

BEFORE THE COMMISSONER

APPOINTED BY THE WAIPA DISTRICT COUNCIL

IN THE MATTER OF

the Resource Management Act 1991 ('the Act')

AND

IN THE MATTER

Resource consent application by Kiwifruit Investments Limited for partially retrospective and partially prospective land use consent to construct vertical and horizontal overhead artificial kiwifruit shelter buildings at 582 Parallel Road, Cambridge

SUBMITTERS

Nicholas B Jennings and Vanessa L Jennings

STATEMENT OF PLANNING EVIDENCE OF JOANNA LOUISE SOANES

12 October 2022

1 Qualifications and Experience

- 1.1 My full name is Joanna Louise Soanes. I am a Principal Landscape Architect at Boffa Miskell Limited, a position I have held since April 2018. Previously to that, I worked at WSP Opus for nine years. I have a Bachelor of Landscape Architecture with Honours from Lincoln University. I am a Registered Landscape Architect and full member of the New Zealand Institute of Landscape Architects. I have 18 years' experience working with landscape and visual issues.
- 1.2 I have a broad skills base with experience spanning landscape planning, assessment and design for a diverse range of projects in both urban and rural contexts. I have practised as a Landscape Architect in Auckland, Hamilton, Wellington and Christchurch, undertaking work for a multitude of clients, ranging from local and regional councils, central government, educational institutions to private companies and developers.
- 1.3 I have previous experience in providing expert evidence on landscape and visual effects at council hearings for resource consent applications and notices of requirement, including Waipa District Council.
- 1.4 I wish to disclose that I was commissioned by Kaipaki Properties Ltd in 2018 to prepare a landscape and visual effects assessment and visual simulations for the proposed berry farm development located at 630 Kaipaki Road. This development was granted consent and has been constructed.

2 Code of Conduct

- 2.1 Although this matter is not before the Environment Court, I have read and am familiar with the Code of Conduct for Expert Witnesses in the current Environment Court Practice Note (2014), have complied with the Code of Conduct in the preparation of this evidence and will follow the Code when presenting evidence to the Commissioner. My qualifications as an expert are set out above.
- 2.2 I confirm that the matters addressed in this statement of evidence are within my area of expertise, except where I rely on the opinion or evidence of other witnesses, in which case I have stated so. I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

3 Methodology

- 3.1 I was commissioned by the submitter (Mr and Mrs Jennings) to provide expert landscape evidence in relation to effects of the proposal on landscape and visual amenity.
- 3.2 In preparing my evidence, I have read the s42A Officer's Report prepared by Ms Lomas (Waipa District Council), the application, the submission made by the submitters (Mr and Mrs Jennings), and the evidence prepared by Ms Williams (Barker and Associates Limited).
- 3.3 I have undertaken the following, in association with this application:
- a I reviewed the application on the 15th September 2022;
 - b I visited the Submitters' property (at 598 Parallel Road Ōhaupō 3495) on the 21st September 2022, including the surrounding area to understand the nature of the existing environment, proposed development and its physical and visual relationship to 598 Parallel Road.
- 3.4 My evidence relates to the submission prepared by the submitters and addresses the Landscape and Visual Amenity effects on their property located at 598 Parallel Road, which shares boundaries to the Application site located at 582 Parallel Road to the west, north and east.
- 3.5 The preparation of my evidence has involved the coordination with other disciplines including the submitters Planner, Ms Davidson, Senior Planner of BTW Company.

4 Scope of evidence

- 4.1 In my evidence I will:
- a Provide an overview of my involvement in the application.
 - b Outline the approach that will be taken and identify the key factors that will affect existing landscape and visual amenity values.
 - c Provide a summary of the application, the submission made by the Submitters, the s42a Officer's Report and the Applicants Planning Evidence.
 - d Describe the existing environment and site character.
 - e Discuss the relevant statutory provisions.
 - f Discuss the landscape and visual effects of the proposal, including from the submitters' property at 598 Parallel Road.

g Provide a conclusion and discuss the recommended mitigation measures.

5 Background

- 5.1 Kiwifruit Investments Ltd (the Applicant) is seeking land use consent to construct vertical and horizontal (overhead) artificial kiwifruit shelters. Although no application has been made for the proposed shelterbelts that are relied on to screen the artificial shelter buildings from the submitters' view, I understand such a resource consent may be required under District Plan Rule 4.4.2.58.
- 5.2 The site is located within the Rural Zone of the Waipa District Plan (WDP). The site is subject to the Hamilton Airport – Conical Surface Overlay and a Significant Natural Area – WP344.
- 5.3 This application is assessed as a Discretionary activity under the provisions of the Operative Waipa District Plan ('District Plan'), breaching rules relating to boundary setbacks and site coverage. The artificial shelters fall under the District Plan definition of a 'Building' and therefore Rural Zone rules for buildings are applicable. Potentially there is also a breach of rule 4.4.2.58.
- 5.4 The artificial shelter has already been constructed in parts of the site, proposed to cover an overall area of approximately 23 hectares in total, starting from the eastern end of the site and working towards the west. The site was purchased by Kiwifruit Investments Ltd at the beginning of 2021, with proposal works commencing in the far eastern area, towards the end of 2021.

