the most recent ice age, which has had a smoothing influence on ridge tops and spurs. At

⁷ Boffa Miskell (2012). *Hutt Landscape Study: Hutt Character Description*. Report prepared for Greater Wellington Regional Council, Hutt City Council, and Upper Hutt City Council.

410m asl, Round Knob is the highest point on this part of the peneplain. Broad basins, gullies and fault-defined valleys create diverse microclimates within the character area.

...

Much of this character area is part of the Belmont Regional Park, the first park in New Zealand to combine land for recreation, conservation and farming purposes. In pre-European times this would have been covered in podocarp forest. However, the elevated and open hilltops are now in pasture and grazed primarily by sheep. In the lower and more sheltered slopes and gullies, broadleaf indigenous hardwoods are present, although there are also large sections of gorse and broom and some pine plantations, particularly in the area to the east of Haywards Hill Road (SH58).

West of Haywards Hill Road, remnant native forest around Dry Creek includes pukatea, matai and kahikatea...

...

Easily accessible from Porirua and the Hutt Valley, the Belmont Hills including Belmont Regional Park, are popular for recreational activities such as walking, running, horse riding and mountain biking. Generally, development in the area is sparse, although the area surrounding Sweetacres Drive, Stratton Street and upper Kelson contains a number of small farms and lifestyle blocks.

Western Escarpment Character Area

The Western Escarpment character area includes the steep escarpment on the north-west side of the Hutt Valley from Riverstone Terraces in the north-east to Petone in the south-west. The Wellington fault line runs along the north-western edge of the Hutt Valley; the Belmont Hills have gradually been pushed up while the Eastern Hutt hills have gradually been tilted down, thus creating the Hutt Valley.

The Escarpment's steepness compared to the surrounding landscape makes it a very distinctive feature of the Hutt Valley and clearly defines the valley's western edge. At a more local scale, the Escarpment is fragmented by numerous steep gullies that drain the Western Hills, resulting in a topographically convoluted landscape.

...

Residential areas occupy approximately 37% of the character area with the remainder being 'undeveloped'. The escarpment generally has a dense cover of native and exotic woody vegetation, which adds to its distinctiveness as a landform and as backdrop to the wider Hutt Valley landscape. The vegetation comprises a mix of mature exotic trees such as macrocarpa and pine, patches of gorse, small areas of pine plantation, and regenerating podocarp / tawa forest particularly in the gullies where moist, fertile conditions have allowed a dense under storey to thrive.

...

Belmont Regional Park Landscape Assessment

A landscape assessment was undertaken in 1988 which described the broad landscape character areas which make up Belmont Regional Park⁸. Within this assessment, the northeast

⁸ Boffa Miskell (1988). *Belmont Regional Park Landscape Assessment*. Report prepared for Parks and Recreation Department, Wellington Regional Council.

area of Belmont Regional Park encompassing the Dry Creek Block which includes the Site, was identified as the Boulder Hill Character Area (see **Figure 6**).

This Boulder Hill Character Area includes all of the area to the east of the central ridge extending through the Park between Kelson and Haywards. Visually, this character area is recognised as being a significant feature in the Hutt Valley Landscape. It extends east to State Highway 2 and also includes the escarpment face from Haywards to Liverton Road.

2.4 Landscape Values

BML was engaged by Hutt City Council to complete the Hutt City Landscape Evaluation in 2016 which included identification of the Outstanding Natural Features and Landscapes within the Proposed Hutt City District Plan, none of which apply to the Site. The nearest outstanding natural landscape is the Rimutaka Ranges located approximately 10 kilometres east and well beyond the Eastern Hutt Hills.

As part of the Hutt City Landscape Evaluation, the Site was identified within the Belmont Hills Special Amenity Landscape (SAL). Following the completion of this draft, Hutt City Council did not include any statutory recognition of SAL in the District Plan, instead choosing to rely on the appropriate zoning and other district wide provisions to manage and maintain the identified values⁹. Council further noted that a SAL framework would have extended across both public open space and privately owned urban land and would have introduced additional consenting requirements in already modified areas.

For that reason, the draft SAL identification has been treated as background context only. It does not provide a statutory ONF/ONL or SAL classification for the Site. In addition, a Special Amenity Landscape is materially different from an Outstanding Natural Feature or Outstanding Natural Landscape. An ONF or ONL relates to section 6(b) of the RMA and concerns the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development. A SAL is an amenity-based landscape classification and is more closely associated with the maintenance and enhancement of amenity values and environmental quality.

Based on the above the Site is not considered to form part of any Outstanding Natural Features or Landscapes (ONFL), or Special Amenity Landscape (SAL). Notwithstanding this, a summary of the identified landscape values in the context of the wider landscape are set out below.

2.4.1 Physical

The Site and its context form part of the broader ancient and legible landform that reflects geomorphological processes associated with the Western Escarpment and the Wellington Fault Scarp. Modified landform, including rehabilitated benching, is primarily associated with the Belmont Quarry and Dry Creek Quarry.

Vegetation varies but more generally demonstrates a process of regeneration of native vegetation across the wider landscape. This includes fully vegetated gullies with regenerating native forests ranging from early to later seral stages that comprise tawa, kāmahī, mixed broadleaved species and tree ferns. Vegetation in some areas, including the Site itself, reflect past agricultural use where pine and macrocarpa are present. Less vegetated areas are largely associated with existing quarries.

⁹ Hutt City Council (2024) Section 32 Evaluation NATURAL FEATURES AND LANDSCAPES, para 113.

Built development and human modification are present in the area but remain limited in extent. These include the existing quarries, overhead transmission lines and towers, established vehicle and access tracks, old fence lines.

2.4.2 Perceptual

The wider area is part of the elevated green and natural backdrop to the Hutt Valley. The formative tectonic process which shaped this area of the Hutt Valley remain highly legible with a series of steep incised and vegetated gullies that enhance the legibility of the Western Escarpment within the context of the adjoining modified quarry landscape.

While part of the escarpment landform has been modified by existing quarry and overburden activities, and some nearby rural lifestyle development which reduce overall naturalness of the local landscape, the forested slopes and gullies adjacent to the quarry remain highly natural with little evidence of modification. Regenerating native vegetation reinforces a perceived level of naturalness within the broader Belmont Hills contributing to memorability and opportunities to experience wildlife and associated natural values.

2.4.3 Associative

The Site and its context forms part of the broader Belmont Regional Park that is recognised for conservation and transitioning farmland. Parts of the adjoining park are more highly recognised for their recreation opportunities which include a number of walking/hiking and mountain biking/cycling tracks, horse riding, camping, and picnicking.

Within the existing Belmont Quarry land holding, two identified QEII covenant land areas also support ongoing conservation and ecological value. These pieces of land will be added to the conservation estate through the Land Exchange.

Alongside Belmont Quarry, Firth Belmont Masonry and Holcim Cement Plant, located within approximately 1km northeast of the Site, reflect the area's continued industrial associations along the toe of the Western Escarpment. Dry Creek Quarry is also noted as a filming location for The Lord of the Rings.

The wider Belmont Hills and associated catchments form part of the ancestral landscape with deep cultural connection for Taranaki Whānui and Ngāti Toa Rangatira.

2.5 Mana Whenua Rights and Interests

The Site is located within the rohe of Taranaki Whānui ki Te Upoko o Te Ika and Ngāti Toa Rangatira and include settled historical Treaty of Waitangi claims. These indicate that the hill country above the Hutt Valley forms part of the wider cultural landscape associated with historic occupation, movement between harbour and inland areas, and the broader environmental setting of Te Upoko o te Ika (Wellington). Values relevant to this landscape assessment therefore include the hills' role as part of the harbour–valley cultural landscape, their relationship to historic Māori settlement and travel networks, and their association with iwi authority, resource use and identity within the wider Wellington region.

Winstone and iwi maintain ongoing engagement, which remains integral to shaping and the subsequent implementation of the project.

2.6 Summary of Context and Character

The Site occupies part of the western hills of Lower Hutt and part of the eastern flanks of the Belmont Hills within Belmont Regional Park. The Site is elevated above and west of the Wellington Fault scarp which physically and visually encloses much of the western edge of the Hutt Valley. It also occupies the area of existing extraction activity within Belmont Quarry.

Land cover across the Site is dominated by regenerating exotic and native vegetation including gorse, mahoe and scattered tree ferns, manuka, and broadleaf species. Pockets of mature pine and macrocarpa are also present on the more accessible ridgetop areas associated with its former agricultural use. Land use in the wider landscape includes recreation tracks which extend through Belmont Regional Park and connect into the Park entrance at Dry Creek. Overhead transmission lines also pass adjacent to the Site's northern boundary connecting with the Haywards substation.

The broader landscape containing the Site is recognised as part of the Belmont Hills at the district scale and Boulder Hill character area within Belmont Regional Park. This landscape is characterised by rounded hill tops and slopes which rise above the Wellington Fault scarp and extend east of a distinctive flat top central plateau separating the Hutt Valley from Porirua Harbour.

The Western Escarpment lies to the east of the Site and forms a more immediate backdrop to most residential development contained within the Hutt Valley. Near the Site, existing quarrying activity remains clearly apparent. Areas of rural lifestyle development have also extended on parts of the western hills beyond the existing quarry including rural lifestyle development to the north of Kelson.

2.7 Visual Appraisal

The process of visual appraisal includes an analysis of the likely visibility of the Site followed by site visits to identify the viewing audience and obtain representative photographs.

2.7.1 Visibility Analysis / Zone of Theoretical Visibility (ZTV)

As an initial step in the visual analysis, ZTV mapping was undertaken of the proposed overburden area to determine its potential visibility in the wider landscape. This analysis has been included in **Figure 11**.

ZTV mapping has been based on bare ground only and shows theoretical visibility of the existing ground level upon which the proposed overburden is located, as well as the final height of the proposed overburden once completed. It therefore represents a 'worst case scenario' in terms of potential views of the total extent of the proposed deposit overburden may be visible within the surrounding landscape. As this visibility analysis is based entirely on 'bare ground' topographic data, it does not consider the screening effects of intervening vegetation or structures in the landscape.

Where visible, only a small portion of the landform will be bare at one time, limited to separate overburden campaigns within identified stages. The proposal will continue to occur gradually over the Site, meaning the extent over which activity is visible will not all be visible at the same time. As overburden extend across the Site, completed area will be progressively re-established with vegetation and assimilate back within the surrounding landform and vegetation.

2.7.2 Viewing Audience and Representative Viewpoints

Along with the ZTV analysis, site visits were undertaken to determine the actual extent of visibility in the field and to check the localised screening effect of topography, built structures and vegetation. This helped to determine the potential visibility of the Site, which extends across adjoining areas of Belmont Regional Park and over longer distances from the northern edge of Kelson, Liverton Road and along the Eastern Hills of the Hutt Valley above Stokes Valley.

Representative viewpoints were identified from the nearest available publicly accessible viewpoints and reflect the nature of existing views. Photographs from each viewpoint were taken and used to demonstrate visibility of the proposed overburden within its landscape context. The representative viewpoints do not include views from private properties or the nature of progressive change over time. The selection of representative viewpoints has been based on the following criteria:

- The requirement to provide an even spread of representative viewpoints within the visual envelope;
- From locations which represent a range of near, middle and long distance views; and
- Whilst private views are relevant, public viewpoints are used to provide representative worse case views from private dwellings. Views from dwellings may also be curtailed by building location and orientation, intervening fences, vegetation or other buildings which cannot be assessed without gaining access to private property.

Using the above criteria, nine representative viewpoints were identified from which potential views have been considered. The locations of these viewpoints are illustrated together with ZTV analysis on **Figure 11** and summarised together with representative viewing audiences in **Table 1** below:

Table 1 Viewpoint location and represented viewing audience

Viewpoint	Location	Represented Viewing Audience	Extent of the Site Visible ¹⁰
1	Buchanans Road Tramping Track	Recreation users within Belmont Regional Park	Partial
2	Recreation track connecting with Kaitangata Crescent		Partial
3	Kaitangata Crescent	Residents of rural lifestyle dwellings to the north of Kelson	Partial
4	Liverton Road	Residents of rural lifestyle dwellings along Liverton Road	Glimpsed / No View
5	Pomare	Residents and commuters within the Hutt Valley floor	Glimpsed / No View
6	Aldersgate Grove	Residents and visitors to residential dwellings along the Eastern Hutt Hills	Partial
7	Eastern Hutt Road	Commuters along the Hutt Valley floor	Glimpsed

¹⁰ Extent of visibility assessed in terms of: Full View, Partial View, Glimpsed View, No View.

8	Lord Street	Residents and commuters through residential areas along the Eastern Hutt Hills	Partial
9	Fraser Park	Recreation users within the Hutt Valley floor	Glimpsed

3.0 Relevant Statutory Provisions

As part of this assessment, there are a number of planning provisions that are relevant to this project. Specifically, they include:

- *Fast Track Approvals Act 2024*
- *The Resource Management Act 1991 – notably s 6(a), 7(c) and 7(f).*
- *Regional Policy Statement for the Wellington Region*
- *Greater Wellington Region Natural Resources Plan*
- *Hutt City District Plan*
- *Proposed Hutt District Plan*
- *Reserves Act*
- *Toitū Te Whenua – Parks Network Plan*

3.1 Fast Track Approvals Act 2024

The Fast Track Approvals Act streamlines decision-making for selected infrastructure and development projects. Under this Act, Belmont Quarry Development is included as a Listed Project under Schedule 2 for which an assessment of the activity against Sections 5, 6 and 7 of the Resource Management Act is required under Schedule 5.

3.2 Resource Management Act

The relevant RMA provisions taken into account in this report are:

Section 5 - the purpose of the Act, which is to promote the sustainable management of natural and physical resources. This includes managing the use, development and protection of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety, while sustaining resources for future generations, safeguarding the life-supporting capacity of air, water, soil and ecosystems, and avoiding, remedying or mitigating adverse effects on the environment.

Section 6(a) – 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

Section 7(c) – the maintenance and enhancement of amenity values

Section 7(f) – the maintenance and enhancement of the quality of the environment

The Site contains several ephemeral streams which are proposed to be replaced. The effects on natural character will therefore need to be considered and are discussed in **Section 5.1** of this report.

In relation to amenity values, the Site forms part of the green backdrop above the Western Escarpment and with the broader Belmont Hills. The development of the proposed OBDA will require vegetation removal and will result in staged placement and rehabilitation of the proposed OBDA. The effects on visual amenity are discussed in **Section 5.3** and **Appendix 2** of this report.

3.3 Regional Policy Statement for the Wellington Region

The Wellington Regional Policy Statement (RPS) became operative on the 24 April 2013 and provides the current framework for the sustainable management of the region's natural resources. In 2022, Plan Change 1 to the RPS was proposed to account for new national direction and to address issues including climate change, indigenous biodiversity and high natural character in the region.

Within the RPS, Objective 17 is relevant to the Region's outstanding natural features and landscapes. Under this objective, Policies 25, 26 and 50 require the identification, protection and management of outstanding natural features and landscapes. Objective 18 refers to the Region's special amenity landscapes with Policies 27 and 28 referring to their identification and management.

No Outstanding Natural Features or Landscapes (ONFLs), or Special Amenity Landscapes (SALs) have been confirmed in this area in accordance with the RPS.

3.4 Greater Wellington Region Natural Resources Plan

The Natural Resources Plan was made fully operative on the 28 July 2023. As set out above, no ONFLs have been identified in the Site or its surroundings which are relevant to this application.

Policy P24, which addresses the preservation and protection of natural character from inappropriate use and development, is relevant to this application. For areas outside the coastal environment, Policy P24 distinguishes between wetlands, rivers, lakes and their margins with outstanding or high natural character, which are addressed under clauses (c) and (d), and other wetlands, rivers, lakes and their margins addressed under clause (e).

As noted below, the affected stream and gully context within the Site is not assessed as having outstanding or high natural character. Rather, the existing level of natural character is assessed as moderate. On that basis, clauses (c) and (d) of Policy P24 are not directly engaged, and the proposal is most appropriately considered under clause (e), which requires:

outside the coastal environment, avoiding, remedying or mitigating other adverse effects of activities on the natural character of wetlands, rivers, lakes and their margins that are not addressed under (c) or (d) of Policy P24.

3.5 Lower Hutt District Plans

The Site of the proposed overburden and its relationship with the City of Lower Hutt District Plan ('District Plan') is illustrated on **Figure 3: Statutory Context**.

Under the operative City of Lower Hutt District Plan, the proposed OBDA is located within the General Recreation Activity Area and Belmont Regional Park, adjoining the Extraction Activity Area that applies to the existing Belmont Quarry. The District Plan recognises that the Extraction Activity Area is surrounded by areas of low intensity use, which provide a buffer between quarrying activities and the nearest residential development at Kelson. This buffer assists in ensuring that the ongoing extraction of mineral resources is not unduly constrained by the close proximity of residential housing.

The operative District Plan provisions of particular relevance to this assessment include Objective 7A 1.1.3, which recognises Belmont Regional Park, and Objective 7A 1.1.4 and its associated policy, which seek to ensure that the adverse effects of non-recreational activities are no more than minor and do not adversely affect the open-space character and amenity values of Recreation Activity Areas.

Part of the proposed OBDA is also identified as Significant Natural Resource 3 (SNR3). Objective 14E 1.1 and Policies 14E 1.1(c)-(e) and (i) seek to protect significant natural resources from inappropriate use and development, including effects on their natural character, visual amenity, landscape values and intrinsic ecological values. These provisions are therefore relevant to the assessment of the proposed landform modification, vegetation removal and subsequent rehabilitation.

The earthworks provisions are also directly relevant. Objectives 14I 1.1 and 14I 1.2 and their associated policies seek to ensure that earthworks are sympathetic to natural topography, maintain natural features contributing to the City's landscape, protect the visual amenity of land forming part of the City's visual backdrop, and are appropriately rehabilitated to mitigate adverse visual effects.

