

Proposed Subdivision, Cottleston Downs, Awamoa.

Landscape and Visual Effects Assessment Report

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Introduction

Sarb Investments Ltd is applying for resource consent to subdivide an approximately 24.8 ha property located between Thousand Acre Road and Beach Road, Awamoa. The subdivision will provide for 25 lifestyle blocks of between 4096 and 6441 m² with 2 balance areas of 19917 and 86973 m² to be used for hay and silage production. In terms of Waitaki District Plan (WDP) Rule 14.3.5 this will be a non-complying subdivision activity in the Rural zone which has a minimum net lot area standard of 4ha (40000 m²). This report provides a landscape and visual effects assessment of the proposed development and is structured as follows:

- Site and area description;
- Landscape values;
- The inland extent of the coastal environment
- The permitted baseline
- The proposed development;
- Landscape and visual effects illustrations;
- Landscape effects assessment;
- Visual effects assessment;
- Statutory provisions assessment;
- Conclusion.

Site and area description

The site is located between Thousand Acre and Beach Roads, adjacent to the coastline between Kakanui and Cape Wanbrow. The wider landscape context is the North Otago downlands, an area of low rolling country with occasional more resistant mesas and cuestas. The underlying geology in this part of the coast is limestone, siltstone and sandstone interspersed with more resistant volcanic rock (Deborah and Waiareka Volcanics) and the seaward edge is truncated by a degraded sea cliff. The area is drained via small water courses, two of which run through the property. Awamoa Creek is approximately 1km to the north and the Kakanui River some 4km to the south.

The site has a very gentle south-east gradient overall, and apart from the two water courses, the main topographical feature is a gentle, variably distinct coastal escarpment form that runs through the middle of the site parallel with the coast. There are currently ponds associated with each of the water courses that have been created by damming.

The property (and the area generally) has had a land use history of arable farming and the current land use on the property is grazing and silage production. Apart from a pine shelterbelt along a short length of the Thousand Acre Road boundary and some scrubby exotic vegetation (elderberry and willow) within the northern watercourse, the site vegetation is largely exotic pasture grass. There are no buildings on the site presently and the only structures are farm fences.

The surrounding landscape is rural in character with rural land uses, scattered dwellings and farm sheds, occasional (mainly exotic) shelter and amenity plantings and open pastoral paddocks. It is noticeable that the historically open rural landscape is becoming more densely settled in recent years, with built density in some areas (e.g. the southern side of Gardiners Road beginning to reflect the WDP 4ha minimum rural lot size or less.

Figures 1 – 11 (see attached graphic supplement) illustrate the character of the site and area.

Landscape Values

The values that are referenced by the Waitaki District Plan (WDP) and the New Zealand Coastal Policy Statement (NZCPS) that apply to this site and area can be summarised as:

- rural amenity including openness, privacy, spaciousness, quietness and rural outlook.
- the natural character and visual amenity of the coastal environment / identified significant coastal landscape.

The site certainly exhibits rural character due to its rural land use, openness, lack of built form and spacious qualities. More generally, the landscape in the area has rural character

also based on rural land uses such as grazing, and built density which although increasing, is clearly rural in nature.

Natural character attributes and associated visual amenity values of the site are underpinned by its largely unmodified natural landforms and lack of built form. The site is however significantly modified ecologically by its history of farming and the vegetation cover is now largely exotic. Natural coastal processes are slowly but progressively eroding the coast adjacent, and the low cliff edge forms a distinct break between the beach where natural coastal processes forms and elements are strongly dominant, and the coastal hinterland adjacent where rural land use significantly modifies the natural character. Whilst there are no buildings on the site itself, these along with associated shelter and amenity plantings, are characteristic elements in the wider coastal rural landscape.

The inland extent of the coastal environment

In the WDP, the significant coastal landscape is delineated as an approximately 100m strip along the coast from MHWS. The background Waitaki Landscape Study (Densem, 2004) discussed this coastline as being *'a significant landscape at a district level, including the beach, cliffs, stream and river mouths and estuaries, and also land between the clifftop and coastal road, where that is in public ownership'*.

In my assessment, and considering the guidance on defining the extent of the coastal environment in Policy 1 of the NZCPS, the WDP delineation is appropriate. Whilst the cliff edge forms a distinct boundary to the area of active coastal processes, the 100m setback line includes areas at risk from coastal hazards (Policy 1 (d)) and includes some of the immediate landscape context (Policy 1 (f)). An alternative approach to the somewhat arbitrary 100m setback line which better reflects the landform, could be to delineate the top of the gentle coastal scarp as the boundary of the coastal environment in this area. This was the approach taken in the Coastal Environment of Otago Waitaki District Section Report (Moore et al, 2015), For the purposes of this report however, the extent of the coastal environment will be taken to coincide with the WDP Significant Coastal Landscape as this is a statutory document with current standing, and is substantially consistent with the NZCPS in this regard, in my assessment.

The Permitted baseline – Waitaki District Plan

Whilst the rural landscape in the vicinity of the site largely exhibits a fairly open character, the Waitaki District Plan (WDP) provisions do not protect the current level of built density but provide for a minimum lot size of 4ha per residential unit. There is no maximum area standard for buildings in the Rural Zone and the maximum height for buildings is 10m. **Figure 12** illustrates theoretically what the residential built density could be under the permitted baseline. This denser settlement pattern is likely to also involve more shelter and amenity plantings – often expressing the property boundaries. Overall, the landscape effect could be one with significantly reduced landform legibility and spaciousness. This permitted baseline is relevant to the assessment of landscape and visual effects.

The proposed development

The proposed development is illustrated in **Figure 13**. It involves subdivision of the property into 28 lots. Of these, 25 (lots 1 – 25), are to be developed for residential purposes, 2 (lots 26 and 27), are balance areas to be used for hay and silage production purposes, and one (lot 28) is to be vested as road.

The vision for the development is that it provides for country living in a coastal situation on sites that are not unduly large to manage. Open space areas are retained for rural land use along the coastal edge and adjacent to Thousand Acre Road. Whilst the development will result in a node of greater than permitted rural built density, it will include controls to effectively mitigate built impact on rural amenity and will have a comprehensive landscape / ecological enhancement focus designed to enhance natural character, which will in time, provide balance to adverse rural amenity and natural character effects associated with more buildings.

The proposed internal road will have a 15 - 20m legal width and a 6m sealed carriageway. To ensure it has a rural character there will be no kerb and channel, footpaths or street lighting and the carriageway will have soft edges (gravel shoulders and grassed swales).

The berm areas will be maintained by mowing (by adjacent landowners) and the road will have a spacious character. An entrance feature at the roadway intersection with Thousand Acre Road is proposed. There is no design concept for this as yet however, it is intended that it will be 'low-key' using materials appropriate to the local rural landscape (e.g. Oamaru Stone and heavy timber) and will be unlit.

Framework planting to be undertaken by the developer is proposed, as shown in Figure 13. This planting will be established alongside the watercourses, along part of the Thousand Acre Road frontage and at the southern end of the site near the intersection of Thousand Acre and Beach Roads. The planting concept is based on restoration of the natural character of the site and plants appropriate to the local environment are proposed as outlined in **Appendix A**. This planting will be implemented prior to Section 224C certification of the subdivision and maintained by the developer until well established, after which time maintenance will become the responsibility of the various lot owners.