6 Application description

- 6.1 The applicant is proposing to construct vertical and horizontal artificial kiwifruit shelters within the site at 582 Parallel Road.
- 6.2 As part of these artificial structures, a vertical and a horizontal artificial shelter cloth will be attached around the perimeters, to protect kiwifruit planting within the canopy area. The vertical cloth is 2.1m high and links to the horizontal (overhead) cloth that has a height of 6 metres on a 45-degree angle.
- 6.3 The cloth will be white in colour and translucent, which means some light is able to be passed through, however, views through are not easily discernible. It appears from paragraph 20 of the evidence of Mr Bains that vertical artificial shelter will also be installed within the shelter building to provide further wind reduction. I have not seen any examples or images of that proposed internal vertical shelter so I cannot comment on its contribution to visual effects.
- 6.4 It should be noted that the existing structures within the site currently breach road, internal and SNA boundary setbacks as well as site coverage rules as part of the District Plan.

- 6.5 The vertical cloth is proposed in the application to be located 6 metres from the road boundary of Parallel Road and will vary between 5.9 to 8.9m on internal boundaries, which includes the boundaries of the submitter. This significantly exceeds the 30m road and 25m internal boundary standards of the District Plan (4.4.2.1(b) and 4.4.2.2(e)).
- 6.6 The proposed total area of 23 hectares will result in a site coverage of approximately 65.18%, which also significantly exceeds the District Plan building site coverage standard of 3% for a site over one hectare (4.4.2.10).
- 6.7 As part of the proposal, a cryptomeria shelterbelt has recently been planted around the periphery of the structures (along the road frontage and internal boundaries). The purpose of the shelterbelt (in combination with the shelter cloth) is for visual screening and to decrease spray drift.

7 The existing environment

- 7.1 The Site is located within the Hamilton Basin, at 582 Parallel Road, Ōhaupō 3495, approximately 7.5km east from Ōhaupō settlement, and 4.5km west of Leamington. The site itself is approximately 35ha, located on the northern side of Parallel Road.
- 7.2 A combination of geographical factors and human activities have influenced the existing landscape patterns throughout the wider area.
- 7.3 The site is a part of the Waikato Lowlands as classified in The Waikato Regional Landscape Assessment, which¹ describes the landscape character of this area as:
- a The Waikato lowlands are flat and low in contrast with the surrounding hill country. They comprise pasture, hedges, groups of both exotic and indigenous trees, and has a well maintained and developed landscape character.*
 - b The Waikato River is the central feature in this landscape. With Hamilton as the main city.*
 - c In general, the land use comprises market gardening, fruit growing, arable farming, cattle, dairy farms, stud farms and racing stables.*
 - d The main pressure on this area is the demand for residential homes in a rural setting – i.e. rural residential development, particularly given the large nearby populations of Auckland and Hamilton. State Highway One runs along beside the Waikato River².*

¹ Waikato Regional Landscape Assessment, February 2010. Technical Report # 1636162, page 26

² Waikato Regional Landscape Assessment, February 2010. Technical Report # 1636162

- 7.4 The site is within the rural zone under the WDP, however, due to the urban sprawl of Cambridge, the wider surrounding landscape includes both rural and urban characteristics, which suggest a rural-residential environment.
- 7.5 Being within the urban periphery has enabled the area to develop from predominately large rural holdings to more varied land use of smaller rural lifestyle blocks and horticultural development, with larger rural holdings becoming more common further south.
- 7.6 Existing kiwifruit farms are located within the wider surrounding areas to the south, and southeast.
- 7.7 A mixture of native and exotic vegetation is typically located along road corridors, fence lines, surrounding dwellings. Vegetation within the wider surrounding area consists mostly of the forms and species typical of a Waikato landscape, with a mixture of exotic and indigenous species used for boundary planting, hedgerows, shade trees, small wood lots and garden amenity planting associated with dwellings.
- 7.8 There are no known permitted or consented changes to the immediate locality that are likely to change the existing environment in a material way.

