

Appendix B2 – Landscape Schedules

21.22.25 Mata-au Clutha River: Schedule of Landscape Values

General Description of the Area

Mata-au Clutha River PA includes the Mata-au Clutha River corridor from the outlet at Lake Wānaka to the boundary with Central Otago District, up to the crest of the enclosing escarpments of the corridor. It also includes the meandering section of the Hāwea River, north of its confluence with the Mata-au, and associated fluvial landforms. Two distinctive escarpments formed by the rivers are also included within the ONF: the western Hāwea terminal moraine scarp; and the scarp east of Wānaka airport.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. A distinctive deep corridor of escarpments and terraces carved by the Mata-au Clutha River through the glacial outwash gravels of the Upper Clutha Basin. The immediate escarpments of the river vary in height between about 5 metres east of the Albert Town bridge to over 100 metres at Halliday Bluff. Where there are older secondary escarpments enclosing the corridor, these vary between 10 and 50 metres in height.
2. The series of alluvial terraces and scarps surrounding the confluence of the Mata-au and Hāwea rivers.
3. The distinctive 40-metre-high escarpment east of Wānaka airport, formed by the fluvial action of the Mata-au reworking the largely alluvial sediments in this area.
4. The 60-metre-high eroded scarp on the western half of the Lake Hāwea penultimate glacial terminal moraine ridge. The entire ridge is identified as a Geopreservation Site of national significance and noted as an excellent example of a terminal moraine. The ridge dammed a glacial lake after the Hāwea glacier retreated resulting in the deposition of several hundred metres of lake sediment under Hawea Flat.

Hydrological features

5. The Mata-au Clutha River, in particular the following features and attributes:
 - a. Highest volume river in New Zealand, and one of the most swiftly flowing rivers in the world.
 - b. Clarity and distinctive turquoise colour of the waters.
 - c. Swift water oxbow features, including the 'S'-shaped meander (The Snake) at Rekos Point and Devils Nook near Luggate. At Devils Nook the entire force of the river flows directly against a rock bluff as the river changes direction, forming powerful whirlpools. This rare hydrological feature is thought to be the most extreme high-volume switchback in the world.
 - d. Habitat for trout, salmon, eel and threatened indigenous fish (galaxids) and supports a significant range of indigenous waterfowl.
6. The lower Hāwea River, in particular the complex river meanders between Newcastle Road and the Mata-au Clutha confluence, the rapids and gravel shoals, and the delta islands at the confluence.

Ecological features and vegetation types

7. Particularly noteworthy indigenous vegetation features include:
 - a. Significant areas of regenerating kānuka woodland present on river terraces at Hikuwai Reserve, on the terraces surrounding the lower Hāwea River, and at the Rekos Point Conservation Area.
 - b. Regenerating kānuka woodland in places along the river banks.
 - c. Indigenous grey shrubland species and kānuka in many places on the escarpments of the river corridor.
 - d. Some dryland cushionfield communities and short tussock grasslands where the glacial outwash gravels of the river terraces do not have irrigated or improved pasture. These include the threatened pillow native daphne (*Pimelia sericeovillosa* subsp. *pulvinaris*), desert broom (*Carmichaelia petriei*), cushions (*Raoulia* spp.) and heaths (e.g. *Leucopogon muscosus*). Significant Natural Areas on the Poplar Beach intermediate terrace protect cushionfield communities and kānuka woodland in this location
8. Other distinctive vegetation types include:
 - a. Crack willow, poplar, elderberry, hawthorn, lupin and other exotic weeds are predominant along the riverbanks of the Mata-au Clutha and Hāwea.
 - b. Mature and semi-mature radiata pine stands and plantations at The Outlet, the Albert Town Campground and further downstream, with some wilding spread.
 - c. Stands of Lombardy poplar at The Outlet, Albert Town and further downstream.
 - d. Predominantly low intensity grassland and scattered kānuka regeneration on intermediate terraces. However between Albert Town and Rekos Point, the northern intermediate terraces have improved pasture under pivot irrigation. A small area of pivot irrigation is also present on the river terrace near The Snake horseshoe bend.
9. The kānuka woodland, grey shrubland and expansive areas of exotic grassland and the varied landforms (terraces and escarpments) provide suitable feeding habitat for New Zealand falcon and Australasian harrier and nesting and feeding habitat for New Zealand pipit and the smaller native insectivorous birds, such as grey warbler and fantail.

Land use patterns and features

10. Much of the river corridor is Council-owned or Crown-owned land used for informal recreation, camping or historic/scientific reserve. Apart from the bridges, there is little human modification on the immediate banks of the river. The bank and river escarpment on the true right immediately upstream of the Albert Town bridge have been modified to reduce hazards associated with river erosion and there are shelters, toilets and a rodeo arena within the Albert Town campground across the river.
11. Low density rural living and small farming on lots of 20-40ha is present on the intermediate terrace at Poplar Beach on the southern side of the Mata-au Clutha River below Wānaka airport. Across the river to the north, dairy farming under pivot irrigation is present on the intermediate terrace, as far west as the Hāwea confluence. Farming infrastructure, including haysheds, milking sheds, silos, farm tracks and effluent ponds are also evident.

Archaeological and heritage features and their locations

12. Rekos Point Conservation Area, spanning a large area of 'The Snake' meander of the Clutha Mata-au north of Luggate. The point is named after Reko, a rangatira who, together with Kaikōura, guided Nathaniel Chalmers from the Upper Clutha down the river by mōkohi (reed raft) in 1851.

13. Various inter-related complexes of 19th and early 20th century alluvial gold mining and dredging scattered along the Mata-au Clutha River, including at Rekos Point and downstream of the Red Bridge. These include water races, sluice box channels, herringbone tailings, hut sites, water wheels and stamper batteries.
14. Various sites of punts and ferries crossing the Mata-au Clutha, including the site of the Luggate Punt Ferry, access track and ferryman's house immediately downstream of the Red Bridge.
15. Grandview Bridge (Red Bridge) at Church Road near Luggate, a steel truss road bridge opened on October 28, 1915 (QLDC Ref 515).
16. James Horn plaque at the Albert Town Bridge, commemorating opening of the first bridge in 1930 (QLDC Ref. 509).
17. Pioneer graveyard at Graveyard Bend opposite Albert Town (QLDC Ref. 508).

Mana whenua features and their locations

18. The Mata-au was an important trail for Māori accessing the Upper Clutha and Lakes Wānaka, Hāwea, and Whakatipu Waimāori from coastal Otago, and was used by people trading pounamu (greenstone) from the West Coast. A kāika mahika kai (food gathering settlement) and permanent fortified pā, known as Te Rua Tūpāpaku, was located alongside the river near Luggate.
19. A contemporary nohoaka (camping site to support traditional mahika kai activities) at the Albert Town campground on the true right of the Hāwea, provided as redress under the Ngāi Tahu Claims Settlements Act 1998.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

20. Mata-au, Hāwea River and Te Rua Tūpāpaku (Clutha River near Luggate) have been identified as Wāhi Tūpuna by Ngāi Tahu.

Historic attributes and values

21. Strong historic associations with access into the Upper Clutha for early European and Chinese settlers and gold miners and early transport infrastructure (including evidence of historic ferries and punts around Albert Town and the Red Bridge).
22. Strong historic associations with gold mining in and alongside the Mata-au Clutha River, and associated physical remnants, including evidence of sluicing and dredging.
23. Strong historic associations with early European development and pastoralism in the area, including the pioneer graveyard at Albert Town.

Shared and recognised values

24. Nationally recognised values of the Mata-au Clutha River as the highest volume and flow river in New Zealand.
25. Locally shared and recognised values for the contribution of the PA to the Upper Clutha Basin sense of place and distinctiveness and its recreational attributes.

Recreation attributes and values

26. Highly valued destination for kayaking, rafting, and fishing (particularly fly fishing) on the Mata-au and Hāwea River. Jetboating is popular on the Mata-au Clutha River.
27. Camping at Albert Town campground, and swimming and picnicking at easily accessible spots along the rivers; Freedom camping for self-contained vehicles in accessible spots along the rivers, outside of prohibited zones.
28. Very popular destination for walking and mountain biking on the network of trails that run along both sides of the Mata-au Clutha River between The Outlet and Luggate, and on the Hāwea River Track.
29. Events associated with kayaking national events, including national freestyle, national secondary schools and open nationals involving Hāwea Standing Wave structure (outside the PA) and reaches of the lower Hāwea.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

30. The course of the Mata-au Clutha River and the fluvial escarpments and terraces within the river corridor are highly visible and expressive and provide clear evidence of the eroding action of the river on the surrounding glacial outwash plains.
31. The eroded scarp on the western part of the penultimate Hāwea terminal moraine is a striking and expressive landform that is clearly related to the erosive action of the Hāwea River. It is visually prominent from the Hāwea Flats and the Hāwea River Track.

Coherence

32. Coherent pattern formed by the river course, escarpment and fluvial terrace landforms, with linking vegetation patterns of willows along the river edges and kānuka on escarpments and some terraces.

Particularly important views to and from the area

33. Enclosed highly attractive views from the surface of the rivers are dominated by the waterbody, its vegetated margins and the immediate riverbanks or escarpments.
34. High amenity views from the walking and cycling tracks that take in the dynamic river waters and the series of imposing escarpments and terraces that step up from the rivers. The scale, clarity and impact of these landforms is greater in the Mata-au Clutha corridor than in the lower Hāwea River. There is a varied level of enclosure experienced along the tracks, with long-range views to the mountain ranges available from some areas, and restricted mid-range views of the river corridor from others. The river course, escarpment and fluvial terrace landforms, with linking vegetation patterns of willows along the river edges and kānuka on escarpments and some terraces form a coherent pattern as people move through the ONF.

Naturalness attributes and values

35. The Mata-au Clutha River has unmodified flow characteristics and generally unmodified and dynamic geomorphology, with ongoing processes of fluvial erosion and deposition. The exception is the true right bank upstream of the Albert Town bridge, where erosion hazards are being managed by rock revetments and bank reshaping. Natural processes of vegetation spread are occurring and the scarps and terraces (in places) support significant indigenous vegetation communities.

36. Although rural living, campgrounds, modified landforms and intensive farming are present with the PA, this domestication and modification is dwarfed by the scale of the soaring river terrace escarpments and the areas of indigenous vegetation, and there is a high perception of naturalness overall.
37. Flow characteristics on the Hāwea River are managed by control gates at the Lake Hāwea outlet, but the lower stretch of the river is otherwise relatively unmodified. There is a perception of significant naturalness, despite the presence of crack willows and the built interventions at Albert Town campground.

Memorability attributes and values

38. The dramatic scale of the river corridor, the powerful flow and clear turquoise waters of the Mata-au Clutha River, the contrasts between the scarp and terrace landforms, and the sense of enclosure experienced by people accessing the rivers and adjacent public tracks create a highly memorable landscape.

Transient attributes and values

39. Transient attributes include fluctuations in the Hāwea River flow, the presence of wildlife, and the seasonal changes in the vegetation lining the river, particularly the gold of willows and poplars in autumn and their intense fresh green in spring.

Remoteness and wildness attributes and values

40. People on the surface of the Mata-au downstream of Albert Town are enclosed within the river corridor and fringing vegetation and experience a strong sense of remoteness and wildness. This is also true for people using those trails that are separated from urban, rural living or intensive agriculture land uses.

Aesthetic attributes and values

41. The experience of all of the values identified above from a wide range of public viewpoints.
42. More specifically, this includes:
 - a. The volume, scale and fast-moving flow of the Mata-au Clutha River.
 - b. The distinctive swift water horseshoe bends and meanders in the rivers.
 - c. The dramatic and expressive sequence of contrasting terrace and scarp fluvial landforms stepping up from the river courses.
 - d. The autumn and spring colours of riverside willows and poplars and the contrasting turquoise colour of the Mata-au Clutha.
 - e. The spread of indigenous vegetation, particularly kānuka woodland, along the rivers and escarpments and on some terraces.
 - f. The ability to travel along the rivers on walking and cycling trails or on the water itself and to be immersed in the natural, wild and scenic qualities of the river corridors.

Summary of Landscape Values

Physical • Associative • Perceptual (Sensory)

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The various physical, associative and perceptual attributes and values described above for the Mata-au Clutha River PA can be summarised as follows:

43. **Very high** physical values relating to the exceptional unmodified volume, flow and clarity of the Mata-au Clutha River waters, the distinctive horseshoe bends and high flow switchback, the clarity and scale of the fluvial landforms, the areas of indigenous vegetation and threatened plant communities, and the habitat values for native and introduced fauna.
44. **High** associative values relating to the Kāi Tahu associations with the river, the history of gold mining and early European settlement, the very significant recreational attributes, and the strong shared and recognised values.
45. **Very high** perceptual values relating to the scale, legibility and expressiveness of the rivers and their associated fluvial landforms, the high level of naturalness, the coherence and memorability of the corridor, and the strong aesthetic qualities.

Landscape Capacity

The landscape capacity of the Mata-au Clutha River PA for a range of activities is set out below.

- i. **Commercial recreational activities – some** landscape capacity for activities that integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or camouflaging benefit of existing natural landscape elements; designed to be of a sympathetic scale, appearance, and character; integrate landscape restoration and enhancement; and enhance public access.
- ii. **Visitor accommodation and tourism related activities - limited** landscape capacity to absorb visitor accommodation that is within existing buildings or building platforms. **Extremely limited or no** landscape capacity for tourism-related activities.
- iii. **Urban expansions – extremely limited or no** landscape capacity.
- iv. **Intensive agriculture – limited** landscape capacity on intermediate terraces only.
- v. **Earthworks – limited** landscape capacity for earthworks and additional trails that protect naturalness and expressiveness attributes and values and are sympathetically designed to integrate with existing natural landform patterns. **Some** landscape capacity for additional earthworks to manage erosion hazards in the vicinity of Albert Town that are sympathetically designed to integrate with existing natural landform patterns.
- vi. **Farm buildings** – in those areas of the PA with pastoral land uses, **limited** landscape capacity for modestly scaled buildings that reinforce existing rural character and are sited to optimise the integrating effects of existing landscape and vegetation features.
- vii. **Mineral extraction – extremely limited or no** landscape capacity.
- viii. **Transport infrastructure – extremely limited or no** landscape capacity.
- ix. **Utilities and regionally significant infrastructure – very limited** landscape capacity for infrastructure that is that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent and/or co-located with existing infrastructure.
- x. **Renewable energy generation – very limited** landscape capacity for hydro-electric generation that is consistent with the PA's values.
- xi. **Forestry – very limited** capacity for forestry that protects aesthetic and naturalness values.

- xii. **Rural living – very limited** landscape capacity on intermediate terraces where there is existing rural living development and where existing landform and vegetation features mean that new development is reasonably difficult to see from outside the site. **Extremely limited or no** landscape capacity in other locations.

Plant and Animal Pests

- A. Animal pest species include rabbits, stoats, possums, rats and mice.
- B. Plant pest species include oxygen weed, crack willow, hawthorn, elderberry, broom, lupin, and wilding conifers.

21.23.6 East of Wānaka – Mount Aspiring Road: Schedule of Landscape Values

General Description of the Area

The East of Wānaka – Mount Aspiring Road area is a small portion of RCL sandwiched between the wider ONL of Lake Wānaka and the Alpha Range, Rural Lifestyle Zone land on the western side of Wānaka – Mount Aspiring Road and urban zoned land to the east and southwest. The mapped extent includes two roche moutonnée and an undulating and relatively low-lying lakeside terrace. Ruby Island Road and Mount Alpha PA (ONL) adjoin the western boundary of the area. Roys Bay (Lake Wānaka) PA (ONL) abuts the eastern boundary; and the urban boundary of Wānaka adjoins the eastern boundary of the area.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. Ice-scoured shelf approximating the alignment of Wānaka – Mount Aspiring Road. The area is characterised by a series of hummocky schistose landforms along the lake shore. These include smoothed bedrock surfaces eroded by glacial action and areas of terminal moraine. These largely glacial landforms are interspersed with areas of glacial till and outwash gravels formed by fluvial processes.
2. Schist-based soils deriving from gravel debris and the terminal moraine deposits.

Hydrological features

3. A remnant wetland feature on low-lying land adjacent Wānaka – Mount Aspiring Road and a pond in the hummocky terrain.

Ecological features and vegetation types

4. Particularly noteworthy indigenous vegetation features include:
 - a. Localised patches of regenerating kānuka along the lake shore, grey shrubland and bracken fern land across steeper hummocky terrain and escarpments.
5. Other distinctive vegetation types include:
 - a. Vineyard plantings and grazing land across the more gently sloping areas.
 - b. Native and exotic amenity plantings provide shelter and shade around rural and rural living dwellings, farm buildings, accessways and property boundaries.
 - c. Conifer and poplar shelterbelts in places.
 - d. Localised small-scale forestry woodlot plantings on steeper slopes.
6. Rank exotic grassland present along road margins and fence-lines and on steeper slopes may be utilised by skinks.