Further plantings designed to soften and mitigate the visual impact of buildings are also proposed, to be established by the future lots owners (see Figure 13). These are also to be comprised of the framework species listed in Appendix A.

Proposed controls over Lots 1 - 25

Controls are proposed over the development on the residential lots to minimize adverse effects on rural amenity and natural character as follows:

(a) All buildings shall be a maximum of 5m height above existing or modified ground level and gross floor area for all buildings on each site shall be no greater than 350m².

(b) Building setbacks will be as follows, with rationale noted

Boundary	Setback	Rationale
Existing road	15m	Consistent with WDP Rural Zone standard

Existing adjacent properties	20m	Consistent with WDP Rural Zone standard (except for Lot 25 which due to lot shape has been reduced to 10m)
Proposed internal road	10m	To provide for a spacious character for the internal roadway (in conjunction with building height controls)
Other internal boundaries	6m	Consistent with the WDP Rural Zone standard for non-residential buildings over 10m ² gross floor area (except for buildings for the housing of animals).

- (c) All buildings will be clad in naturally weathered timber or locally appropriate stone, or other materials that are finished in colours that have low levels of contrast with the colours of the rural landscape setting. Painted surfaces will have light reflectivity ratings of no more than 30%.
- (d) All earthworks will be designed to blend seamlessly with the natural contours surrounding. Retaining walls are to be avoided except where screened by buildings or landform from viewpoints beyond the site. Fill is not to be imported to raise the elevation of building sites.
- (e) Access driveways are to retain an informal rural character with soft edges (i.e. no kerbs). Monumental gates and driveway lighting is not permitted.
- (f) Water tanks are to be sited, and / or buried and / or screened (by planting) to have minimal visual impact from beyond the property.
- (g) Fencing (if any) is to be confined to standard rural post and wire construction or stone walls using locally appropriate rock. Boundary planting rather than fencing is encouraged.
- (h) All outdoor lighting shall comply with the following standards to minimize adverse 'dark sky' effects and effects on rural character:
 - (i) Shielding: All outdoor lighting shall be shielded from above in such a manner that the edge of the shield shall be below the whole of the light source.

(ii) Filtration: All outdoor lighting shall have a filter to filter out the blue or ultraviolet light, provided the light source would have more than 15% of the total emergent energy flux in the spectral region below 440nm. The filters used must transmit less than 10% of the light at any wavelength less than 440nm. This therefore includes, but is not limited to, fluorescent, mercury vapour and metal halide lamps.

(iii) The following outdoor lighting shall not be displayed between 11.00pm and sunrise:

- Searchlights (except emergency services on site should need arise)
- Outside illumination for aesthetic purposes of any building or garden feature by floodlighting.
- Outside illumination of any car parking area.
- Any outdoor illumination in which light is produced by high pressure sodium, metal halide, mercury vapour lighting or fluorescent lighting.

(i) With the exception of plantings below 1.5m in mature height and fruit trees, all plantings on the lots will be confined to indigenous species appropriate to the character of the site. Recommended species are listed in Appendix A

(j) The mitigation plantings within each lot as shown in Figure 13 are to be established within 1 year of any building works commencing on site. These are to be implemented in accordance with the guidelines in Appendix A.

Landscape and visual effects illustrations

To illustrate the effects of the proposed development on the landscape character, photo-simulations have been prepared from various representative viewpoints surrounding the site. These are shown in **Figures 14 - 21** and in each case illustrate the existing landscape, a photo-simulation of the proposed development showing approx. 10 years growth of the proposed plantings, and comparative photo-simulations indicating the theoretical built density that could occur on the property under the WDP permitted baseline

(see Figure 12), and as proposed by this development (see Figure 12(a)). **Appendix B** contains a method statement for the photo-simulations.

Landscape effects assessment

Landscape effects describe the impact of the proposal on the landscape elements, patterns, and processes, and its character. Their significance is determined with reference to the value and sensitivity of the landscape, and the scale and character of the proposal. The nature and magnitude of the landscape effects are described below based on the following scales:

Nature of effect

- *Positive*
- *Neutral*
- *Adverse*

Magnitude of effect

- *Very high*
- *High*
- *Moderate high*
- *Moderate*
- *Moderate - low*
- *Low*
- *Very low*

The site is part of a rural landscape with no particularly recognised landscape values, except that the coastal edge is classified as a Significant Coastal Landscape (SCL) with natural character and associated visual amenity values. As the area has been significantly modified by rural activities, it is my assessment that the main attributes that contribute to natural character are associated with its rural character generally, including low built density and openness which allows for generally high legibility of the natural landforms. Rural character is also supported by the productive rural land uses. Whilst the landscape presently exhibits relatively low built density, as discussed, the WDP does not protect the existing density and character but rather, provides for one dwelling per 4ha. Figure 12

illustrates the theoretical effect of this. Overall, it is my assessment that landscape sensitivity is high within the area identified as SCL (given that the preservation of the natural character of the coast is a matter of national importance under the RMA) and moderate more widely.

The proposed development will introduce more buildings and roading to the site. The natural landforms will be generally retained at the wider scale but there will be earthworks of modest scale associated with the internal road, each house site and access to these. The proposed development will involve establishment of an area of approximately 3.6ha in indigenous vegetation including wetland areas, and corridors and blocks of native shrubs and trees. The effect of all this will be to reduce the existing large rural scale and open, spacious character over much of the site, to enhance indigenous biodiversity, and to change the character and land use of much of the site from rural to high density rural lifestyle. Approximately 56% of the property will have a rural lifestyle use and character, whilst the remainder will remain rural. The overall density proposed (one dwelling per approx. 0.99ha) is akin to the WDP minimum site size standard for Rural-residential zones of one house per 1ha.

Whilst the scale and openness of much of the property will reduce, adverse effects on rural character associated with more buildings will be mitigated by the proposed framework plantings and controls over built development. The significance of this change in character is minimised when account is taken of the permitted baseline density of one dwelling per 4ha. Rural land use and open character will be maintained adjacent to the coast (including within the SCL) and alongside much of the Thousand Acre Road boundary.

Overall, it is my assessment that the nature of the landscape effects of the proposed development will be adverse in that part of the site will no longer have the rural character and openness values that the WDP Rural Zone envisages. I assess the magnitude of these adverse effects as moderate – low taking into account the following:

- Adverse effects on naturalness will be mitigated by the proposed planted framework and biodiversity values will be enhanced.
- Built impact will be controlled by the proposed suite of mitigation measures. In particular the proposed height and colour controls, and framework plantings will be

very effective when compared with what could occur as of right (6 dwellings and 10m high buildings uncontrolled as to colour / reflectivity) under the current consent (202-2019-1365).

- Openness will be impacted but mitigated from significant adjacent viewpoints by the retention of extensive open space adjacent to Thousand Acre Road and the coast provided by lots 26 and 27 (the rural lots).
- Rural land use will still be present on the site, albeit reduced in area.
- Essentially, the above factors will ensure that whilst the proposed development introduces uncharacteristic built density, it will integrate well with the surrounding rural landscape character.