8 Site & Immediate Surroundings

- 8.1 The site and the nature of the topography is influenced by the Mangawhero Stream, a tributary of the Waikato River, which is located north-east of the site. Part of this gully system runs along the northern boundary of the site, with shallow gullies diverting off into the west and north and eastern extents of the site.
- 8.2 The Mangawhero Stream has been identified as a Significant Natural Area ('SNA') as part of the Waipa District Plan, identified as WP344. Part of this policy overlay extends into the northern and eastern areas of the site.
- 8.3 There are no outstanding natural landscapes ('ONL'), features ("ONF") or areas of outstanding / high natural character ("ONC" / "HNC") within the site.
- 8.4 Retrospectively (before any works associated with this proposal commenced), a farmhouse, and dairy shed, and farm ancillary buildings were located centrally within the site and surrounded by mature vegetation and curtilage planting. There are currently no dwellings, or farm ancillary buildings within the site, as they were cleared as part of the proposal.
- 8.5 Structures associated with the proposal have already been constructed. The only remaining portion of the site in pasture, without structures, is located within the west. This area of the site is characterised by a shallow gully (associated with the Mangawhero Stream) which meanders south-north through the site and is bordered either side by pastoral land.

9 Submitter's Property

- 9.1 The submitter's property is approximately 6,500m² in size, located at 598 Parallel Road.
- 9.2 The property contains a single-storey dwelling, two garages, and additional utility sheds which are surrounded by curtilage planting and small paddocks used for grazing. The property is accessed via a driveway south of the dwelling, from Parallel Road.
- 9.3 The main living areas within the dwelling, including the kitchen and lounge are located on the northern side of the dwelling, with the master bedroom located on the east. The main outdoor living areas, including the decking and pool area are located within the northern end of the submitter's property, with the main entrance located on the eastern side of the dwelling.
- 9.4 The submitter's property contains a mixture of native and exotic vegetation. An existing line of trees (*pittosporum* spp.) is located sporadically along the western and eastern boundaries of the property. A large mature tree is located in the north-western corner of the property.
- 9.5 The site is also zoned Rural and is subject to the Airport Conical Surface overlay under the District Plan.

10 District Plan Provisions

- 10.1 The key focus of the relevant District Plan provisions include the following:
- a The maintenance and enhancement of rural character;
 - b Amenity values; and
 - c Visual integration of buildings and subdivision design including earthworks, vegetation management.
- 10.2 Ms Davidson's evidence contains a more comprehensive analysis of relevant Waipa District Plan policies and objectives.

11 Landscape Effects

- 11.1 Landscape effects can result from changes in the physical landscape which may in turn give rise to changes in the character of the landscape and how they are experienced. Factors that can be taken into account include landform, landcover and land use.
- 11.2 Change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. The landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformation ways. These changes are both natural and human induced. What is important in managing landscape change is that adverse effects are avoided or appropriately mitigated to ameliorate the effects of the change in land use.

Landscape and Rural Character

- 11.3 Productive land uses, such as kiwifruit growing, and associated structures are anticipated within the Rural Zone. The use of shelterbelt planting to screen or contain activities within a rural setting is also common and considered appropriate if it can be integrated into the surrounding environment including existing rural and rural-residential properties.
- 11.4 It is inevitable that the proposal will result in a change in characteristics with a decrease in pastoral landscape including existing shallow gullies and an increase in intensified horticultural development.
- 11.5 The proposal will include direct physical change as a result of constructing these shelters. This includes earthworks associated with filling shallow gullies to flatten out the site. Although the shallow gully may not hold significant ecological value, filling it in will alter the overall landscape pattern, decreasing the size of the natural gully to the north of the site and as a result will have a small landscape adverse effect.
- 11.6 The proposed structures and associated shade cloth will result in an overall coverage area of 23 hectares, which is approximately 65.18% of the site, exceeding the District Plan building site coverage standard of 3% for a site over one hectare (4.4.2.10).
- 11.7 While the proposed structures cannot be described as a “typical” building due to the external and internal materiality (translucent cloth with varying views through) and the presence of kiwi fruit vines themselves, it is considered that the proposal will have similar bulk as that of a very large building due to the design of the structure, the cloths, height and the overall 65.18% site coverage. It should be noted that a typical building of this size and site coverage is not considered to be in keeping with rural characteristics and is not likely to successfully integrate into the surrounding landscape without informed mitigation practices.
- 11.8 The application proposes the 6m high kiwifruit structures be located 8m and shelterbelt planting be located 4m from three internal boundaries of the Submitter’s property, which is significantly closer than the 30m road and 25m internal boundary standards of the District Plan (4.4.2.1(b) and 4.4.2.2(e)). Encroaching on these setbacks set out by the WDP, which help to maintain rural character, and internalise adverse effects, will increase the chance of accumulated effects, such as shading on neighbouring properties (affecting pasture and vegetation growth), reduced open space and views, increased chance of spray drift, erosion of land adjacent to gullies, increased earthworks as a result of increased structures in the land, and therefore mean that such effects may no longer be internalised.
- 11.9 The applicant is proposing to screen the structure with a cryptomeria shelterbelt along the north, east and west internal boundaries of the submitter’s property with a 4m setback. Although this type of shelterbelt is not uncommon within the wider rural landscape, due to its

proximity to a dwelling, in combination with its rigid and monotonous character, enclosing an area of private neighbouring land (completely screening western, northern and eastern rural outlooks), it is not considered an appropriate tree species to plant so close to the neighbouring rural- residential property.