Land use patterns and features

7. Viticultural activities (including winery, cellar door and events facility), equestrian/agistment, horse riding tours, native plant nursery (Te Kākano) and hobby farming (including the Olive Grove wedding venue) dominate land use throughout the area.
8. Four properties with landholdings ranging in size from approximately 6ha to 34ha. One consented but unbuilt platform towards the southeastern end of the area.
9. Excepting equestrian-related facilities and property accessways, built development is generally located away from the road frontages and well-integrated by landform and/or plantings.
10. Infrastructure includes a Wānaka Water Supply Tank and a cell phone tower.
11. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. The margins and waters of Lake Wānaka to the east (Roys Bay PA) which includes the Waterfall Creek Track along the lake edge extending between Roys Bay in Wānaka and Ruby Island Road, and linking to Glendhu Bay via the Millennium Track. Both of these tracks form part of Te Araroa. Popular boat launching and parking area at the northern end of Ruby Island Road enabling access to the lake and track.
 - b. The dramatic Alpha Range PA to the west which includes the highly popular Roys Peak Track from which there are views of the area.
 - c. The scenic route of Wānaka – Mount Aspiring Road along the southwestern edge of the area which provides access to Mount Aspiring National Park and Treble Cone Ski Area and affords views of much of the area.
 - d. The urban edge of Wānaka (Urban Growth Boundary) along the eastern boundary, generally coinciding with the toe of steeper slopes associated with the moraine landform at the eastern end of the area. The northern and southern portions of the urban area form abrupt transitions with no discernible defensible landform or other 'landscape' edge, making the urban boundary potentially vulnerable to urban development creep.
 - e. Rural lifestyle development within the Rural Lifestyle Zone, the Mount Aspiring Holiday Park and residential development within the Large Lot Residential Zone, all located throughout the terraces and alluvial fans at the base of the Alpha Range on the south-west side of Wānaka – Mount Aspiring Road.

Mana whenua features and their locations

12. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
13. The area is adjacent to the wāhi tūpuna Wānaka (Lake Wānaka). Lake Wānaka is highly significant to Kāi Tahu and is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1988. It is also near to a contemporary nohoaka (camping site to support traditional mahinga kai activities) at Ruby Island Road, provided as redress under the Ngāi Tahu Claims Settlements Act 1998.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

14. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
15. Wānaka is one of the lakes referred to in the tradition of “Ngā Puna Wai Karikari o Rākaihautū” which tells how the principal lakes of Te Wai Pounamu were dug by the rakatira (chief) Rākaihautū. Through these pūrakau (stories), this area holds a deep spiritual significance both traditionally and for Kāi Tahu today.
16. The mana whenua values associated with this area include, but may not be limited to, wāhi taoka, mahika kai and nohoaka.

Historic attributes and values

17. The area has significance in its representation of the evolution of farming around Wānaka. The area was initially part of the nucleus of the expansive Wānaka Station during the 19th century. Later early-20th century agriculture at Wānaka Station was associated with fruit growing and irrigation schemes that ultimately anticipated the viticulture present today.

Shared and recognised attributes and values

18. The identity of the area as a ‘green belt’ on the north-western side of Wānaka, providing a sympathetic transition to the vast ONL beyond.
19. The long association of this part of the Wānaka local area with grapevines and wine production, with the Rippon vineyard hosting the annual Rippon Festival for 20 years prior to 2017.
20. The popularity of Wānaka – Mount Aspiring Road as a vehicular and cycling scenic route.
21. The high popularity of the lake edge trail for walking and cycling (known as the Millenium Track).
22. The very high popularity of the Roys Peak Track which affords elevated views out across the area, taking in the expansive lake and mountain setting of Wānaka.

Recreation attributes and values

23. Horseback riding and equestrian activity.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

24. The roche moutonnée (as part of the more extensive sequence of these landforms stretching extending northwards to Damper Bay), hummocky moraine, alluvial depositions in valleys and Waterfall Creek paleo channel (in the vicinity of the equestrian facility and road) are expressive of the interaction of the glacial and fluvial processes that have shaped the Wānaka area.

Particularly important views to and from the area

25. The sequence of attractive and varied views across the area from Wānaka – Mount Aspiring Road and Rippon Vineyard. In these views the area is seen balanced by the dramatic and large-scale landforms of the Mount Alpha Range. The broader mountain and lake context of Wānaka forms the backdrop to the area in places, adding a sense of connection to the vast and rugged landscape context to the north. Framed vistas across the northern portion of the area to the lake are available from the stretch of road adjacent the northern end of the area. The distinctly rural appearance of the area comprised of an attractive mix of pastoral land, vineyard plantings, equestrian facilities, and extensive amenity plantings (and in which buildings are obscured from view) serves to reinforce the connection of the area to the proximate pastoral Alpha Range context.
26. Attractive views from parts of the lakeside track to the vineyards seen alongside expansive views of Lake Wānaka. Again, buildings are generally subservient and well-integrated by landform and/or vegetation in such views.
27. Pleasant parkland style views from Ruby Island Road across the northern portion of the RCL area in which there is an appreciation of the attractive interplay of grazing land and amenity plantings that dominates this part of the area. The careful siting of buildings so that they are not seen from the road reinforces the impression of a rural parkland setting.
28. Highly scenic and memorable views from Roys Peak Track out across the area. The expansive nature of such views and diminishing influence of distance serves to reduce the visual importance of the area in shaping the quality of the outlook. Nevertheless, the area plays an important role as a distinctly spacious and green edge to the north-western side of Wānaka.
29. Long-range views from Eely Point and eastern (urban) side of Roys Bay, in which there is an appreciation of the glacial landforms of area. The spacious appearance of the area, which is generally uncluttered by buildings, forms a distinctive rural bookend to the urban patterning along the eastern side of the lake and blends harmoniously with the Alpha Range backdrop.

Naturalness attributes and values

30. Perceptions of naturalness and of a working rural character are largely maintained for people visiting the area, although this is undermined to some extent by the presence of driveways, the equestrian facility, gateways, signage, and the like.
31. Overall, there is a moderate level of naturalness with a predominance of natural, rather than built, elements; but human intervention as managed farmland and vineyards is evident.

Memorability attributes and values

32. Memorable to residents and locals as a 'green belt' to the north-western side of Wānaka.

Transient attributes and values

33. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees and grape vines.
34. Seasonal pasture colours.
35. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

36. Impressions of rural tranquillity and quietness are localised to Ruby Island Road and the lake edge track.
37. A dark night-sky impression contributes to feelings of wildness along the lake edge.

Aesthetic attributes and values

38. The experience of all of the values identified above from public and private viewpoints.
39. More specifically, this includes:
 - a. the highly attractive spacious rural views across the area to the surrounding mountain and lake context;
 - b. the appealing patterning of grazing land, viticulture and amenity plantings which creates a rural parkland impression in places;
 - c. the more spacious and tranquil landscape character associated with the eastern side of the area;
 - d. the distinctly rural character of the area arising from the visible vineyard and equestrian related uses; and
 - e. the low number of buildings and their effective integration by landform and/or vegetation.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the East of Wānaka - Mount Aspiring Road area can be summarised as follows:

40. **Moderate physical values** relating to the glacial and fluvial derived landforms, the strong patterns of rural land use, and the mana whenua features associated with the area.
41. **Moderate associative values** relating to the mana whenua associations of the area, the historic heritage of European pastoral farming, and the shared and recognised values of the area for residents, locals, and visitors as a rural greenbelt/ buffer along the western side of Wānaka.
42. **Moderate-high perceptual values** relating to the expressiveness of the glacial landforms, the coherent rural character, the scenic rural views to the surrounding ONL lake and mountain context, and the moderate level of naturalness, with built development remaining subservient to natural landscape elements and patterns.

Landscape Capacity

The landscape capacity of the East of Wānaka – Mount Aspiring Road area for a range of activities is set out below.

- i. **Commercial recreational activities – very limited** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities – limited** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where

appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).

- iii. **Urban expansions – extremely limited or no** landscape capacity. The absence of a discernible defensible edge to Wānaka makes the neighbouring parts of the area particularly vulnerable to urban development creep.
- iv. **Intensive agriculture – extremely limited** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – very limited** landscape capacity for farm scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity for modestly scaled and low-key 'rural' roading that is positioned to optimise the integrating benefits of landform and vegetation patterns.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that it is screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and 'domestication' through rural living development and the absence of a discernible defensible edge to Wānaka makes the neighbouring parts of the area particularly vulnerable to urban development creep. Any additional rural living should be: set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include hawthorn, broom and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.7 Studholme Road: Schedule of Landscape Values

General Description of the Area

The Studholme Road area roughly corresponds to an irregularly shaped pocket of elevated land on the southwestern edge of Wānaka (including a sliver land sandwiched between the Alpha Range PA (ONL) and urban development on Heaton Park Drive). Urban residential land adjoins the north and northeast boundary. Rural Lifestyle zoned land adjoins the eastern side. The south and western edges abut the eastern edge of the upper Alpha Fan, which is part of the Mount Alpha PA (ONL).

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes both outwash gravels and glacial till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka.
2. The sequence of landforms includes:
 - a. terrace and moraine landforms that were derived from glacial-fluvial action that truncated the large alluvial fan at the base of the Alpha Range (Alpha Fan);
 - b. alluvial fan associated with Stoney Creek; and
 - c. a series of terrace risers and rolling slopes along the urban edge of the terrace/moraine that serve to differentiate the more elevated terrace and lower Alpha fan area (and coinciding with the Studholme Road area) from the Wānaka valley floor.
3. The relatively free-draining brown and pallic soils with reasonable fertility and largely gentle contour, reflect the pastoral farming land uses in the area.

Hydrological features

4. Stoney and Centre Creeks draining from the Alpha Range across the terrace to Lake Wānaka (Roys Bay). These creeks are ephemeral. Stoney Creek to the north, is the largest of the two and has been subject to significant flooding events in the past and natural hazard mitigation earthworks have been undertaken in the catchment. The alluvial fan of Stoney Creek is active and there is the potential that the path of the creek could alter in the future.
5. The Wānaka Basin Cardrona gravel aquifer which underlies the area and Wānaka township. Water take from the aquifer is currently over-allocated.

Ecological features and vegetation types

6. Distinctive exotic vegetation types include:
 - a. Exotic shelterbelts (poplar, macrocarpa, Douglas fir, and pine) with scattered shade and exotic deciduous specimen trees (including walnuts and willows).
 - b. Exotic amenity plantings around rural dwellings, rural buildings, and along driveways.

- c. Small areas of conifer woodlots on either side of Stoney Creek towards the northern end of the area.
 - d. Areas of semi-improved pasture and unimproved rank exotic grassland.
7. Scheduled *Sequoiadendron giganteum* (Giant Redwood) located towards the southern end of the area.
 8. Rank exotic grassland may be utilised by skinks.

Land use patterns and features

9. The majority of the area forms a small part of a much larger rural landholding (sheep and deer farming with some forestry). The area is dominated by working land use with only one smaller-scale rural living lot (approximately 3ha) evident. A cluster of rural cottages and buildings is located roughly in the centre of the area. All of the rural and rural living buildings are well integrated by mature plantings which limits their visibility from outside the area.
10. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Urban Residential zoned land (and the Wānaka Urban Growth Boundary) and Rural Lifestyle zoning around the northwest, north, and east sides of the area. The general absence of a strong natural landscape boundary along these edges makes the area vulnerable to development creep.
 - b. The Mount Alpha PA (ONL) and working farmland on the fan at the base of the Alpha Range to the west and south.
 - c. The area forms part of the 'greenbelt' of pastoral farming framing the southwestern edge of Wānaka township and which reads as a sympathetic transition between the urban area and rugged mountains of the Alpha Range.
 - d. The neighbouring Wānaka Top 10 Holiday Park offering an all year-round accommodation mix including cabins, family units, campervan sites and tent site.

Archaeological and heritage features and their locations

11. Stone dairy building, circa 1890, at Hawthenden Farm.

Mana whenua features and their locations

12. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

13. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.

Historic attributes and values

14. The Studholme Road area has significance in its representation of the evolution of farming in the Wanaka Area. The area was initially part of the nucleus of the expansive Wanaka Station during the 1860s and

1870s, while later 19th century agriculture focused on more-intensive, smaller-scale sheep farming. This is a transition that is typical for most rural land in Central Otago and the Queenstown Lakes District.

Shared and recognised attributes and values

15. Valued as pleasant working farmland with limited rural living close to Wānaka, with a high level of visual and rural amenity.
16. The identity of the area as a 'predominantly pastoral green belt' on the south-western edge of Wānaka, providing a sympathetic transition to the vast Alpha Range ONL.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

17. The alluvial fan material from Mount Alpha, eroded by fluvial action from a more recent glacial advance along with part of the terminal moraine that encloses Wānaka are expressive of the glacial processes that have shaped the Wānaka Basin.

Particularly important views to and from the area

18. The intermittent sequence of attractive and varied mid to longer-range views of parts of the area from Studholme Road (both ends), Mount Iron, Wānaka town centre, the eastern foreshore of Roys Bay and the adjacent eastern part of Wānaka. In these views the area reads as a spacious rural area adjacent to urban Wānaka and backdropped by the proximate mountain context of the Alpha Range and the upper Alpha Fan. In the more distant views, the area forms part of the continuous patterning of elevated, gently sloping and irregularly shaped 'fan' of land and reads as an integrated part of the Alpha Range landform system.

Naturalness attributes and values

19. Overall, there is a moderate level of naturalness with a predominance of natural, rather than built, elements; but human intervention as managed farmland and rural living is evident.

Memorability attributes and values

20. Memorable to visitors, residents and locals as part of the working rural backdrop to Wānaka that functions as a greenbelt and spacious transition between the urban area and mountains of the Alpha Range.

Transient attributes and values

21. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees.
22. Seasonal pasture colours.
23. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

24. Rural tranquillity and quietness are currently experienced in parts of the area away from the urban edge where the levels of activity are consistent with 'working farmland'.

Aesthetic attributes and values

25. The experience of all of the values identified above from public and private viewpoints.

26. More specifically, this includes:

- a. the highly attractive views of the area, seen as part of a larger, working rural backdrop and transition between Wānaka and the Alpha Range;
- b. juxtaposition and contrast between the smooth and green 'tamed' appearance of the area and the upper Alpha Fan and the rougher, browner, and more visually complex rangelands of the upper Alpha Range; and
- c. the distinctly rural character of the area deriving from the dominant pastoral land uses, a sense of spaciousness and the very limited level of built development integrated by vegetation, which collectively forms a marked contrast to the neighbouring urban land use.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Studholme Road area can be summarised as follows:

27. **Moderate physical values** relating to the geological importance of the fan, scarp and moraine landforms, the productive soils (with irrigation) and associated agricultural land uses, and the patterns of rural shelterbelts, shade, and specimen trees framing open areas of pastoral land.
28. **Moderate associative values** relating to the mana whenua associations of the area, the historic heritage of European pastoral farming, and the shared and recognised values of the area as 'greenbelt' on the southwestern edge of Wanaka, as a spacious rural transition between the urban area and mountains and as an area of rural working character.
29. **Moderate perceptual values** relating to the expressiveness of the lower Alpha fan, scarp and moraine landforms, the scenic views of area as part of the spacious and green working rural backdrop to urban Wānaka, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with very little built development, which remains subordinate to working rural patterns.

Landscape Capacity

The landscape capacity of the Studholme Road area for a range of activities is set out below.

- i. **Commercial recreational activities – limited** landscape capacity for small-scale and low-key activities that: are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities – very limited** landscape capacity for activities that are: located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for small-scale and low-key tourism-related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).

- iii. **Urban expansions – some** landscape capacity as identified in the QLDC 2021 Spatial Plan. From a landscape perspective, the area suggests a logical expansion area as it adjoins the existing urban area and the area's 'outer' boundary corresponds to legible and defensible 'landscape' boundary (i.e. ONL/escarpment boundary).
- iv. **Intensive agriculture – some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails (including a potential route between the Top 10 Holiday Park and the eastern end of Studholme Road), farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly-scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – very limited** landscape capacity for farm-scale quarries within the area that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** landscape capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – extremely limited or no** landscape capacity to absorb additional rural living, given that the area has been earmarked for urban expansion in the QLDC 2021 Spatial Plan and rural living development is likely stymie efficient urban use in the future.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.8 Riverbank Road: Schedule of Landscape Values

General Description of the Area

The Riverbank Road area roughly corresponds to the relatively low-lying riverside terrace along the true left side of the Ōrau (Cardrona River), near the northern entrance to the Cardrona Valley. The area forms a roughly triangular area of rural land. To the west is Mount Alpha PA (ONL) and to the east is Cardona River / Mount Barker Road PA (RCL). The northern boundary of the area adjoins Rural Lifestyle zoned land or the Wānaka Urban Growth Boundary.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes both outwash gravels and glacial till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka.
2. The sequence of landforms includes:
 - a. the contemporary alluvial bed of the Ōrau (Cardrona River);
 - b. a clearly defined terrace riser at the eastern side of Cardrona Valley Road and Riverbank Road, beyond which (to the east) are alluvial terraces and the floodplain of the Cardona River;
 - c. outwash gravel terraces, with some degradational terraces stepping down to the river where fluvial processes have eroded into the glacial outwash gravels;
 - d. an outwash plain extending north-eastwards and roughly corresponding to the land on the western side of Riverbank Road; and
 - e. a small area of the Alpha Fan in the north-western quadrant of the area comprising glacial moraine overlaid with more recent alluvial fan material.
3. The relatively free-draining brown and pallic soils making the area suitable for pastoral farming and more intensive farming under irrigation.
4. The semi-arid climate with hot dry summers and cold dry winters, leading to dry brown grasslands where there is no irrigation, and summer dust clouds from the Cardrona riverbed or exposed soils.