At the existing quarry-park interface, Objectives 6D 1.1.1 and 6D 1.2.1 seek to avoid, remedy or mitigate the adverse effects of extraction activities and maintain and enhance visual amenity. Condition 6D 2.1.1(j) also requires indigenous vegetation to be maintained within the existing 25 m quarry buffer adjoining Belmont Regional Park. The notified Proposed District Plan included a related quarry setback control under Standard QUARZ-S4, although the associated overlay was not mapped at Belmont. These provisions provide relevant context for the existing quarry-park interface; they do not establish that quarrying is anticipated throughout the wider proposed OBDA.

The Proposed Hutt City District Plan is also relevant to this assessment. It was notified on 6 February 2025, and submissions are currently being heard by an independent hearings panel. The Proposed District Plan updates the operative planning framework, including replacing the operative Extraction Activity Area with a Special Purpose Quarry Zone applying to the existing quarry land.

The proposed overburden disposal area remains subject to the Proposed District Plan process, including submissions and hearings. Winstone has sought consequential amendments to the Proposed District Plan mapping and provisions to reflect the proposed land exchange and, if approved, the future use of the OBDA as part of the Belmont Quarry Development Project.

For the purposes of this landscape and visual assessment, both the operative and proposed district plan frameworks have therefore been considered. The operative plan remains the current statutory framework, while the Proposed District Plan provides relevant context

regarding the anticipated future planning framework for quarrying, open space, and the relationship between the existing Belmont Quarry, Belmont Regional Park and surrounding residential areas.

3.6 Reserves Act

The Department of Conservation has appointed Wellington Regional Council to control and manage the Dry Creek Block Recreation Reserve.

3.7 Toitū Te Whenua – Parks Network Plan 2020-30

Toitū Te Whenua sets out the current objectives and policies for Wellington's regional parks, including Belmont Regional Park.

The overall vision for the plan is:

'Restoring healthy ecosystems for the benefit of people and nature'. 'He waka eke noa', we're all in this together moving forward.

With respect to landscape values, a core value within Toitū Te Whenua states:

We value the maintenance and enhancement of a diversity of landscape settings for different experiences in nature

It is understood that once the land exchange is confirmed, the Site will no longer be within the Regional Park, and therefore the Parks Network Plan will no longer apply. Notwithstanding this, the ecological offset for the project will result in an enhancement of the Regional Park that is broadly consistent with this direction.

4.0 Proposal Description

The proposed OBDA will be located directly north of the existing Belmont quarry, covering a total area of approximately 15.7 ha. within a larger area of some 23.86ha. It will accommodate approximately 2.7 million cubic metres of overburden over approximately 40 years.

A main access road to the proposed OBDA will be initially developed through an extension of the internal haul road network to connect the northern quarry area to the OBDA footprint. The access road will be entirely contained within the operational footprint and sits in the centre of the OBDA area. Secondary internal access roads will be developed at each stage to provide access for enabling works and the subsequent construction of the OBDA.

Preliminary works will include the establishment of an access track along the alignment of the future central haul road. This access track will provide access to the northern boundary of the proposed OBDA extent to enable upgrading Transpower utility access road, installation of security fencing, signage and construction of planted bunds which contain the northern extent of the Site. The bund will be planted with native vegetation and will provide a physical buffer between the regional park users and activities associated with the OBDA development.

A stockpile area will be established within the OBDA footprint to store any topsoil removed from the Site and will remain as the main stockpile area until Stage 5. For each stage of the OBDA

development, enabling works will be required. These include the construction of temporary ESC, vegetation clearance, topsoil stripping and stockpiling.

4.1 Indicative Stages

The development of the OBDA will occur through a progressive staging process with a total of 10 development stages (see **Figures 9a-9b**). Each stage will be developed as a discrete and stable unit with progressive rehabilitation undertaken including topsoiling, stabilisation and revegetation of completed faces as soon as final design levels are achieved, limiting the extent of exposed surfaces at any one time. In general, the OBDA will be constructed to its final landform in the north before developing towards the south, with the final landform being RL 230m.

The staging of the OBDA works has been designed so that construction and revegetation adjacent to Belmont Regional Park are completed during the early stages of the OBDA, to limit impacts on users. As a consequence, the latter stages of the overburden development will be shielded from users within adjoining areas of the Regional Park by the earlier stages. The following table illustrates the sequence of changes to the landform across the ten stages.

Stage	Description
1	Northeastern ridge top up to RL 210m
2	Northwestern gully up to RL 210m
3	Northern extent (on top of Stages 1 and 2 foundations) up to RL 220m
4	Southeastern gully up to RL 200m
5	Southwestern gully up to RL 200m
6	Western extent up to RL 200m
7	Northern extent up to final RL 230m
8	Central and southern extent up to RL 220m
9	Central extent up to RL 230m
10	Final landform up to RL 230m

The development sequence is designed to keep within discrete water catchments where runoff will be directed internally to purpose-built sediment retention and fines containment facilities, specifically Stages 1, 2, 4 and 5. Once stabilised, clean surface water runoff from rehabilitated slopes may be discharged in a controlled manner to downstream ephemeral watercourses within the Te Awa Kairangi / Hutt River catchment, in accordance with approved erosion and sediment control measures and applicable regional consent conditions.

4.2 Site Rehabilitation

Site rehabilitation will be addressed as an integral part of the project. Final surfaces of each stage of the OBDA will be rehabilitated as soon as practicable once completed. The proposed stages of landform modification are illustrated on **Figures 9a and 9b**. Based on this configuration, the sequential completion of landform modification at each stage is illustrated on

Figure 10, informing the basis for which progressive rehabilitation will occur during the next available planting season and will typically be completed within two years of staged rehabilitation commencing. Works will include regrading final contours, applying topsoil to planting areas, hydroseeding and implementing patches of indigenous planting within the Managed Natural Regeneration area of each stage suited to the ecological zone. Plantings will provide groundcovers, shrubs, trees, and canopy species to support slope stability and ecological connectivity. Targeted pest plant and animal control will be in place to assist vegetation establishment.

Rehabilitation will be prepared in accordance with a landscape rehabilitation management plan which seeks to reintegrate the rehabilitated OBDA within the broader landscape. This should be developed in partnership with mana whenua. Key considerations in this plan will address geotechnical stability, ongoing restoration of ecological values, enabling future land use where practicable, and removing construction infrastructure.

5.0 Assessment of Effects

Landscape and visual impacts result from natural or induced change in the components, character or quality of the landscape. Usually these are the result of landform or vegetation modification or the introduction of new structures, facilities or activities. All these impacts are assessed to determine their effects on character and quality, amenity as well as on public and private views.

In this study, the assessment of potential effects is based on a combination of the landscape's sensitivity and visibility together with the nature and scale of the development proposal.

Particular effects considered relate to the following:

- Natural Character effects
- Landscape effects
- Visual amenity effects; and
- Potential cumulative effects.

5.1 Natural Character Effects

Natural character is generally highest where natural elements, patterns and processes remain least modified by human activity. Activities such as quarrying, vegetation clearance, stream reclamation and overburden placement can adversely affect natural character by modifying landform, hydrology, vegetation patterns and the legibility of natural processes. The significance of these effects depends on the scale and nature of the modification, the sensitivity of the receiving environment, and the extent to which natural character can be restored or enhanced over time.

Six ephemeral and intermittent streams are identified within the Site. These form part of local gully systems that drain towards perennial streams and short tributaries feeding Te Awa Kairangi / Hutt River along the Western Escarpment. While this landscape context is regenerating with indigenous vegetation, it is also modified by the operational quarry, nearby

State Highway, former agricultural land use, exotic conifers, and weed species. On that basis, the existing level of natural character within the affected stream and gully context is assessed as **moderate**.

The ecological assessment¹¹, identifies the OBDA Site as a modified but regenerating hill-country environment within the Wellington Ecological District and forming part of the Belmont-Dry Creek Key Native Ecosystem. The report notes that this ecological district was historically largely forested but has been substantially modified by farming and urbanisation, with pasture, gorse and regenerating shrublands now widespread. It also records that the Site and adjoining Belmont Regional Park would historically have supported tawa, kāmahī and podocarp forest, with the stream riparian systems and side gullies showing indications of former pukatea–swamp maire assemblages.

Within the OBDA Site, the ecological assessment identifies a mosaic of vegetation communities reflecting different stages of regeneration following former farming use. These include gorse shrubland, ridgeline exotic treeland, tree fern gully, early, middle and late seral broadleaf forest, mānuka mixed broadleaf forest, and a small area of natural inland wetland. The ecological assessment identifies that the OBDA Site has an overall moderate ecological value, with component values ranging from negligible to high depending on vegetation type, hydrological setting and the presence of species such as swamp maire and ramarama.

These ecological findings support the LEA that the baseline natural character of the affected stream and gully context is **moderate**. Natural elements, patterns and processes remain evident through the ephemeral and intermittent headwater drainage systems, damp gullies, regenerating indigenous shrubland and forest, and limited wetland habitat. However, these attributes occur within a modified setting influenced by historic farming, exotic vegetation, weed species, existing quarry activity and the broader modified edge of the Western Escarpment. The ecological assessment also notes that the ephemeral systems have functional importance in directing sub-catchment flows, while intermittent reaches are assessed as having low aquatic value and lower western perennial stream values as moderate. The higher-value central western gully and eastern main stem wetland contexts have been avoided by the OBDA footprint.

The proposed OBDA would require the staged clearance of approximately 9 ha of indigenous seral broadleaf shrub and forest over approximately 35 years, together with the reclamation of approximately 416 m of mostly intermittent streams. The footprint has been refined to minimise wetland loss, now approximately 0.07 ha, and to avoid the central western swamp maire gully. The proposal will therefore reduce the naturalness of the affected headwater gully systems during operation through vegetation clearance, landform modification, stream reclamation and overburden placement.

During operation, these changes will modify the abiotic and biotic attributes of the affected streams and gullies, including their existing drainage patterns, riparian vegetation, landform expression and regenerating indigenous vegetation cover. This will reduce the natural character of the directly affected areas and result in **low-moderate adverse** natural character effects. This rating recognises the direct modification of natural drainage and vegetation patterns, while also taking into account the modified baseline condition, the predominantly ephemeral and intermittent nature of the affected waterways, the staged construction sequence, the avoidance of higher-value gully and wetland areas, and the proposed rehabilitation and effects management measures.

¹¹ BlueGreen Ecology (6 May 2026) *Ecological Assessment Report: Overburden Disposal Area*, prepared for Winstone Aggregates

At closure, rehabilitation is proposed to restore indigenous vegetation communities and intermittent and ephemeral drainage functions across the OBDA. The long-term objective is to return the area to fully indigenous vegetation cover, including the revegetation of seral broadleaf, tree fern, mānuka and riparian/waterway areas. The ecological assessment is clear, however, that this will be a long-term process extending over approximately 35–40 years, with a time lag before full ecological function is restored.

Subject to successful implementation, monitoring and maintenance of the rehabilitation planting and stream replacement measures, the natural character of the OBDA will progressively improve following closure. Over time, the restored landform, drainage systems and indigenous vegetation cover will assist in re-establishing natural elements, patterns and processes within the upper catchment. On that basis, residual natural character effects are expected to reduce to very low, once rehabilitation has become established and the intended biophysical functions are rehabilitated, consistent with preserving at least **moderate** natural character overall.

5.2 Landscape Effects

5.2.1 Direct Landscape Effects (*or Physical effects*)

5.2.1.1 Landform

During operation, the proposed overburden will progressively modify the existing topography within an area of approximately 23.86 ha of Belmont Regional Park.

The modification of landform resulting from the proposed OBDA will occur over a long period of time, up to approximately 40 years. This will follow a pattern of incremental change across the Site, with each stage requiring a series of campaigns to place overburden which can occur over several years¹². The resultant landform will therefore change gradually rather than quickly and dramatically.

Typically, each overburden campaign will occur over a 6-month period and will provide additional cues that landform modification is occurring on the Site, including vehicle movement and potential views of exposed soil. While such activity will increase awareness of change, the total duration across the lifetime of the project will be limited.

During operation, each stage will be constructed on top of previously constructed stages. As individual stages reach their final design profile, external faces will be progressively topsoiled, stabilised and revegetated, providing a smooth overall appearance across the larger completed face.

At the base of the proposed overburden, the new landform will be tied into the existing topography and this provides an additional opportunity to replace ephemeral streams which will be covered as a result of the proposed works. Once completed, the overall form of the development will comprise steep-sided vegetated slopes and gullies consistent with the existing and adjoining landform. It will also provide opportunities to maintain and enhance ecological functions along the newly formed riparian areas.

As overburden placement extends across the Site, the landform will gradually increase in height and culminate along a gently rolling ridgetop spur. The completed ridgetop will be elongated and aligned south-east to north-west reflecting the grain of adjoining ridgetop spurs. The proposed landform will reach an RL of 230 at approximately 20 metres above the top of the

¹² Smaller campaigns can take 1-3 years to complete a stage, and 3-5 years for larger campaigns.

existing spur and up to approximately 50m above the existing landform at its deepest point (see **Figure 8**). In the broader landscape, the Site occupies part of a sequence of rolling ridges which are stepped back from the more visible face of the Western Escarpment and below the more elevated rolling ridgetops which include Boulder Hill which reaches an RL of 442 to the south-west.

In summary, during operation the nature of progressive and localised landform modification is expected to generate **low-moderate adverse** effects recognising the Site's containment within the broader eastern flank of the Belmont Hills within which such change will form a part. At completion, the landform across the Site will become increasingly assimilated within the surrounding rolling ridgetop topography and generate **low adverse** effects largely assimilated within the context of the surrounding rolling landforms.

5.2.1.2 Land cover

The existing conifers (*Pinus radiata* and *Cupressus macrocarpa*) will be removed as an initial stage of the development. Over the lifetime of the project, the remainder of the Site will be progressively cleared of its existing vegetation cover to accommodate the proposed overburden. This process will be followed by a gradual reinstatement of vegetation. An understanding of the progressive nature of vegetation cover which can be expected is illustrated in **Figure 13**. This shows the process of vegetation regeneration on overburden implemented on the adjoining Cottle Block to the west of Belmont Quarry.

Similar to the effects on landform, the loss of vegetation will typically occur incrementally across the Site over a number of years and will not occur suddenly and dramatically. During each stage of the proposal, successive overburden campaigns will enable a gradual cover of vegetation to be established on completed faces. This process of natural regeneration will be supported by areas of indigenous planting and subsequent enrichment planting to facilitate a more rapid succession towards indigenous forest cover following completion of the project.

The change in land cover within the Site will occur in the context of part of a broader area of regenerating vegetation which continues throughout much of the eastern area of the Belmont Hills, including in Belmont Regional Park. This land cover contributes to the green backdrop character along much of the Western Escarpment to the east of the Site that remains visible from the Hutt Valley. The removal of the existing exotic pine and macrocarpa trees above the Western Escarpment will remove any previous association with agricultural land use in this area via a sequence of landform modification and revegetation. Elsewhere, vegetation clearance will disrupt the progressive regeneration of vegetation of gorse and mahoe dominated scrub apparent in surrounding areas.

Whilst the removal of established vegetation and visibility of modified land will result in adverse landscape effects during operation, the process of rehabilitation and the visual greening which will occur ensures that the potential magnitude of such landscape effects will remain localised as land cover disturbance is progressively rehabilitated. The process of rehabilitation also provides an opportunity to provide beneficial effects in terms of establishing a diverse canopy of indigenous forest which will eventually replace the existing mahoe and gorse dominated scrub.

Vegetation of completed faces earlier in the process will become increasingly established as the deposit of overburden continues to progress across the remainder of the Site. Such change in vegetation will reduce from **low-moderate adverse** effects during the initial stages of operation and gradually improve through time as a regenerating native land cover is re-established. Over time when vegetation establishes, the project will result in **beneficial** effects on land cover, supporting the ongoing restoration of previously modified farmland.

5.2.2 Landscape Character Effects

Landscape character is derived from the distinct and recognisable pattern of elements that occur consistently in a particular landscape. It reflects the combinations of geology, landform, soils, vegetation, land use, watercourses and features of human settlement. It creates the unique sense of place defining different areas of the landscape.

The effects on landscape character of the proposed OBDA include:

- Disruption of the coherence of the underlying geology and resultant landform during operation;
- The progressive removal of existing vegetation and gradual deposit and rehabilitation of overburden within the Boulder Hill character area of Belmont Regional Park adjoining Belmont Quarry; and
- The reduction in associated visual amenity value contributing to wider green backdrop of the Belmont Hills seen from parts of Kelson and the Eastern Hutt Hills.

The placement of overburden within this area will result in the permanent modification of part of the eastern flank of the Belmont Hills. In landform terms, the affected area is contained above a series of steep-sided, more strongly vegetated slopes that extend down to local tributaries and perennial streams. These slopes rise to a rolling, elongated ridgetop that forms part of the broader Belmont Hills landform.

In land cover terms, the proposal will result in the permanent removal of an area of exotic pine and macrocarpa, as well as the interruption of regenerating vegetation processes that characterise much of the surrounding landscape. However, the proposed quarrying activity is not occurring in a pristine environment. Quarrying and overburden disposal are already apparent within this landscape, while overhead transmission lines and the proximity of Belmont Quarry also influence the character of the landscape in the vicinity of the Site.