- 11.10 It is considered that the proposed site coverage in combination with the of 6m high structures and the reduced setbacks, will increase landscape adverse effects, with the change in existing rural landscape characteristics of the site.
- 11.11 As a result of the scale of the structures and the minimal setback from boundaries with 598 Parallel Road, the prominence of the associated effects on the landscape character have not been appropriately considered by the Applicant and therefore would represent a moderate landscape effect.
- 11.12 In my opinion, the District Plan's prescribed setback of 25m from internal boundaries in the Rural Zone would be more appropriate and would assist in maintaining rural character.

12 Visual Effects

- 12.1 Visual effects will result from the degree of visibility of the changes to the landscape that will arise from the proposed development primarily from:
- a The temporary effects associated with the construction of structures;
 - b The 6m kiwi fruit shelter structures, and associated shelter cloth that will be visually prominent; and
 - c The shelterbelts, including monotonous nature and the height (6 m over a 5-year or longer period and once established to 6 m height will require annual trimming to maintain 6 m height).
- 12.2 The viewing audience comprises both static viewers, typically from private residences and transient viewers, typically people in vehicles travelling along Parallel Road. More detail on the assessment of effects has been given to the immediate residents at 598 Parallel Road.
- 12.3 Residential audiences have a great sensitivity to change within their outlooks, particularly to the north where they generally locate their outdoor living areas. This is partly due to the duration at which views can be appreciated, but also because the enjoyment of their outlooks depends largely upon the character of the landscape (view).
- 12.4 Viewers travelling along the surrounding roads such as Parallel Road are generally less sensitive to change within the landscape than static views from permanent residences, because their view is constantly changing, with visual amenity being drawn from the experience of passing through the wider rural landscape. However the cumulative effects on

residents from their home experience of the development and their regular views while leaving and returning home, are greater than for the transient road user.

- 12.5 Due to the predominantly flat nature of the site and surrounding landscape, the site, including the existing structures which have already been built, is visible from the submitter's property at 598 Parallel Road and from surrounding local roads including Parallel Road and Goodwin Road. The current outlook for 598 Parallel Road has the potential for the greatest level of visual change when compared to other surrounding locations due the proposed development located on three property boundaries (north, east and west).
- 12.6 From the submitter's property, the existing kiwifruit structures including the 6m high posts and the shelter cloth (both horizontal and vertical) are visible to the north, north-east and east. The material stockpile for the construction of works is also clearly visible to the north of the submitter's property.
- 12.7 Pastoral land with scattered mature vegetation in surrounding properties, and distant views of the Pakaroa Range and hills including Maungakawa can be obtained (looking to the north-east) between gaps in the structure cloth, from some areas within the submitter's property. It can be assumed that before the construction of these structures, viewers from this property would have obtained clearer views of these hills (un-interrupted by artificial structures), and overall have had a rural outlook that is characterised by wide-open pastoral land compartmentalised by post and wire fencing, comprising scattered trees, and clusters of vegetation associated with the gully to the north. The erection of further vertical screening inside the existing shelter building would be likely to further reduce the ability to see through the structures.
- 12.8 No kiwifruit structures have been constructed to the west of the submitter's property, and therefore maintains such rural character and long views out over open rural pasture.
- 12.9 Following construction of the proposed blocks directly north and west of the submitter's property boundary, the structures will result in a complete loss in the existing rural outlook that is currently obtained and will inevitably dominate views from the Submitter's property.
- 12.10 The applicant has proposed a Cryptomeria shelterbelt, which will be planted along Parallel Road, the northern boundaries and on all three of the submitter's boundaries (west, north and east).
- 12.11 Careful consideration to mitigation measures and recommendations is required, so that it appropriately responds to the immediate receiving landscape. It should be noted that to fully screen something from view within the receiving environment is not the only outcome considered. Some considerations may include;
- a Proximity to neighbouring properties.

- b Plant species ability to thrive in the environment.
- c Colour, form and composition of the proposed plant species.
- d Existing plant species identified in the immediate surrounding landscape. It should be noted that any vegetation within adjoining properties cannot be relied upon as visual mitigation.
- e Height in which plant species can achieve over how many years.
- f Whether the proposed species can ultimately integrate with surrounding landscape.

12.12 Although the Cryptomeria shelterbelt will provide a dense hedge once established, which will fully screen the proposed structures, the Cryptomeria shelterbelt will become the prominent feature in views obtained from the submitter's property, eliminating any rural outlook to the north, east and west.