Hydrological features

5. The section of Ōrau (Cardrona River) adjacent to the area is seasonally ephemeral due to natural losses to groundwater and extraction for irrigation. There is relatively poor water quality (nitrogen, E coli, ammonium) in this reach.
6. Water races and irrigation / amenity ponds.
7. The Wānaka Basin Cardrona gravel aquifer, which underlies the area and Wānaka township.

Ecological features and vegetation types

8. Distinctive vegetation types include:
 - a. Mature conifer and Lombardy poplar shelter belts throughout much of the area.
 - b. Amenity plantings (native and exotic) associated with dwellings, gardens, roadside hedges and driveway avenues.
 - c. Extensive areas of broom along the Ōrau (Cardrona River) corridor.
 - d. Areas of improved and semi-improved pasture used for grazing and cropping are favourable seasonal feeding grounds for Paradise shelduck, South Island oystercatcher, Black-billed gull and Spur-winged plover.
9. The Ōrau (Cardrona River) is a habitat for longfin eels, kōaro, upland bullies and Clutha flathead galaxias (nationally critical) and brown and rainbow trout.
10. Rank exotic grassland along road margins and across terrace embankments may be utilised by skinks.

Land use patterns and features

11. Pastoral farming or cropping, with irrigation from the Ōrau (Cardrona River) / Timber Creek water races and bores to the Wānaka Basin Cardrona gravel aquifer.
12. Rural living is common, mainly on lots of around 1ha in size. Areas of this type of land use dominate the triangle formed by Cardrona Valley Road, Orchard Road, and Riverbank Road (and which corresponds to a cluster subdivision set within a larger rural landholding, with an overall approximate density of 1 lot/4ha), and are present along either side of High Country Lane, the eastern side of Riverbank Road (along the top of the floodplain scarp) and the north-western portion of the area, accessed from the established Rural Lifestyle zoning associated with Studholme Road. Many of the consented platforms have not yet been built.
13. Larger rural living and/or pastoral farming properties ranging from approximately 10 to 25ha are located towards the southern end of the area and its western, north-western and eastern margins.
14. Rural living dwellings are generally well set back from roads, and, in the case of older properties screened and integrated by planting. Dwellings include substantial homes or visitor accommodation lodges with large gardens and curving tree-lined driveways. More recent rural living dwellings are generally on the eastern side of Cardrona Valley Road, appear to be clustered and are reasonably visible.
15. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Rural Lifestyle zoning and the Wānaka Urban Growth Boundary to the north.
 - b. The Mount Alpha PA (ONL) and working farmland at the base of the Alpha Range to the west.
 - c. The mixed rural and rural living landscape of Cardrona River / Mount Barker Road PA (RCL) to the east.
 - d. Rural Lifestyle Zones, the Criffel Range ONL and working farmland on terraces at the base of the Criffel Range to the south.
 - e. The area forms a transitional area of pastoral farming and rural living between Wānaka township and the more open rural land to the south (Cardrona valley), west (Alpha Range), and east (Ōrau / Cardrona River terraces and Mount Barker / Criffel Range).
 - f. The area is identified for future urban development in the Queenstown Lakes Spatial Plan 2021.

Archaeological and heritage features and their locations

16. Water races associated with the Wānaka Station irrigation scheme alongside Riverbank Road and along the Mount Alpha foothills.

Mana whenua features and their locations

17. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
18. The eastern part of the area overlaps the mapped wāhi tūpuna Ōrau (Cardrona River).

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

19. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
20. The Ōrau is a traditional ara tawhito (travel route) linking Whakatipu-wai-Māori with Lakes Wānaka and Hāwea. It also provided access to the natural bridge on the Kawarau River.
21. Ōrau is also recorded as a kāika mahika kai where tuna (eels), pora ('Māori turnip'), āruhe (fernroot) and weka were gathered.
22. The mana whenua values associated with the area include, but may not be limited to, mahika kai, ara tawhito, nohoaka.

Historic attributes and values

23. The area is notable as being one of the first areas in Otago to employ a systematic irrigation scheme during the early 20th century.
24. The area is associated with early commercial fruit growing.
25. The agricultural history and development of the area is typical of the Wānaka and Upper Clutha area, with low-intensity pastoralism giving way to denser agricultural settlement during the late-19th to early-20th centuries. This latter farming was primarily focused on grazing, but some cropping was also carried out where viable.

Shared and recognised attributes and values

26. Cardrona Valley Road valued as a scenic rural entrance to Wānaka township from the south and as a rural gateway to the Cardrona Valley (ONL).
27. Valued as a pleasant rural living location close to Wānaka, with a high level of visual and rural amenity.
28. The identity of the area as a 'predominantly pastoral green belt' on the south-western edge of Wānaka, providing a sympathetic transition to the vast ONLs surrounding the triangle.
29. The popularity of Cardrona Valley Road as a vehicular and cycling scenic route.
30. The popularity of Riverbank Road (SH6) as a shortcut route between Cardrona Valley Road and Albert Town that bypasses the Wānaka town centre.

Recreation attributes and values

31. Recreational use of the Ōrau (Cardrona River) riverbed and its margins for fishing, swimming, walking, and cycling. A walkway/cycleway is planned for the true left bank of the river.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

32. The flat outwash plain wrapping around the Alpha Range and the escarpment where the Cardrona River has cut into the terrace are expressive of the landscape's formative processes.

Particularly important views to and from the area

33. The intermittent sequence of attractive and varied mid to longer range views across the area from Cardrona Valley Road and Riverbank Road. In these views the area is seen framed by the dramatic and large-scale proximate landforms of the Mount Alpha Range and the Criffel Range, with views to Mount Barker in places. The broader mountain context of the Upper Clutha Basin and Lake Wānaka forms the backdrop to the area in places, adding a sense of connection to the vast and rugged landscape context to the north and south. Roadside evergreen shelterbelt and amenity plantings serve to frame and obstruct longer range western views for much of the state highway corridor, creating a strong degree of enclosure and serving to accentuate the appeal and memorability of the mid and longer-range eastern views across the flat terraces of the Upper Clutha Basin.
34. The public and private views across parts of the area comprised of a mix of pastoral land, shade and shelter plantings, riverside plantings (including distinctive groupings of Lombardy poplars) and extensive amenity plantings (and in which buildings are obscured from view), creates an appealing rural outlook.

Naturalness attributes and values

35. Perceptions of naturalness and of working rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of clusters of dwellings within the Orchard Road subdivision, driveways, gateways, signage, and the like.
36. Overall, there is a moderate level of naturalness with a predominance of natural, rather than built, elements; but human intervention as managed farmland and rural living is evident, particularly within the triangle formed by Cardrona Valley Road, Orchard Road, and Riverbank Road.

Memorability attributes and values

37. Memorable to residents and locals as a 'gateway' and 'green belt' to the south-western side of Wānaka and for the lines of mature and dense, evergreen shelterbelt plantings lining Cardrona Valley Road.

Transient attributes and values

38. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees.
39. Seasonal pasture colours.
40. The varying water flow characteristics of the Ōrau (Cardrona River).
41. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

42. A dark night-sky impression contributes to feelings of wildness along the river corridor.
43. Along the river corridor, the subservience of built development along with the rough broom vegetation and proximate connection of the area to the surrounding mountains imbues an appealing perception of wildness.

Aesthetic attributes and values

44. The experience of all of the values identified above from public and private viewpoints.
45. More specifically, this includes:
 - a. the highly attractive views, often framed by trees, across pastoral land to the Alpha Range, Criffel Range, Mount Barker, and the mountain ranges surrounding the Upper Clutha Basin and Lake Wānaka;
 - b. juxtaposition and contrast between the smooth pastoral 'tamed' appearance of the area and the rougher, browner, and more visually complex rangelands of the Alpha Range and the Criffel Range slopes; and
 - c. the distinctly rural character of the area deriving from the dominant pastoral or cropping land uses, a sense of spaciousness and rural living development integrated by vegetation.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Riverbank Road area can be summarised as follows:

46. **Moderate physical values** relating to the productive soils (with irrigation) and associated agricultural land uses, the natural attributes of the Ōrau (Cardrona River), the sequence of glaciofluvial landforms extending between the river and Alpha Range, the patterns of rural shelterbelts, hedgerows, and mature exotic trees framing open areas of pastoral land, and the mana whenua features associated with the area.
47. **Moderate associative values** relating to mahika kai, ara tawhito, nohoaka, the historic heritage of European pastoral farming, the recreational use of the Ōrau (Cardrona River) and the shared and recognised values of the area as a gateway/rural edge to Wānaka township, a gateway to the Cardrona valley and a pleasant rural living location.
48. **Moderate perceptual values** relating to the expressiveness of the downland landforms, the coherence of vegetation and land use patterns, the rural character, the framed scenic views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with rural living remaining subordinate to pasture/cropping and vegetation.

Landscape Capacity

The landscape capacity of the Riverbank Road area for a range of activities is set out below.

- i. **Commercial recreational activities – limited** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities – some** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for small-scale and low-key tourism-related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. **Urban expansions – some** landscape capacity as identified in the QLDC 2021 Spatial Plan. From a landscape perspective, the area suggests a logical expansion area as its 'outer' boundaries correspond to legible and defensible 'landscape' boundaries (i.e. river and ONL/mountain boundaries).
- iv. **Intensive agriculture – some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – limited** landscape capacity for ongoing gravel extraction from the Ōrau (Cardrona) riverbed in accordance with Otago Regional Council river management strategy. **Very limited** landscape capacity for farm-scale quarries elsewhere within the area that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** landscape capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.

- xii. **Rural living – extremely limited or no** landscape capacity to absorb additional rural living, given that the area has been earmarked for urban expansion in the QLDC 2021 Spatial Plan and rural living development is likely stymie efficient urban use in the future.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.9 Wānaka Airport Environs: Schedule of Landscape Values

General Description of the Area

The Wānaka Airport Environs area is rural land corresponding to the series of outwash terraces near Wānaka airport. To the west is Halliday Road/Corbridge PA (RCL) and to the east is Church Road Shortcut Road PA (RCL). The northern boundary of the area adjoins the series of steep scarps defining Mata-au (Clutha River) PA (ONF). The distinctive terrace riser east of the airport is classified as ONF and severs the (lower) eastern terrace of the area from the (higher) western portion of the RCL area. The Wānaka – Luggate Highway (SH6) runs along the southwestern side of the area. Shortcut Road (SH8A) borders the southern edge of the area.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes outwash gravels and glacial till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka. The upper outwash plains are from the Albert Town Glacial Advance and the lower eastern outwash plain is from the more recent Hāwea Glacial Advance
2. The sequence of landforms includes:
 - a. A clearly defined and prominent terrace riser of approximately 40m height extending along the northern edge of the area, and cutting across the eastern portion of the area, to form two distinct terraces (NB The terrace riser defines Mata-au (Clutha River) PA (ONF)).
 - b. A series of degradational terraces stepping down towards the river, where fluvial processes have eroded the glacial outwash gravels. Scattered rock outcrops are evident.
 - c. Gently rolling glacial moraine fields along the western side of the area, abutting Halliday Road/Corbridge PA (RCL).
3. The relatively free-draining brown and pallic soils with reasonable fertility associated with the (western) area of moraine, reflect the pastoral farming character and more intensive farming under irrigation.
4. The semi-arid climate with hot dry summers and cold dry winters, leading to dry brown grasslands where there is no irrigation, and summer dust clouds from exposed gravel roads or soils.

Hydrological features

5. A series of shallow unnamed streams and ephemeral water courses draining from the mountains to the southwest (northern end of the Criffel Range) across the terraces that are artificially channelled in places and discharge to Mata-au (Clutha River). These channels tend to flow only during prolonged rainfall.
6. Irrigation reservoirs/ponds within the rolling moraine fields and outwash terraces, with varying levels of permanent water.
7. The Wānaka Basin Cardrona gravel aquifer, which underlies the area and Wānaka township. Water take from the aquifer is currently over-allocated.

Ecological features and vegetation types

8. Noteworthy indigenous vegetation are the diverse plantings surrounding the Reko's Point walking track car park and initial section of track (noting that the track and half of the carpark is outside the area).
9. Scattered areas of matagouri shrubland border Shortcut Road and the eastern end of Stevenson Road.
10. Distinctive exotic vegetation types include:
 - a. Scattered exotic shelterbelts in places and shelter plantings around farm buildings.
 - b. Amenity plantings around some rural buildings and rural dwellings, including roadside hedges.
 - c. Extensive areas of improved and semi-improved pasture used for dairying, sheep grazing, and cropping that are favourable seasonal feeding grounds for Paradise shelduck, South Island oystercatcher, Black-billed gull and Spur-winged plover.
 - d. Land next to Shortcut Road, the eastern end of Stevenson Road and the river escarpment is covered in extensive areas of unimproved rank exotic grassland.
11. Rank exotic grassland along road margins may be utilised by skinks.

Land use patterns and features

12. SH6 which traverses the southern edge of the area, linking between Wānaka/Luggate and Cromwell, and SH8A which borders the southeast edge of the area which provides access to SH8.
13. Pastoral farming, cropping and horticulture, often with irrigation from bores to the Wānaka Basin Cardrona gravel aquifer. Properties tend to be larger than 20ha with large-scale farm buildings, stockyards, and pivot irrigation infrastructure evident.
14. Film studio development is anticipated throughout the rolling moraine landform at the western end of the area. The development will be screened from SH6 and the river corridor by topography.
15. The Wānaka Airport Zone located roughly in the centre of the western (upper) terrace (and outside the area), with a sizeable grouping of large-scale buildings positioned near SH6. The airport runway and associated buffer bisects the western terrace, extending on a northwest-southeast alignment from Stevenson Road to (roughly) the Mata-au (Clutha River) ONF scarp. The Wānaka Airport Outer Control Boundary noise management overlay affects a substantial portion of the area. While this overlay is not a landscape feature, its presence prohibits residential activity and activities sensitive to aircraft noise and has influenced land use patterns in the area.
16. The National Transport and Toy Museum and Wānaka Beerworks located immediately north of Wānaka Airport, adjacent SH6 (and within the area).
17. The Oxbow jet sprint course on the 'upper' western terrace.
18. Rural living is limited to a very few hobby-scaled properties along the northern edge of the area, configured to optimise the scenic outlook along the Mata-au (Clutha River). Lot sizes tend to be around 2ha. Three consented but unbuilt platforms.
19. Gravel pit on the lower (eastern) terrace.
20. Project Pure (i.e. the Wānaka wastewater treatment plant) on the upper (western) airport terrace.

21. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. The Airport Zone.
 - b. Mata-au (Clutha River) PA (ONF) immediately adjoining the area to the north, which includes the Upper Clutha River Track.
 - c. Church Road Shortcut Road PA (RCL) across SH8A Shortcut Road to the southeast, where low-density rural living, horticulture, and hobby farming land uses dominate on the terrace, with forestry plantings throughout the terrace escarpment bordering the southern end of the area.
 - d. Cardrona River/ Mt Barker Road PA (RCL) and Luggate Creek PA (RCL) to the southwest where a mix of pastoral farming, rural living, and hobby farming dominate land use of the area adjacent the area.
 - e. Halliday Road Corbridge PA (RCL) to the northwest characterised by a mix of pastoral farming, cropping, and established rural living and visitor accommodation. Consented film studio development dominates the portion of the PA adjacent the area.

Mana whenua features and their locations

22. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua and wai are all intertwined in te ao Māori.
23. The eastern extents of the area overlap the mapped wāhi tūpuna Mata-au (Clutha River) and Te Rua Tūpāpaku.
24. The Mata-au (Clutha River) is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.
25. Te Rua Tūpāpaku is recorded as a fortified permanent pā.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

26. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
27. The Mata-au (Clutha River) takes its name from a Kāi Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions.
28. The Mata-au was part of inland mahika kai trails and was also a key transportation route for pounamu from inland areas to settlements on the coast.
29. Te Rua Tūpāpaku is a kāika mahika kai located on the Mata-au where weka, tuna (eels) and kauru (cabbage tree root) were gathered. It is also recorded as a fortified permanent pā.
30. The mana whenua values associated with this area include, but may not be limited to, wāhi taoka, ara tawhito, mahika kai, nohoaka, urupā, pā, wāhi tapu.

Historic attributes and values

31. The agricultural history and development of the area is typical of the Wanaka and Upper Clutha area, with low-intensity pastoralism giving way to denser agricultural settlement during the late-19th to early 20th centuries. This latter farming was primarily focused on grazing, but some cropping was also carried out where viable.