Visual effects assessment

Visual effects describe the impact of the proposal on the views available to people and the impact of this on amenity values. Amenity values are defined in the RMA as *'those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes'*. Visual effects are determined with reference to the sensitivity of viewers to change / the value placed on existing views, and the scale and character of the proposal. The nature and magnitude of the visual effects are described below based on the same scale as the landscape effects assessment above.

It is my assessment that the value placed on views of the rural coastal landscape in this area are moderate to high. This is on the basis that the WDP recognizes the coastal strip as a Significant Coastal Landscape with natural character and visual amenity values (Policy 16.8.3 (4)) and because it also includes an objective to maintain rural amenity generally (Objective 16.5.1). In discussing this particular area the Waitaki Landscape Study (Densem, 2004) refers to 'lightly rolling and horticultural or farmed land right to the coast and 'an interesting feeling of openness and conjunction of land and sea'.

Viewers potentially impacted by development on this site will include nearby residents with views toward the site from their properties, and users of the roads in the area. With the

exception of the dwelling directly adjacent to the site on the northern boundary (67 Gardiners Road) this assessment has not involved visits to private properties and is made on the basis of observations from the public roads in the vicinity or from on the property itself.

The site is visible from sections of Beach Road to the south, Thousand Acre Road, and Seadown Road. It is largely screened by landform and / or vegetation from Gardiners Road and from the open section of Beach Road to the north but can be viewed from the partially eroded portion of Beach Road adjacent. Very distant views are possible from Kakanui e.g. near the fishing club.

The following is an assessment of the effects of the proposed development from various representative viewpoints.

Kakanui Headland (see Figure 1)

Relevance of viewpoint	A long distance public viewpoint to the south of the site from which the coast to the north including the site, can be seen.
Approx distance to nearest visible building site	3.5km
Existing view description	This is a view northward up the coastline toward Cape Wanbrow. The site is visible across the water as part of the rural coastal landscape. Its character is pastoral with scattered rural buildings and shelter trees. Scenic values are at least moderately high.
Description of visual effects	Most of the proposed development will be visible from this viewpoint, with only a small area near Thousand Acre Road screened by an intervening headland. The proposed development will be seen as a node of higher built density set amongst plantings. The visual prominence of the buildings will be mitigated by the proposed height and colour controls and by the plantings once these are well established.

<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate - low in the short term but will reduce to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 5 – 6 visually prominent buildings visible on the site under the permitted baseline; and • Whilst the built density will introduce an area of rural lifestyle character, this will be seen at a distance and visual prominence of buildings will be muted.
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Beach Road – south of the site (see Figure 14)

<p>Relevance of viewpoint</p>	<p>A viewpoint representative of coastal views northward from Beach Road</p>
<p>Approx distance to nearest visible building site</p>	<p>830m</p>
<p>Existing view description</p>	<p>This is a view northward up the coastline toward Cape Wanbrow, which is the main focal point. For motorists it will generally be experienced fairly fleetingly. The ocean, beach, low cliff and rural landscape behind contribute to a view with high scenic qualities. The landscape is pastoral and open in character with scattered houses and trees.</p>
<p>Description of visual effects</p>	<p>The development will be seen in the middle distance in its entirety and in the context of the surrounding rural landscape. It will result in a change of character, with a node of rural lifestyle scale dwellings and plantings introduced. The landscape scale and openness will be reduced in the vicinity of the site but the proposed plantings and the height and colour controls on the buildings will mitigate building</p>

	<p>prominence. The proposed native plantings at the southern end of the site will be relatively prominent and will enhance natural character. Overall, once plantings are well established (10 year timeframe) the development will integrate well into the rural landscape setting.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate - high in the short term but will reduce to adverse / moderate - low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 6 visually prominent buildings visible on the site under the permitted baseline • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings

Thousand Acre Road adjacent to the site – south end (see Figure 15)

<p>Relevance of viewpoint</p>	<p>A close proximity northward viewpoint on Thousand Acre Road directly adjacent to the property. Also generally indicative of the visual effects from Seadown Road and properties to the southwest of the site.</p>
<p>Approx distance to nearest visible building site</p>	<p>220m</p>
<p>Existing view description</p>	<p>The site is in the foreground of the view and is seen as open farmland with the sea and Cape Wanbrow beyond. Scattered dwellings are visible in the middle distance on nearby properties to</p>

	<p>the north and there are a few lineal shelterbelts. For motorists the view will generally be experienced fairly fleetingly.</p>
<p>Description of visual effects</p>	<p>From this viewpoint views of the ocean and toward Cape Wanbrow will be retained but the existing rural character of part of the site will be altered by the proposed rural residential style development. Given the viewing angle the buildings will be mainly seen stacked behind each other rather than spread out across the width of the view. In this part of the site, the current pastoral openness will be replaced by buildings and native plantings. Whilst houses will be evident their visual impact will be mitigated by the height and colour controls and (progressively) by the structure plantings.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate - high in the short term but will reduce to adverse / moderate - low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 6 visually prominent buildings visible on the site under the permitted baseline. • The possibility that under the permitted baseline, boundary plantings could be established that entirely screen views across the site to the ocean. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings • Significant openness is retained adjacent to the road and the coast from this viewpoint.

Thousand Acre Road adjacent to the site – north end (see Figure 16)

Relevance of viewpoint	A close proximity south-eastward viewpoint on Thousand Acre Road directly adjacent to the property.
Approx. distance to nearest visible building site	110m
Existing view description	The site is seen as open pastoral farmland in the foreground and mid-ground of the view, sloping gently to the ocean behind. The natural landform character is legible and exotic vegetation can be seen in the northern waterway gully. For motorists the view will generally be experienced fairly fleetingly.
Description of visual effects	The proposed development will introduce a swathe of rural lifestyle land use in the middle ground with open paddock seen in front of this and the ocean still visible beyond. Rural character will be considerably modified but the proposed development will integrate with the landscape well with high amenity provided by the indigenous plantings, open foreground and buildings nestled into the planted context.
Visual effects assessment	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate - high in the short term but will reduce to adverse / moderate - low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 6 visually prominent buildings visible on the site under the permitted baseline. • The possibility that under the permitted baseline, boundary plantings could be established that entirely screen views across the site to the ocean. • The built density will introduce an area of rural lifestyle character but the proposed development controls over

	<p>height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it.</p> <ul style="list-style-type: none"> • The positive effect of large areas of indigenous plantings • A degree of openness is retained adjacent to the road from this viewpoint.
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Thousand Acre Road north of the site (see Figure 17)

Relevance of viewpoint	A close proximity southward viewpoint on Thousand Acre Road, just north of the property. Also generally indicative of the visual effects from properties to the northwest of the site.
Approx distance to nearest visible building site	250m
Existing view description	<p>The view is southward across other small (approx. 4ha) rural properties toward the site. Both these properties and the site are seen as open pastoral farmland falling away gently toward the ocean, which is seen behind (the pond in the photograph was an ephemeral feature caused by a leakage issue and is now gone). Exotic trees adjacent to the northern watercourse on the property can be seen. Young boundary plantings are visible in the foreground which will eventually screen views toward the site and the ocean and are indicative of what is likely to happen more generally under closer (permitted) rural subdivision. For motorists the view will generally be experienced fairly fleetingly.</p>
Description of visual effects	<p>The proposed development will change the open rural character in the mid-ground of this view by introducing built development of a rural lifestyle nature. The existing exotic trees on the site (both in the gully area and along the road boundary) will be replaced by indigenous vegetation and a degree of openness will be retained close to Thousand Acre Road. The proposed building controls and</p>

	structure plantings will limit built impact and assist with integration of the development with the rural landscape context.
Visual effects assessment	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate - high in the short term but will reduce to adverse / moderate - low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 6 visually prominent buildings visible on the site under the permitted baseline. • The change to the landscape character in the foreground associated with closer (permitted) rural development i.e. less openness. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings.