12.13 Although this type of shelterbelt is not uncommon within the wider rural landscape, due to its proximity to a dwelling enclosing an area of private neighbouring land (completely screening western, northern and eastern rural outlooks), in combination with its rigid and monotonous character acting as wind wall causing wind dumping onto adjacent land, it is not considered an appropriate species to plant.

12.14 It is my opinion that a Cryptomeria shelterbelt, setback 4m from three of the submitters property boundaries is not an acceptable visual mitigation outcome. It is my opinion that a more appropriate planting response would be to set back the shelter planting and provide plant species that respond to the rural residential property of the Submitter's and the adjacent SNA environments. This could include a mix of native planting and garden amenity planting that provides a more visually appropriate response.

12.15 It is considered that adverse effects will be moderate-high on the landscape and visual amenity from the Submitters' property at 598 Parallel Road.

13 Comment on the Officer's Report

13.1 I have reviewed the Officer's section 42 Report in relation to landscape and visual effects, in particular in Sections 12.1 Rural Character and Amenity, Section 13 Waipa District Plan and Section 17 Conclusion.

13.2 Rural Character – I agree with the Officer that the Rural Zone is a broad concept and defined by the various elements that make up the rural environment, as outlined in my evidence above.

- 13.3 Built Form – I agree with the Officer's report that the structures will form a prominent feature in the landscape due to the considerable site coverage and height of structures. Even when compared to other large rural buildings, it is unlikely that they would be at the same site coverage.
- 13.4 Visual Effects – I agree with the Officer's report in section 12.1.14 and reduced setbacks that the artificial shelter being 19 m closer than what is permitted creates a significant visual change for the Submitter's property and the submitters will be adversely impacted due to the proposal's dominance around the three internal boundaries.
- 13.5 Mitigation Measures – I agree with the Officer's report that the Cryptomeria shelterbelt is not a satisfactory mitigation measure. I agree that there will be effects on amenity from both the submitter's property and other locations surrounding the site. The proposed mitigation will fully block out the proposal (while screening it), visually enclosing the Submitters property, and therefore will not retain the openness of the Site. It is in my opinion that the mitigation planting will not respond well to the receiving environment.

14 Response to Applicants Planning Evidence

- 14.1 In preparing my evidence, I have also reviewed the Applicant's planning evidence and make comment on Receiving Environment in Section 8.0 and Rural Character and Amenity in Section 9.0.
- 14.2 I agree with Ms Williams, that there are significant horticultural activities located within the surrounding area and that this development influences the rural character. While the existing character of the wider landscape can be noted, distance separation of these activities and sensitivity of viewers and perceived amenity are also required to be taken into consideration.
- 14.3 In Section 8.5, Ms Williams refers to the submitter's property including substantial mature hedging planted on all three internal boundaries where adjoining the subject site and that the hedging on the eastern and western boundary is dense. I disagree with Ms Williams description that the planting is mature and dense. An existing line of trees (pittosporum spp.) is located sporadically along the western and eastern boundaries of the property. Views of the subject site are afforded over vegetation and where there are gaps in the planting. The planting provides a sense of openness to the property, and this is particularly evident when viewed from the outdoor living area on the northern side of the Submitter's property and within the wider garden spaces.
- 14.4 It is worth noting that vegetation within the Submitter's property cannot be relied upon as visual mitigation.

- 14.5 In Section 8.7 the proposed shelterbelt has already been implemented along the three boundaries adjoining the Submitters property. I understand that clarification is required around the required consents for the shelter belt³.
- 14.6 Rural Character and Amenity – I agree with Ms Williams in Section 9.1 of her evidence that rural character and amenity effects of the artificial shelters are key matters in contention with the Submitters and the location from internal boundaries.
- 14.7 As with Ms Lomas, we are in agreement around consideration of the rural character and that this helps form expectations for those travelling, working or living in a rural environment, and that the Rural Zone chapter of the District Plan acknowledges that “The policies and rules in this Plan seek to find a balance between economically driven farming practice and amenity, landscape, biological, cultural and social values”.
- 14.8 The application does not appear to appropriately respond to potential adverse visual effects on adjacent properties to rural character and amenity with the construction of prominent structures and shelter belt planting.
- 14.9 The Applicant’s mitigation rationale, while reflecting a rural solution, has not utilised landscape expertise. It is my opinion that the Applicant has not provided an appropriate response to 598 Parallel Road that responds to both landscape and visual effects.

15 Conclusion

- 15.1 In summary, taking into the Applicants proposal including minimum setbacks, height of structures, site coverage and shelterbelt planting have the potential moderate to high degree, adverse visual effect.
- 15.2 I do not agree with the proposed mitigation and design outcomes associated with the proposal which have the potential to generate moderate-high landscape and visual effect and therefore I do not support the application in its current proposal and design. It is my opinion that further considerations / recommendations are required to ensure the landscape and visual effects are acceptable for the Submitters property.