Shared and recognised attributes and values

32. Valued as part of the scenic rural approach to Wānaka from the east on Wānaka Luggate Highway.
33. The popularity of SH6 as a scenic vehicular route.

Recreation attributes and values

34. Access to the Upper Clutha Track via Stevenson Road within the area (with a carpark at the end) and adjacent the area near Shortcut Road.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

35. The flatness and extent of the outwash plain and the more gently rolling landform of the glacial moraine which are expressive of the interaction of the glacial and fluvial processes that have shaped the Upper Clutha Basin.
36. The visibility of the outwash plains at the same level as the area on the northern side of the Mata-au (Clutha River) provides a clear sense of the river cutting down into the glacial outwash plains.

Particularly important views to and from the area

37. The sequence of attractive long-range and expansive 'rural' views from SH6 across the terraces of the area to the escarpments on the north side of the Mata-au (Clutha River), and the expansive outwash plains on the northern side of the river, seen backdropped by the Grandview Range. The northern end of the Pisa Range and Criffel Range provide strong containment to the west. Where visible, the scarp defining the two terraces within the area add to the appeal of the outlook and reinforce the spatial connection of the area to the river corridor. The pastoral and cropping land of the area contributes a strong 'working farm' rural character, with most built development displaying a distinctly working rural character or obscured by vegetation. The appearance of an almost continuous patterning of rural land use across the terraces and beyond to the north and west reinforces the coherence of the underlying river terrace landforms. The openness of the rural landscape to the east of the highway confers a memorable sense of a 'big sky' landscape and noting that this is the first open view to the north and east after leaving Wānaka.
38. Views from the summit of Mount Iron PA (ONF), where the panoramic vistas take in the river terraces and prominent escarpments, and the undulating pastoral moraine land extending to the southeast.
39. The expansive very long-range 'rural' views from the elevated urban areas of Luggate to the southeast, in which the area forms part of the broad sweep of the Upper Clutha Basin rural plains, framed by a continuous circle of dramatic mountains (ONL).
40. Attractive rural views to the terraces within the area from the Newcastle Track and the Upper Clutha River Track (both within Mata Au Clutha River PA (ONF)).

Naturalness attributes and values

41. Perceptions of naturalness and of working rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of the airport and associated development (effectively forming a 'cut out' within the area), pivot irrigation, infrastructure driveways, gateways and signage.
42. Human intervention as intensively managed farmland and rural living is evident. The terrace scarp, close proximity of Mata-au (Clutha River), and the mountain context contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

43. Memorable to residents and locals as part of the 'gateway' and 'green belt' to the east of Wānaka and for the expansive open rural views across the outwash plains to the northern Mata-au (Clutha River) and the Grandview Range.

Transient attributes and values

44. Seasonal pasture colours.
45. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

46. Rural tranquillity and quietness are currently experienced in those parts of the area away from Wānaka Luggate Highway, where there are low traffic volumes and the levels of activity are consistent with 'working farmland', hobby farming, and low-density rural living.
47. Along the northern edge of the area, the subservience of built development along with the rough scrub vegetation and proximate connection of the area to the surrounding mountains imbues an appealing impression of remoteness in places.

Aesthetic attributes and values

48. The experience of all of the values identified above from public and private viewpoints.
49. More specifically, this includes:
 - a. Highly attractive, rural and 'big sky' views across large open paddocks to the river scarps, mountains and hills of the Upper Clutha Basin, or to moraine landforms and shelterbelts.
 - b. Strong rural character, with large areas of open space – either pastoral or cropping – retained adjacent to Wānaka Luggate Highway and Shortcut Road, a sense of spaciousness, and rural living development set well back from the highway or generally integrated by vegetation.
 - c. Aesthetic appeal of the prominent and proximate escarpment (within ONF) and the gently undulating moraine landforms.
 - d. The juxtaposition between the tamed flat rural land and the rougher character along the river corridor/scarps.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Wānaka Airport Environs area can be summarised as follows:

50. **Moderate physical values** relating to the sequence of gently rolling moraine fields and glaciofluvial terrace landforms and scarps extending southward and westward from the river, the productive soils (with irrigation) and associated agricultural land uses, the mana whenua features associated with the area, and the strong patterns of rural land use.
51. **Moderate associative values** relating to the mana whenua associations of the area, the recreational use of the track connecting to (and along) Mata-au (Clutha River), and the shared and recognised values of the area for residents and locals as part of the gateway/working rural edge to Wānaka township.
52. **Moderate perceptual values** relating to the expressiveness of the terrace, escarpment and moraine downland landforms, the coherence of land use patterns, the rural character, the scenic views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with the very limited level of rural living remaining subordinate to pasture/cropping and vegetation.

Landscape Capacity

The landscape capacity of the Wānaka Airport Environs area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing commercial recreation features and the airport; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **limited** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited or no** landscape capacity for small-scale and low-key tourism-related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. **Urban expansions** – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture** – **some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks** – **limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns, particularly the flatness of the outwash plains and terraces.

- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction –very limited** landscape capacity for farm-scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Some** capacity for well-designed larger-scale regionally significant infrastructure expanding on the existing wastewater treatment plant facility and airport.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Some** landscape capacity for larger-scale commercial renewable energy generation located and designed so that it is not visible from the highway.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values and noting the constraints associated with airport noise that applies to much of the area. The rural character of the area is vulnerable to fragmentation and ‘domestication’ through rural living development. Any additional rural living should be set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and ‘low-key’ rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.10 Northern End of Criffel / Pisa Range Foothills: Schedule of Landscape Values

General Description of the Area

The Northern End of the Criffel / Pisa Range area comprises rural land taking in the series of outwash terraces along the northern toe of the Criffel Range and Pisa Range. More specifically, the terraces extend around the western, northern, and eastern side of the prominent knoll referred to as A3KV (located within Lake McKay Station and Environs PA (ONL)).

To the west is Rural Lifestyle zoned land in the vicinity of Smith Road. Halliday Road/Corbridge PA (RCL) defines the north-western edge. SH6 runs along the north-eastern boundary, beyond which is the Wanaka Airport Zone and Wānaka Airport Environs area (addressed in 21.23.9). The eastern boundary is defined by Church Road Shortcut Road PA (RCL) and the Rural Lifestyle and Settlement zones on the western edge of Luggate. The south boundary coincides with Lake McKay Station and Environs PA (ONL).

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes glacial outwash gravels, fans and till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka.
2. The sequence of landforms includes:
 - a. a series of clearly defined and prominent terrace edges of approximately 40 to 70m height extending along the northern side of the Pisa / Criffel Range foothills and around the prominent knoll of A3KV;
 - b. the low ice-scoured schist knoll with numerous rock outcrops towards the western end of the area;
 - c. occasional moraine deposits; and
 - d. a series of degradational terraces stepping down to the northwest and northeast formed by glaciofluvial processes.
3. The relatively free-draining brown and pallic soils with reasonable fertility, reflect pastoral farming and more intensive farming under irrigation.

Hydrological features

4. A tributary of Luggate Creek that flows around northern side of A3KV and through a steep gully before joining the main creek at Luggate.
5. A series of shallow unnamed streams (and ephemeral water courses draining from the mountains and A3KV across the terraces that are artificially channelled in places and discharge to Mata-au (Clutha River). These channels tend to flow only during prolonged rainfall.
6. Irrigation ponds with varying levels of permanent water.
7. The Wānaka Basin Cardrona gravel aquifer, which underlies much of the area (excludes Luggate Creek catchment). Water take from the aquifer is currently over-allocated.

Ecological features and vegetation types

8. Particularly noteworthy indigenous vegetation features include:
 - a. Limited amounts of grey shrubland and kanuka regeneration in gully adjacent to Luggate campground and associated with rocky ground and knolls, including a small portion of Significant Natural Area E30D Luggate Creek.
9. Other distinctive vegetation types include:
 - a. Exotic shelter belts (conifer and poplar) including along the northeastern edge of the area and scattered eucalypt or conifer woodlots, particularly throughout the steep scarps. Many of the shelter and woodlot trees have wilding potential.
 - b. Prominent pine woodlot covers escarpment overlooking SH6 near Luggate.
 - c. Amenity plantings around the very few rural living lots in the area.
 - d. Extensive areas of improved pasture are favoured seasonal feeding grounds for Paradise shelduck, South Island oystercatcher, Black-billed gull and Spur-winged plover.
 - e. Areas of rank exotic grassland on steeper terrain may be utilised by skinks.

Land use patterns and features

10. SH6 which traverses the north-eastern edge, linking between Wānaka/Luggate and Cromwell.
11. Pastoral farming, orcharding or cropping, with irrigation predominantly via surface takes of Luggate Creek and its tributaries. Properties up to 1,000ha with landholdings extending outside the area into the Criffel and Pisa Ranges with large-scale farm buildings and farm races evident.
12. Rural dwellings are limited to a sparse scattering of rural homesteads, workers cottages with some smaller 3ha to 30ha rural living lots.
13. Commercial recreation opposite airport at corner of SH6 and Mt Barker Road.
14. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Cardrona River/Mount Barker Road PA (RCL) to the northwest, which includes a mix of working rural and rural living land uses.
 - b. Wānaka Airport Environs area (21.23.9) and Wānaka Airport Zone to the north-east dominated by working rural and airport-related activities and development. This area influences the strip of the area addressed in 21.23.10 between the escarpment and SH6.
 - c. The relatively abrupt settlement edge of Luggate (along the western side of the area), on the northern side of Atkins Road.
 - d. Church Road Shortcut Road PA (RCL) across SH6 to the southeast, where low-density rural living, horticulture, and hobby farming land uses dominate on the terrace, with forestry plantings throughout the terrace escarpment bordering the southern end of the area.
 - e. The working rural landscape associated with Lake McKay Station and Environs PA (ONL) to the south.
 - f. The Rural Lifestyle Zone to the west which influences the character of the western end of the 5.

- g. Overall, the area forms a transitional area of working farmland between the lower-lying and more expansive mixed working rural and rural living terraces to the north, and the relatively undeveloped foothills of the Criffel/Pisa Ranges to the south.

Archaeological and heritage features and their locations

- 15. Water races potentially associated with historic farming or mining activity near the western edge of the area.
- 16. Two gold mining tunnels at the southeastern periphery of the area (archaeological site G40/219).

Mana whenua features and their locations

- 17. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua and wai are all intertwined in te ao Māori.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

- 18. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.

Historic attributes and values

- 19. The agricultural history and development of the area is typical of the Wānaka and Upper Clutha area, with low-intensity pastoralism giving way to denser agricultural settlement during the late-19th to early 20th centuries. This latter farming was primarily focused on grazing, but some cropping was also carried out where viable.
- 20. The southern periphery of the area, along Luggate Creek, is important as a focal point of mining from the 1870s and numerous archaeological sites have been recorded in the vicinity (though mostly outside the RCL). Mining in this locale, and the sites associated with it, is characteristic of the more-intensive mining practice that was established around the district in the wake of the 1860s rushes.

Shared and recognised attributes and values

- 21. Valued as part of the scenic rural approach to Wānaka (from the east) and Luggate (from the west) via SH6.
- 22. Valued as the rural foreground and toe to the Criffel / Pisa Range and for the legibility of the glacial outwash terraces and escarpments.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

23. The series of smooth terraces, fans and steep scarps interspersed with ice-scoured schist and moraine knolls, which are expressive of the glacial processes that have shaped the Upper Clutha valley. These landform features are reinforced the differing vegetation types and land management regimes on scarps and terraces.

Particularly important views to and from the area

24. The sequence of short-range 'rural' views from SH6 to the steep scarp defining the northern and eastern edges of the area. In these views, only the northern and eastern margins of the area are visible. The close proximity of the steep scarp to the road corridor provides a memorable contrast to the more open rural outlook afforded from the highway to the north in the view. Experienced travelling southwards, this creates an impression of departure from the environs of Wānaka township and a rural entrance to Luggate. Travelling northwards, the enclosing scarp landform signals the rural entrance to the Wānaka valley.
25. The intermittent sequence of longer-range views from Mount Barker Road and Ballantyne Road (both local shortcut routes) across the flat rural land (Cardrona River/Mount Barker Road PA (RCL)) to the knolls, terraces, and scarps of the area, backdropped by the dramatic and large-scale proximate landforms of the northern end of the Pisa Range and Criffel Range. The pastoral and cropping land use of the area contributes a strong 'working farm' rural character, with most built development displaying a distinctly working rural character or obscured by vegetation. The appearance of an almost continuous patterning of rural land use across the foreground terrace and beyond to the mountain backdrop reinforces the coherence of the underlying landform sequence. Roadside evergreen shelterbelt, woodlot, and amenity plantings serve to frame and obstruct longer-range views for parts of the road corridors, serving to accentuate the appeal and memorability of the open longer-range views, where they are available.
26. Views from the summit of Mount Iron PA (ONF), where the panoramic vistas take in the broad sweep of the Upper Clutha Basin rural plains, framed by a continuous circle of dramatic mountains (ONL).
27. The expansive short to mid-range views from Luggate to the southeast, in which the area forms part of the attractive rural and mountain backdrop to the settlement.
28. The rural appearance of the area comprising of an attractive mix of pastoral land, shade and shelter plantings, serves to reinforce the connection of the area to the proximate pastoral mountain context.
29. Buildings are generally subservient and well-integrated by landform and/or vegetation in such views.

Naturalness attributes and values

30. Perceptions of naturalness and of working rural character are largely maintained for people visiting the landscape.
31. Human intervention as managed farmland, production forestry and some limited rural living is evident. The terrace scarp and close proximity of the mountain context contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

32. Memorable to residents and locals as part of the 'rural gateway' to Wānaka and Luggate and as the legible foreground to the mountain range.

Transient attributes and values

33. Seasonal pasture colours.
34. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

35. Rural tranquillity and quietness are currently experienced in those parts of the area away from SH6 Wānaka Luggate Highway.
36. A dark night-sky impression contributes to feelings of remoteness.
37. The rough grey shrubland and kānuka vegetation throughout scarp and rocky areas along with its proximate connection to the surrounding mountains imbues an appealing perception of wildness.

Aesthetic attributes and values

38. The experience of all of the values identified above from public and private viewpoints.
39. More specifically, this includes:
 - a. The highly attractive views, often framed by trees, across pastoral land and the scarps to the northern end of the Pisa / Criffel Range;
 - b. Juxtaposition and contrast between the smooth pastoral 'tamed' appearance of the terraces, the rough scarps within the area, and the rougher, browner, and the more visually complex rangeland of the Criffel Range slopes in the ONL 'backdrop';
 - c. Strong rural character, with an impression of openness (where there are pastoral or cropping uses), a sense of spaciousness, and very limited rural living development set well back from roads and integrated or screened by topography and/or vegetation.
 - d. Aesthetic appeal of the prominent scarps and the knoll/moraine landforms.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Northern end of Criffel / Pisa Range Foothills area can be summarised as follows:

40. **Moderate physical values** relating to the sequence of knolls, moraine, terraces and scarps, regenerating grey shrubland and kanuka, the productive soils (with irrigation) and associated agricultural land uses, and the strong patterns of rural land use.
41. **Moderate associative values** relating to the mana whenua associations of the area, and the shared and recognised values of the area for residents and locals as part of the gateway/rural edge to the Wānaka valley and Luggate, and as a working rural backdrop to Luggate.
42. **Moderate-high perceptual values** relating to the expressiveness of the terrace, escarpment, and moraine downland landforms, the coherence of vegetation and land use patterns, the rural character, the

scenic views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness.

Landscape Capacity

The landscape capacity of the Northern End of Pisa / Criffel Range Foothills area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **limited** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for small-scale and low-key tourism-related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. **Urban expansions** – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture** – **some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks** – **limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings** – **some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction** – **very limited** landscape capacity for farm-scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure** – **very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure** – **limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** landscape capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation** – **some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry** – **limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living** – **very limited** landscape capacity to absorb additional rural living without adverse effects on associative and perceptual values. The working rural character of the area is vulnerable to

fragmentation and 'domestication' through rural living development. Any additional rural living should be set well back from roads; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.11 East of Luggate: Schedule of Landscape Values

General Description of the Area

The East of Luggate area roughly corresponds to the rural riverside terrace along the true right side of Mata-au (Clutha River). The area is bounded by the north-eastern end of the Pisa Range (ONL) and SH6 (Luggate Cromwell Road) to the south, the settlement edge of Luggate to the west (Low Density Suburban Residential Zone), Mata-au (Clutha River) to the north (ONF) and the district boundary to the east. The area coincides with a narrowing of the Upper Clutha Basin where it transitions to the narrow Cromwell / Lake Dunstan valley.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The geology of the area includes outwash gravels and glacial till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka. More recent fluvial processes of erosion and sedimentation have reworked older alluvium associated with historic glaciations affecting the landscape.
2. The sequence of landforms includes:
 - a. In the western part of the area, the distinctive flat topped schistose/moraine feature that encloses Luggate to the north;
 - b. the alluvial bed of Dead Horse Creek, and its numerous overflow channels, to the east of Luggate (and draining to Mata-au (Clutha River));
 - c. a series of degradational terraces stepping down to the river at the eastern end of the area, where fluvial processes have eroded the glacial outwash gravels; and
 - d. an outwash plain extending west to east and roughly corresponding to the terrace sandwiched between the river and highway throughout which there are exposed schist outcrops.
3. Localised hummocky areas, low rocky ribs, and boulders (outside of the pivot irrigation fields), with shallow dry swales of former paleo channels in places.
4. The relatively free-draining brown and pallic soils with reasonable fertility reflected in pastoral farming and more intensive farming under irrigation.
5. The semi-arid climate with hot dry summers and cold dry winters, leading to dry brown grasslands where there is no irrigation.