During operation, change within the Site will occur gradually and progressively, adjoining the existing quarry. The resultant form and raw appearance of the overburden will therefore not appear foreign or unusual within this setting. As work continues through staged placement of overburden within the Site, vegetation will be re-established over completed areas. This process will enable disturbed areas to become gradually reassimilated within a wider vegetated landscape setting. Accordingly, adverse landscape character effects principally occur in relation to localised areas of disruption with **low-moderate adverse** effects. As each stage of the project is completed and extends into new areas, rehabilitation of completed faces will progressively reinstate any localised disruption of the wider green backdrop. In the longer term, the Site will progress towards a more diverse indigenous forest cover.

The nature of effects at completion will initially remain adverse, particularly given the apparent contrast between the proposed overburden and the nature of ongoing regenerating vegetation which will have otherwise established. Given the limited landscape impact in the context of the broader form and backdrop of the Belmont Hills and the progressive changes to landscape character, any adverse effects will initially be **low**. As rehabilitated areas become established, apparent changes will reduce and gradually become **neutral** as the Site becomes increasingly rehabilitated and successfully absorbed within the surrounding green backdrop.

5.3 Visual Effects

Visual amenity effects are influenced by several factors including the nature of the proposal, the landscape absorption capability and the character of the Site and the surrounding area. Visual

amenity effects are also dependent on distance between the viewer and the proposal, the complexity of the intervening landscape and the nature of the view.

As set out in Section 2.7.1, the following visual effects assessment has included a ZTV analysis, site visits and generation of visual simulations to identify the location and nature of available views including an understanding of anticipated changes through time. It must be emphasised that any views of a development do not necessarily equate to visual effects. Visual effects are not always negative and a change in view is not automatically unacceptable or adverse.

To help understand the extent where the completed overburden may be visible, indicative visual simulations of the OBDA at completion have been prepared from each representative viewpoint as set out in **Section 2.6**. These are based on detailed contour and spot height information (1.0m contours for the proposed overburden and immediate environs). Simulations are included with panorama photographs of the existing site to show the extent of completed overburden visible from Viewpoints 1 to 9.

Whilst indicative visual simulations show the full extent of overburden visible at completion, rehabilitation of the proposed overburden forms an integral part of the proposed development which will affect the potential nature and significance of visual effects. The completion of each overburden campaign will facilitate a gradual sequence of re-establishing vegetation across completed areas. Depending on the location and staging, the extent of visibility and consequent level of visual effect will change throughout the life of the project. Rehabilitation will ensure that the raw appearance of the overburden placed during operation will be progressively revegetated. A detailed description of the nature and changes in view anticipated from each viewpoint during the staged development as proposed is set out in **Appendix 2** alongside **VP 2a - 2k** which show the expected change through time during each stage as seen from **Representative Viewpoint 2**.

5.3.1 Visual Effects Summary

The progressive nature of the OBDA will be visible from a range of locations, including viewpoints within Belmont Regional Park, adjoining residential areas along the western margins of the Hutt Hills, longer-distance views from the Eastern Hutt Hills, and more limited parts of the Hutt Valley floor. The level of visual effect varies between viewpoints and across different stages of the proposal, depending on viewing distance, elevation, orientation, and the degree to which intervening landform and vegetation screen or filter views, or progressively rehabilitate the proposed development.

5.3.2 Recreational Tracks

The most notable visual effects from publicly accessible recreational areas occur from viewpoints within Belmont Regional Park and users of recreation tracks travelling through the western hills. These are generally middle-distance transient views, in the order of approximately 400 m to 1.4 km, where the Site is elevated and partially visible, as represented by Viewpoints 1 and 2. Overall, visual effects from these locations are assessed as minor adverse in RMA terms (highlighted green below).

From **Viewpoint 1**, taken along the Buchanans Road Tramping Track within adjoining areas of Belmont Regional Park, early stages of the proposal (Stages 1 to 3) will be visible as a result of conifer removal and the progressive placement of overburden within the northern part of the Site. This will give rise to **low-moderate adverse visual effects**, particularly where these works are less screened by intervening landform or regenerating vegetation. For users of the

Buchanans Road Tramping Track, views toward the OBDA will generally be transient and variably filtered, including by the amenity bunds in closer proximity to the Site, and by regenerating vegetation within the park. Viewpoint 1 represents a more static location from within a clearing where the OBDA can be more directly appreciated. As development progresses through latter stages (Stages 4 to 10), and rehabilitation becomes more established, visual effects reduce from **low-moderate** to **very low adverse**, with ongoing activity becoming increasingly contained within a cohesive pattern of expanding native vegetation.

From **Viewpoint 2**, along the recreation track connecting with Kaitangata Crescent, early-stage effects are more limited, with **glimpsed to partial views** of vegetation removal and overburden deposition during Stages 1 to 3 resulting in **low adverse visual effects**. The removal of existing conifers will be apparent initially, after which overburden placement will become increasingly visible from Stage 2 onward. Visual effects increase to **low-moderate adverse** in later stages (Stages 4 to 10), as the exposed faces of the OBDA within the central and southern parts of the Site become more apparent, before reducing again to **low adverse** at closure once rehabilitation planting has become established across the rounded landform.

In relation to mitigation, visual effects from recreational users are reduced in the first instance through the retention and use of intervening landform, including the proposed amenity bund, which assists in screening lower parts of the operation from nearby tracks and local viewing areas. This is complemented by the progressive staging of the OBDA, such that overburden deposition and rehabilitation occur incrementally rather than across the full extent of the site at once. That approach limits the extent of exposed landform visible at any one time and enables indigenous rehabilitation to progressively soften and integrate the developing landform within the surrounding park and escarpment context over the life of the project.

5.3.3 Residential Areas

Visual effects from nearby residential areas are generally associated with dwellings and local streets adjoining the western hills, particularly around Kaitangata Crescent and Liverton Road.

From **Viewpoint 3**, representing views from Kaitangata Crescent, the proposal will result in **low adverse visual effects** during the earlier stages of development. These effects increase to **low-moderate adverse** in later stages as a larger and flatter portion of the OBDA becomes visible. At closure, effects reduce to **low adverse**, as the completed landform and re-established native vegetation allow the OBDA to read more as part of the broader vegetated Belmont Hills backdrop.

From **Viewpoint 4**, representing Liverton Road, views of the OBDA will generally be screened or filtered by intervening landform and vegetation. Some dwellings may obtain glimpsed or partial views of later stages, with effects reaching low adverse at worst before reducing to very low adverse to neutral at closure. From **Viewpoint 5**, representing Pomare and the Hutt Valley floor, the OBDA will remain largely concealed and visual effects are assessed as neutral.

With respect to mitigation for residential receivers, the proposal has been designed so that the more visually exposed components of the OBDA are managed through staged development, avoiding a scenario in which the full extent of overburden placement is simultaneously visible. Over time, progressive rehabilitation of completed surfaces will further reduce visual contrast by breaking down the apparent extent of exposed overburden and re-establishing a vegetated landform that is more readily assimilated with the broader Belmont Hills.

5.3.4 Broader Landscape Context

Within the wider landscape setting, the OBDA will also be visible in longer-distance views from the Eastern Hutt Hills and, to a more limited extent, from parts of the Hutt Valley floor. While visible from some locations, the proposal will generally be perceived as part of the broader modified and vegetated Western Escarpment backdrop, particularly as rehabilitation progresses.

From **Viewpoint 6**, located on Aldersgate Grove within the Eastern Hutt Hills, the OBDA will result in **low adverse visual effects** in earlier stages, increasing to **low-moderate adverse** as greater volumes of overburden are deposited and remain visible prior to rehabilitation. Over time, however, the OBDA will continue to sit below the skyline and within the vegetated Western Escarpment, such that at closure it becomes well integrated within the broader Belmont Hills, resulting in **very low adverse visual effects**. A similar pattern occurs from **Viewpoint 8**, although views are more distant and south-west facing, with effects remaining **low adverse** overall.

From the more distant viewpoints on the **Hutt Valley floor**, represented by **Viewpoints 7 and 9**, the OBDA will not be visible during early stages (Stages 1 to 3), when development is entirely concealed by intervening landform. In later stages (Stages 4 to 10), the proposal becomes discernible from some locations, resulting in **very low to low adverse visual effects**. At closure, these effects reduce to **very low adverse** or return to **neutral**, once rehabilitation is established and the landform becomes more visually integrated with the wider landscape context.

In the wider landscape context, mitigation relies less on close-range screening and more on shaping how the proposal is perceived over time within the broader escarpment setting. The **progressive staging** of the OBDA limits the extent of exposed surfaces visible in any one period, while ongoing rehabilitation assists in ensuring that the landform increasingly reads as part of the wider vegetated hillslope pattern rather than as a stark or unresolved earthworks feature. Taken together, these measures assist in containing visual change and in improving the degree to which the completed landform is integrated into the larger Belmont Hills landscape.

Based on the above, and the more detailed analysis of visual change over the life of the project set out in **Appendix 2**, a summary of effects during each stage and at project closure is provided in the table below.

Table 2 Summary of visual effects from representative viewpoints

Viewpoint	Stages	Level of effect	Nature of effect
Viewpoint 1: Buchanans Road Tramping Track	1 - 3	Low-Moderate	Adverse
	4 - 6	Low-Moderate	Adverse
	7 - 10	Very Low to Low	Adverse
	Closure	Very Low	Adverse
Viewpoint 2: Recreation track with Kaitangata Crescent	1 - 3	Low-Moderate	Adverse
	4 - 6	Low-Moderate	Adverse
	7 - 10	Low-Moderate	Adverse
	Closure	Low	Adverse
Viewpoint 3: Kaitangata Crescent	1 - 3	Low	Adverse
	4 - 6	Low-Moderate	Adverse
	7 - 10	Low-Moderate	Adverse
	Closure	Very Low	Adverse
	1 - 3	Very Low	Adverse / Neutral

Viewpoint	Stages	Level of effect	Nature of effect
Viewpoint 4: Liverton Road	4 – 6	Low	Adverse / Neutral
	7 – 10	Very Low	Adverse / Neutral
	Closure	Very Low	Adverse / Neutral
Viewpoint 5: Pomare	1 – 3	-	Neutral
	4 – 6	-	Neutral
	7 – 10	-	Neutral
	Closure	-	Neutral
Viewpoint 6: Aldersgate Grove	1 – 3	Low	Adverse
	4 – 6	Low	Adverse
	7 – 10	Low-Moderate	Adverse
	Closure	Very Low	Adverse
Viewpoint 7: Eastern Hutt Road	1 – 3	-	Neutral
	4 – 6	Very Low	Adverse
	7 – 10	Very Low	Adverse
	Closure	-	Neutral
Viewpoint 8: Lord Street	1 – 3	Low	Adverse
	4 – 6	Low	Adverse
	7 – 10	Low	Adverse
	Closure	Very Low	Adverse
Viewpoint 9: Fraser Park	1 – 3	-	Neutral
	4 – 6	Very Low	Adverse
	7 – 10	Low	Adverse
	Closure	-	Neutral

5.4 Potential Cumulative Effects

When considering the potential cumulative effects in relation to the proposed OBDA development with the existing Belmont Quarry, the proposed OBDA will be positioned immediately adjacent to an already modified quarry landscape (within a quarry zone) and in proximity of a rehabilitated OBDA within the Cottle Block. The design of the proposal will ensure the engineered landform of the proposed OBDA will appear similar to this adjoining ridgetop spur within the Belmont Hills and integrate into the broader rolling ridgetop landscape. Progressive rehabilitation will limit the overall exposed OBDA faces seen during each stage of work. The proposal will therefore be read as a localised continuation of the existing quarry activity contained above the Western Escarpment and will gradually become physically and visually assimilated into the broader landscape once rehabilitation establishes. As a result, any adverse cumulative effects are assessed to be **low**.

5.5 Effects against Statutory Landscape Planning Context

The relevant statutory provisions identified in Section 3 require consideration of the proposal's effects on natural character, amenity values, landscape character, visual amenity and the quality of the environment. The Site is not identified as an ONFL, and no confirmed SAL applies to the Site. The relevant effects are therefore not associated with the protection of an identified outstanding or special amenity landscape, but instead relate to the Site's existing landscape character, its contribution to the amenity values of the Belmont Hills and Western Escarpment areas, and the natural character of affected stream and gully systems.

In relation to natural character, the proposal will affect mainly ephemeral and intermittent headwater streams, a small area of wetland (0.07 ha.), associated gully landforms, wetland margins and regenerating indigenous vegetation. These matters are relevant to section 6(a) of the RMA and Policy P24 of the Natural Resources Plan. The affected stream and gully context is assessed as having moderate natural character, rather than high or outstanding natural character. On that basis, as noted above, the proposal is most appropriately considered in terms of Policy 24(e) of the Natural Resources Plan which requires the proposal to avoid, remedy or mitigate adverse effects on areas that have less than high natural character. The proposal has already avoided the higher-value central western swamp maire gully and eastern main stem wetland contexts, minimised wetland loss to the extent practicable, and includes stream and wetland replacement, riparian restoration and progressive indigenous revegetation. While natural character effects will be low-moderate adverse during operation, these effects are expected to reduce to very low once rehabilitation is established and the intended drainage and riparian functions are restored.

In relation to amenity values and the quality of the environment, the proposal will result in the permanent modification of part of the eastern flank of the Belmont Hills through the staged placement of overburden and removal of existing vegetation. This will affect local landscape character and visual amenity, particularly during those stages where exposed works and the developing landform are visible from nearby parts of Belmont Regional Park, rural-residential properties and longer-distance views from the Hutt Valley and Eastern Hutt Hills. However, the Site is located adjacent to the existing Belmont Quarry and is already influenced by both active and historic quarry activity, overburden disposal, overhead transmission lines, exotic vegetation and previous rural land use. The proposed landform has also been designed to tie into the broader rolling ridgetop sequence and will be progressively stabilised and revegetated.

Having regard to both the operative and proposed district plan context, and while placing significantly greater weight on the former the proposal sits at the interface between established quarry activity, open space land and more distant lower-intensity residential uses. The Operative District Plan recognises the existing quarry environment and its relationship with surrounding low-intensity land uses. These provisions do not remove the need to assess adverse landscape and visual effects, but they provide important context for understanding the character of the receiving environment and the extent to which quarry-related modification is already part of this local landscape.

Overall, the proposal will result in adverse natural character, landscape and visual effects during operation, with the greatest effects occurring before rehabilitation planting has established. These effects are assessed as **low-moderate** at worst and are reduced by the Site's modified setting, the relatively contained nature of the OBDA, the staged construction sequence, avoidance of higher-value gully and wetland areas, progressive rehabilitation and stream / wetland replacement and long-term indigenous revegetation. On that basis, the proposal is considered to respond appropriately to the relevant landscape, natural character and visual amenity matters arising from the statutory planning framework.

6.0 Recommendations

As set out above, a key landscape outcome requires the proposed OBDA to be progressively rehabilitated to facilitate native revegetation on completed faces and riparian corridors as part of a sequential, staged construction process. Following review of the final draft conditions of

consent, those conditions are considered to appropriately reflect and give effect to the recommendations set out below:

A. Park interface, access and bund

1. Buchanans Road Track and Bund (pre-works requirement)

Prior to any bulk earthworks for Stage 1, the consent holder shall:

- Ensure signage is redirected from the Site along the existing Buchanans Road Tramping Track within Belmont Regional Park; and
- Construct and plant bunds located over the existing access track with native vegetation to provide a visual and physical buffer separating adjoining areas.

B. Plans, staging and shaping

2. Approved plans / staging

The OBDA shall be developed to be in general accordance with the 10-stage sequence described in the LEA (north constructed and rehabilitated early, then progressing south), so that later stages are screened from Belmont Regional Park by earlier stages.

3. Stage completion and stability

Each stage shall be developed as a discrete and stable unit, with progressive rehabilitation undertaken on final design levels once achieved, to limit the extent of exposed surfaces at any one time.

4. Shaping

Final OBDA landform shaping shall provide plantable and maintainable slopes, generally no steeper than 1V:2H where relied on for rehabilitation planting, unless otherwise certified as suitable for long-term revegetation, maintenance and stability.

Final shaping of Stage 10 shall provide a rounded, naturalised ridgetop form that responds to the surrounding Belmont Hills landform character and avoids an overly engineered or benched appearance when viewed from surrounding public and residential viewpoints.

C. Progressive rehabilitation and planting

5. Staged Rehabilitation Plans shall be developed in partnership with mana whenua.

6. Rehabilitation shall be implemented as an integral part of the project. As soon as any final landform surface is completed within each successive stage, it shall be stabilised and hydroseeded, with indigenous planting undertaken during the next available planting season. Rehabilitation of each completed surface shall be implemented within 12 months of it reaching its final design level, unless otherwise agreed through the certified rehabilitation plan.

7. Rehabilitation Staging

- Prior to commencing each stage, provide an Interim Rehabilitation and Planting Plan describing progressive landscape rehabilitation methods for completed areas subject to rehabilitation, including, topsoil handling, hydroseeding approach, planting areas, enrichment planting, species mix principles, and maintenance/monitoring.
- Rehabilitation to allow for natural regeneration of vegetation upon final surfaces and include patches of indigenous species suited to the ecological zone to support natural succession. Planting shall generally accord with the Landscape Strategy set

out in Figure 10 of the LEA and facilitate a structured mix of Managed Natural Regeneration, Active Indigenous Planting comprising groundcovers, shrubs and trees, and Enrichment Planting implemented at 5 years following completion of the final landform to support canopy species to support slope stability and ecological connectivity.

- Active indigenous planting areas shall avoid straight or geometric edges where practicable. Planting edges shall be feathered through irregular clusters and scattered enrichment planting to assist with naturalistic integration into adjoining managed natural regeneration areas.
- Following completion of the final stage of the OBDA (Stage 10), the Consent Holder shall complete the final rehabilitation works in accordance with a certified Long Term Rehabilitation Plan. Monitoring and maintenance shall continue, with any deficiencies remediated in accordance with the stage rehabilitation requirements, until the applicable rehabilitation performance standards have been achieved.