12 October 2022

Joanna Louise Soanes

Principal, Landscape Architect
Boffa Miskell

³ Rule - Tree planting 4.4.2.58 Waipa District Plan

APPENDIX 1: Landscape Effects Assessment Method

26 August 2022

Introduction

The Natural Character and Landscape Effects Assessment (NCLEA) process provides a framework for assessing and identifying the nature and level of likely effects that may result from a proposed development. Such effects can occur in relation to changes to physical elements, changes in the existing character or condition of the landscape and the associated experiences of such change. In addition, the landscape assessment method includes an iterative design development processes, which seeks to avoid, remedy or mitigate adverse effects (see **Figure 1**).

This outline of the landscape and visual effects assessment methodology has been undertaken with reference to the **Te Tangi A Te Manu: Aotearoa New Zealand Landscape Assessment Guidelines** and its signposts to examples of best practice, which include the **Quality Planning Landscape Guidance Note**¹ and the **UK guidelines for landscape and visual impact assessment**².

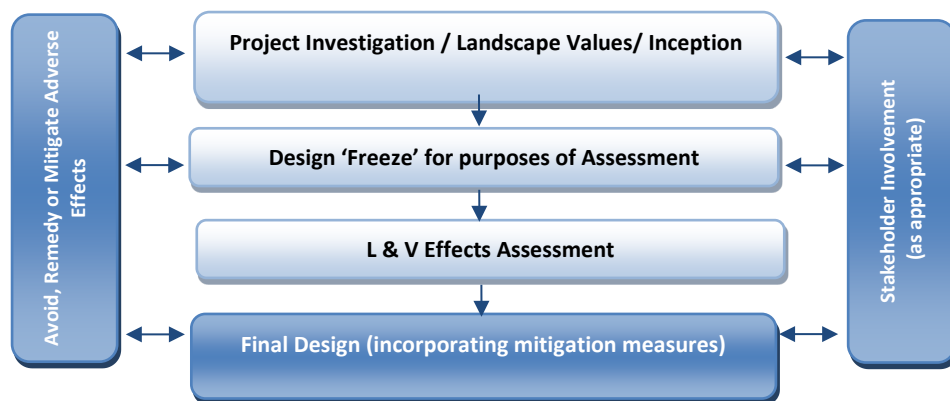


Figure 1: Design feedback loop

When undertaking any landscape assessment, it is important that a **structured and consistent approach** is used to ensure that **findings are clear and objective**. Judgement should be based on skills and experience and be supported by explicit evidence and reasoned argument.

While, landscape and visual effects assessments are closely related, they form separate procedures. The assessment of the potential effects on landscape considers effects on landscape character and values. The assessment of visual effects considers how changes to the physical landscape affect the viewing audience. The types of effects can be summarised as follows:

Landscape effects: *Change in the physical landscape, which may affect its characteristics and values*

Visual effects: *Consequences of change on landscape values as experienced in views including visual amenity*

The policy context, existing landscape resource and locations from which a development or change is visible, all inform the 'baseline' for landscape and visual effects assessments. To assess effects, the first step requires identification of the landscape's **character and values** including the **attributes** on which such values depend. This requires that the landscape is first **described**, including an understanding of relevant physical, sensory and

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

² Landscape Institute and Institute of Environmental Management and Assessment (2013) Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3)

associative landscape dimensions. This process, known as landscape characterisation, is the basic tool for understanding landscape character and may involve subdividing the landscape into character areas or types. The condition of the landscape (i.e. the state of an individual area of landscape or landscape feature) should also be described together with, a judgement made on the value or importance of the potentially affected landscape.

Landscape Effects

Assessing landscape effects requires an understanding of the landscape resource and the magnitude of change which results from a proposed activity to determine the overall level of landscape effects.

Landscape Resource

Assessing the sensitivity of the landscape resource considers the key characteristics and qualities. This involves an understanding of both the ability of an area of landscape to absorb change and the value of the landscape.

Ability of an area to absorb change

This will vary upon the following factors:

- Physical elements such as topography / hydrology / soils / vegetation;
- Existing land use;
- The pattern and scale of the landscape;
- Visual enclosure / openness of views and distribution of the viewing audience;
- The zoning of the land and its associated anticipated level of development;
- The scope for mitigation, appropriate to the existing landscape.

The ability of an area of landscape to absorb change takes account of both the attributes of the receiving environment and the characteristics of the proposed development. It considers the ability of a specific type of change occurring without generating adverse effects and/or achievement of landscape planning policies and strategies.

The value of the Landscape

Landscape value derives from the importance that people and communities, including tangata whenua, attach to particular landscapes and landscape attributes. This may include the classification of Outstanding Natural Feature or Landscape (ONFL) (RMA s.6(b)) based on important physical, sensory and associative landscape attributes, which have potential to be affected by a proposed development. A landscape can have value even if it is not recognised as being an ONFL.