Gardiners Road (see Figure 18)

Relevance of viewpoint	Views toward the site are not particularly the focus of views from Gardiners Road but this viewpoint is generally indicative of the visual effects from properties to the north of the site.
Approx distance to nearest visible building site	470m
Existing view description	Gardiners Road is at a higher elevation than the site and this viewpoint has views across the open rural land of the site in the middle distance to the ocean and Moeraki peninsula in the far distance. There is some screening by intervening shelterbelts.

<p>Description of visual effects</p>	<p>The proposed development will change the open rural character in the mid-ground of this view by introducing built development of a rural lifestyle nature. The existing exotic trees on the site (both in the gully area and along the road boundary) will be replaced by indigenous vegetation and a degree of openness will be retained close to Thousand Acre Road. The development will be seen about 6 sections wide with (due to the landform sloping away) much of the development screened by the closer buildings and plantings. The proposed building controls and structure plantings, along with the viewing distance will limit built impact and assist with integration of the development with the rural landscape context.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate in the short term but will reduce to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 6 visually prominent buildings visible on the site under the permitted baseline. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings • The screening of much of the more distant development by the closer houses and plantings.

Beach Road approx. 540m north of Gardiners Road (see Figure 7)

<p>Relevance of viewpoint</p>	<p>A viewpoint southward along the coast toward the site from Beach Road, north of Gardiners Road – one of few places from which the site is partly visible.</p>
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Approx distance to nearest visible building site	1.46 km
Existing view description	This is a view southward along the coastline toward Kakanui and Moeraki beyond. The seaward edge of the site can be seen in the middle distance as part of the rural coastal landscape but most of the property is screened by intervening landform and vegetation.
Description of visual effects	The proposed development on the site will be substantially screened from this viewpoint. Any dwellings visible that are associated with the dwellings will have minimal visual prominence due to the viewing distance, their muted colour schemes and the much greater impact of the existing houses located closer. The visible coastal edge part of the site will retain an open rural character.
Visual effects assessment	In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / very low in both the short and long term.

Beach Road approx. 350m north of the site (see Figure 19)

Relevance of viewpoint	This is a viewpoint from close to the closed road sign and barrier fence to the north of the site on Beach Road and represents as close a viewpoint as most people (pedestrians) will get from Beach Road to the north. Viewer numbers are probably low due to the vehicle barrier further north near Gardiners Road and the lack of easy through access.
Approx distance to nearest visible building site	410m
Existing view description	This is a view southward along the coastline toward Kakanui and Moeraki beyond. The site is in the middle distance and seen as part of the open pastoral rural coastal landscape. Existing houses are

	<p>already quite prominent features both at near proximity to the west and in the distance beyond the site.</p>
<p>Description of visual effects</p>	<p>Some of the proposed houses will be visible behind the existing dwelling at 67 Gardiners Road but many will be screened by landform. The flat land adjacent to the coastal cliff and Beach Road will retain its current open rural character but the gently rising coastal terrace slopes back from this will undergo a change to rural-residential character. Buildings will be seen within a well planted context with an indigenous character and their visual prominence will be minimised by the proposed development controls.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate in the short term but will reduce to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of at least 4 visually prominent buildings visible on the site under the permitted baseline. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings • The screening of much of the development from this viewing angle

Beach Road adjacent to north end of the site (see Figure 20)

<p>Relevance of viewpoint</p>	<p>A close proximity view from Beach Road adjacent to the site from the east. This viewpoint can no longer be driven to but is representative of views of the property that could be obtained by pedestrians using what remains of the Beach Road alignment. It</p>
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	<p>should be noted that physical access is no longer possible above the low cliff face on the road alignment for the whole way along this part of Beach Road - due to coastal erosion.</p>
<p>Approx distance to nearest visible building site</p>	<p>140m</p>
<p>Existing view description</p>	<p>The site is seen in the foreground of inland views from this viewpoint and as open, rural pasture. The low coastal terrace is the main landform feature. There are a few houses and exotic shelterbelts visible in the distance.</p>
<p>Description of visual effects</p>	<p>Open paddock will remain on the immediately adjacent flat area and indigenous plantings will highlight the watercourse areas. Beyond this in the middle distance, the character will change with rural lifestyle development on and above the gentle terrace landform. The building design controls (height / colour etc) will effectively reduce the potential built impact, as will the structure plantings as they mature.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / high in relation to the existing landscape. I consider however, that the potential effects associated with the permitted baseline could also be significantly adverse, and could entail the establishment of visually prominent houses as shown (see Figure 20 (c)) as well as lineal boundary plantings. Overall then and taking account of the permitted baseline, I rate the short term effects as adverse / moderate reducing to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of at least 4 visually prominent buildings visible on the site under the permitted baseline. • The built density will introduce an area of rural lifestyle character but the proposed development controls over

	<p>height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it.</p> <ul style="list-style-type: none"> • The positive effect of large areas of indigenous plantings
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Beach Road adjacent to south end of the site (see Figure 21)

Relevance of viewpoint	A close proximity view from Beach Road adjacent to the site from the east. This viewpoint can no longer be driven to but is representative of views of the property that could be obtained by pedestrians using what remains of the Beach Road alignment. It should be noted that physical access is no longer possible above the low cliff face on the road alignment for the whole way along this part of Beach Road - due to coastal erosion.
Approx distance to nearest visible building site	200m
Existing view description	The site is seen in the foreground of inland views from this viewpoint and as open, rural pasture. The low coastal terrace is the main landform feature. There are a few houses and exotic shelterbelts visible in the distance.
Description of visual effects	Open paddock will remain on the immediately adjacent flat area and indigenous plantings will highlight the watercourse areas. Beyond this in the middle distance, the character will change with rural lifestyle type development on and above the gentle terrace landform. The building design controls (height / colour etc) will effectively reduce the potential built impact, as will the structure plantings as they mature.
Visual effects assessment	In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate-high in relation to the existing landscape. I consider however, that the potential effects associated with the permitted baseline could also be significantly adverse, and

	<p>could entail the establishment of visually prominent houses as shown (see Figure 21 (c)) as well as lineal boundary plantings. Overall then and taking account of the permitted baseline, I rate the short term effects as adverse / moderate reducing to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of 3 - 4 visually prominent buildings visible on the site under the permitted baseline from this viewpoint. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings
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Adjacent property - 67 Gardiners Road (see Figure 11)