D. Riparian creation and stream reinstatement

8. Riparian creation

Riparian creation shall be implemented as part of the progressive rehabilitation of the OBDA, with particular focus on reinstated intermittent and ephemeral stream margins and associated drainage paths. Riparian planting shall be designed to assist the naturalisation of the reinstated stream corridors, support slope stability, provide shade and organic matter inputs, and visually integrate the new drainage patterns with the surrounding regenerating Belmont Hills landscape.

9. Riparian planting requirements

The Interim Rehabilitation and Planting Plan for each relevant stage shall identify the location, extent and indicative width of riparian planting associated with reinstated stream margins. Planting shall comprise indigenous riparian species suited to the ecological setting and shall include an appropriate mix of groundcovers, sedges/rushes, shrubs and small trees to support long-term stream margin stability and ecological succession. Riparian planting shall be implemented during the first available planting season following completion and stabilisation of the relevant stream margin or final landform surface.

10. Riparian establishment and maintenance

Riparian planting shall be maintained until it is sufficiently established to contribute to stream margin stability, shading, weed suppression and the progressive naturalisation of the reinstated stream corridors. Maintenance shall include replacement planting, weed control, pest animal control and enrichment planting where required. Monitoring shall record riparian plant survival, groundcover, weed presence, erosion or instability, and any remedial works required to achieve the rehabilitation objectives.

E. Monitoring, maintenance, and adaptive management

11. Pest plant and animal control

A targeted programme of pest plant and animal control shall be implemented to support rehabilitation establishment.

12. Maintenance and replacement

All rehabilitation areas (including the bund and riparian planting) shall be maintained,

with replacement / enrichment planting as required, until the rehabilitation objectives are achieved and the landform is visually and physically stabilised.

13. Rehabilitation performance standards

The Rehabilitation Plans shall include measurable performance standards (e.g., vegetation establishment/survival, groundcover, weed thresholds, stability outcomes) and timeframes for achievement. Standards should be set so that the rehabilitated OBDA is completed progressively and increasingly assimilated with the wider regenerating Belmont Hills landscape.

14. Reporting

Provide an annual rehabilitation report (for the life of the consent and until closure sign-off) summarising:

- stage(s) completed that year;
- areas hydroseeded/planted;
- maintenance undertaken (including pest control);
- monitoring results against performance standards; and
- any adaptive management / remedial works proposed and completed.

7.0 Conclusions

The proposal is to accommodate overburden within an area of land exchanged from within Belmont Regional Park adjoining the existing Belmont Quarry across ten progressive stages of works spanning approximately 40 years.

The Site is approximately 23 hectares in area comprising a ridgetop spur containing areas of pines and macrocarpa surrounded by regenerating vegetation dominated by mahoe and other regenerating native vegetation through gorse. The placement of the overburden and modification of the existing landform will occur incrementally over a long period of time. When each stage of overburden campaign is completed, it will be progressively rehabilitated and planted, becoming sympathetic within the surrounding vegetated rolling ridgetop landforms which is characteristic of the Belmont Hills.

In natural character terms, there will be **low-moderate adverse effects** during operation as ephemeral streams forming the headwaters of tributaries of the Hutt River along the Western Escarpment are reinstated alongside the completed landform and riparian vegetation along the footprint of the OBDA. As stream margins and drainage paths are progressively re-established, natural character effects will reduce, with residual effects expected to be **very low** at closure once naturalised intermittent and ephemeral drainage functions and riparian vegetation are established.

In terms of landscape effects, the change in landform as a result of the proposal will occur incrementally and are limited in scale relative to the broader Belmont Hills context. The proposal extends an existing pattern of quarry-related modification but confines it to a localised area already influenced by human activity. Progressive revegetation will soften engineered landforms and support long-term integration with the wider regenerating landscape. Landscape effects are

assessed as **low-moderate adverse** during operation, reducing to **low adverse** at completion and becoming **neutral or beneficial** as vegetation establishes.

In terms of visual effects, these vary across different viewing audiences depending on the nature of views of the Site. The greatest effects occur from nearby elevated locations within Belmont Regional Park, and from parts of Western and Eastern Hutt Hills. This will result in **low-moderate (minor) adverse** when the proposed OBDA becomes most visible. As rehabilitation plantings become established then mature, the proposal will become visually coherent with the wider pattern of green and vegetated slopes and ridgelines, resulting in less than minor, **low** or **very low adverse** visual effects at closure.

Appendix 1: Method Statement

This assessment method statement is consistent with the methodology (high-level system of concepts, principles, and approaches) of 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022. The assessment provides separate chapters to discuss landscape, visual and natural character effects where relevant, but is referred to throughout as a Landscape Effects Assessment in accordance with these Guidelines. Specifically, the assessment of effects has examined the following:

- The existing landscape;
- The nature of effect;
- The level of effect; and
- The significance of effect.

The Existing Landscape

The first step of assessment entails examining the existing landscape in which potential effects may occur. This aspect of the assessment describes and interprets the specific landscape character and values which may be impacted by the proposal alongside its natural character where relevant as set out further below. The existing landscape is assessed at a scale(s) commensurate with the potential nature of effects. It includes an understanding of the visual catchment and viewing audience relating to the proposal including key representative public views. This aspect of the assessment entails both desk-top review (including drawing upon area-based landscape assessments where available) and field work/site surveys to examine and describe the specific factors and interplay of relevant attributes or dimensions, as follows:

- **Physical** –relevant natural and human features and processes;
- **Perceptual** –direct human sensory experience and its broader interpretation; and
- **Associative** – intangible meanings and associations that influence how places are perceived.

Engagement with tāngata whenua

As part of the analysis of the existing landscape, the assessment should seek to identify relevant mana whenua values (where possible) and describe the nature and extent of engagement, together with any relevant sources informing an understanding of the existing landscape from a Te Ao Māori perspective.

Statutory and Non-Statutory Provisions

The relevant provisions facilitating change also influence the consequent nature and level of effects. Relevant provisions encompass objectives and policies drawn from a broader analysis of the statutory context and which may anticipate change and certain outcomes for identified landscape values.

The Nature of Effect

The nature of effect assesses the outcome of the proposal within the landscape. The nature of effect is considered in terms of whether effects are positive (beneficial) or negative (adverse) in the context within which they occur. Neutral effects may also occur where landscape or visual change is benign.

It should be emphasised that a change in a landscape (or view of a landscape) does not, of itself, necessarily constitute an adverse landscape effect. Landscapes are dynamic and are constantly changing in both subtle and more dramatic transformational ways; these changes are both natural and human induced. What is important when assessing and managing landscape change is that adverse effects are avoided or sufficiently mitigated to ameliorate adverse effects. The aim is to maintain or enhance the environment through appropriate design outcomes, recognising that both the nature and level of effects may change over time.

The Level of Effect

Where the nature of effect is assessed as 'adverse', the assessment quantifies the level (degree or magnitude) of adverse effect. The level of effect has not been quantified where the nature of effect is neutral or beneficial. Assessing the level of adverse effect entails professional judgement based on expertise and experience provided with explanations and reasons. This adopts a universal seven-point scale from very low to very high consistent with Te Tangi a te Manu Guidelines and reproduced below.

VERY LOW	LOW	LOW-MOD	MODERATE	MOD-HIGH	HIGH	VERY HIGH
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Landscape Effects

A landscape effect relates to the change on a landscape's character and its inherent values and in the context of what change can be anticipated in that landscape in relation to relevant zoning and policy. The level of effect is influenced by the size or spatial scale, geographical extent, duration and reversibility of landscape change on the characteristics and values within the specific context in which they occur.

Visual Effects

Visual effects are a subset of landscape effects. They are consequence of changes to landscape values as experienced in views. To assess where visual effects of the proposal may occur requires an identification of the area from where the proposal may be visible from, and the specific viewing audience(s) affected. Visual effects are assessed with respect to landscape character and values. This can be influenced by several factors such as distance, orientation of the view, duration, extent of view occupied, screening and backdrop, as well as the potential change that could be anticipated in the view as a result of zone / policy provisions of relevant statutory plans.

Natural Character Effects

Natural Character, under the RMA, specifically relates to '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'. Therefore, the assessment of natural character effects only involves examining the proposed changes to natural elements, patterns and process which may occur in relevant landscape / seascape contexts.

As with assessing landscape effects, the first step when assessing natural character effects involves identifying the relevant physical and experiential characteristics and qualities which occur and may be affected by a proposal at a commensurate scale. This can be supported through the input of technical disciplines such as geomorphology, hydrology, marine, freshwater, and terrestrial ecology as well as input from tāngata whenua. An understanding of natural character considers the level of naturalness and essentially reflects the current condition of the environment assessed in relation to the seven-point scale. A higher level of natural character means the waterbody and/or margin is less modified and vice versa.

A natural character effect is a change to the current condition of parts of the environment where natural character occurs. Change can be negative or positive. The resultant natural character effect is influenced by the existing level of naturalness within which change is proposed; a greater level of effect will generally occur when the proposal reduces the naturalness of a less modified environment. In short, the process of assessing natural character effects can be summarised as follows:

- Identify the characteristics and qualities which contribute to natural character within a relevant context and defined spatial scale(s), including the existing level of naturalness;
- Describe the changes to identified characteristics and qualities and the consequent level of natural character anticipated (post proposal); and
- Determine the overall level of effect based on the consequence of change.



The Significance of Effects

This assessment has adopted the following scale applied to relevant RMA circumstances¹³ (refer to diagram below), acknowledging low and very low adverse effects generally equate to 'less than minor' and high / very high effects generally equate to significant¹⁴.



¹³ Seven-point level of effect scale. Source: Te tangi a te Manu, Pg. 151

¹⁴ The term 'significant adverse effects' applies to specific RMA situations, including the consideration of alternatives for Notices of Requirement and AEEs, as well as assessing natural character effects under the NZ Coastal Policy Statement.

Appendix 2: Visual Effects Assessment

Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
Viewpoint 1: Belmont Regional Park (400 metres from the Site)	Buchanans Road Tramping Track	From here, the proposed overburden would occupy an existing conifer covered spur beyond existing transmission towers and below a more distant backdrop of the Eastern Hutt Hills.	1-3	Stage 1 will be largely concealed within the existing landform with the exception of the removal of conifers while aspects of Stage 2 including the removal of vegetation and deposit of overburden will become partially visible. Stage 3 will experience an evident but progressive areas of exposed landform in the northern extent of the Site becoming gradually embedded within established vegetation within a broader vegetated framework and more expansive views across the Hutt Valley.	Low-moderate Adverse
			4-6	Stages 4 and 5 will be largely concealed beyond the engineered landform resulting from earlier stages, where glimpses of Stage 6 will be available as works progress in the southwestern extent of the Site. Re-vegetation on the northern faces will become increasingly established and soften the visible extent of the OBDA as views within the intervening Regional Park becomes increasingly more established.	Low-moderate Adverse
			7-10	During Stage 7, the topography in the northern extent of the OBDA will be visible as the OBDA raises from RL 220m to RL 230m. The extension will be viewed above the vegetated lower slopes of the OBDA that have been rehabilitated throughout previous stages. In latter stages (Stages 8 to 10), the overburden development will remain largely concealed beyond the landform resulted from previous stages, with glimpses of Stage 9 being available. Considering much of the visible faces resulted from Stage 7 will become established and soften the engineered landform of the OBDA.	Low Adverse
			Closure	At closure, rehabilitation vegetation will be established and the OBDA will become visually assimilated with the broader vegetated Belmont Regional Park. It will appear contiguous with the revegetated regional park and will continue to be backdropped by the Eastern Hutt Hills.	Very Low Adverse
Viewpoint 2: Belmont Regional		From this viewpoint, changes resulting from the proposed OBDA will be	1-3	Stage 1 will remain largely concealed by existing landform and intervening vegetation with the removal of some existing mature pine trees the only element likely to remain visible. Aspects of the project will	Low-moderate Adverse

¹⁵ Level of Effect: Very Low, Low, Low-Moderate, Moderate, Moderate-High, High, Very High

Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
Park (950 metres from the Site)	Recreation track connecting with Kaitangata Crescent	visible during most stages, ranging from glimpsed to partial views.		become more visible during Stages 2 and 3 where partial views of the removal of vegetation and the deposit of overburden will be available in progressive stages. Up to Stage 3, the development of the overburden is confined within the northern extent of the Site.	
			4-6	Overburden development during Stage 4 within the southeastern gully will be largely concealed by existing landform, whereas Stage 5 OBDA development will be partially visible from this orientation but seen in the context of the existing Belmont Quarry. At the same time, rehabilitation vegetation implemented on the exposed faces within the northern extent of Site will become increasingly established, softening the engineered landform. Overburden development during Stage 6 will result in a larger visible footprint of the OBDA as deposit of overburden progresses towards the central extent of the Site. During this stage, the viewing audience from this location will see a lifted landform above the rehabilitating faces of Stages 1 to 3.	Low-moderate Adverse
			7-10	During Stage 7, the northern extent of the OBDA will be visible as the OBDA raises from RL 220m to RL 230m. The extension will be viewed with the vegetated lower slopes of the OBDA that have been rehabilitated throughout previous stages. Stage 8 will result in an evident change in views as works progressively extend towards the south and the removal of vegetation will be visible. A further change in topography within the central and southern extent of the Site will continue to be visible from this viewpoint during Stages 9 and 10. At the same time, the engineered landform of the northern extent and lower slopes of the central and southern extent of the OBDA will become visually naturalised as rehabilitation plantings become established in the latter stages.	Low-moderate Adverse
			Closure	At closure, the exposed faces of the OBDA will be established with native plantings and form part of the vegetated outlook of the Belmont Hills. Views of the Site will appear beyond existing transmission towers and below a more distant backdrop and skyline which includes the Eastern Hutt Hills and the more distant Rimutaka Ranges.	Low Adverse
Viewpoint 3: Kaitangata Crescent	Rural Lifestyle properties accessed along Kaitangata Crescent (1.2 kilometres from the Site)	This viewpoint is similar to Viewpoint 2, albeit at a lower elevation and similar to several rural lifestyle dwellings established in this area. From here, views of the proposed	1-3	During Stages 1 to 3, glimpsed views of the removal of vegetation and deposit of overburden will be available. The visible extent of the proposal will be confined within the northern extent of the Site.	Low Adverse
			4-6	Stage 4 OBDA development will remain concealed beyond existing landform of the Site, whereas Stage 5 OBDA development will be	Low-moderate Adverse

Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
		OBDA will appear beyond existing transmission lines and towers, with a more distant backdrop by the Eastern Hutt Hills and Rimutaka Ranges.		partially visible from this orientation but seen in the context of the existing Belmont Quarry. As overburden works extend towards the central part of the Site during Stage 6, viewing audience at this location will progressively experience a larger footprint of the exposed OBDA faces. As the OBDA continues, the west-facing lower slopes will be increasingly rehabilitated which softens the engineered landform resulting from previous stages.	
			7-10	In latter stages, the southern extent of the OBDA will be visible during Stage 7. Stage 8 will result in an evident change in views as works progressively extend towards the south and the removal of vegetation will be visible. A further change in topography within the central and southern extent of the Site will continue to be visible from this viewpoint during Stages 9 and 10. At the same time, the engineered landform of the northern extent and lower slopes of the central and southern extent of the OBDA will become increasingly rehabilitated with native planting.	Low-moderate Adverse
			Closure	At closure, the exposed faces of the OBDA will be established with native plantings and become visually assimilated with the broader Belmont Hills in the mid ground. The Site will remain well below the skyline of the Rimutaka Ranges.	Very Low Adverse
Viewpoint 4: Liverton Road (OBDA Not Visible)	Rural Lifestyle properties along Liverton Road (1.1 kilometre from the Site)	This viewpoint is representative of rural lifestyle properties along Liverton Road. Views towards the Site are generally obscured or filtered by intervening topography and vegetation, although some dwellings may obtain glimpsed or partial views of the upper OBDA and existing quarry context.	1-6	The OBDA will be largely concealed by intervening landform and vegetation. Where any views are available, they will be limited and glimpsed, with visual change barely perceptible or seen in the context of the existing Belmont Quarry.	Neutral to Very Low Adverse
			7-10	Later stages may become partially visible from some dwellings as the OBDA rises and locally alters the skyline sequence, particularly during Stages 8-10. Views will remain glimpsed or partial, and the developing landform will be progressively softened by rehabilitation planting.	Low Adverse at worst
			Closure	At closure, visible OBDA faces will be established with native planting and will form a more coherent vegetated skyline with the Western Escarpment and broader Belmont Hills. Residual visual effects will reduce as rehabilitation establishes.	Very Low Adverse to Neutral
Viewpoint 5: Pomare Shops (OBDA Not Visible)	Residential dwellings along adjoining area of Hutt Valley floor (1 kilometre from the Site)	This viewpoint is representative of views available from within the adjoining area of the Hutt Valley floor.	1-10	From here, the existing landform of the Site is currently concealed by the rising slopes of the Western Escarpment. Where screening of landform is not available, particularly during Stage 4 and 8, vegetation along the ridge of the escarpment will obscure views of the proposed OBDA	Neutral