Magnitude of Landscape Change

The magnitude of landscape change judges the amount of change that is likely to occur to areas of landscape, landscape features, or key landscape attributes. In undertaking this assessment, it is important that the size or scale of the change is considered within the geographical extent of the area influenced and the duration of change, including whether the change is reversible. In some situations, the loss /change or enhancement to existing landscape elements such as vegetation or earthworks should also be quantified.

When assessing the level of landscape effects, it is important to be clear about what factors have been considered when making professional judgements. This can include consideration of any benefits which result from a proposed development. **Table 1** below helps to explain this process. The tabulating of effects is only intended to inform overall judgements.

Contributing Factors		Higher	Lower
Landscape (sensitivity)	Ability to absorb change	The landscape context has limited existing landscape detractors which make it highly vulnerable to the type of change resulting from the proposed development.	The landscape context has many detractors and can easily accommodate the proposed development without undue consequences to landscape character.
	The value of the landscape	The landscape includes important biophysical, sensory and shared and recognised attributes. The landscape requires protection as a matter of national importance (ONF/L).	The landscape lacks any important biophysical, sensory or shared and recognised attributes. The landscape is of low or local importance.
Magnitude of Change	Size or scale	Total loss or addition of key features or elements. Major changes in the key characteristics of the landscape, including significant aesthetic or perceptual elements.	The majority of key features or elements are retained. Key characteristics of the landscape remain intact with limited aesthetic or perceptual change apparent.

	Geographical extent	Wider landscape scale.	Site scale, immediate setting.
	Duration and reversibility	Permanent. Long term (over 10 years).	Reversible. Short Term (0-5 years).

Table 1: Determining the level of landscape effects

Visual Effects

Visual effects are a subset of landscape effects. They are consequences of change on landscape values as experienced in views. To assess the visual effects of a proposed development in a landscape, a visual baseline must first be defined. The visual 'baseline' forms a technical exercise which identifies the area where the development may be visible, the potential viewing audience, and the key representative public viewpoints from which visual effects are assessed.

The Sensitivity of the viewing audience

The sensitivity of the viewing audience is assessed in terms of assessing the likely response of the viewing audience to change and understanding the value attached to views.

Likely response of the viewing audience to change

Appraising the likely response of the viewing audience to change is determined by assessing the occupation or activity of people experiencing the view at particular locations and the extent to which their interest or activity may be focussed on views of the surrounding landscape. This relies on a landscape architect's judgement in respect of visual amenity and the reaction of people who may be affected by a proposal. This should also recognise that people more susceptible to change generally include: residents at home, people engaged in outdoor recreation whose attention or interest is likely to be focussed on the landscape and on particular views; visitors to heritage assets or other important visitor attractions; and communities where views contribute to the wider landscape setting.

Value attached to views

The value or importance attached to particular views may be determined with respect to its popularity or numbers of people affected or reference to planning instruments such as viewshafts or view corridors. Important viewpoints are also likely to appear in guide books or tourist maps and may include facilities provided for its enjoyment. There may also be references to this in literature or art, which also acknowledge a level of recognition and importance.

Magnitude of Visual Change

The assessment of visual effects also considers the potential magnitude of change which will result from views of a proposed development. This takes account of the size or scale of the effect, the geographical extent of views and the duration of visual change, which may distinguish between temporary (often associated with construction) and permanent effects where relevant. Preparation of any simulations of visual change to assist this process should be guided by best practice as identified by the NZILA³.

When determining the overall level of visual effect, the nature of the viewing audience is considered together with the magnitude of change resulting from the proposed development. **Table 4** has been prepared to help guide this process:

Contributing Factors		Higher	Lower	Examples
The Viewing Audience (sensitivity)	Ability to absorb change	Views from dwellings and recreation areas where attention is typically focussed on the landscape.	Views from places of employment and other places where the focus is typically incidental to its landscape context. Views from transport corridors.	Dwellings, places of work, transport corridors, public tracks
	Value attached to views	Viewpoint is recognised by the community such as an important view shaft, identification on tourist maps or in art and literature. High visitor numbers.	Viewpoint is not typically recognised or valued by the community. Infrequent visitor numbers.	Acknowledged viewshafts, Lookouts
Magnitude of	Size or scale	Loss or addition of key features in the view. High degree of contrast with existing landscape elements (i.e. in	Most key features of views retained. Low degree of contrast with existing landscape elements (i.e. in terms of	- Higher contrast/ Lower contrast. - Open views, Partial views, Glimpse views

³ Best Practice Guide: Visual Simulations BPG 10.2, NZILA

Contributing Factors		Higher	Lower	Examples
		terms of form scale, mass, line, height, colour and texture). Full view of the proposed development.	form scale, mass, line, height, colour and texture. Glimpse / no view of the proposed development.	(or filtered); No views (or obscured)
	Geographical extent	Front on views. Near distance views; Change visible across a wide area.	Oblique views. Long distance views. Small portion of change visible.	- Front or Oblique views. - Near distant, Middle distant and Long distant views
	Duration and reversibility	Permanent. Long term (over 15 years).	Transient / temporary. Short Term (0-5 years).	- Permanent (fixed), Transitory (moving)

Table 2: Determining the level of visual effects

Nature of Effects

In combination with assessing the level of effects, the landscape and visual effects assessment also considers the nature of effects in terms of whether this will be positive (beneficial) or negative (adverse) in the context within which it occurs. Neutral effects can also occur where landscape or visual change is benign.