Relevance of viewpoint	A directly adjacent property with an existing dwelling
Approx distance to nearest visible building site	20m
Existing view description	This view is from the southwestern deck of the dwelling. Its main focus is across the low boundary plantings and the rural land of the site to the ocean and southward coastline including Kakanui and Moeraki. More widely, the open rural paddocks back toward Thousand Acre Road form part of the coastal landscape context.
Description of visual effects	The visual amenity effect of the proposed development from this property is that the existing rural character of the land adjacent to the southwest, will transform to rural lifestyle and in particular, that new dwellings are proposed on the lots adjacent to its southwestern boundary. The current WDP rural zone setbacks apply but a higher density of buildings than would occur under the permitted baseline

	<p>will result. Balancing this, the proposed building scale and height controls will place more limits on the impact of built form than what could occur as of right (per site) and the proposed plantings will also provide screening and softening mitigation. In terms of effects on the coastal views from this property, these are effectively protected already by the WDP building line restriction, which is retained and moved approx. 5m inland under the proposed development.</p>
<p>Visual effects assessment</p>	<p>In my assessment the effects of the development on visual amenity values associated with this landscape (naturalness, rural character / openness) will be adverse / moderate in the short term, reducing to adverse / low in the longer term once the plantings have matured to have significant impact (approx. 10 yrs). This rating takes account of:</p> <ul style="list-style-type: none"> • The possibility of buildings and / or plantings that would generally screen views over the site under the permitted baseline from this viewpoint. • The built density will introduce an area of rural lifestyle character but the proposed development controls over height and colour and the plantings will effectively mitigate the impact of built form and assist to integrate it. • The positive effect of large areas of indigenous plantings • Protection of the sea / coast views is unaffected or marginally improved by the proposed development.

Statutory provisions assessment

Waitaki District Plan

The proposed development is a non-complying subdivision activity in terms of Rule 14.3.5 in the WDP. As such, an assessment against the Subdivision and Rural Zone objectives and policies is required. Those objectives and policies considered relevant to the

landscape and visual effects of the proposed development are outlined below, along with brief comment.

<p>8.4.2 Objective 3</p> <p>The maintenance or enhancement of amenity, historic heritage, nature conservation values and landscape character through the subdivision process.</p>	<p>The proposed subdivision and development will result in a change in the existing rural character and adverse effects on the amenity values associated with this. More generally however, amenity values will be maintained through the development of a high quality rural lifestyle environment with significant plantings to enrich natural values and to mitigate the effects of more built form.</p>
<p>8.4.3 Policies</p> <p>3. To avoid or mitigate any adverse effects on visual amenity values associated with subdivision and associated development works.</p> <p>4. To encourage innovative subdivision design consistent with the maintenance of amenity value.</p>	<p>Visual amenity values associated with the site based on its existing open pastoral rural character will be adversely impacted but the existing level of openness is not assured under the WDP permitted baseline. The proposed development mitigates these adverse effects through controls to minimise the visual prominence of built form and through significant indigenous plantings designed to screen and integrate buildings. Whilst amenity values associated with the existing character of the area will be modified, the development will result in a rural lifestyle character that will have high amenity values through well integrated built form and plantings that enhance the indigenous vegetation cover in the area and emphasise the existing waterway features. The subdivision design minimises impacts on the existing landform and the openness adjacent to the coast and Thousand Acre Road.</p>

<p>5. To avoid subdivision where it is likely that the subsequent landuses would not give effect to the policies for the ... significant coastal landscapes set out for the Rural Zone under Chapter 16.8, Issue 7 – Landscapes.</p>	<p>Assessment against the Rural zone provisions is provided below.</p>
<p>16.5.1 Objective 4 – Rural Amenity</p> <p>A level of rural amenity that is consistent with the range of activities anticipated in the rural areas, but which does not create unpleasant living or working conditions for the District’s residents and visitors, nor a significant deterioration of the quality of the rural environment.</p>	<p>A node of rural lifestyle land use is consistent with the range of activities encountered in rural areas (interpreted broadly). The development proposed will adversely affect the amenity values associated with the existing open pastoral landscape character but will create a high quality rural lifestyle area. This will result in more opportunities for pleasant rural living without the burden of maintaining a 4ha block and the quality of the environment will be enhanced to the extent that indigenous biodiversity will be increased by the proposed plantings.</p>
<p>16.5.2 Policies 4</p> <p>1. To encourage a wide range of rural land use and land management practices in the Rural General Zone, without increasing the potential for conflict or the loss of rural amenity, by ensuring that subdivision is limited to moderate sized rural allotments.</p> <p>6. To require that residential dwellings be setback from property boundaries so as to reduce the probability of dwellings being exposed to significant adverse effects from an activity on a neighbouring property.</p>	<p>The proposed development is inconsistent with the method component of this policy (in that the lot sizes are less than the 4ha minimum site size) but in my assessment it is generally consistent with its overall aim – i.e. encouraging a wide range of rural land use without the loss of rural amenity. The amenity values based on the current open pastoral character will be modified but a different character with its own high amenity will be introduced.</p> <p>With the exception of Lot 25, the residential setbacks proposed for this development are consistent with the WDP Rural zone standards.</p>

<p>8. To maintain clear distinctions between the urban and rural areas, in order to assist in protecting the character and quality of the surrounding rural areas.</p>	<p>The proposed development will result in a new node of relatively high density rural lifestyle land use. It will modify the existing rural character and have adverse effects on its values of openness and spaciousness but will enhance it in terms of indigenous biodiversity.</p>
<p>16.8.2 Landscape Objective</p> <p>Subdivision, use and development are managed so that:</p> <ul style="list-style-type: none"> • The values identified for the outstanding or significant natural features, the outstanding landscapes and the significant coastal landscapes are protected from inappropriate use and development ... 	<p>The values identified for the significant coastal landscapes are its natural character and [associated] visual amenity values. The area identified as SCL in this area will remain unaffected by the proposed development except for some establishment of indigenous planting, which will enhance its natural character.</p> <p>More widely, natural character and associated amenity values in this coastal area are underpinned by its largely unmodified natural landforms and relatively sparse density of built form. It is however, significantly modified ecologically by its history of farming and the vegetation cover is now largely exotic. The proposed development will adversely affect naturalness to the extent that there will be more built form of a rural lifestyle character but this will be mitigated in the long term by the proposed framework plantings which will enhance the biodiversity natural values and screen, soften and integrate the buildings.</p>
<p>16.8.3 Policies</p> <p>4. To manage the effects of use and development within the significant coastal landscapes so that:</p>	<p>If the landward extent of the coastal environment in this area is defined as coinciding with the extent of the SCL, the effects of the proposed development are positive and involve the establishment of indigenous plantings that will enhance the</p>