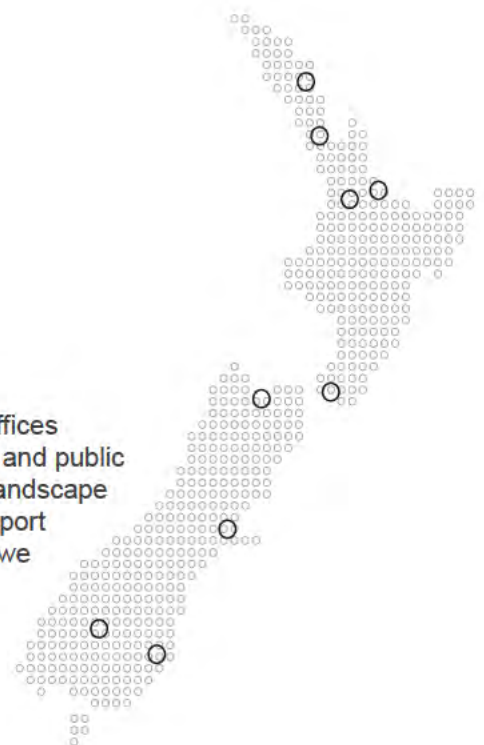
Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
				development. Accordingly, the proposal will primarily remain concealed by intervening landform of the Western Escarpment.	
Viewpoint 6: Aldersgate Grove	Residential dwellings along the Eastern Hutt Hills (1.4 kilometre from the Site)	This viewpoint is representative of elevated views available on Eastern Hutt Hills, in particular viewing audience on Aldersgate Grove. From here, the Site is currently partially visible and seen below the more distant backdrop of Boulder Hill.	1-3	During Stages 1 to 3, the removal of vegetation and deposit of overburden within the northern extent of the Site will be barely visible. At the same time, the southeastern facing engineered landform of the OBDA resulted from Stage 1 will be progressively rehabilitated and planted and become increasingly established towards end of Stage 3.	Low Adverse
			4-6	The proposed OBDA development in the southeastern gully during Stage 4 will result in more evident change in views where a progressive expansion of modified landform will be observed below the rolling ridgetop of Boulder Hill and beyond the Western Escarpment to the east of the existing Belmont Quarry. Stage 5 will be concealed by the engineered landform that is produced as a result of Stage 4. During Stage 6, a further elevation in topography as a result of overburden deposit will be observed, on top of the rehabilitating southeast-facing slopes developed in previous stages, in particular Stages 1 and 4.	Low Adverse
			7-10	In latter stages, the greatest visual change will occur during Stage 8 when the proposed OBDA development progresses in the central and southern extent of the Site, generating low-moderate adverse visual effects. While being an evident change, the change will occur progressively over several years and the engineered landform resulting from this stage will be viewed in the context of the existing quarry. Stages 7 and 9 will be largely concealed by the engineered landform that results from previous stages. In Stage 10, the final landform will remain observable below the ridges of the Belmont Hills.	Low-Moderate Adverse
			Closure	At closure, the exposed faces of the proposed OBDA will be established with native plantings and will form a visually coherent vegetated rolling ridgeline on top of the Western Escarpment.	Very Low Adverse
Viewpoint 7: Eastern Hutt Road	Commuters along the Hutt River Corridor (1.4 kilometre from the Site)	From this viewpoint, the existing landform of the Site is currently concealed beyond the rising slopes of the Western Escarpment.	1-3	Overburden works associated with Stages 1 to 3 will remain concealed beyond the Western Escarpment	Neutral
			4-6	During Stage 4, glimpses of the southeastern faces will potentially be available as a small sliver seen beyond existing vegetation along the skyline. No views of Stages 5 and 6 will be available due to intervening landform, with visible extent of Stage 4 being progressively rehabilitated and planted.	Very Low Adverse

Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
			7-10	In latter stages, glimpse views of the proposed OBDA development will be associated with Stages 8 to 10, whereas Stage 7 will be concealed by landform. The progressive uprise of topography as a result of overburden deposit will be observed above the Western Escarpment, albeit glimpsed.	Very Low Adverse
			Closure	At closure, the exposed southeast-facing slopes will be rehabilitated and established with native plantings, forming a coherent vegetated skyline with the escarpment which is indiscernible along continual green backdrop seen beyond the roadside reserve and the Hutt River.	Neutral
Viewpoint 8: Lord Street	Elevated residential properties along the Eastern Hutt Hills (2.3 kilometres from the Site)	This viewpoint is representative of elevated views available in Stokes Valley, in particular viewing audience on Lord Street. From here, the Site is partially visible.	1-3	During Stages 1 to 3, the removal of vegetation and deposit of overburden within the northern extent of the Site will be visible in long distance views above the Western Escarpment and below the skyline of Boulder Hill. The exposed lower eastern-facing slopes of the OBDA resulted from Stage 1 will be progressively rehabilitated and planted.	Low Adverse
			4-6	During Stages 4 and 6, a southward extension of the proposed OBDA development will be observed along the low rolling ridgeline above the Western Escarpment, with Stage 5 being concealed beyond the engineered landform resulted from Stage 4. At the same time, the rehabilitation plantings within the northern extent of the Site will become established, providing a more naturalised outlook within this part of the Site.	Low Adverse
			7-10	During Stages 7 to 10, this location will continue to observe a change in topography in distant views as the proposed OBDA development reaches its final RL of 230m. Where visible, this change will be seen beyond the vegetated Western Escarpment and below the more distant skyline of Boulder Hill. As the deposit of overburden continues, the lower eastern slopes will become more established with native vegetation and soften the engineered landform resulted from previous stages.	Low Adverse
			Closure	At closure, the exposed southeast-facing slopes will be rehabilitated and established with native plantings, becoming visually assimilated and forming part of the green vegetated backdrop with the Western Escarpment and Boulder Hill.	Very Low Adverse
Viewpoint 9: Fraser Park	Recreational users within the Hutt Valley (2.3 kilometres from the Site)	From this viewpoint, existing views of the Site are primarily associated with the existing pine and	1-3	Overburden works associated with Stages 1 to 3 will be concealed beyond the Western Hutt Hills, including the existing Belmont Quarry.	Neutral
			4-6	Similarly, Stages 4 and 5 will remain concealed beyond intervening landform while overburden slopes will become increasingly visible as the	Very Low Adverse

Viewpoint	Viewing Audience	Nature of Views	Stages	Description of Visual Change	Level of Effect ¹⁵
		macrocarpa trees that form part of the skyline.		western extent of the proposed OBDA is lifted during Stage 6. Any available views will be glimpsed and seen in the context of the existing Belmont Quarry.	
			7-10	During Stages 7 to 10, this location will have the ability to see a change in skyline sequence as a result of the later stages of the proposal. The removal of vegetation in the southern extent of the Site during Stage 8 will also be observed. The south-facing engineered slopes of the OBDA will however be seen above the existing modified skyline associated with the quarry.	Low Adverse
			Closure	At closure, the exposed overburden faces will be progressively rehabilitated and established with native plantings. From this orientation, the completed OBDA form will maintain the rolling ridgetop character of the adjoining ridgelines and form part of coherent vegetated skyline.	Neutral

Together. Shaping Better Places.

Boffa Miskell is a leading New Zealand environmental consultancy with nine offices throughout Aotearoa. We work with a wide range of local, international private and public sector clients in the areas of planning, urban design, landscape architecture, landscape planning, ecology, biosecurity, Te Hihiri (cultural advisory), engagement, transport advisory, climate change, graphics, and mapping. Over the past five decades we have built a reputation for creativity, professionalism, innovation, and excellence by understanding each project's interconnections with the wider environmental, social, cultural, and economic context.



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BELMONT QUARRY OVERBURDEN DISPOSAL AREA

GRAPHIC SUPPLEMENT

3 JULY 2026



Belmont Quarry Overburden Disposal Area



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- FIGURE 10: Landscape Strategy
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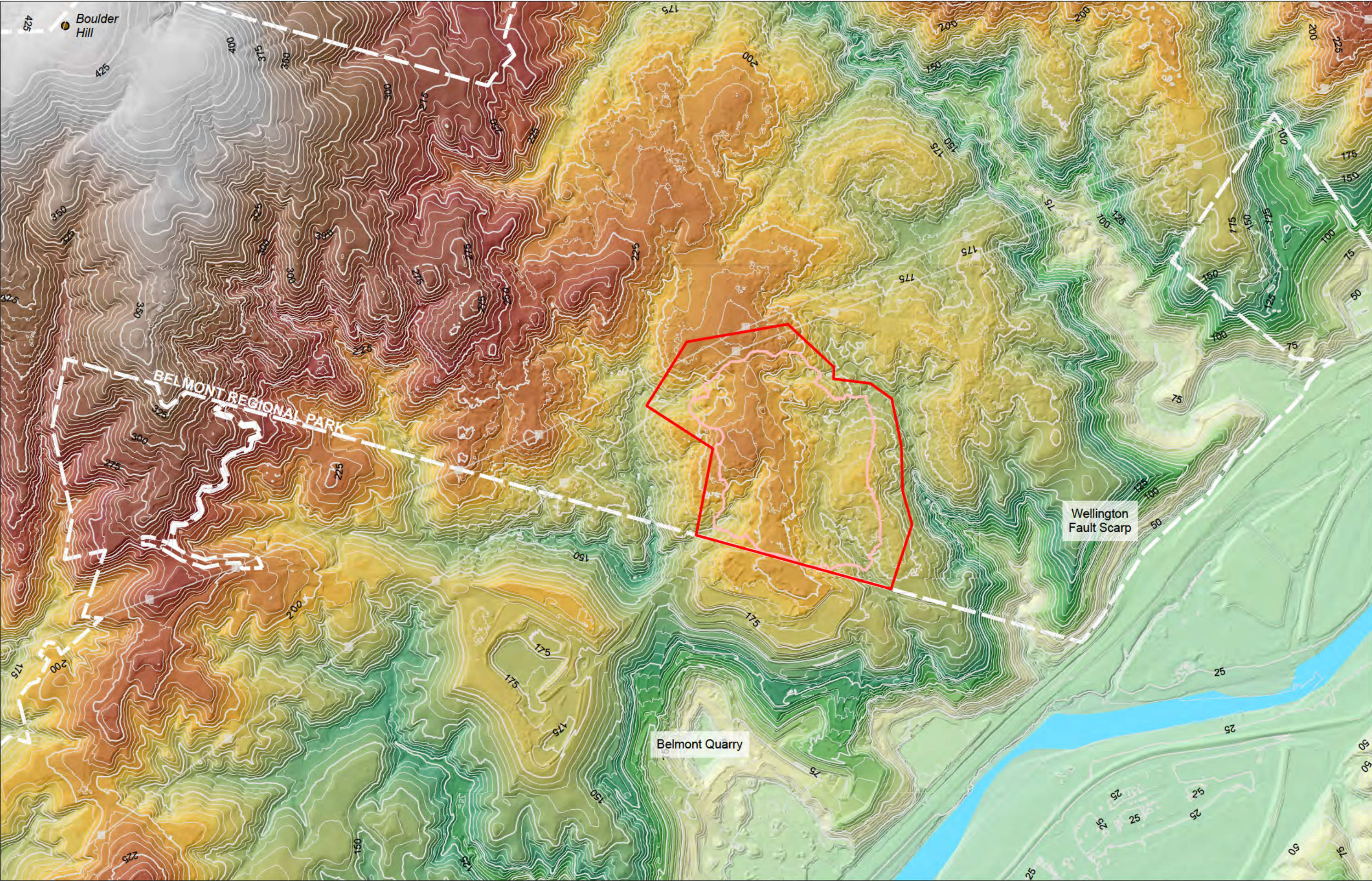
VIEWPOINTS

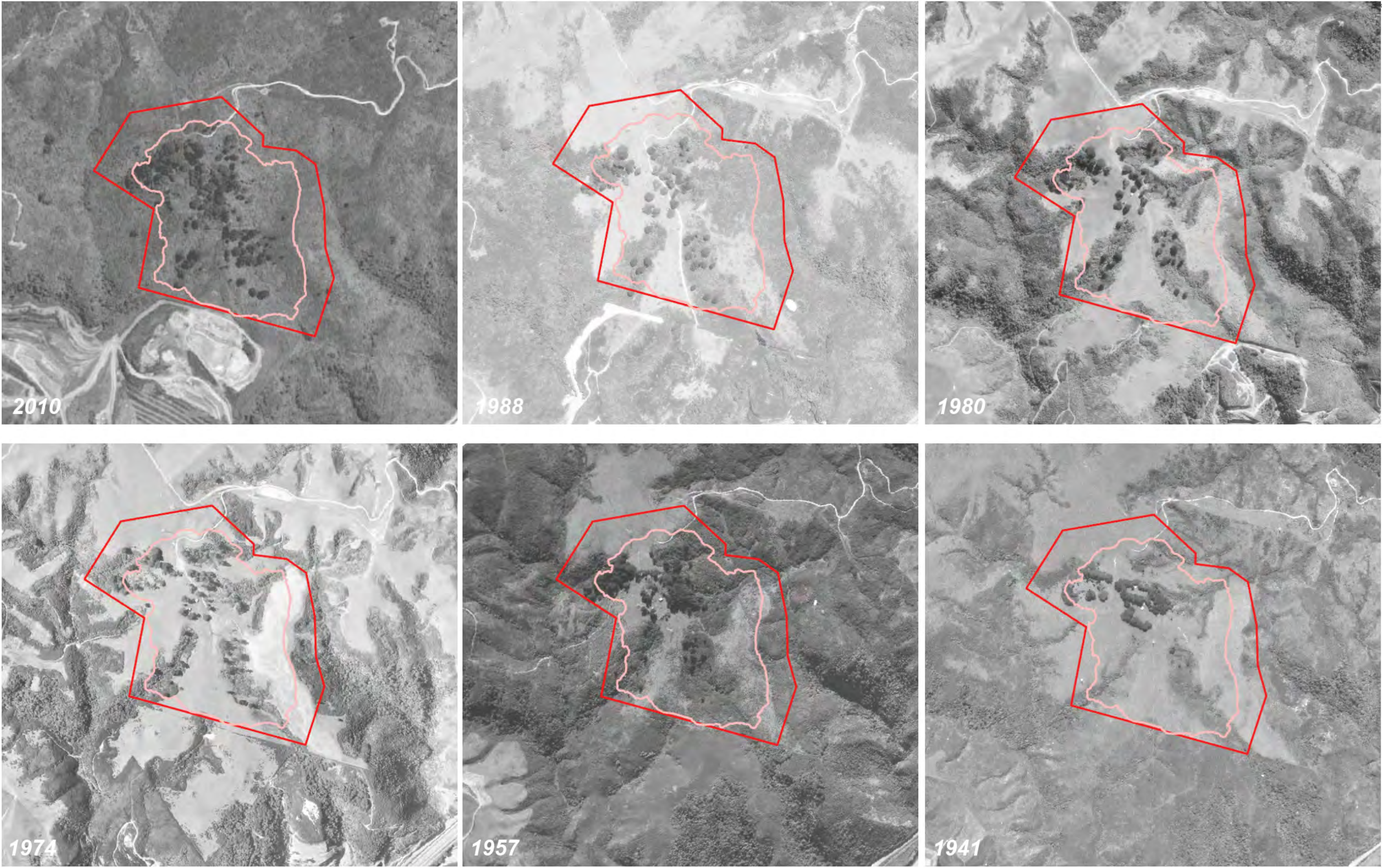
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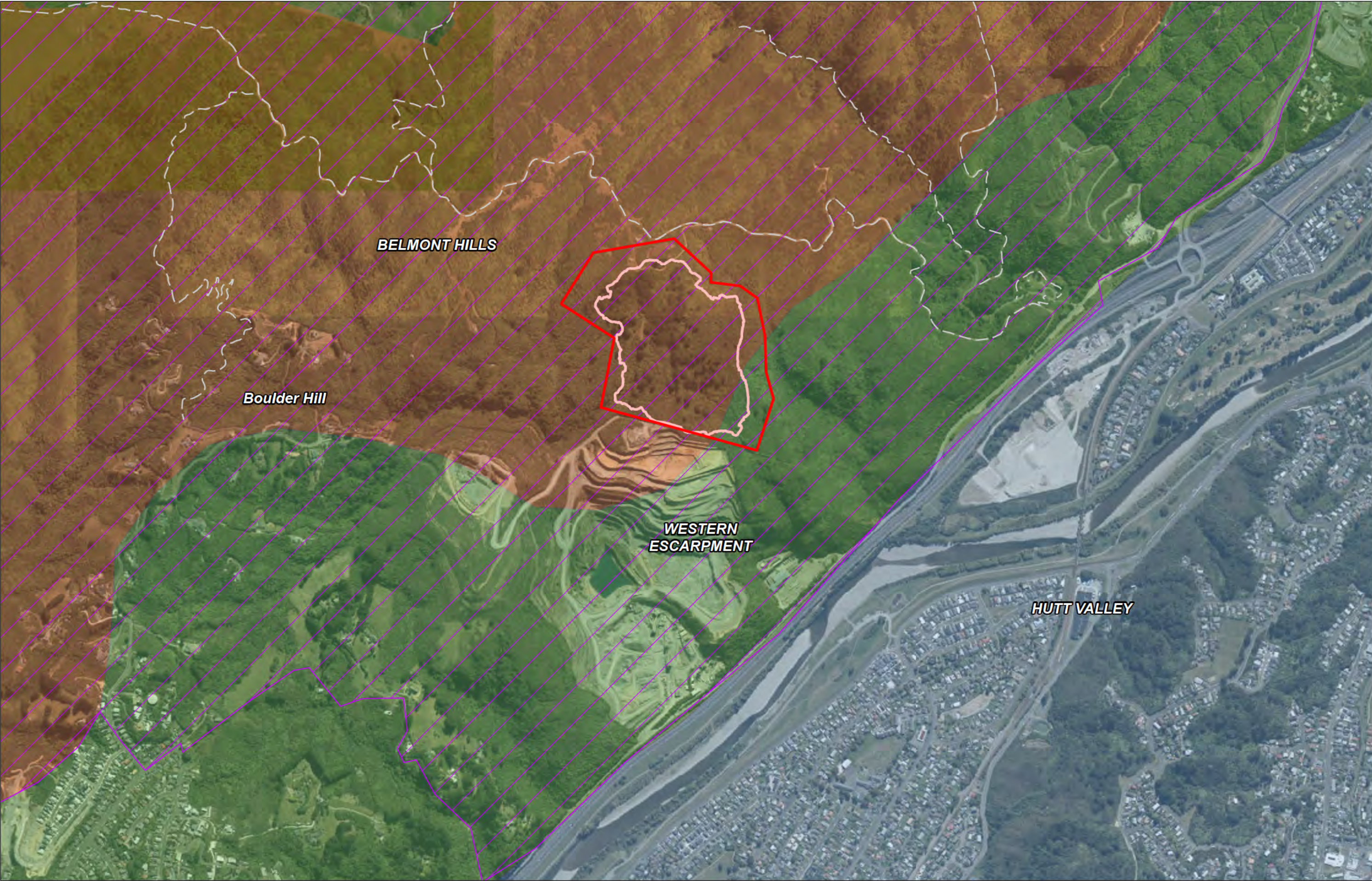