Hydrological features

6. Dead Horse Creek and Sheepskin Creek that drain intermittently from the north-eastern slopes of the Pisa Range to Mata-au (Clutha River).
7. A network of shallow ephemeral water courses draining from the mountains to the south across the terrace that are artificially channelled in places and discharge to Mata-au (Clutha River). These channels tend to flow only during prolonged rainfall.

Ecological features and vegetation types

8. Particularly noteworthy indigenous vegetation features include:
 - a. Extensive patches of kānuka shrubland and scrub occur along parts of the terrace bordering the Mata-au (Clutha River) escarpment and the lower reaches of Luggate Creek near the Mata-au (Clutha River) confluence.
 - b. Patches of grey shrubland occur across steep rocky terrain bordering the lower reaches of Luggate Creek and in places amongst the kānuka shrubland bordering the escarpment.
9. Other distinctive vegetation types include:
 - a. Conifer, eucalypt, and Lombardy poplar shelter belts throughout the area and scattered eucalypt or conifer woodlots generally around 1-3ha in size. Many of the shelter and woodlot trees have wilding conifer potential.
 - b. Vegetation associated with rural living, including roadside hedges, driveway avenues, shelter trees around dwellings, and large gardens.
 - c. Extensive areas of improved pasture used for dairying are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
10. Rank exotic grassland along road margins may be utilised by skinks.

Land use patterns and features

11. SH6 which traverses the southern edge, linking between Wānaka / Luggate and Cromwell.
12. Pastoral farming or cropping, with K-line or pivot irrigation. The area includes a large farm located between SH6 and the Mata-au (Clutha River) in the order of 120ha used for cattle or dairy support farming, small scale orcharding, poultry farming and a clean fill. Properties tend to be larger than 20ha with large-scale farm buildings, stockyards.
13. Rural living is limited with lot sizes ranging from approximately 3ha to 7ha. Dwellings tend to be: located towards the eastern end of the area; positioned to overlook the river corridor; set well back from the highway; correspond to a ribbon pattern along the south side of the highway near the entrance to Luggate (sandwiched between the road and the steep landforms of the ONL); or arranged across the western end of the schistose/moraine landform which effectively forms part of the rural settlement, but is zoned Rural and surrounded by Council recreation reserve. Three consented but unbuilt platforms in the latter area and one isolated consented but unbuilt platform on the north side of the highway, roughly in the centre of the area.
14. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Low Density Suburban Residential zoning along the south-eastern edge of Luggate, adjoining the western boundary of the area. This zoning integrates a strong defensible edge (landform and planting buffer) through a structure plan (Luggate Park 27.13.8) which seeks to minimise the visibility of urban development from the east.
 - b. Rural Residential zoning throughout the northern portion of Luggate settlement at Jackson Rose abutting the western edge of the area, coinciding with the schistose / moraine landform. Although the development lacks a defensible edge along the existing eastern edge of the Rural Residential Zone and there is encroachment of similarly scaled residential properties within this part of the area; the surrounding land is vested as a Recreation Reserve and this would likely reduce the potential for development creep into the Rural Zone.

- c. The Mata-au (Clutha River) to the north, which includes a popular walking and cycling trail along the true right side. The predominantly vegetation fringed river corridor forms a strong natural landscape edge to the area.
- d. The mixed rural and rural living landscape within Central Otago District to the southeast, which influences the perception of rural character associated with this area.
- e. The northern shoulder slopes of the Pisa Range corresponding to Lake Mackay Station PA (ONL) to the south. The proximity and large scale of the mountains form a dramatic backdrop to the area.

Archaeological and heritage features and their locations

- 15. Historic stone hut remains (archaeological site G40/44).
- 16. Mining tailings (archaeological site G40/145).

Mana whenua features and their locations

- 17. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
- 18. Parts of the area overlap the mapped wāhi tūpuna Mata-au (Clutha River) and Te Rua Tūpāpaku.
- 19. The Mata-au (Clutha River) is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.
- 20. Te Rua Tūpāpaku is recorded as a fortified permanent pā.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

- 21. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
- 22. The Mata-au (Clutha River) takes its name from a Kāi Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions.
- 23. The Mata-au was part of inland mahika kai trails and was also a key transportation route for pounamu from inland areas to settlements on the coast.
- 24. Te Rua Tūpāpaku is a kāika mahika kai located on the Mata-au where weka, tuna (eels) and kauru (cabbage tree root) were gathered. It is also recorded as a fortified permanent pā.
- 25. The mana whenua values associated with this area include, but may not be limited to, wāhi taoka, ara tawhito, mahika kai, nohoaka, urupā, pā, wāhi tapu.

Historic attributes and values

- 26. Historic land use in the Luggate area is representative of the sort of dispersed settlement and multi-faceted rural economy that historically existed in parts of the Upper Clutha area. Scattered settlement in the area is associated with a mixture of large-scale pastoralism, smaller-scale farming, and mining, with some locals expected to have been involved with two or even all three of these industries. An historically low

population, and a need to be close to farms and/or mining sites resulted in homesteads (likely cottages and huts) being established far apart.

27. The northern periphery of the area along the Mata-au (Clutha River), is important as a focal point of mining during the 19th century and numerous archaeological sites have been recorded in the vicinity (though mostly outside the area). Mining along the riverbank in this area is mainly understood to relate to sluicing and dredging operations during the late 19th-early 20th centuries, though some early, small-scale mining is known to have taken place at Sandy Point.
28. The area encompasses much of an early European communication route alongside the Upper Clutha up from Cromwell. This has evolved into today's Luggate-Cromwell Road.

Shared and recognised attributes and values

29. Valued as a scenic rural gateway to the district from the south and as a rural entrance to Luggate.
30. Valued as a pleasant rural living location close to Luggate and approximately midway between Wānaka and Cromwell, with a high level of visual and rural amenity, particularly in close proximity to the river.
31. The identity of the area as part of the working rural farmland of the Upper Clutha Basin and as a 'green belt' on the south-eastern edge of Luggate.
32. The impression of the schistose/moraine landform forming a relatively undeveloped landform enclosure along the norther side of east Luggate.
33. The popularity of the Upper Clutha River Trail.

Recreation attributes and values

34. The network of trails for walking and cycling from SH6 across the area and along the edge of Mata-au (Clutha River). The Upper Clutha Trail is planned to connect through to Cromwell and the wider Otago Trail network.
35. Bouldering activity (climbing on large boulders for sport and exercise) located on the Luggate-Cromwell Road.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

36. The series of degradational terraces and fluvially eroded scarps leading down to Mata-au (Clutha River) which express the fluvial processes of river erosion.
37. The outwash plain which is expressive of the interaction of the glacial and fluvial processes that have shaped the Upper Clutha Basin.
38. The schistose / moraine landforms which are expressive of glacial processes.

Particularly important views to and from the area

39. The intermittent sequence of attractive and varied close to longer-range views across the area, including to the irrigated terraces of Kane Road and Luggate -Tarras Highway from SH6. In these views the rural expanse of the area (and the area addressed in 21.23.13) are seen framed by the dramatic and large-scale proximate landforms of the northern end of Pisa Range (to the west) and the southern end of the

Grandview Range (to the east), affording an impression of landscape containment that is appealing and memorable. The broader mountain context of the Upper Clutha Basin and Lake Wānaka forms the backdrop to the area in places, adding a sense of connection to the vast and rugged landscape context to the north. Roadside evergreen shelterbelt, woodlot, and amenity plantings serve to frame and obstruct longer range views in some places.

40. The rural appearance of the area comprises predominantly open pastoral land, with a mix of shade and shelter plantings and amenity plantings (and in which buildings are obscured from view) in places. The rural character serves to reinforce the connection of the area to the proximate pastoral mountain and basin context, and, in the case of the schistose / moraine area, forms an attractive and relatively undeveloped backdrop to the eastern part of Luggate.
41. Highly attractive views from parts of the riverside trail in which there is an appreciation of the rural composition associated with the area seen alongside the river and backdropped by the expansive mountain context. Buildings are generally subservient and well-integrated by landform and/or vegetation in such views.

Naturalness attributes and values

42. Perceptions of naturalness and of a spacious rural character are largely maintained for people visiting the landscape, although this is undermined in parts by the presence of pivot irrigation infrastructure, driveways, gateways, signage and the like.
43. Overall, there is a moderate level of naturalness. Human intervention as intensively managed farmland and rural living is evident. The close proximity of Mata-au (Clutha River) and the mountain context contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

44. Memorable to residents and locals as a 'gateway' to the Upper Clutha Basin (and the Cromwell / Lake Dunstan valley) and entrance / 'green belt' to the south-eastern side of Luggate.

Transient attributes and values

45. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees.
46. Seasonal pasture colours.
47. The varying water flow characteristics of the Mata-au (Clutha River) (outside the area but in very close proximity).
48. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

49. Impressions of rural tranquillity and quietness are localised to the river edge trail and corridor.
50. A dark night-sky impression along the river corridor edge contributes to feelings of remoteness.
51. Along the river corridor, the subservience of built development along with the rough scrub vegetation and proximate connection of the area to the surrounding mountains imbues an appealing perception of wildness.

Aesthetic attributes and values

52. Appealing aesthetic attributes and values as a result of:
- a. the highly attractive views, often framed by trees, across pastoral land to the Pisa Range, northern Upper Clutha Basin, Grandview Range, and the mountain ranges surrounding the Upper Clutha Basin and Lake Wānaka;
 - b. juxtaposition and contrast between the smooth pastoral 'tamed' appearance of the area and the rougher, browner, and more visually complex rangelands of the Pisa Range and the Grandview Range slopes; and
 - c. the distinctly working rural character of the area deriving from the dominant pastoral or cropping land uses, a sense of spaciousness, and rural living development integrated by topography and/or vegetation.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the East of Luggate area can be summarised as follows:

53. **Moderate physical values** relating to the sequence of glaciofluvial landforms extending between the river and Pisa Range, the productive soils (with irrigation) and associated agricultural land uses, the patterns of rural shelterbelts, hedgerows, and mature exotic trees framing open areas of pastoral land, and the mana whenua features associated with the area.
54. **Moderate associative values** relating to wāhi taoka, ara tawhito, mahika kai, nohoaka, urupā, pā, wāhi tapu, the historic heritage of European pastoral farming, the recreational use of the river and boulders, and the shared and recognised values of the area as a gateway to the Upper Clutha Basin (and the Cromwell / Lake Dunstan valley), an entrance / pastoral greenbelt to Luggate, and a pleasant rural living location.
55. **Moderate perceptual values** relating to the expressiveness of the downland landforms, the coherence of land use patterns, the rural character, the scenic views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with rural living remaining subordinate to rural land uses and vegetation.

Landscape Capacity

The landscape capacity of the East of Luggate area for a range of activities is set out below.

- i. **Commercial recreational activities – limited** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).

- ii. **Visitor accommodation and tourism related activities – some** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and ‘low-key’ rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Very limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key ‘rural’ character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. Urban expansions – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture – some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming, rural living / visitor accommodation/tourism related activities and recreational tracks that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – limited** landscape capacity for ongoing gravel extraction from the Mata-au (Clutha River) in accordance with Otago Regional Council River Management Strategy. **Very limited** landscape capacity for farm-scale quarries elsewhere within the area that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** landscape capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and ‘domestication’ through rural living development, particularly along the edge of Mata – Au (Clutha River) and across the schistose/moraine landform in the north-western portion of the area. It is important that new development along the edge of Mata – Au (Clutha River) PA is difficult to see from the ONF, to protect the associative and perceptual values of the ONF. It is also important that development on the schistose/moraine within the area, is difficult to see from the Mata – Au (Clutha River) PA, to protect the associative and perceptual values of the ONF and ensure that it does not read as development creep from the existing settlement pattern in the area. More generally, any additional rural living should be set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and spacious, ‘low-key’ rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.12 Sheepskin Creek: Schedule of Landscape Values

General Description of the Area

The Sheepskin Creek area is located on the northern lower slopes of the Pisa Range. The northern and eastern boundary coincides with SH 6 (Luggate Cromwell Road) and the boundary of the area addressed in 21.23.11 Luggate. The eastern and southern boundary is defined by the District boundary and the western / north-western boundary abuts Lake McKay Station and Environs PA (ONL). Overall, the area forms part of an ice-eroded shoulder on the northern slopes of the Pisa Range, with glacial outwash terraces and schist escarpments to the north. The plateau extends west into the ONL and eastwards into the rural living area of Queensberry (within Central Otago District) located immediately to the east.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The area is located on the northern lower slopes of the Pisa / Criffel Range. This range forms the westernmost and highest element of the characteristic 'basin and range' fault block landscape that stretches across Central Otago. The northern end of the range is characterised by an ice-eroded shoulder that defines the southern enclosure of the Upper Clutha Basin. Within this shoulder, moraines form smoother surfaces between rocky outcrops and hummocks, and deeply cut gullies are associated with contemporary streams.
2. The lower margin of the shoulder, south and east of Luggate, and within which the area is located, has ice-scoured terrain with rock exposures and fluviially formed escarpments and terraces leading down to the basin floor.

Hydrological features

3. The series of tributaries draining from the terraces to Sheepskin Creek (to the west) and the unnamed stream in the vicinity of Queensberry (to the east and south), all flowing directly to Mata-au (Clutha River).

Ecological features and vegetation types

4. Particularly noteworthy indigenous vegetation features include:
 - a. Extensive areas of improved pasture and lucerne cropping that are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
 - b. An evergreen shelterbelt on a roughly north-south alignment through the centre of the lower sloping terrace and shelter / amenity plantings around rural living dwellings in the northern portion of the area.
5. Kānuka scrub and shrubland and rocky outcrops are valued habitat for skinks and geckos, a wide range of invertebrate species, and native birds (including New Zealand falcon, hawk, South Island tomtit, grey warbler, fantail, and silvereye).

Land use patterns and features

6. SH6 which traverses the southern edge, linking between Wānaka / Luggate and Cromwell.

7. Pastoral farming or cropping, with pivot irrigation on the smoother terrace slopes, and low intensity grazing across steeper areas. Properties tend to be larger than 20ha and/or part of much bigger landholdings. The exception to this is along the toe of the escarpment adjacent SH6, where there is a small grouping of rural living lots ranging in size from approximately 2ha to 3ha.
8. Earthworks and built modifications are generally limited to fencing, farm tracks, stockyards, irrigation ponds, shared accessways, and rural living dwellings (on the northern kānuka-covered rise and the flats near SH6).
9. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Rural living development throughout the Queensberry area immediately to the east of the area (and within Central Otago District). This includes two formed rights of way: Mahana Lane and Puninga Lane (gravel surface); to the south boundary of the area (District boundary). Houses are generally located in localised hollows of the elevated terraces and slopes with variable degrees of success evident in relation to their visual integration, particularly in more distant views. Much of the accessway and public road network (Pukerangi Drive chipseal surface) is visible from the surrounding area. Overall, the proliferation of rural living houses and accessways confers the impression of a rural living zoning.
 - b. The McKay Station and Environs PA (ONL) to the west as a predominantly unmodified, highly expressive, memorable, and appealing area.

Archaeological and heritage features and their locations

10. Hut remains potentially associated with the historic mining or pastoralism (archaeological site G40/175).

Mana whenua features and their locations

11. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

12. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.

Historic attributes and values

13. The area is representative of the type of high-country landscape that endured as a pastoral run used for low-intensity stock grazing from the mid-19th century through into the 20th century (unlike other, less-marginal areas that began to be farmed more intensively).
14. The area was likely subject to some early goldmining, though restricted water availability would have limited the land's viability.
15. The area likely encompasses of an early European communication route branching off from the Luggate-Cromwell Road.

Shared and recognised attributes and values

16. Valued as an integral part of the distinctive and visually prominent southern enclosure of the Upper Clutha Basin.
17. Identity as an open and spacious, relatively undeveloped, and predominantly 'working' rural buffer between the undeveloped ONL landscape to the west and south, and the rural living landscape of the Queensberry area in the neighbouring district to the east.
18. The lower escarpment and portion of the area adjacent the highway is valued as a scenic rural gateway to the district from the south, and as part of the rural entrance to Luggate and the Upper Clutha Basin.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

19. History of extensive pastoral farming has resulted in an open character and highly legible landform, reinforced by the patterning of indigenous vegetation in stream gullies and across escarpments. The relative openness of the upper slopes and escarpments allows the processes of land formation to be easily perceived. The landscape is clearly expressive of the uplift, glacial, and fluvial processes that have formed it.