It should also be noted that a change in a landscape does not, of itself, necessarily constitute an adverse landscape or visual effect. Landscape is dynamic and is constantly changing over time in both subtle and more dramatic transformational ways; these changes are both natural and human induced. What is important in managing landscape change is that adverse effects are avoided or sufficiently mitigated to ameliorate the effects of the change in land use. The aim is to provide a high amenity environment through appropriate design outcomes.

This assessment of the nature effects can be further guided by **Table 2** set out below:

Nature of effect	Use and Definition
Adverse (negative):	The activity would be out of scale with the landscape or at odds with the local pattern and landform which results in a reduction in landscape and / or visual amenity values
Neutral (benign):	The activity would be consistent with (or blend in with) the scale, landform and pattern of the landscape maintaining existing landscape and / or visual amenity values
Beneficial (positive):	The activity would enhance the landscape and / or visual amenity through removal or restoration of existing degraded landscape activities and / or addition of positive elements or features

Table 1: Determining the Nature of Effects

Cumulative Effects

This can include effects of the same type of development (e.g. bridges) or the combined effect of all past, present and approved future development⁴ of varying types, taking account of both the permitted baseline and receiving environment. Cumulative effects can also be positive, negative or benign.

Cumulative Landscape Effects

Cumulative landscape effects can include additional or combined changes in components of the landscape and changes in the overall landscape character. The extent within which cumulative landscape effects are assessed can cover the entire landscape character area within which the proposal is located, or alternatively, the zone of visual influence from which the proposal can be observed.

Cumulative Visual Effects

Cumulative visual effects can occur in combination (seen together in the same view), in succession (where the observer needs to turn their head) or sequentially (with a time lapse between instances where proposals are visible when moving through a landscape). Further visualisations may be required to indicate the change in view compared with the appearance of the project on its own.

Determining the nature and level of cumulative landscape and visual effects should adopt the same approach as the project assessment in describing both the nature of the viewing audience and magnitude of change leading to

⁴ The life of the statutory planning document or unimplemented resource consents.

a final judgement. Mitigation may require broader consideration which may extend beyond the geographical extent of the project being assessed.

Determining the Overall Level of Effects

The landscape and visual effects assessment conclude with an overall assessment of the likely level of landscape and visual effects. This step also takes account of the nature of effects and the effectiveness of any proposed mitigation. The process can be illustrated in Figure 2:



Figure 2: Assessment process

This step informs an overall judgement identifying what level of effects are likely to be generated as indicated in **Table 3** below. This table which can be used to guide the level of natural character, landscape and visual effects uses an adapted seven-point scale derived from Te Tangi A Te Manu.

Effect Rating	Use and Definition
Very High:	Total loss of key elements / features / characteristics, i.e. amounts to a complete change of landscape character and in views.
High:	Major modification or loss of most key elements / features / characteristics, i.e. little of the pre-development landscape character remains and a major change in views. <u>Concise Oxford English Dictionary Definition</u> <i>High: adjective- Great in amount, value, size, or intensity.</i>
Moderate- High:	Modifications of several key elements / features / characteristics of the baseline, i.e. the pre-development landscape character remains evident but materially changed and prominent in views.
Moderate:	Partial loss of or modification to key elements / features / characteristics of the baseline, i.e. new elements may be prominent in views but not necessarily uncharacteristic within the receiving landscape. <u>Concise Oxford English Dictionary Definition</u> <i>Moderate: adjective- average in amount, intensity, quality or degree</i>
Low – Moderate:	Minor loss of or modification to one or more key elements / features / characteristics, i.e. new elements are not prominent within views or uncharacteristic within the receiving landscape.
Low:	Little material loss of or modification to key elements / features / characteristics. i.e. modification or change is not uncharacteristic or prominent in views and absorbed within the receiving landscape. <u>Concise Oxford English Dictionary Definition</u> <i>Low: adjective- 1. Below average in amount, extent, or intensity.</i>
Very Low:	Negligible loss of or modification to key elements/ features/ characteristics of the baseline, i.e. approximating a 'no change' situation and a negligible change in views.

Table 3: Determining the overall level of landscape and visual effects