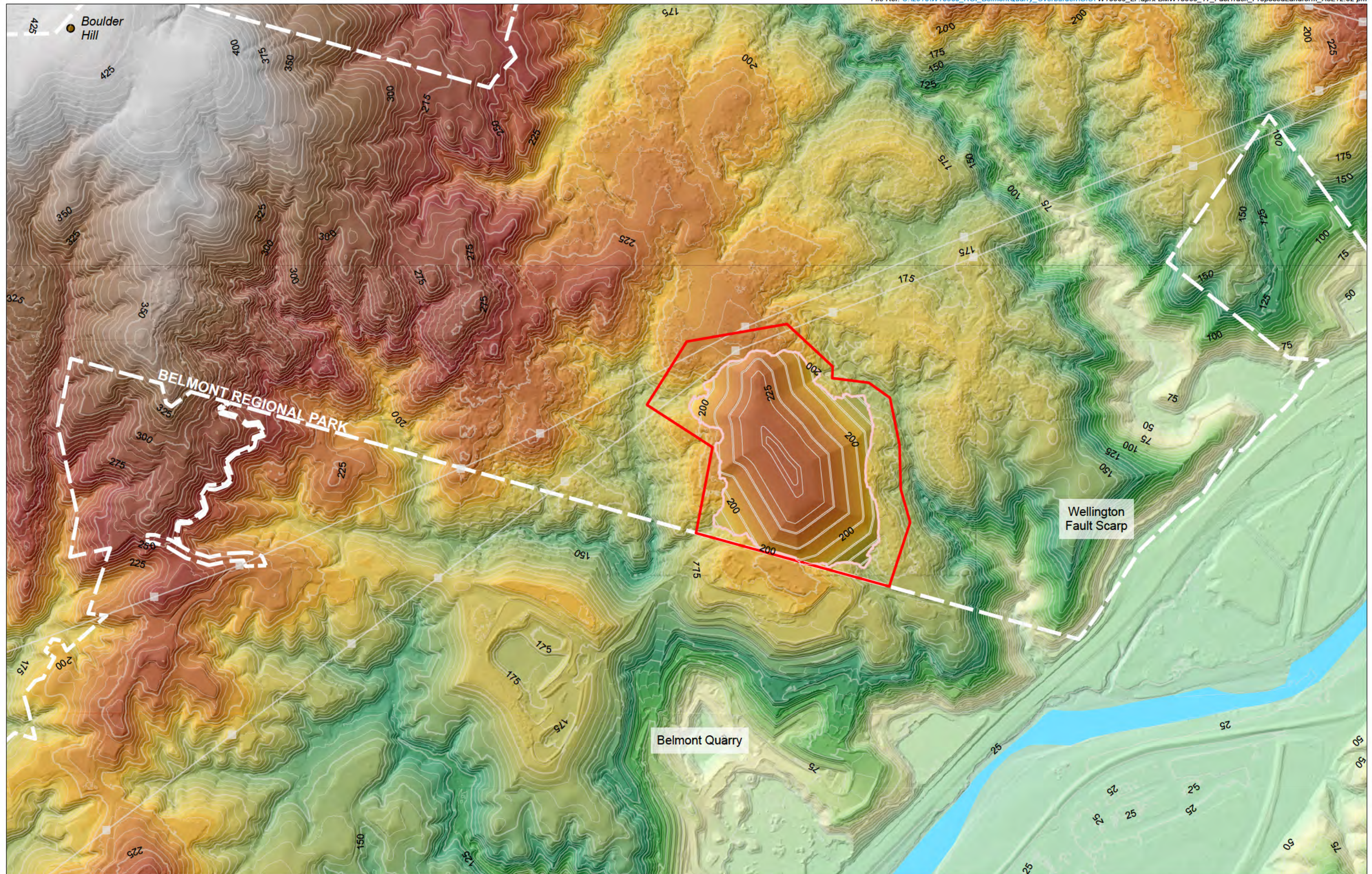


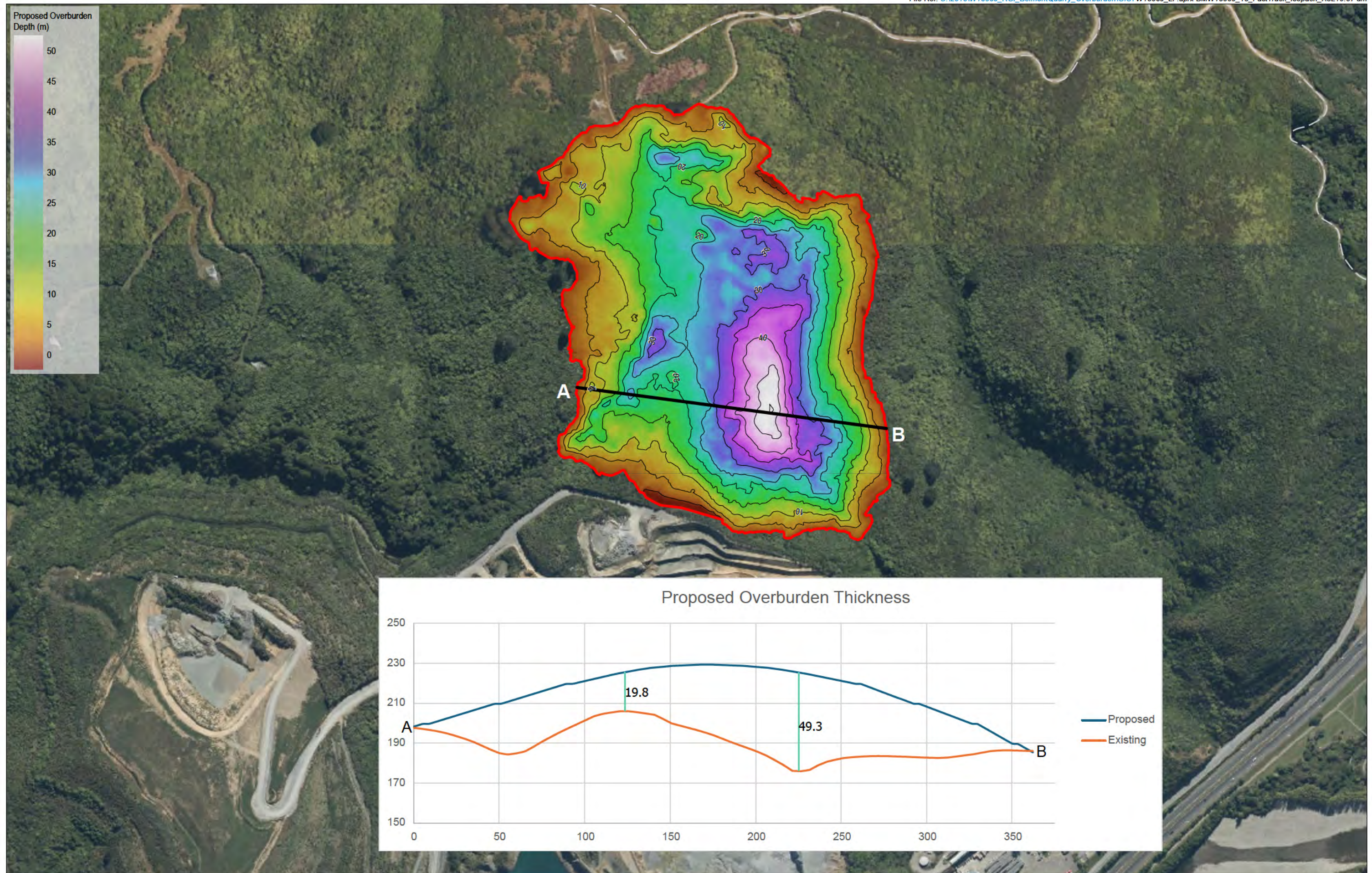














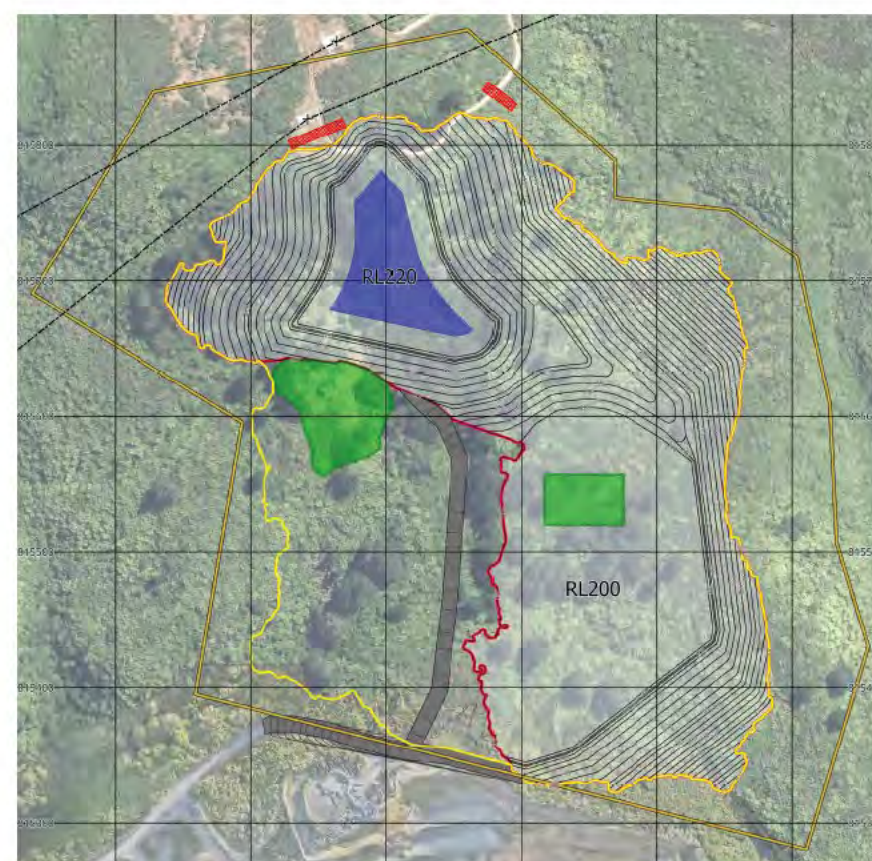
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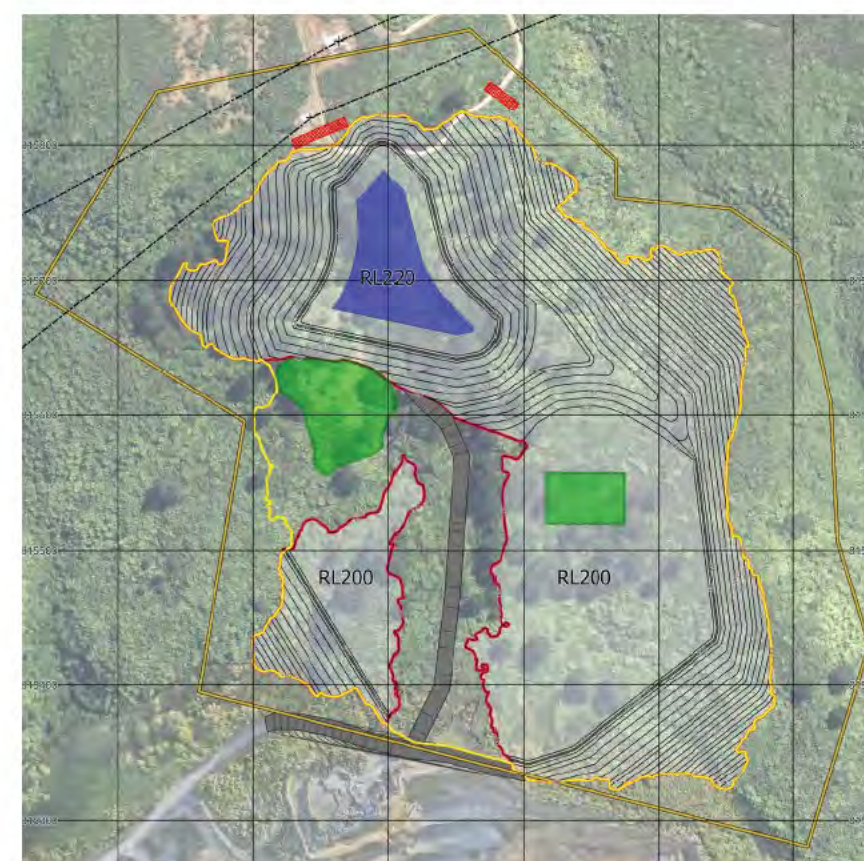
Stage 2 Landform Complete



Stage 3 Landform Complete



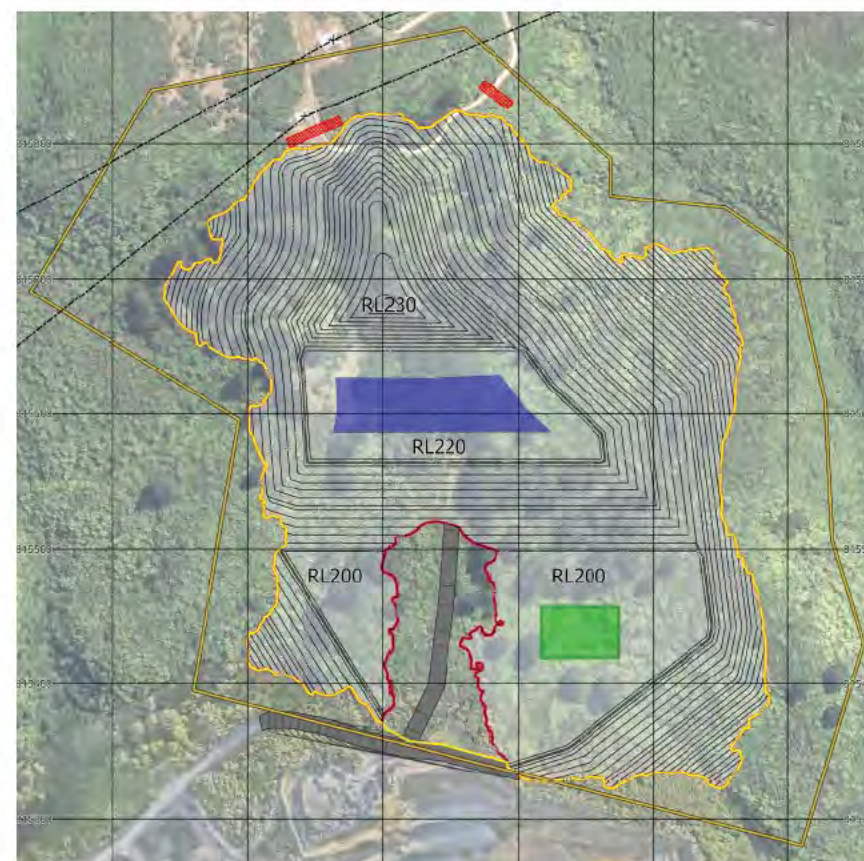
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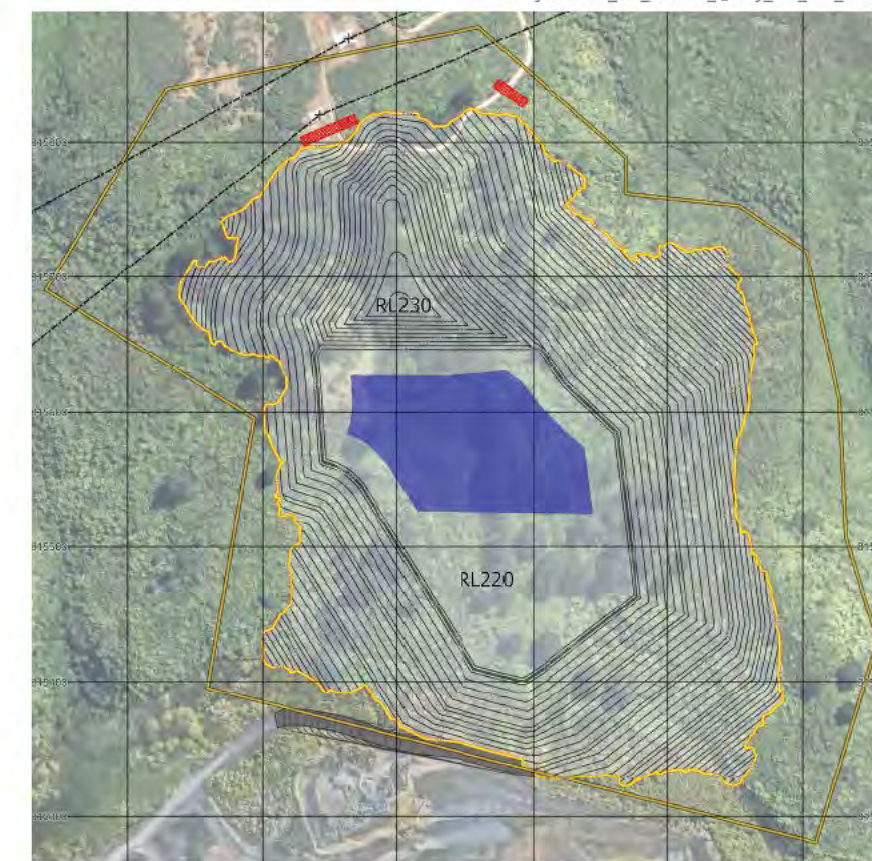
Stage 5 Landform Complete