Particularly important views to and from the area

20. Limited public accessibility means that closer views of the area are generally limited to views of the lower escarpment and terrace adjoining the Upper Clutha Basin floor from SH6 and views of the upper sloping terraces from the Queensberry rural living area to the east (outside of the district). From SH6, short to mid-range views across the lower (highway edge) terrace are seen backdropped by the kānuka and scrub dominated escarpment. Scattered shade trees and amenity plantings screen views of the majority of rural living dwellings in this part of the area, and the balance of the area is screened from view by intervening landforms. In views from the Queensberry rural living area, the upper sloping terraces read as part of the more expansive working rural landscape that dominates the mid slopes of the Pisa Range.
21. The area is widely visible from more distant vantage points across the basin, including Kane Road, Luggate - Tarras Road (SH8A), and parts of the Upper Clutha River Trail, the Grandview Ridge Track, and the Deep Gully Track. From these vantage points, the area reads as part of the coherent and distinctly rural mid-ground to the higher peaks of the Pisa Range. The rough vegetation-covered upper escarpments and stream gullies contrast with the colour and texture of improved pasture on the sloping terraces, enhancing the legibility of the landscape and providing visual complexity and interest. From these viewpoints, the area reads as a continuous part of the mountainous enclosure of the basin.

Naturalness attributes and values

22. Perceptions of naturalness and of working rural character are largely maintained for people visiting the landscape, although this is undermined by the presence of pivot irrigation infrastructure, driveways, gateways, signage, and the like.
23. Natural patterns and process are particularly strong in the regenerating kānuka woodland and shrubland areas, and on the steeper slopes. Rocky outcrops add to perceptions of naturalness.
24. Overall, there is a moderate-high level of naturalness. Human intervention as intensively managed farmland and rural living is evident. The close proximity of the more undeveloped mountain context contributes a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

25. The memorability of the area as part of the Pisa Range, enclosing the Upper Clutha Basin to the south, and contrasting strongly with the long horizontals of the basin outwash plain.
26. Memorable to residents and locals as part of the 'gateway' to the Upper Clutha Basin (and the Cromwell/Lake Dunstan valley) and as part of the rural entrance to Luggate.

Transient attributes and values

27. Important transient attributes include the play of light on the open landforms, changing snow cover, the changing colour of pasture vegetation and crops across the seasons, and the presence of stock and wildlife such as hawks.

Remoteness and wildness attributes and values

28. Some remoteness and wildness experienced within the working farmland (albeit noting that this is not publicly accessible).

Aesthetic attributes and values

29. The experience of all of the values identified above from public and private viewpoints.
30. More specifically, this includes:
 - a. the juxtaposition and contrast between the smooth pastoral 'tamed' appearance of the sloping terraces, and the rougher escarpment, rock outcrop, and gully areas;
 - b. strong rural character, with an impression of openness (where there is pastoral or cropping uses), a sense of spaciousness, and very limited rural living development; and
 - c. the play of light and shadow on the landform.

Summary of Landscape Values

Physical • Associative • Perceptual (Sensory)

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Sheepskin Creek area can be summarised as follows:

31. **Moderate physical values** relating to the sequence of terraces, rock outcrops, escarpments and gullies, the regenerating grey shrubland and kanuka, the productive soils (with irrigation) and associated agricultural land uses, and the strong patterns of rural land use.
32. **Moderate associative values** relating to the mana whenua associations of the area, and the shared and recognised values of the area for residents and locals as part of the gateway/rural edge to the Wānaka valley and Luggate, and as a rural buffer between development at Queensberry and the ONL.
33. **Moderate-high perceptual values** relating to the open character and resulting legible and expressive display of topography, the coherence of vegetation and land use patterns, the rural character, the expansive scenic views to the area from the Upper Clutha Basin which reads as part of the broader northern shoulder of the Pisa Range, and the moderate-high level of naturalness.

Landscape Capacity

The landscape capacity of the Sheepskin Creek area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **limited** landscape capacity for visitor accommodation activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. **Urban expansions** – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture** – **some** landscape capacity on the terraces where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks** – **limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings** – **some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction** – **very limited** landscape capacity for farm-scale quarries that that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure** – **very limited** landscape capacity for modestly scaled and low-key 'rural' roading that is positioned to optimise the integrating benefits of landform and vegetation patterns.
- ix. **Utilities and regionally significant infrastructure** – **limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation** – **some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Extremely limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry** – **limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living** – **very limited** landscape capacity to absorb additional rural living without adverse effects on associative and perceptual values. The working rural character of the area is vulnerable to fragmentation and 'domestication' through rural living development. Any additional rural living should be located on the lower-lying land towards the northern part of the area; set well back from roads; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where

appropriate); enhance public access (where appropriate); and should maintain the impression of rural views from public vantage points (including views from the highway).

Plant and Animal Pests

- A. Plant pest species include sweet briar and hawthorn.
- B. Animal pest species include rabbits, hares, pigs, goats, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.13 Kane Road and Luggate -Tarras Highway: Schedule of Landscape Values

General Description of the Area

The Kane Road and Luggate – Tarras Highway area corresponds to the expansive and flat outwash terraces on the northern side of Mata-au (Clutha River) (true left side), between Hāwea Flat and Luggate. To the south and west is Mata-au (Clutha River) PA (ONF). The northern boundary of the area adjoins 21.23.14 Hāwea Moraine and the east boundary abuts Hāwea South North Grandview PA (ONL) (at its northern end), and the ONL taking in Great Rock and Trig Hill along its central and southern boundary.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes outwash gravels and glacial till from the glaciers that formed the Upper Clutha Basin and Lake Wānaka.
2. The outwash plains throughout the western, central, and north-eastern portion of the area are from the Albert Town Glacial Advance. More recent fluvial processes of erosion and sedimentation have reworked some older alluvium.
3. The elevated terraces in the vicinity of Glenfoyle (south-eastern portion of the area) correspond to outwash from the Luggate Glacial Advance. These are interspersed with river alluvium and aggrading fans aligning with the Crook Burn valley.
4. The sequence of landforms includes:
 - a. Lagoon Valley, along the toe of the Grandview Range.
 - b. The elevated alluvial terraces and fans with steep risers in the vicinity of Glenfoyle.
 - c. A series of degradational terraces dropping down to the river, where fluvial erosion has cut into the glacial outwash gravels to create a slightly undulating topography in places.
 - d. The sequence of steep terrace risers stepping down to the river and Crook Burn valley. Numerous small shallow gullies eroded into the terrace risers create a distinct wavering ribbon effect.
5. The relatively free-draining brown and pallic soils with reasonable fertility, reflected in pastoral farming and more intensive farming under irrigation.

Hydrological features

6. A series of steeply incised unnamed streams that drain across the outwash terraces to discharge to Mata-au (Clutha River). These channels tend to flow only during prolonged rainfall.
7. Irrigation reservoirs/ponds throughout the outwash plains, with varying levels of permanent water.

Ecological features and vegetation types

8. Particularly noteworthy indigenous vegetation features include:

- a. Limited amounts of mixed grey – sweet briar shrubland and kanuka on terrace risers, scarps, and throughout gullies.
 - b. SNA B (E18B) which comprises a mosaic of short tussock grassland, cushionfields and herbfields is located on the edge of the expansive outwash plain overlooking the Mata-au (Clutha River).
9. Other distinctive vegetation types include:
- a. Conifer shelter belts occur throughout the area and conifer woodlots occur in the vicinity of the Luggate - Tarras Highway and McKay Road.
 - b. Native and exotic amenity plantings associated with rural living, including roadside hedges, driveway avenues, shelter trees around dwellings, and large gardens.
 - c. Extensive areas of improved pasture used for dairying and over winter grazing as well as areas used for cropping are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
10. Rank exotic grassland present along road margins and across terrace risers, scarps and throughout gullies may be utilised by skinks.

Land use patterns and features

- 11. Pastoral farming or cropping. The area includes intensive dairying on either side of Kane Road and to the south of Luggate – Tarras Highway. Properties tend to be much larger than 20ha with large-scale farm buildings, stockyards, long and straight shelterbelts and farm tracks, pivot irrigation, and informal airport infrastructure evident. Low earth bunding is used in places to provide protection for farm storage areas.
- 12. Rural dwellings tend to comprise homesteads and worker cottages with very few rural living dwellings evident, excepting along the river edge and on McKay Road. Dwellings tend to be reasonably well-integrated by amenity and/or farm plantings, while workers cottages are more exposed and utilitarian in character. Two consented but unbuilt platforms on the east side of Kane Road.
- 13. The few rural living properties within the area (relative to its size), are generally located towards the southern end of the area, positioned to overlook Mata-au (Clutha River) ONF or scattered along the edges of Luggate – Tarras Highway.
- 14. Quarries near the intersection of McKay Road and the Luggate – Tarras Highway.
- 15. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Mata-au (Clutha River) PA (ONF) immediately adjoining the area to the west, which includes the Upper Clutha River Track on the true right side of the river, the Newcastle Track on the true left side of the river, and part of the Hāwea River Track near the north-western boundary of the area. The steep scarps of the river corridors form a strong natural landscape edge to the area.
 - b. Hāwea South North Grandview PA (ONL) and the ONL along the western boundary of the area, which includes the Grandview Mountain Track network. The proximity and large scale of the mountains means that they form a dramatic backdrop to the area.

Archaeological and heritage features and their locations

- 16. Cob Cottage at 324 Luggate – Tarras Road (Ref. 531). Along with the cob buildings, a wooden house is also recorded as part of the site’s archaeological record (archaeological site G40/35). This is currently used as a museum
- 17. The Stone Ruin at the Landreth property, 342 Kane Road (Ref. 512).

18. Wooden and cob buildings and structures, near 480 Luggate-Tarras Highway (archaeological site G40/26).
19. Stone cottage up the Crookburn Gully, reputedly associated with an early pastoral run (archaeological site G40/34).
20. MacKay Road Miners Trail, extending north-west from the intersection of Kane Road alongside the riverbank, with another fragment also identified around 2.5km south-east of Albert Town (archaeological site G40/243).

Mana whenua features and their locations

21. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
22. The southern part of the area overlaps the mapped wāhi tūpuna Mata-au (Clutha River) and Te Rua Tūpāpaku.
23. The Mata-au (Clutha River) is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.
24. Te Rua Tūpāpaku is recorded as a fortified permanent pā.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values •

Mana whenua associations and experience

25. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
26. The Mata-au (Clutha River) takes its name from a Kāi Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions.
27. The Mata-au (Clutha River) was part of inland mahika kai trails and was also a key transportation route for pounamu from inland areas to settlements on the coast.
28. Te Rua Tūpāpaku is a kāika mahika kai located on the Mata-au (Clutha River) where weka, tuna (eels) and kauru (cabbage tree root) were gathered. It is also recorded as a fortified permanent pā.
29. The mana whenua values associated with this area include, but may not be limited to, wāhi taoka, ara tawhito, mahika kai, nohoaka, urupā, pā, wāhi tapu.

Historic attributes and values

30. The agricultural history and development of the area follows a similar trajectory to other locales in the Upper Clutha, with low-intensity pastoralism transitioning to more intensive farming and settlement over time. However, when compared to nearby areas like the Hāwea Flat, the development of this latter type of agriculture appears to have been limited by marginal quality of the land in the area. Most recorded heritage and archaeological sites in the area relate to these historic agricultural attributes.
31. The southern periphery of the area, along the Mata-au (Clutha River), is important as a focal point of mining during the 19th century and numerous archaeological sites have been recorded in the vicinity

(though mostly outside the area). Mining along the riverbank in this area is mainly understood to relate to sluicing and dredging operations during the late 19th - early 20th centuries.

32. The area encompasses much of an early European communication route alongside the Upper Clutha up from Cromwell. For the most part this has evolved into the Luggate - Tarras Highway, but fragments of an earlier miners' trail have also been identified in the RCL (G40/243) and a 'paper railway' winds across the landscape.

Shared and recognised attributes and values

33. Valued as part of the expansive swathe of overtly production-focused rural land throughout the terraces on the eastern side of Mata-au (Clutha River). The more open rural terraces form a contrast with the more developed and inhabited western side of the river and are of importance to the sense of spaciousness and identity of the Upper Clutha Basin as a working rural landscape.
34. The popularity of SH8A as a scenic vehicular and cycling route between Wānaka and the Lindis Pass and which reads as a spacious rural gateway to the Upper Clutha Basin.
35. The popularity of the Upper Clutha River, Newcastle, Eastern Hills and Grandview tracks nearby or within the area.

Recreation attributes and values

36. The Sandy Point Conservation Area with car parking and access to the river track and Eastern Hills tracks.
37. Freedom camping ground at intersection of Kane Road and Luggate - Tarras Highway (outside the area).
38. Deep Gully Eastern Hills Loop Track.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values •

Legibility and expressiveness attributes and values

39. The generally planar character of the outwash terraces interspersed with gentle undulations, along with the aggrading fans (in the vicinity of Crook Burn) are expressive of the interaction of the glacial and fluvial processes that have shaped the Upper Clutha Basin.
40. The fans / scarps in the vicinity of Glenfoyle are expressive of alluvial processes.
41. The series of degradational terraces and eroded terrace risers and scarps leading down to Mata-au (Clutha River) are expressive of the fluvial processes of river erosion.

Particularly important views to and from the area

42. The almost continuous sequence of attractive and sweeping mid to long-range views from Kane Road, Luggate – Tarras Highway and the local road network across the outwash plains. The pastoral and cropping land use of the area and linear shelterbelts contribute a strong 'working farm' rural character, with the visibility of pivot irrigation infrastructure lending an industrial rural landscape impression in places. The distinctly working rural character or limited visibility of built development reinforces the rural impression and also reinforces the connection of the area to the proximate pastoral mountain context (Grandview Range PA (ONL)). The openness, spaciousness, and planar character of the majority of the area seen from the road, set against a continuous mountain or scarp backdrop, confers a memorable sense of a 'big sky' landscape.

43. The more intimate and close-range views afforded around Glenfoyle where the complex landform and vegetation patterns serve to close down views and imbue a strong sense of enclosure and containment.
44. Distant views from the summit of Mount Iron PA (ONF), where the panoramic vistas take in the expansive rural river terraces and prominent scarps extending across the area.
45. The expansive long-range 'rural' views from the elevated urban areas of Luggate to the south, in which the area forms part of the broad sweep of the Upper Clutha Basin rural plains, framed by a continuous circle of dramatic mountains (ONL). Also the views from SH6 near the airport where the continuity of the outwash plain is legible, with Mata-au (Clutha River) eroded into the outwash.
46. Highly attractive views from the Grandview Track network (ONL) to the east, in which the area reads as part of the expansive working rural landscape that appears to dominate the Upper Clutha Basin from this orientation.

Naturalness attributes and values

47. Perceptions of naturalness and of a spacious rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of pivot irrigation infrastructure driveways, gateways, signage, and the like.
48. Human intervention as intensively managed farmland is evident. The terrace risers and scarps, and close proximity of Mata-au (Clutha River) and the mountain context, contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

49. Memorable to residents and locals as part of the 'rural hinterland' of the Upper Clutha Basin and as a seemingly spacious and open, overtly working rural landscape.

Transient attributes and values

50. Seasonal pasture and crop colours.
51. The changing shadow patterns from shelter belts and the changing light patterns across the undulating moraine and face of the 'rippled' terraces faces.
52. The presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

53. Rural tranquillity and quietness are currently experienced in those parts of the area away from Kane Road and Luggate – Tarras Highway, where there are low traffic volumes and the levels of activity are consistent with 'working farmland'.
54. A dark night-sky impression contributes to feelings of remoteness.

Aesthetic attributes and values

55. The experience of all of the values identified above from public and private viewpoints.
56. More specifically, this includes:
 - a. Attractive rural and 'big sky' views across large open and flat paddocks to the terrace risers, scarps of the area, and the mountains framing the Upper Clutha Basin.
 - b. Strong rural character, with large areas of open space – either pastoral or cropping – seen bisected by linear shelterbelts, and with built development displaying a distinctly rural character.

- c. The juxtaposition between the tamed and flat rural land of the area and the rougher character and steep landform profiles along the river corridor and ranges along the western and eastern sides of the area.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Kane Road and Luggate - Tarras Highway area can be summarised as follows:

- 57. **Moderate physical values** relating to the sequence of glaciofluvial terrace landforms, terrace risers and scarps and aggrading fans, the productive soils (with irrigation) and associated agricultural land uses, the mana whenua features associated with the area, the historic features of the area, and the strong patterns of rural land use.
- 58. **Moderate associative values** relating to the mana whenua associations of the area, the historic features, and the identity of the area as a part of the rural hinterland of the Upper Clutha Basin.
- 59. **Moderate perceptual values** relating to the expressiveness of the terrace, riser/scarp and fan landforms, the strong coherence of rural vegetation and land use patterns, the sweeping rural views across the (predominantly) open and spacious terraces that shape the identity of this part of the basin as a distinctly working rural landscape, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with rural living remaining subordinate to pasture/cropping and vegetation.