<p>a) the natural character of the coastal environment is preserved and protected from inappropriate use and development; and</p> <p>b) the visual amenity associated with these landscapes is maintained.</p> <p>6. To assist in achieving the outcomes in Policies 2 to 5 above, the following policies are to be considered against any subdivision, use or development applications:</p> <p>e) In the ... significant coastal landscapes buildings are to be located in areas with higher potential to absorb change and ... are to avoid skylines, ridgelines, prominent places and features within important views and are to be encouraged to be in sympathy with the dominant forms and colours in the landscape.</p> <p>f) Earthworks are encouraged to be located away from visually sensitive areas, and where practicable towards the edges of the landform and vegetation patterns;</p>	<p>natural character. If the coastal environment is defined more widely, then the development will have adverse effects on naturalness associated with more buildings but these effects will be effectively mitigated by the framework of native plantings. The coastal landscape is already highly modified by agricultural use and whilst the change in this area to rural lifestyle character will alter the character and amenity, it will not be inappropriate per se. A high quality rural lifestyle character sympathetic to the natural values of the coast will result.</p> <p>No buildings are proposed to be within the part of the site that is within the SCL. More widely however, and to assess the development against the spirit of the policy, the subdued gently rolling landform of the site means that the development will be visible within the rural coastal landscape to varying extents from viewpoints surrounding. Seen in views northward and southward along the coast it will generally have a backdrop of higher land. Its form and layout minimises change to the landform and celebrates the watercourses as features. Integration of built form with the landscape is proposed via controls over building design and colour and by the establishment of a strong planted framework. It is my assessment that a node of sensitively designed rural lifestyle development in this area with significant indigenous plantings as proposed, can be acceptably absorbed into this rural coastal landscape.</p>
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<p>h) Earthworks, where possible, should be restored and finished to a contour sympathetic to the surrounding physiography and should also, where possible, be revegetated with a cover appropriate to the site and setting;</p> <p>i) Use and development is to take into account the effects of indigenous vegetation clearance on landscape character, and in particular, clearance is to be avoided where the values identified for Significant coastal landscapes, would be irreversibly lost.</p> <p>8. To recognise that the Rural General Zone is made up of landscapes that have a greater capacity to absorb change because the land has been more intensively developed, and contains a greater range of uses with a greater dominance of buildings and structures, at the same time acknowledging that the rural amenity of this zone still needs to be managed.</p> <p>11. Any proposed development of an intensity or scale that exhibits urban-like characteristics are required to assess the impacts on landscape character and the policies in this section of the Plan need to be considered against the merits of such a re-zoning proposal.</p>	<p>In my assessment, the development proposed aligns well with Policy 8.</p> <p>In my assessment, the proposed development exhibits rural lifestyle characteristics. Whilst this will create a node of higher built density that will contrast with more sparsely settled areas surrounding, considering the mitigation measures proposed, it will acceptably integrate in this environment in my assessment. As regards the fit with the Rural Section policies, specifically rural character will not be maintained, but more widely it is my conclusion that adverse effects on amenity and natural character will be sufficiently low as to disqualify this proposal as inappropriate development.</p>
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New Zealand Coastal Policy Statement 2010

Given the coastal location of the site, the objectives and policies of the NZCPS are also relevant. Those considered relevant to landscape matters are listed below with comment provided.

<p>Objective 2</p> <p>To preserve the natural character of the coastal environment and protect natural features and landscape values through:</p> <ul style="list-style-type: none"> • Recognizing the characteristics and qualities that contribute to natural character, natural features and landscape values and their location and distribution • Identifying those areas where various forms of subdivision, use and development would be inappropriate and protecting them from such activities; and • Encouraging restoration of the coastal environment. 	<p>The characteristics and qualities that contribute to natural character and associated landscape values are as follows:</p> <ul style="list-style-type: none"> • The sea, beach and coastal cliff strongly express dynamic coastal processes • Inland of the coastal cliff, the landscape is highly modified by farming land use but there are naturalness values associated with the pastoral rural activities including legible and coherent natural landform and openness <p>Overall, it is my assessment that both natural character and the associated amenity values are moderate.</p> <p>The proposed development avoids the area identified as SCL in the WDP but will have effects on the character of the wider coastal landscape involving the establishment of a node of higher built density and associated amenity plantings. The landscape scale and openness will reduce. The landform coherence and legibility associated with the current openness will also reduce but this effect will be mitigated by the framework plantings that will emphasise the waterways. The development will enhance indigenous biodiversity and natural vegetative character. It is my</p>
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	<p>assessment that considering the mitigation measures proposed, the development will acceptably integrate within this already modified coastal landscape and will not be inappropriate.</p>
<p>Policy 6 Activities in the coastal environment</p> <p>(1) In relation to the coastal environment:</p> <p>(f) consider where development that maintains the character of the existing built environment should be encouraged, and where development resulting in a change in character would be acceptable.</p> <p>(h) consider how adverse visual impacts of development can be avoided in areas sensitive to such effects, such as headlands and prominent ridgelines, and as far as practicable and reasonable, apply controls or conditions to avoid those effects.</p>	<p>The proposed development will involve the establishment of a small node of rural lifestyle type settlement on the coast between Oamaru and Kakanui that is not provided for in the WDP. There are currently no rural-residential zones provided for on the Waitaki District coastline, with the townships such as Kakanui providing for higher density coastal living opportunities only. Clearly, this application raises potential precedent and cumulative effects issues as to whether and where, development of this type is appropriate. In my assessment it is important for preservation of the natural character of the coastal environment reasons that developments of this sort are not provided for too liberally along the coast and should generally be located in association with existing nodes of settlement. In this case however, considering the character of the coast southward from Oamaru, one development close to the city and carefully controlled to minimize natural character effects as proposed, can be acceptably integrated.</p> <p>As discussed above the visual effects of built form will be effectively mitigated by the proposed building scale, height and colour controls as well as the development of framework plantings.</p>

<p>(i) set back development from the coastal marine area and other water bodies, where practicable and reasonable, to protect the natural character, open space, public access and amenity values of the coastal environment.</p>	<p>The proposed development is set back from the coastal marine area and is not within the area identified as SCL in the WDP.</p>
<p>Policy 13 Preservation of natural character</p> <p>(1) To preserve the natural character of the coastal environment and to protect it from inappropriate subdivision, use, and development:</p> <p>(a) avoid adverse effects of activities on natural character in areas of the coastal environment with outstanding natural character; and</p> <p>(b) avoid significant adverse effects and avoid, remedy or mitigate other adverse effects of activities on natural character in all other areas of the coastal environment ...</p>	<p>It is my assessment that the natural character of the coastal environment is significantly modified in this area, and only moderate in significance. This is consistent with the findings of the Coastal Environment of Otago Natural Character and Outstanding Natural features and Landscapes Assessment, Waitaki District Section report dated 26 June 2015 (Moore et al, 2015). This means that the test in this case is whether significant adverse effects on natural character are avoided and other adverse effects are avoided, remedied or mitigated. It is my assessment that the adverse effects of the proposed development on natural character are not significant and that they are adequately mitigated.</p> <p>The coastal environment has been identified as an approximately 100m strip back from the coastal scarp as an area that provides the immediate context to the coast and which is potentially subject to coastal hazards. Within this area coastal erosion processes are vividly expressed at the coastal scarp and seaward of this natural character and processes are dominant. Landward however, whilst the natural landform is generally coherent, the vegetation is highly modified. The main attributes that contribute to natural character landward of the sea cliff are associated with its</p>