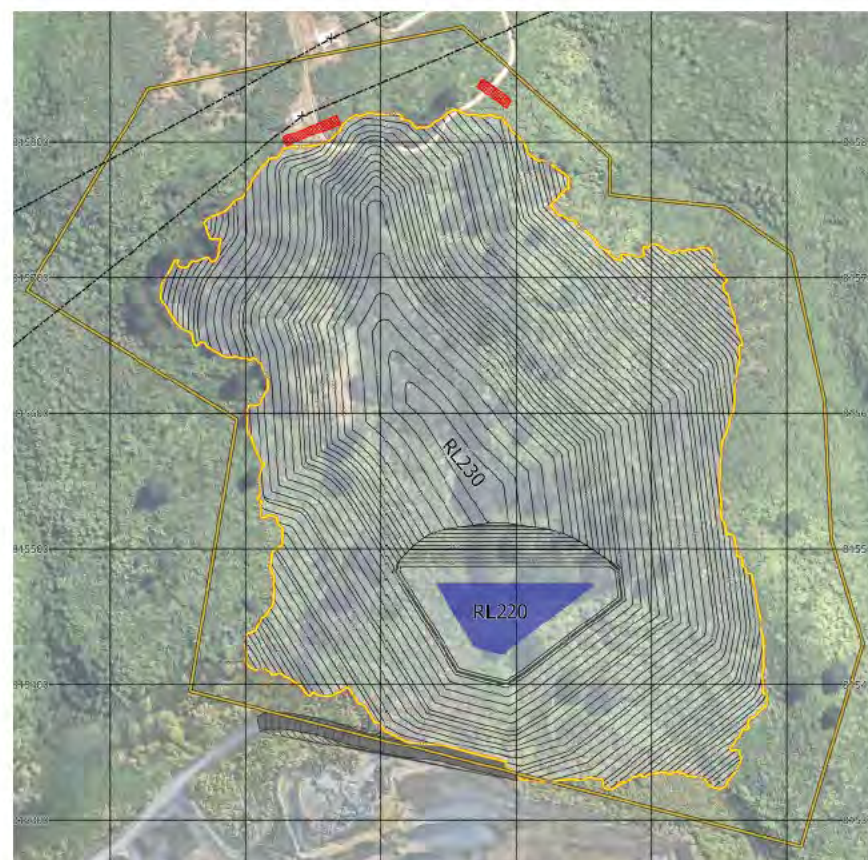
Stage 6 Landform Complete



Stage 7 Landform Complete



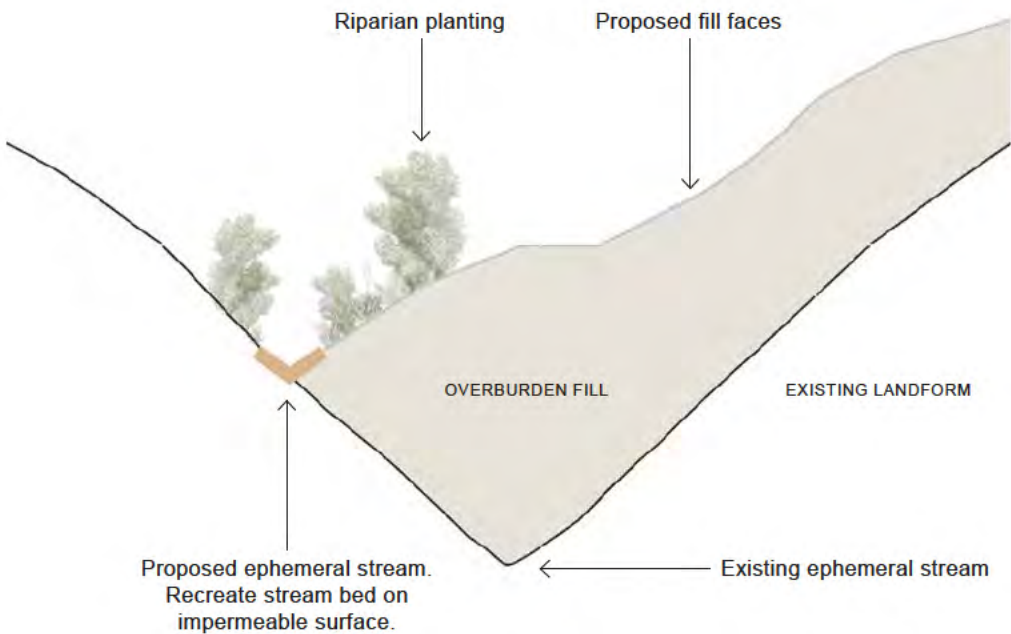
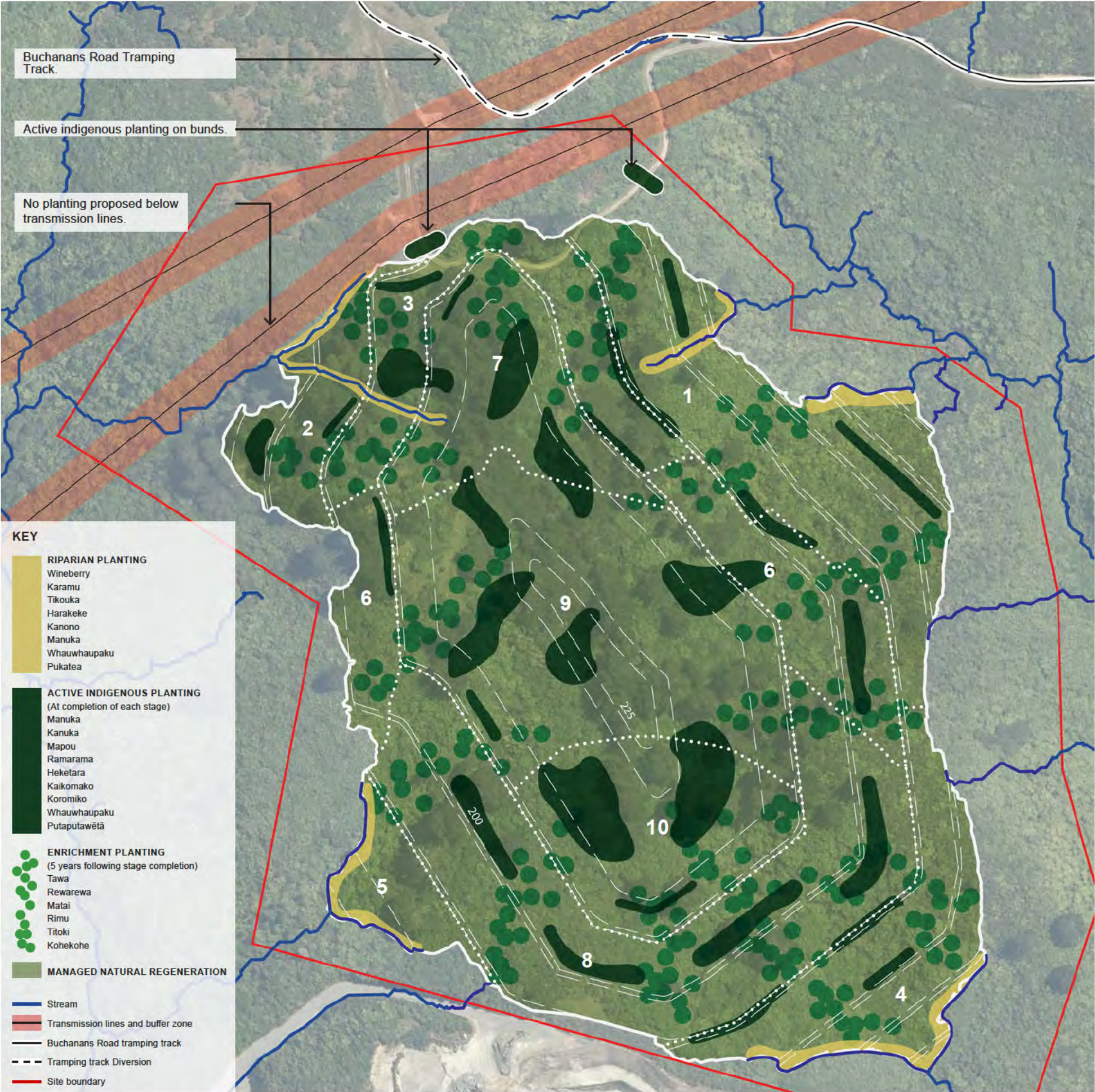
Stage 8 Landform Complete



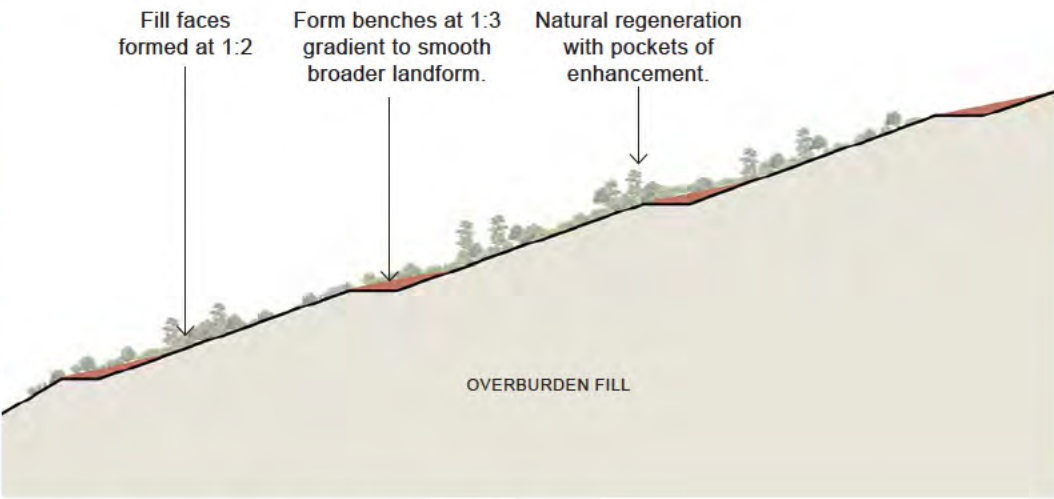
Stage 9 Landform Complete



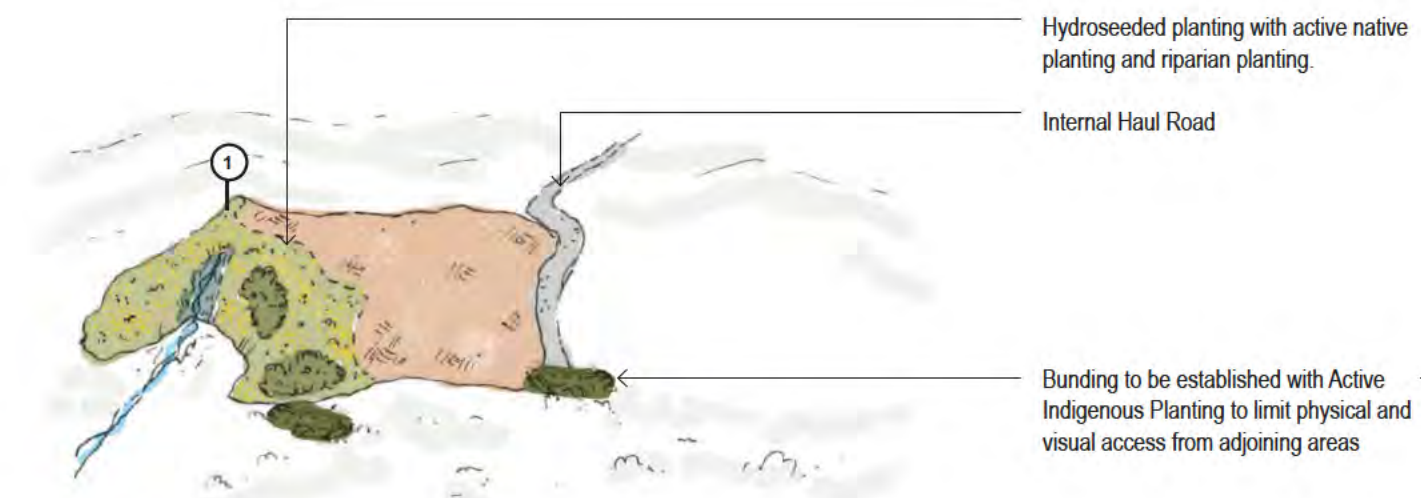
Stage 10 Landform Complete



TYPICAL CROSS SECTION SHOWING INTERFACE WITH EXISTING GULLY

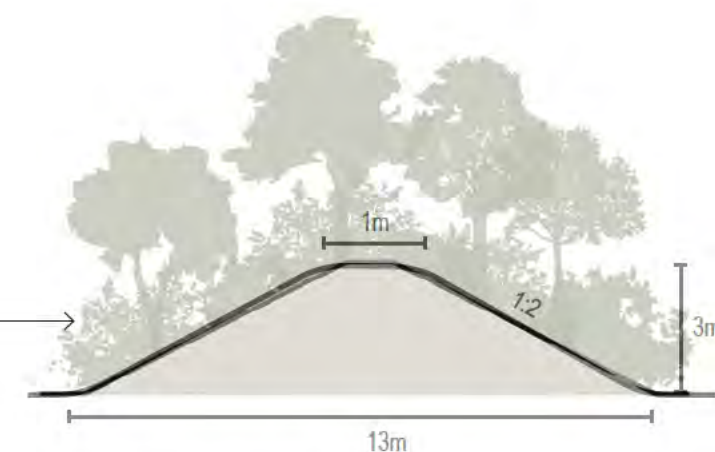


TYPICAL CROSS SECTION OF FILL FACES

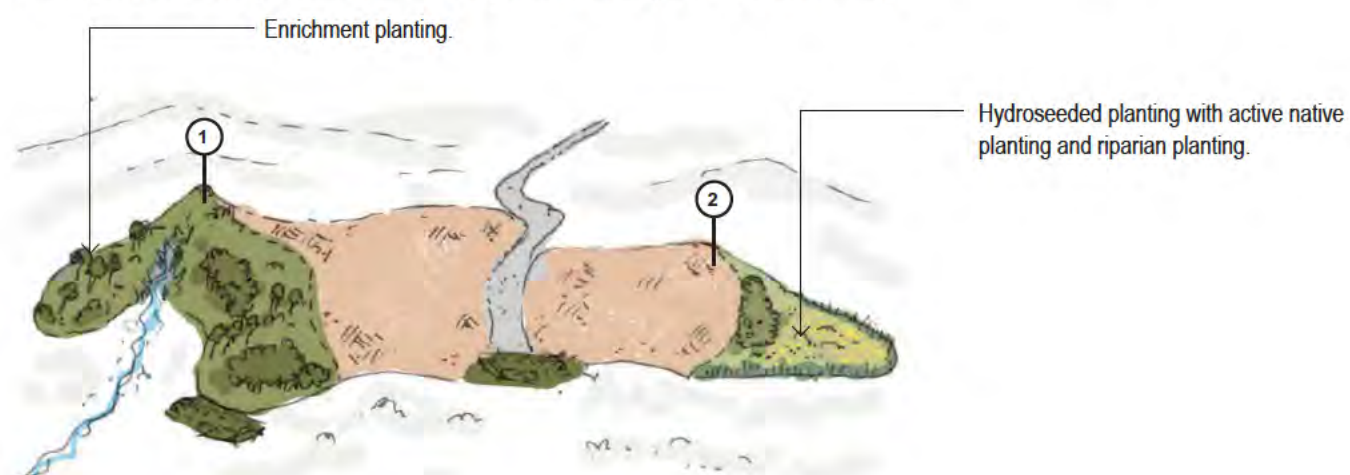


STAGE 1

Within 2 years of commencing each successive stage, final faces and bunds shall be established in accordance with approved Managed Natural Regeneration, Active Indigenous Planting and Riparian Planting.