Landscape Capacity

The landscape capacity of the Kane Road and Luggate -Tarras Highway area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **some** landscape capacity for visitor accommodation activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Very limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- iii. **Urban expansions** – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture** – **some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.

- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming, rural living/visitor accommodation/tourism related activities, and recreational tracks that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly-scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – limited** capacity for farm-scale quarries and expansion of existing quarries that that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Some** landscape capacity for larger-scale commercial renewable energy generation as long as it is screened from public places.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 10 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and ‘domestication’ through rural living development, particularly along the edge of Mata-au (Clutha River). Generally, such an outcome could undermine the impression of this part of the Upper Clutha Basin as a spacious working rural landscape. For development along the edge of Mata-au (Clutha River) PA it is important that new development is difficult to see from the ONF, to protect the associative and perceptual values of the ONF. More generally, any additional rural living should be set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and spacious, ‘low-key’ rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.14 Hāwea Moraine: Schedule of Landscape Values

General Description of the Area

The Hāwea Moraine area corresponds to the Lake Hāwea penultimate terminal moraine ridge which extends approximately west-east from the Hāwea River to the Grandview Range. The terminal moraine separates the flat outwash terraces of 21.23.15 Hāwea Flat (to the north) from the older 21.23.13 Kane Road and Luggate – Tarras Highway outwash terraces to the south. The western edge of the area adjoins the Mata-au (Clutha River (ONF)) and the eastern end abuts Hāwea South North Grandview PA (ONL).

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes moraine from the glaciers that formed the Upper Clutha Basin and Lake Wānaka. Identified in the Geopreservation Inventory as being of regional geological significance, the landform comprises the Lake Hāwea penultimate terminal moraine ridge. This is an excellent example of a terminal moraine ridge that dammed a glacier lake after the Albert Town Glacial Advance retreated. This resulted in several hundred metres of lake sediment being deposited under Hāwea Flats.
2. The sequence of landforms includes:
 - a. The low hummocky terrain characteristic of the penultimate terminal moraine. The moraine forms part of the extensive composite loop of moraine deposited in a semi-circle across Hāwea Valley, from an isolated flat-topped hill (Cameron Hill) around to south of Hāwea Flat and west of Camp Hill, to butt against schist in the south spur of Mt Maude. The Hāwea River, and later outwash plains have now disrupted the moraine loop.
 - b. Distinctive escarpment of approximately 40m to 80m high, leading up from Hāwea Flat.
 - c. Scattered schist boulders throughout the moraine slopes.
3. The relatively free-draining brown and pallic soils with reasonable fertility, reflected in pastoral farming. The undulating terrain is a deterrent to more intensive farming in parts of the area.

Hydrological features

4. Irrigation reservoirs/ponds within the rolling moraine field with varying levels of permanent water.
5. Farm drains.

Ecological features and vegetation types

6. Particularly noteworthy indigenous vegetation features include:
 - a. Limited amounts of grey shrubland - sweet briar and kānuka on parts of the moraine landform.
 - b. Small pockets of native restoration plantings on steeper land, typically associated with recent rural living subdivisions.

7. Other distinctive vegetation types include:
 - a. Conifer, eucalypt, and Lombardy poplar shelter belts throughout the area.
 - b. Areas of managed and unmanaged conifer woodlots alongside Newcastle Road and parts of the escarpment and farmland to the south of Hāwea Flat. Many of the shelter and woodlot trees have wilding potential.
 - c. Native and exotic amenity plantings associated with rural dwellings, farm buildings, and rural living dwellings, including roadside hedges, amenity plantings, driveway plantings, and shelter trees around dwellings.
8. Extensive areas of improved pasture used for dairying that are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
9. Rank exotic grassland along road margins and across the moraine landform may be utilised by skinks.

Land use patterns and features

10. Low-intensity pastoral farming and conifer woodlot land use, reflecting the rock-strewn and undulating terrain. Some intensive dairy farming towards the southern edges of the area with irrigation.
11. A relatively spacious patterning of rural living development through parts of the higher ground to the south and southeast of Hāwea Flat and in the vicinity of Loess Lane. Dwellings tend to be sited to optimise the screening effect of landform and mature vegetation features. Lots typically a minimum of 3 to 8ha in size, with two consented but unbuilt platforms south of Hāwea Flat.
12. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Mata-au (Clutha River) PA (ONF) immediately adjoining the area to the west, which includes the Upper Clutha River Track on the true right side of the river, the Newcastle Track on the true left side of the river, and part of the Hāwea River Track near the north-western boundary of the area. The steep scarps of the river corridors form a strong natural landscape edge to the area.
 - b. Hāwea South North Grandview PA and the ONL along the western boundary of the area, which includes the Grandview Mountain Track network. The proximity and large scale of the mountains form a dramatic backdrop to the area.
 - c. The settlement edge of Hāwea Flat (Rural Residential Zone, typically 4,000m² lot sizes) and further to the north, the Rural Lifestyle Zone (typically lot sizes of 1ha) along the central northern boundary, generally coinciding with the toe of steeper slopes associated with the moraine landform of the area. The settlement pattern forms an abrupt, rectilinear 'cut out' into the moraine landform pattern with no discernible defensible edge, making the area vulnerable to development creep.

Mana whenua features and their locations

13. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values •

Mana whenua associations and experience

14. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.

Historic attributes and values

15. The agricultural history and development of the area is typical of the Wānaka and Upper Clutha area, with low-intensity pastoralism giving way to denser agricultural settlement during the late 19th to early 20th centuries. This latter farming was primarily focused on grazing, but some cropping was also carried out where viable.

Shared and recognised attributes and values

16. Locally valued as part of the proximate rural backdrop to Hāwea Flat settlement and as the 'divider' between the northern and southern terraces of the Hāwea hinterland on the eastern side of Mata-au (Clutha River) and the Hāwea River.

Recreation attributes and values

17. Devon Link Track between Butterfield Road and the Hāwea River Track.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values •

Legibility and expressiveness attributes and values

18. The rolling moraine landform, escarpment and rock boulders are strongly expressive of the glacial processes that have shaped the Upper Clutha Basin.

Particularly important views to and from the area

19. The sequence of attractive and varied 'rural' views from Kane Road across the eastern portion of the area. The rolling terrain and frequency of shelterbelt and shade plantings confers a complexity that contrasts with the more open and expansive terrace landscapes to the south and north (the areas addressed by 21.23.13 and 21.23.15 respectively). The boulders and often patchy patterning of conifers across the steeper terrain contribute to the impression of a spacious and relatively undeveloped rural landscape in places, that forms both a marked contrast with the established settlement patterning at Hāwea Flat as well as functioning as a distinctly rural backdrop to the settlement. Elsewhere, the more open pastoral character and limited visibility of built development reinforces the rural impression and the connection of the area to the proximate pastoral mountain context (Grandview Range PA and ONL).
20. The intermittent mid to long-range views from Camp Hill Road, Newcastle Road, the Devon Link Track and Hāwea Flat settlement in which the continuous sequence of moraine is visible and forms a strong contrast with the open and planar outwash/lakebed terrace of 21.23.15 Hāwea Terrace in the foreground of view. The rising land of the area obscures views to the upper terrace (i.e. the area addressed by 21.23.13), thus reading as a southern 'bookend' to the northern outwash terrace. The very limited visibility

of built development throughout the moraine and mix of pastoral land use interspersed with predominantly conifer plantings confers a distinctly rural impression that blends with the overtly working rural landscape foreground.

21. Long range views from the Grandview Track network (ONL) to the east, in which the area reads as a fragmented area largely due to the patterning of rural living, shelterbelts and exotic forestry, that contrasts with the expansive rural outwash terraces on either side stretching between Hāwea and Luggate.

Naturalness attributes and values

22. Perceptions of naturalness and of a working rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of driveways, gateways and signage.
23. Human intervention as managed farmland and rural living is evident. The boulder-strewn areas, and close proximity of the mountain context, contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

24. Memorable to residents and locals as a rural backdrop to Hāwea Flats, and as a natural divider of the expansive lower and upper outwash terraces stretching between Hāwea and Luggate.

Transient attributes and values

25. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees.
26. Seasonal pasture colours.
27. The changing shadow patterns from shelter belts and the changing light patterns across the undulating moraine.
28. The presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

29. Rural tranquillity and quietness are currently experienced in much of the area away from Hāwea Flat and where the levels of activity are consistent with 'working farmland', hobby farming and low-density rural living.

Aesthetic attributes and values

30. The experience of all of the values identified above from public and private viewpoints.
31. More specifically, this includes:
 - a. Expansive rural views of the continuous moraine landform from the north.
 - b. Strong rural character, with areas of open space – either pastoral or cropping – retained adjacent to road corridors, and rural living development set well back from roads and generally integrated by topography and/or vegetation.
 - c. Aesthetic appeal of the undulating moraine landforms and northern escarpment, with boulders and pockets of regenerating kānuka and grey shrubland.
 - d. The juxtaposition between the tamed rural land and the rougher character associated with the steeper moraine slopes where boulders, regenerating grey shrubland / kānuka and patches of conifers prevail.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Hāwea Moraine area can be summarised as follows:

32. **Moderate - high physical values** relating to the geological importance of the penultimate terminal moraine, the productive soils (with irrigation) and associated agricultural land uses, the sequence of rolling moraine fields strewn with boulders and regenerating shrubland and kānuka in places, and the strong patterns of rural land use.
33. **Moderate associative values** relating to the mana whenua associations of the area, and the shared and recognised values of the area for residents and locals; as a backdrop to Hāwea Flat and a divider of the expansive outwash terraces between Hāwea and Luggate; and as a pleasant, modest, and spacious rural living location 'off the beaten track'.
34. **Moderate perceptual values** relating to the expressiveness of the terminal moraine landform and escarpment, the rural character, the attractive views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with rural living retaining a spacious feel and remaining subordinate to rural patterns.

Landscape Capacity

The landscape capacity of the Hāwea Moraine area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **some** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Very limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; integrate landscape restoration.
- iii. **Urban expansions** – **extremely limited or no** landscape capacity.
- iv. **Intensive agriculture** – **some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks** – **limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings** – **some** landscape capacity for modestly-scaled buildings that reinforce the existing rural character.

- vii. **Mineral extraction – limited** landscape capacity for farm-scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and ‘domestication’ through rural living development; and the absence of a discernible defensible edge to Hāwea Flat Rural Residential and Rural Lifestyle zoning makes the neighbouring parts of the area particularly vulnerable to rural settlement creep. Any additional rural living should be set well back from the Hāwea settlement edge, roads, and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and ‘low-key’ and spacious rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.15 Hāwea Terrace: Schedule of Landscape Values

General Description of the Area

The Hāwea Terrace area corresponds to the expansive and flat outwash terraces south of Lake Hāwea settlement. The area also takes in the southern edge of the terminal moraine along the south side of Lake Hāwea (east of the settlement), the Hāwea River corridor, the Hāwea dam and a small area of the western side of the river roughly opposite Lake Hāwea settlement (including the golf course). The northwest boundary corresponds to Hāwea settlement. The northeast boundary abuts Lake Hāwea (Hāwea South North Grandview PA (ONL)) and the 'hamlet' of Gladstone. The east boundary runs along the base of the Grandview Range (Hāwea South North Grandview PA (ONL)). The south boundary adjoins 21.23.14 Hāwea Moraine and Hāwea Flat settlement. The west boundary adjoins West of Hāwea River PA (RCL). There is a 'cut out' roughly in the centre of the area, corresponding to the Hāwea Domain (Informal Recreation Zone).

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area is dominated by sediment deposited within a lake dammed by the Lake Hāwea penultimate terminal moraine ridge.
2. The sequence of landforms includes:
 - a. The low hummocky surface of the Lake Hāwea terminal moraine, with flat-bottomed hollows (because of limited drainage) between hillocks.
 - b. Two breaks in the once continuous terminal moraine, located at Gladstone and the present lake outlet. Streams flowing from the ice front and the early formation of Lake Hāwea drained through the moraine onto the surface of the outwash plain.
 - c. A sequence of shallow dry paleochannels on the south side of the terminal moraine that were cut by streams flowing from the ice front, while it was still depositing the younger innermost moraine ridge.
 - d. The river corridor of the Hāwea River, including a more steeply incised channel at the western end of the terminal moraine.
 - e. The outwash plains throughout the western and central portion of the area where more recent fluvial processes of erosion and sedimentation have reworked the older alluvium to create an irregular patterning of gentle undulations in places.
 - f. The continuous smooth profile of the irregularly-shaped aggrading fans and alluvial deposits across the eastern side of the area splaying out from Grandview Creek and Hospital Creek (in the mountains to the east).
 - g. The small-scale schistose roche moutonnée of Camp Hill along the western side of the area.
3. The engineered Hāwea dam formation.
4. The relatively free-draining brown and pallic soils with reasonable fertility, reflected in pastoral farming and more intensive farming under irrigation.

Hydrological features

5. The Hāwea River and dam.
6. The series of steeply incised streams that drain from the mountains to the east, across the outwash terraces and moraine, to discharge to Lake Hāwea. Including Hospital Creek, Grandview Creek and Johns Creek.
7. The irrigation water race winding its way from the Outlet to the south, through Lake Hāwea settlement and the area addressed in this schedule.
8. The network of artificial farm drains and Irrigation reservoirs/ponds throughout the outwash plains, with varying levels of permanent water.
9. The Hāwea Basin aquifer.

Ecological features and vegetation types

10. Particularly noteworthy indigenous vegetation features include:
 - a. Areas of grey shrubland and kānuka scrub and shrubland on the Hāwea River terraces and risers and alongside streams draining the Grandview Range. These shrublands have potential for enhancement through weed and animal pest control.
11. Other distinctive vegetation types include:
 - a. Conifer, eucalypt, and Lombardy poplar shelter belts throughout the outwash terrace, and scattered eucalypt or conifer woodlots generally up to approximately 15ha in size. Many of the shelter and woodlot trees have wilding potential.
 - b. Native and exotic amenity plantings associated with rural living, including roadside hedges, driveway avenues, shelter trees around dwellings, and large gardens.
12. Extensive areas of improved pasture used for dairying and areas used for cropping are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
13. Rank exotic grassland and bracken along road margins and river and stream margins may be utilised by skinks.

Land use patterns and features

14. Pastoral farming or cropping, with irrigation from bores to the Hāwea Basin aquifer, the water race from the Lake Hāwea outlet and water races from Hospital Creek. The area includes intensive dairying across its western side.
15. A quarry and cleanfill on the south side of Camp Hill Road that is screened from external view by earth mounding.
16. A small orchard on Butterfield Road.
17. Hāwea oxidation ponds, a gravel pit and a honey processing plant on Domain Road.
18. The important connection between Hāwea Flat (to the south of the area) and Lake Hāwea township (to the north of the area).
19. The urban residential, commercial and community facilities development enabled by Lake Hāwea South Structure Plan and which integrates a Building Restriction Area (BRA) along its western, southern and eastern edges to create a defensible edge and manage the risk of urban development creep.

20. Rural holdings tend to be much larger than 20ha, with large-scale farm buildings, stockyards, long and straight shelterbelts and farm tracks and pivot irrigation.
21. Rural dwellings tend to comprise homesteads and worker cottages with very few rural living dwellings evident. Rural dwellings tend to be reasonably well-integrated by amenity and/or farm plantings, while workers cottages are more exposed and utilitarian in character.
22. The few rural living properties within the area are grouped on Nook Road and on the corner of Butterfield Road and Camp Hill Road; and are well-integrated by amenity and shelterbelt plantings located towards the southern end of the area.
23. The Gladstone Gap emergency spillway which was built in 1956 as part of the Hāwea Dam construction works. Associated with the Gap is a broad swathe of low-lying land extending southwards from the lake, across Cemetery Road towards Domain Road, that is identified as a Flood Hazard area.
24. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Hāwea South North Grandview PA (ONL) along the western boundary of the area, which includes the Grandview Mountain Track network. The proximity and large scale of the mountains form a dramatic backdrop to the area.
 - b. West of Hāwea River PA (RCL) to the west, within which are several rural living properties along the river terrace edge, located to overlook the Hāwea River corridor and, in places, the western portion of the area.
 - c. Hāwea Moraine (addressed in 21.23.14) to the south which serves to separate the northern outwash plain of the area from the southern outwash plain of Kane Road and Luggate – Tarras Highway (addressed in 21.23.13).

Archaeological and heritage features and their locations

25. Blairhall, Hāwea Back Road.
26. Hāwea Flat School, Camp Hill Road, Hāwea Flat.
27. St Ninians Presbyterian Church, Kane Road, Hāwea.
28. Stone Homestead, Mc Carthy Road, Hāwea Flat.