	<p>rural character generally, including low built density and openness which allows for generally high legibility of the natural landforms. The area is rural in character and not wild, but it does have scenic values based on the fertile, domesticated rural character in immediate juxtaposition with the sea.</p> <p>The proposed development will enhance the natural character of the area identified as Significant Coastal Landscape (SCL) in the WDP as areas are proposed to be re-established in indigenous vegetation. More widely than the identified SCL area, existing naturalness and rural amenity will be adversely affected by new dwellings. These effects will not be unduly significant however because natural character is already significantly modified and the proposed building controls and indigenous plantings will soften and mitigate the impact of buildings. Controls are also proposed on lighting to limit the extent of adverse effects on the natural darkness of the night sky.</p> <p>Overall, it is my assessment that the effects of the proposed development on the natural character of the coastal environment will be adverse in nature but low in magnitude. This rating factors in the following:</p> <ul style="list-style-type: none">• The area identified as significant coastal landscape in the WDP will not be impacted by buildings, will retain its rural character and will be enhanced by indigenous plantings.• Natural coastal and stream processes will be largely unaffected by the development except that the natural
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	<p>character of the watercourses will be enhanced by indigenous plantings.</p> <ul style="list-style-type: none"> • The coastal hinterland is already significantly modified and is rural and settled in character. The WDP permitted baseline which allows a minimum rural lot size of 4ha provides for a significant increase in built form than currently exists. • The proposed development will increase the impact of buildings and modify the rural character in the vicinity but the proposed development controls and plantings will effectively mitigate the impact of this in the long term (once plantings have a significant visual impact in softening and providing context to the buildings).
<p>Policy 14 Restoration of natural character Promote restoration or rehabilitation of the natural character of the coastal environment, including by:</p> <p>(a) identifying areas and opportunities for restoration or rehabilitation;</p> <p>(c) where practicable, imposing or reviewing restoration or rehabilitation conditions on resource consents and designations, including for the continuation of activities; and recognizing that where degraded areas of the coastal environment require restoration or rehabilitation, possible approaches include:</p> <p>(i) restoring indigenous habitats and ecosystems, using local genetic stock where practicable; or</p> <p>(ii) encouraging natural regeneration of indigenous species, recognizing the</p>	<p>A major component of the proposed development is the restoration of indigenous vegetation appropriate to the site. This will mitigate the effects of more built form on natural character and also enrich the area ecologically.</p>

<p>need for effective weed and animal pest management; or</p> <p>(iii) creating or enhancing habitat for indigenous species; or</p> <p>(iv) rehabilitating dunes and other natural coastal features or processes</p> <p>(v) restoring and protecting riparian and intertidal margins; or</p>	
<p>Policy 15 Natural features and natural landscapes</p> <p>To protect the natural features and natural landscapes (including seascapes) of the coastal environment from inappropriate subdivision, use, and development:</p> <p>(a) avoid adverse effects of activities on outstanding natural features and outstanding natural landscapes in the coastal environment; and</p> <p>(b) avoid significant adverse effects and avoid, remedy, or mitigate other adverse effects of activities on other natural features and natural landscapes in the coastal environment.</p>	<p>The coastal landscape in this area is not outstanding and there are no outstanding natural features in my assessment. This is consistent with the findings of the Coastal Environment of Otago Natural Character and Outstanding Natural afeatures and Landscapes Assessment, Waitaki District Section report dated 26 June 2015 by myself and others (Moore et al, 2015). This means that the test in this case is whether significant adverse effects on natural features and landscapes are avoided and other adverse effects are avoided, remedied or mitigated. As discussed above, it is my assessment that the adverse effects of the proposed development on the coastal landscape are not significant and that they are adequately mitigated.</p>

Conclusion

The property in question is within the rural landscape on the coast between Oamaru and Kakanui. This area is not recognized for outstanding natural landscape values but a narrow band directly adjacent to the coast has is identified as a 'significant coastal landscape' in the WDP. The landscape values associated with the site and its wider

landscape context are rural character, natural coastal character and the amenity values associated with these.

The development proposed will result in a localized modification to the rural character and the establishment of a small node of rural lifestyle land use. Whilst it will clearly contrast with the rural character in terms of built density and land use and modify natural character through increased built form, it has been designed to integrate with minimal impact to both the rural character and the natural coastal character. This is through a suite of development controls to mitigate the visual impact of buildings and through establishment of a comprehensive planted framework that will mitigate the built elements and enhance the indigenous biodiversity and visual character.

In my assessment whilst the development will result in a change in character it will acceptably sustain the rural and natural coastal character amenity values.

Mike Moore
Registered NZILA Landscape Architect

References

Densem G (2004), Waitaki Landscape Study, Waitaki District Council.

Moore M et al (2015), Coastal Environment of Otago Natural Character and Outstanding Natural Features and Landscapes Assessment, Waitaki District Section Report, Otago Regional Council.

Appendix A : Planting guidelines – Cottleston Downs, Awamoa

The following species are recommended for the framework plantings shown in Figure 13. Planting establishment and management is to be carried out in accordance with the guidelines outlined below.

1. Where required, fencing should be carried out to protect the areas to be planted from grazing by stock.
2. The areas to be planted are to be sprayed to kill existing grasses using a non-residual systemic herbicide.
3. Planting densities are to be approximately 1.5m
4. Plant grades are to be Pb3 or equivalent, minimum.
5. One slow release fertilizer tablet will be used per plant.
6. A circle of mulch (100mm deep woodchip or sacking or similar) is to be applied around each plant to assist in plant establishment and weed suppression.
7. The area around each plant is to be maintained weed free until well established by hand weeding or spraying where this is possible without adversely affecting the plants.
8. Plants should be watered as / if required during dry spells until well established.
9. Survival should be monitored and any dead plants replaced immediately. Animal pests should be controlled and if required, plants should be provided with an eco-shelter for protection against rabbit and possum browse.
10. The plantings are to be managed to ensure their ongoing health and vitality.

Species	Common name	Wetland / wetland margins	Waterway margins / framework plantings
<i>Aristotelia serrata</i>	Wineberry		X
<i>Austroderia richardii</i>	Toetoe	X	
<i>Carex secta</i>	Purei	X	
<i>Carex virgata</i>		X	
<i>Carpodetus serratus</i>	Putaputaweta		X
<i>Coprosma crassifolia</i>			X

<i>Coprosma propinqua</i>	Mingimingi	X	X
<i>Cordyline australis</i>	Cabbage tree		X
<i>Dacrycarpus dacrydioides</i>	Kahikatea	X	X
<i>Griselinia littoralis</i>	Broadleaf		X
<i>Hebe elliptica</i>	Shore hebe		X
<i>Hoheria angustifolia</i>	Narrow-leaved lacebark		X
<i>Isolepis nodosa</i>	Club rush	X	
<i>Kunzea robusta</i>	Kanuka		X
<i>Leptocarpus similis</i>	Jointed rush	X	
<i>Leptospermum scoparium</i>	Manuka	X	
<i>Melicope simplex</i>			X
<i>Melicytus ramiflorus</i>	Mahoe		X
<i>Myoporum laetum</i>	Ngaio		X
<i>Olearia fragrantissima</i>			X
<i>Phormium tenax</i>	Flax	X	
<i>Pittosporum eugenioides</i>	Lemonwood		X
<i>Pittosporum tenuifolium</i>	Kohuhu		X
<i>Plagianthus regius</i>	Lowland ribbonwood		X
<i>Podocarpus hallii</i>	Halls totara		X
<i>Pseudopanax crassifolius</i>	Lancewood		X
<i>Pseudopanax ferox</i>	Fierce lancewood		X
<i>Sophora microphylla</i>	Kowhai		X