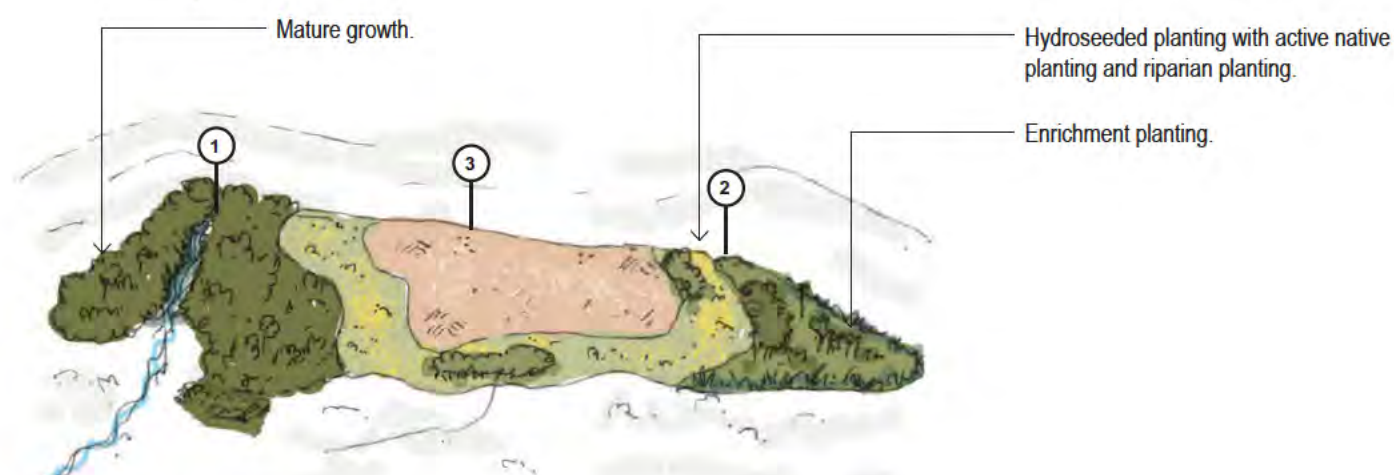


STAGE - TYPICAL BUND



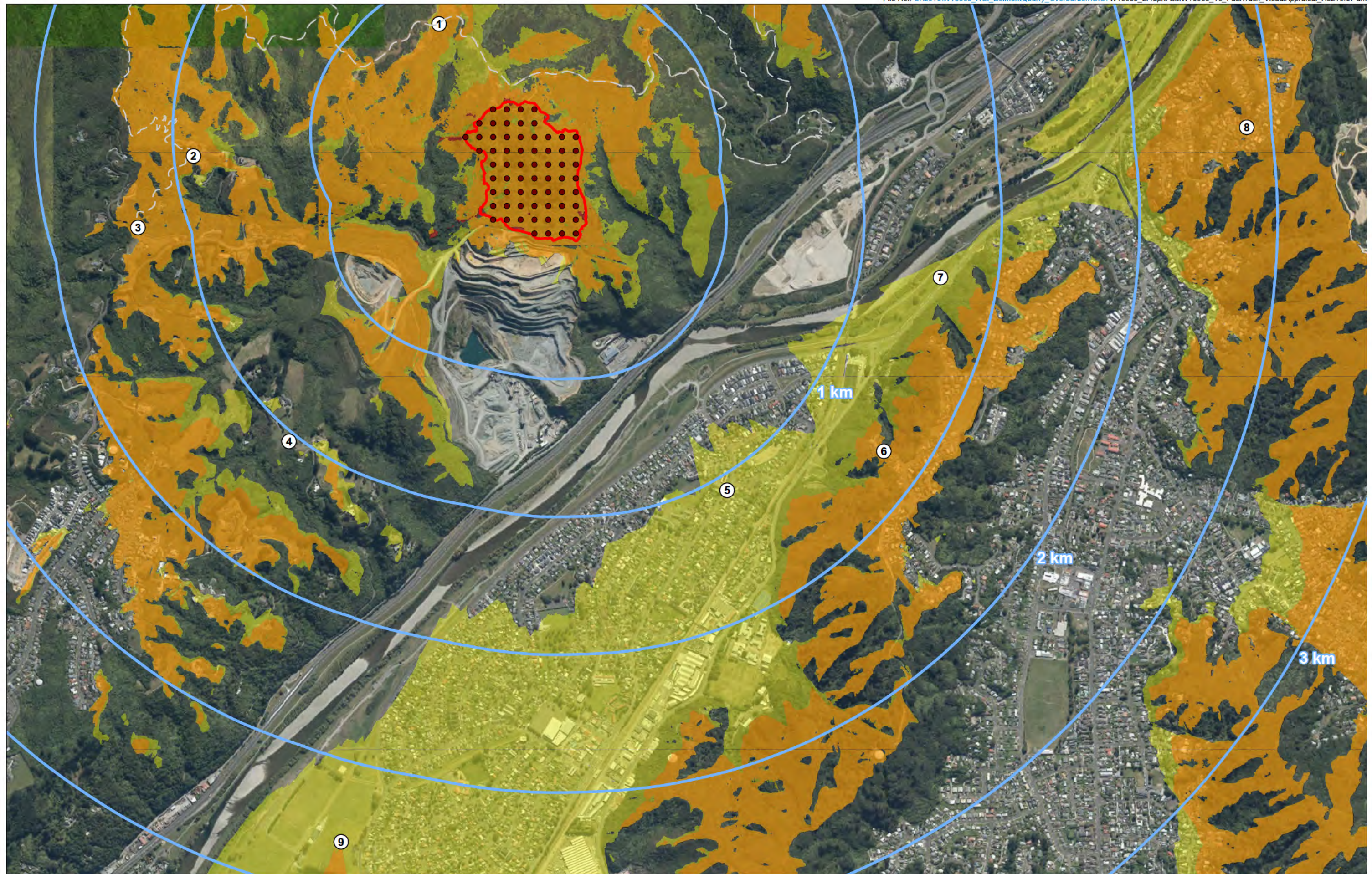
STAGE 1 AND 2

At 5 years from commencing rehabilitation within each successive stage, enrichment planting shall be undertaken to optimise natural succession.



STAGE 1, 2 AND 3

Rehabilitation of completed faces within each successive stage to be managed to support a self sustaining canopy at 10 years from commencement.





February 2010
Year 0



August 2012
Year 2



February 2014
Year 4



September 2015
Year 5



December 2016
Year 6



July 2018
Year 8



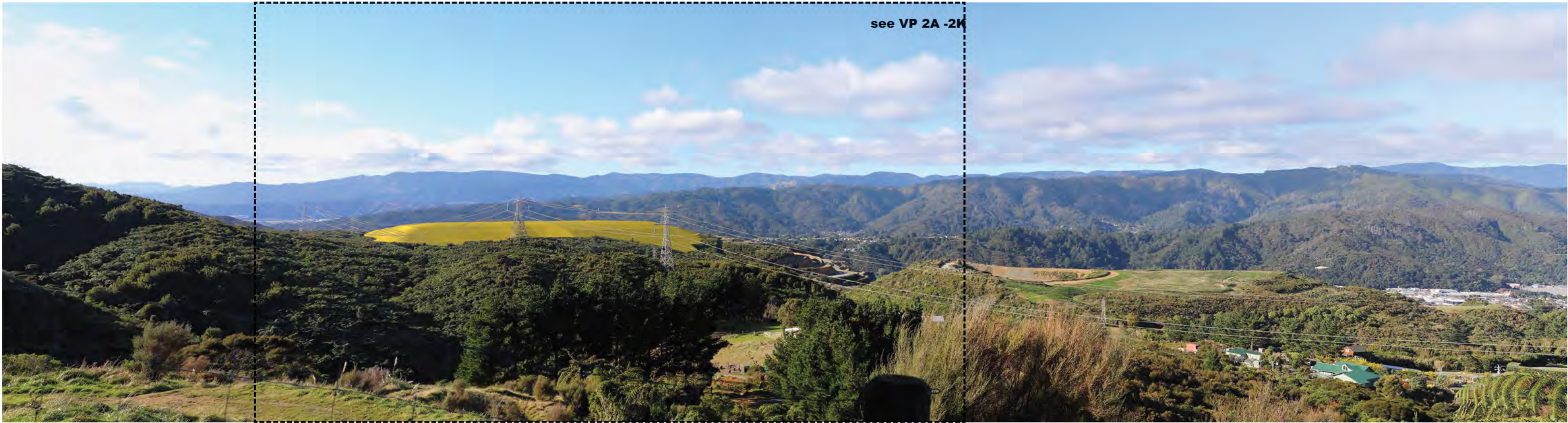
Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View

Location of OBDA not visible from Viewpoint



Proposed View (not visible)



Existing View



Proposed View (not visible)



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Proposed Diagrammatic View of Completed OBDA



Existing View



Stage 1 View



Stage 2 View

This figure has been prepared by Boffa Miskell Limited on the instructions of our Client, in accordance with the agreed scope of work. If it is intended to support an application under the Fast-track Approvals Act 2024, it may be relied upon by the Expert Panel and relevant administering agencies for the purposes of assessing the application. While Boffa Miskell Limited has exercised due care in preparing this figure, it does not accept liability for any use beyond its intended purpose. Where information has been supplied by the Client or obtained from external sources, it has been assumed to be accurate unless otherwise stated.

Viewpoint Details

NZTM Easting : 1 762 987.9 mE
NZTM Northing : 5 441 605.9 mN
Elevation/Eye Height : 244.1m / 1.7m
Date of Photography : 10:58am 2 June 2025 NZST

Data Sources:

Horizontal Field of View : 40°
Vertical Field of View : 25°
Projection : NA
Image Reading Distance @ A3 is 50 cm

BELMONT QUARRY OVERBURDEN DISPOSAL AREA

View from Belmont Regional Park

Date: 25 February 2026 | Revision: 0

Plan prepared for Winstone Aggregates by Boffa Miskell Limited

Project Manager [redacted] | Drawn: SCh | Reviewed: RGi

VP
2c



Stage 3 View



Viewpoint Details	NZTM Easting	: 1 762 987.9 mE	Horizontal Field of View	: 40°
	NZTM Northing	: 5 441 605.9 mN	Vertical Field of View	: 25°
	Elevation/Eye Height	: 244.1m / 1.7m	Projection	: NA
	Date of Photography	: 10:58am 2 June 2025 NZST	Image Reading Distance @ A3 is	50 cm
	Data Sources:			

BELMONT QUARRY OVERBURDEN DISPOSAL AREA

View from Belmont Regional Park

Date: 25 February 2026 | Revision: 0

Plan prepared for Winstone Aggregates by Boffa Miskell Limited

Project [redacted] Drawn: SCh | Reviewed: RGi



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Data Sources:

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BELMONT QUARRY OVERBURDEN DISPOSAL AREA

View from Belmont Regional Park

Date: 25 February 2026 | Revision: 0

Plan prepared for Winstone Aggregates by Boffa Miskell Limited

Project [redacted] | Drawn: SCh | Reviewed: RGi

VP
2f



Stage 6 View



Stage 7 View



Stage 8 View



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Data Sources:

Horizontal Field of View : 40°
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Projection : NA
Image Reading Distance @ A3 is 50 cm

BELMONT QUARRY OVERBURDEN DISPOSAL AREA

View from Belmont Regional Park

Date: 25 February 2026 | Revision: 0

Plan prepared for Winstone Aggregates by Boffa Miskell Limited

Project Manager [redacted] | Drawn: SCh | Reviewed: RGi



Stage 10 View

VISUALISATIONS - METHODOLOGY

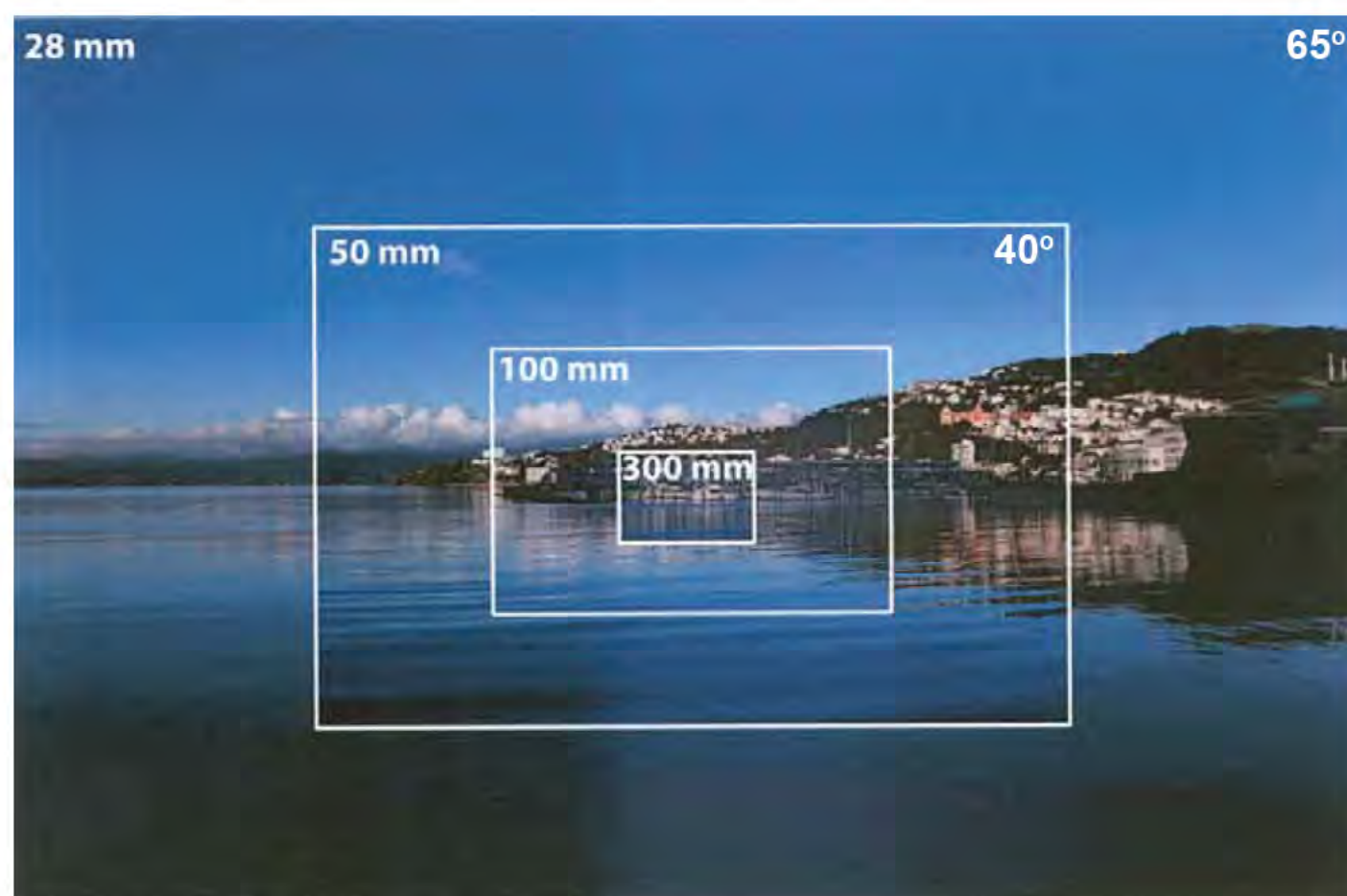
SITE VISIT & PHOTOGRAPHY

Site photographs were taken with a Canon digital SLR camera fitted with a 50mm focal length lens. A series of photos were taken at predetermined viewpoints, situated on public land. The locations of each viewpoint were fixed using GPS.

NZILA GUIDELINES & PANORAMA PREPARATION

The visualisations have been produced in accordance with the Tuia Pito Ora New Zealand Institute of Landscape Architects (NZILA) Best Practice Guidelines for Visual Simulations (BPG 10.2) and also adhere to Boffa Miskell's internal Visualisation Guidelines.

Camera lenses with different focal lengths capture images with differing fields of view. As can be seen below (derived from Fig 9 of the NZILA BPG), a photo taken with a 28mm lens provides a horizontal field of view of 65°. A 50mm lens will provide a cropped (40°) version of the same view. So panoramas can be created by taking multiple 28mm or 50mm photos (in "portrait" mode), and using digital stitching software to merge and crop to create a single panorama. The panoramas used in these visualisations have a field of view of 90°.

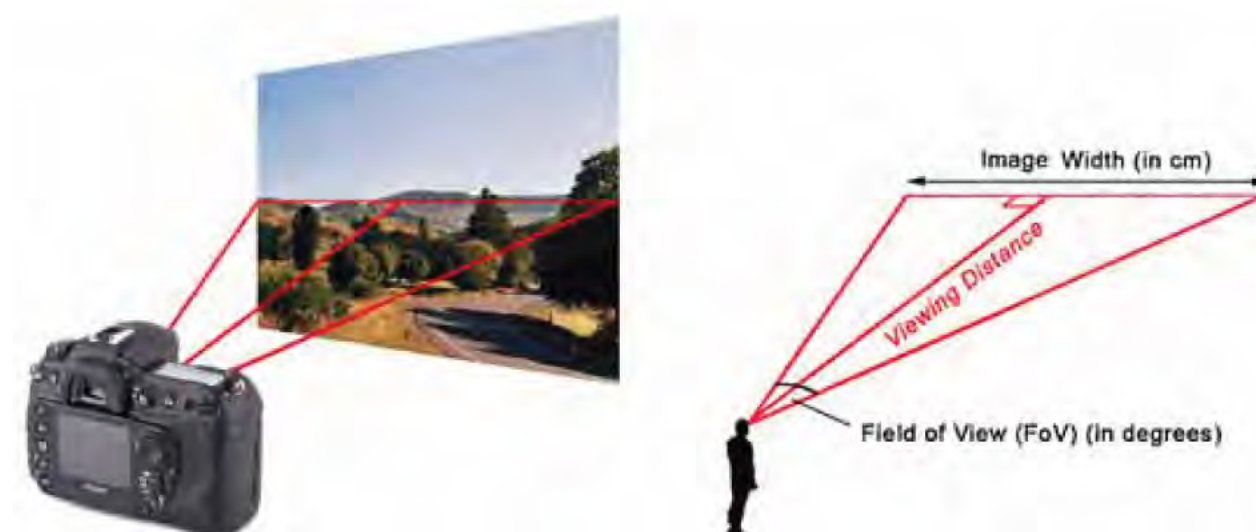


3D MODELLING

Virtual camera views were then created in 3D modelling software, and 3D terrain data and architectural modelling were imported. These views were then registered over the corresponding photographic panorama, using identifiable features in the landscape and the characteristics of the camera to match the two together. The visualisations were then assembled using graphic design software.

IMAGE READING DISTANCES

These visualisations have a field of view of 90° and so should be viewed from a distance of 20 cm when printed at A3. This will ensure that each simulation is viewed as if standing on-site at the actual camera location, and is in accordance with Section 7.11 of the NZILA BPG. Users are encouraged to print these pages on A3 transparency, go to the viewpoint and hold at the specified reading distance in order to verify the methodology.



Geometry of Image Reading Distance



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