Appendix B : Photo-simulation method

Purpose and limitations

The photo-simulations (Figures 14 – 21) are presented as indicative guides to the likely visual effects of the proposed development. Four images are presented per viewpoint as follows:

- (a) The existing view (stitched photograph).
- (b) Photo-simulation illustrating the likely overall visual effect of the proposed development once fully implemented and with planting with approx. 10 years growth. This shows:
 - houses 300m² (24 x 12.5m) in footprint and 5m high. These are located on the lots in locations considered to be the most likely, and aligned with the contours to facilitate consistency with proposed mitigation measure (d). The built form illustrated, whilst less than the 350m² maximum gross floor area provided for, is considered to be a reasonable indication of likely development scale per section (as a single entity in this case). The grey colour used is indicative of the darker tones required by proposed mitigation measure (c).
 - the proposed framework plantings (both those to be established by the developer and by the lot purchasers) between 0.5m and 6m in height in the locations shown in Figure 13.

Note that no attempt has been made to make the buildings appear realistic given the variables / uncertainty about actual house locations and designs. Likewise, whilst the plant forms illustrated are generally consistent with the species proposed, for consistency with the buildings and to emphasise the theoretical / indicative nature of the illustrations, no attempt has been made to make these look realistic. The planting scale is considered to be generally indicative of what can be expected after about 10 year's growth. In reality, whilst the framework plantings to be established by the developer are likely to be implemented more or less at once (possibly over 1 – 3 seasons), the plantings on the residential lots may be implemented considerably later.

- (c) Photo-simulation illustrating a possible scenario for subdivision and associated development of houses under the WDP Rural Zone permitted baseline. This shows:

- houses 300m² in floor area over two levels (15 x 10m) in footprint and 10m high (the maximum height permitted in the WDP Rural zone provisions. The subdivision layout is based on an existing scheme and the house locations are considered to be non-fanciful possibilities. Whilst there is no maximum floor area in the WDP, 300m² is used for fair comparison with the proposed development. The same grey tone is used as per simulation (b) and (d) for consistency but it should be noted that there are no colour or light reflectivity value (LRV) controls applying to permitted buildings in the WDP Rural zone.
- No plantings are shown as these (if established) are not required by the Plan and could take a wide variety of forms.

(d) Photo-simulation for comparison with (c) above showing the proposed buildings (as per (b) above minus the proposed mitigation framework plantings.

Photography (Adventure Media Group Ltd)

The photography for the base images in the photo-simulations are shot using a full-frame Canon EOS 5D MkIV camera using a Canon EF24-70mm f/2.8 L-series lens locked off at 50mm. To achieve the range of the proposed development the images are a composite of 3-7 panning shots, each photographed on a tripod at an elevation of 1.6m directly above the GPS marker for each photo site. Overlap of around 25% assures accuracy between frame stitches using Adobe Photoshop's photomerge tool to create the final images. The merge process used was the same for each of the final images. The final images form the existing views (a) and the base layer for the subsequent photo-simulations (b), (c) and (d).

Computer model (Terramark Ltd)

Computer modelling of plantings and dwellings at the site has been undertaken using a 3D visualization module within the surveying & engineering design software, 12d Model v14.

The location, and extent of vegetated areas were supplied by the landscape architect. These areas were further broken into sub-areas defined by the plant types and planting

densities. Within the overall planting areas a total of three types of sub-areas were defined, generically described by the general height of the plants, and known as 'high plantings', 'medium plantings', and 'low plantings & sedge'.

Each sub-area was assigned a user-defined foresting file used to populate the area with vegetation, containing the following details:

- Types of plants to be located within each area;
- Percentage of each plant within the area (e.g. 5% of total)
- Height range of each type of plant (max & min);
- Spread variation (percentage)

In addition to defining a foresting file for each sub area, during the application of this information, the planting density was also specified as follows:

- High Plantings – 4,000 plants/hectare
- Medium Plantings – 10,000 plants/hectare
- Low Plantings – 20,000 plants/hectare
- Sedge Plantings – 20,000 plants/hectare

The placements of all plants within the specified area is undertaken in a random manner by the software but based upon the details contained within the foresting file and the overall specified plant density for the area.

The various trees within the imagery have been generated by first creating a 2-dimensional 'billboard' of a digital image of a tree and rotating this image about a central axis to create a series of interleaved 2-dimensional images, giving the impression of a 3-dimensional tree. Trees are automatically given correct heights by 12d Model on the basis of the desired tree height and the horizontal and vertical size of the digital image from which the 'billboard' tree is generated.

Image rendering (Terramark Ltd and Adventure Media Group Ltd)

Imagery of the plantings have been generated from 12d Model. 12d Model enables users to specify a viewing location, viewing height, target location and target height to generate 3-dimensional imagery of a viewshed.

A total of ten image viewpoints external to the subject site were survey fixed via GPS. In addition, the centroid of the site has been determined (geometric center of the site) and used as the target location. This line between viewing point and the site centroid forms the central baseline for generating imagery within 12d for each viewpoint. The height at both the view location and the target location have been set at 1.6m, producing a horizontal view-plane known as a plane of collimation. The view-plane has been rotated left and right of the central baseline in a series of 31.5° movements to create as many overlapping viewsheds as required to capture the entirety of the site from the specified viewpoint.

Imagery from 12d has been output as a series of gridded high-resolution rasters which have subsequently been exported and combined to produce a series of PDF images to be stitched together by the photographer based upon their overlap.

Buildings within the imagery have been created within 12d Model by creating simple triangulated irregular networks (TINs) to produce a simple house-shaped object of dimensions specified by the landscape architect. The colour applied to the house TINs is known as *Resene Ironsand*, (RGB Value 142, 89, 60). Variation within this colour upon the imagery is a result of the necessity of 12d Model to create shading to render a 3-dimensional effect. All shading has been applied at a 45° angle.

From the output PDF files created from the digital model in 12D, we have extracted the 3-9 image tiles and stitched these together, again using the same process as for the actual photographs. The points of reference to the site have been included with these stitches and the negative data (where no digital information existed) has been deleted from the final panorama for each photo site. This process was repeated for the proposed development once fully implemented and with planting with approx. 10 years growth (b), permitted (c) and proposed (d) simulations.

The existing (a) files were then edited to remove the stand of macrocarpa trees along the Thousand Acre Road border, to remove any livestock, machinery and where necessary the silage stack. The resulting image forms the base layer for the (b), (c) and (d) photo-simulations.

In the next step we blended the new base layer with each layer extracted from the 12D model. Visual reference points to the site were used to ensure the correct alignment and scale. Because each image used the same viewpoint, elevation and field of view (50mm focal length) there is no need to stretch, skew or warp any of the layers. The 12D images were then masked to reveal only the details of the proposed development once fully implemented and with planting with approx. 10 years growth (b), permitted (c) and proposed (d) simulations.

The final images were output as jpgs and fixed at 20cm tall at 300dpi in RGB colour space.

In my opinion the process used is the closest we can get to what the human eye might see from each location and represents a true indication of the proposed development.