Mana whenua features and their locations

29. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
30. The northern ends of the area overlap with the Hāwea (Lake Hāwea) and Paetarariki & Timaru wāhi tūpuna. The western extent of the area overlaps with the wāhi tūpuna Hāwea River (including Camp Hill).
31. Lake Hāwea is highly significant to Kāi Tahu and is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values •

Mana whenua associations and experience

32. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
33. Hāwea is one of the lakes referred to in the tradition of “Ngā Puna Wai Karikari o Rākaihautū” which tells how the principal lakes of Te Wai Pounamu were dug by the rakatira (chief) Rākaihautū. Through these pūrakau (stories), this area holds a deep spiritual significance both traditionally and for Kāi Tahu today.
34. The Lake was traditionally considered rich with tuna (eel) that were caught, preserved, and transported to kāika nohoaka of coastal Otago. The knowledge of whakapapa, traditional trails, tauraka waka, mahika kai and other taoka associated with Lake Hāwea remain important to Kāi Tahu today.
35. Several sites within this area such as Kokotane were known as rich kāika mahika kai. Camp Hill alongside Hāwea River was often used as a nohoaka (seasonal camping site).
36. The mana whenua values associated with this area include, but may not be limited to, wāhi taoka, mahika kai, awa, ara tawhito, kāika, nohoaka.

Historic attributes and values

37. The agricultural history and development of the area is typical of the Wānaka and Upper Clutha area, with low-intensity pastoralism giving way to denser agricultural settlement during the late 19th to early 20th centuries. Cropping was a particularly prominent form of agriculture across Hāwea Terrace (in contrast to much of the Upper Clutha where grazing was more common).
38. Compared to many other areas of the Upper Clutha, the agricultural settlement that eventuated around the Hāwea Terrace appears to have been particularly dense. This sort of settlement, and its relative geographic circumscription by the mountains and lake, allowed the area to develop an identity as a distinct rural community complete with institutions like schools, churches, stores, and post offices.

Shared and recognised attributes and values

39. Valued as part of the expansive swathe of overtly production-focused rural land throughout the terraces on the eastern side of the Hāwea River. The rural terraces form a contrast with the more developed and inhabited western side of the river and are of importance to the sense of spaciousness and identity of the Upper Clutha Basin as working rural landscape.
40. The identity of the area as a spacious rural hinterland to Lake Hāwea settlement.
41. The popularity of the Hāwea River Track (within the area and forms part of Te Araroa) and the Grandview Range track network nearby along with the other recreational features of the area.

Recreation attributes and values

42. The popular walking and cycle trail of the Hāwea River Track (true left side of the river).
43. Hāwea Community Bike Park that connects with the Hāwea River Track.
44. The Hāwea Flat Whitewater Park (The Wave) near Camp Hill, which is a popular surfing, kayaking, swimming, and picnicking spot accessed via Camp Hill Road.

45. The popularity of the Lake Hāwea Golf Course (west side of the river).

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values •

Legibility and expressiveness attributes and values

46. The following landforms are expressive of glacial processes: the hummocky surface of the terminal moraine (characteristic of the deposits dumped by ice during the Hāwea Glacial Advance); the shallow dry channels on the south side of the moraine; the breaks in the moraine at Gladstone and the lake outlet; and the Camp Hill roche moutonnée.
47. The interaction of glacial and fluvial processes is evident along the Hāwea River corridor and river terraces where fluvial action has shaped the landform; across the outwash plains (where more recent fluvial processes of erosion and sedimentation have reworked older alluvium to create an irregular patterning of gentle undulation in places); the aggrading fans and alluvial areas in the vicinity of Grandview Creek and Hospital Creek.

Particularly important views to and from the area

48. The sequence of expansive mid to long-range 'rural' views from the southern part of Lake Hāwea settlement, the northern edges of Hāwea Flat, the Hāwea River Track, the rural living development on the western side of the river (true right side of river and within West of Hāwea River PA), Domain Road, Gladstone Road and Camp Hill Road, in which the area forms part of the broad sweep of the Upper Clutha Basin rural plains, seen framed by a continuous circle of dramatic mountains (ONL). The pastoral and cropping land use of the area and linear shelterbelts contribute a strong 'working farm' rural character, with the visibility of pivot irrigation infrastructure lending an industrial rural landscape impression in places. The distinctly working rural character or limited visibility of built development reinforces the rural impression and reinforces the connection of the area to the pastoral mountain context. The openness, spaciousness, and planar character of the majority of the area seen from these locations, set against a continuous mountain or terrace riser backdrop, confers a memorable sense of a 'big sky' landscape.
49. Highly attractive close to mid-range views from the Hāwea River Track of the attractive river terrace landforms, in which the limited visibility of built development (in places) and rough vegetation character imbue an impression of remoteness that belies the proximity of intensive farming and Lake Hāwea settlement.
50. Distant views from the summit of Mount Iron PA (ONF), where the panoramic vistas take in the expansive rural river terraces and prominent scarps extending across the area.
51. Highly attractive views from the Grandview Track network (ONL) to the east, in which the area reads as part of the expansive working rural landscape that appears to dominate the Upper Clutha Basin from this orientation and reads as a sympathetic foreground to the lake.
52. Views to Camp Hill roche moutonnée from Camp Hill Road.
53. Attractive views of the terminal moraine/Grandview Creek from Cemetery Road and Gladstone Road.

Naturalness attributes and values

54. Perceptions of naturalness and of a spacious rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of pivot irrigation infrastructure driveways, gateways, signage and the management of the water flow in the Hāwea River and dam.

55. Human intervention as intensively managed farmland is evident across the outwash plains. The close proximity of the mountain context, very limited level of development, consistently low-intensity pastoral farming character, and 'backroad' nature means that the eastern side of the area generally has a higher impression of naturalness when compared to the western and central area.
56. The landform containment of the river corridor and terrace riser landforms and rough vegetation character means that where built development is not visible, there is a higher perception of naturalness in parts of the area where these elements are evident.

Memorability attributes and values

57. Memorable to residents, locals, and visitors as part of the rural backdrop to Lake Hāwea settlement.
58. Memorable to residents and locals as a spacious working farmland area between the settlements at Lake Hāwea and Hāwea Flats.

Transient attributes and values

59. Autumn leaf colour and seasonal loss of leaves associated with the exotic trees.
60. Seasonal pasture and crop colours.
61. The changing shadow patterns from shelter belts and the changing light patterns across the undulating moraine and face of the 'rippled' terraces faces.
62. The presence of stock and wildlife such as hawks.
63. The dynamic qualities of the river and The Wave as a consequence of changes in the water level.
64. A higher level of use of recreational assets (such as cycle trails, The Wave and Golf Course) during Spring, Summer and Autumn.

Remoteness/wildness attributes and values

65. Rural tranquillity and quietness are currently experienced throughout the eastern part of the area where there is a limited level of development, a dominance of low-intensity pastoral farming, and the local road network is infrequently used.
66. A dark night-sky impression contributes to feelings of remoteness across the eastern part of the area.

Aesthetic attributes and values

67. The experience of all of the values identified above from public and private viewpoints.
68. More specifically, this includes:
 - a. Attractive rural and 'big sky' views across large open and flat paddocks to the (northern) terminal moraine and (southern, penultimate terminal moraine coinciding with 21.23.14 Hāwea Moraine), and mountains framing the Upper Clutha Basin.
 - b. Strong rural character, with large areas of open space (– either pastoral or cropping land use), seen bisected by linear shelterbelts and with widely spaced built development displaying a distinctly rural character.
 - c. The juxtaposition between the tamed and flat rural land of the area and the rougher character associated with the river corridor and the toe of the ranges along the western and eastern sides of the area.
 - d. The strong contrast between the extensive plains and the steep mountains to the west and east.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Hāwea Terrace area can be summarised as follows:

69. **Moderate-high physical values** relating to the sequence of glaciofluvial terrace landforms, terminal moraine, terrace risers and scarps, aggrading fans, roche moutonnée and river corridor, the productive soils (with irrigation) and associated agricultural land uses, the mana whenua features associated with the area, the historic features of the area, and the strong patterns of rural land use.
70. **Moderate - high associative values** relating to the mana whenua associations of the area, the identity of the area as a spacious rural hinterland to Lake Hāwea settlement, and the popularity of the recreational features in the area.
71. **Moderate perceptual values** relating to the expressiveness of the natural landforms, the strong coherence of rural vegetation and land use patterns, the sweeping rural views across the (predominantly) open and spacious flats that shape the identity of this part of the basin as a distinctly working rural landscape, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with the very limited rural living remaining subordinate to pasture/cropping and vegetation.

Landscape Capacity

The landscape capacity of the Hāwea Terrace area for a range of activities is set out below.

- i. **Commercial recreational activities** – **some** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities** – **some** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Very limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; and integrate landscape restoration.
- iii. **Urban expansions** – **some** landscape capacity as identified in the QLDC 2021 Spatial Plan.
- iv. **Intensive agriculture** – **some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks** – **limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation/tourism related activities, that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings** – **some** landscape capacity for modestly-scaled buildings that reinforce the existing rural character.

- vii. **Mineral extraction – limited** capacity for farm-scale quarries and expansion of existing quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- i. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- ix. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Limited** landscape capacity for larger-scale commercial renewable energy generation where topography or mature vegetation ensures it is not highly visible from public places.
- x. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xi. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and ‘domestication’ through rural living development, particularly along the edge the Hāwea River, and around the edges of the existing settlements at Lake Hāwea and Hāwea Flats. Generally, such an outcome could undermine the impression of this part of the Upper Clutha Basin as a spacious working rural landscape. For development along the edge of the Hāwea River corridor, it is important that any new development is visually discreet in views from the Hāwea River Track. More generally, any additional rural living should be set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a modest scale; have a ‘low-key’ rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of expansive rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.16 Crosshill: Schedule of Landscape Values

General Description of the Area

The Crosshill area comprises rural land approximately 5km north of the centre of urban Wānaka which is enclosed on all sides by ONF, ONL and RCL areas. The area adjoins Dublin Bay PA (ONL) to the west, the Deans bank section of Mata-au (Clutha River) PA (ONF) to the south and east, SH6 to the east and Maungawera Valley PA (RCL) to the north. The area takes in a series of river terraces and glacial outwash along the northern (true left) side of Mata-au (Clutha River) and the elevated land referred to as 'Crosshill' that, in combination with Mount Brown, separates the river terraces from the Maungawera Valley.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes glacial outwash deposits and moraine from Albert Town Glacial Advance that have been eroded subsequently by river action.
2. The sequence of landforms includes:
 - a. The undulating elevated moraine throughout the northern portion of the area (roughly north of Dublin Bay Road);
 - b. a series of flat degradational terraces stepping down to the river (roughly south of Dublin Bay Road), including steep terrace risers, where fluvial processes have eroded the glacial outwash gravels;
 - c. the paleochannels and outwash fan that extends on a roughly north-south direction through the centre of the area, south of Dublin Bay Road.
3. The relatively free-draining brown and pallic soils with reasonable fertility reflect pastoral farming and cropping.

Hydrological features

4. A series of shallow unnamed streams and ephemeral water courses draining from the river terraces south of Dublin Bay Road that discharge to Mata-au (Clutha River).
5. A series of more steeply-incised unnamed streams draining from Crosshill, southwards under SH6, to discharge to the Hāwea River (near Horseshoe Bend).

Ecological features and vegetation types

6. Particularly noteworthy indigenous vegetation features include:
 - a. Crosshill SNA (E39A) which comprises an area of short tussock grassland and cushion field located towards the southern end of the area.
 - b. Regenerating kānuka shrubland and grey shrubland occur in patches of variable size in association with unimproved exotic grassland along the southern and western margins of the expansive morainic terrace and along the paleo channel.

7. Other distinctive vegetation types include:
 - a. Scattered exotic and predominantly evergreen shelterbelts and small-scale woodlots in places, and shelter plantings around farm buildings.
 - b. Native and exotic amenity plantings around some farm buildings and rural dwellings, including along rural living property boundaries.
8. Extensive areas of improved pasture used for cropping and extensive areas of semi-improved pasture used for grazing are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
9. Rank exotic grassland along road margins may be utilised by skinks.

Land use patterns and features

10. Distinctive and coherent pattern of cropping and pastoral farming, with large landholdings and farm infrastructure such as tracks, and a few sporadic farm buildings.
11. A small cluster of rural living lots (ranging in size from approximately 2ha to 10 ha) roughly in the centre of the area. Dwellings are screened by vegetation in views from Dublin Bay Road, with intervening landform and vegetation providing screening in views from SH6.
12. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. SH6 along the eastern side of the area which is a popular scenic route between Wānaka and Lake Hāwea.
 - b. Pastoral farming, forestry, and a small amount of rural living in Maungawera Valley PA (RCL) and West of Hāwea River PA (RCL) to the east, where rural living development is largely set back from the highway and/or screened by vegetation.
 - c. The Dublin Bay PA (ONL) extending to the ridge of Mount Brown. This area has open working farmland with a very low density of built development and contains sensitive ridgelines that are visible from Lake Wānaka (ONL), Mount Iron PA (ONF), and public places on the Upper Clutha Basin floor.
 - d. Mata-au (Clutha River) PA (ONF) immediately to the south, which includes the Deans Bank Track on the true left side of the river and the Outlet Track on the true right side.
 - e. The Albert Town Campground (Open Spaces Community Purposes Zone) on the western side of SH6 to the south of the area.
 - f. The Outlet Campground on the opposite side of the river to the western end of the area.
 - g. The close proximity of the area to (urban) Albert Town.

Mana whenua features and their locations

13. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua, and wai are all intertwined in te ao Māori.
14. The area sits adjacent to and has slight overlaps with the wāhi tūpuna Mata-au (Clutha River) and Hāwea River.
15. The Mata-au (Clutha River) nearby the area is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

16. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
17. The Mata-au (Clutha River) takes its name from a Kāi Tahu whakapapa that traces the genealogy of water. On that basis, the Mata-au is seen as a descendant of the creation traditions.
18. The Mata-au was part of inland mahika kai trails and was also a key transportation route for pounamu from inland areas to settlements on the coast.
19. The mana whenua values associated with the area include, but may not be limited to, wāhi taoka, awa, ara tawhito, mahika kai, nohoaka, wāhi tapu.

Historic attributes and values

20. There is known to have been early Māori occupation in the vicinity of the area. Buried archaeological remains may be present that are representative of the area's mana whenua history.
21. The agricultural history and development of the area follows a similar trajectory to other locales in the Upper Clutha, with low-intensity pastoralism transitioning to more intensive farming and settlement over time. However, when compared to nearby areas like the Hāwea Flat, the development of this latter type of agriculture appears to have been limited by marginal quality of the land in the area.

Shared and recognised attributes and values

22. The identity of the area as part of the 'breathing space' and 'rural hinterland' between Albert Town and Hāwea settlement.
23. The popularity of the Outlet Track and Deans Bank Tracks near or partly within the area.

Recreation attributes and values

24. Deans Bank Track which is partly within the area.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

25. The flatness and extent of the terraces, steep terrace risers, and legible paleo channel (which is reinforced by the patterning of regenerating kānuka shrubland), along with the more gently rolling landform of the moraine, which are expressive of the interaction of the glacial and fluvial processes that have shaped the Upper Clutha Basin.
26. The visibility of the stepped terraces adjacent Mata-au (Clutha River) provides a clear sense of the river cutting down into the glacial outwash plains.

Particularly important views to and from the area

27. The sequence of attractive short and mid-range 'rural' views from SH6 across the area. From the majority of the stretch of highway south of Dublin Bay Road, the patterning of the steep risers between the terraces combined with road levels means that views are truncated. The proximate urban context of Albert Town and Wānaka forms part of the outlook (in south bound views) and the broader viewing experience (in north bound views), and views of the area are framed by a continuous more distant ONF/L mountain backdrop. For the stretch of the highway near, and to the north of, Dublin Bay Road, the elevated and undulating moraine landform across the northern part of the area backdrops much of the terrace foreground. The higher peaks in the more distant (ONL) mountain context form the backdrop in places. The distinctly planar, open, and working rural character of the terraces, in combination with the pastoral and generally open character of the moraine, contributes the impression of a continuous patterning of rural land use across the area and reinforces the coherence of the underlying river terrace and moraine landforms. This is the first open 'rural' view after leaving Albert Town which, in combination with the strong contrast in visual appearance between the area and the proximate Albert Town/Wānaka context, adds to the memorability of the view.
28. Attractive and longer range 'rural' views from the elevated area towards the northern end of Albert Town where the open pastoral land use of the area is viewed above the dramatic river cliffs of Mata-au (Clutha River) and seen backdropped by a continuous circle of mountains.
29. Short and mid-range views from Dublin Bay Road across the pastoral upper terrace and moraine where there is a strong 'working farm' character, with most built development displaying a distinctly working rural character or obscured by vegetation. This includes localised views of the paleo channel.
30. Attractive short-range rural views from parts of the Deans Bank Track across the lower river terrace. In these views there is an appealing contrast between the tamed rural terraces and the rougher character associated with the river corridor (outside the area).
31. Views from the summit of Mount Iron (ONF), where the panoramic vistas take in the river terraces and the undulating pastoral moraine land extending to along the north-eastern side of the area.

Naturalness attributes and values

32. Perceptions of naturalness and of working rural character are largely maintained for people visiting the landscape, although this is undermined to some extent by the presence of driveways, gateways and the like.
33. Human intervention as managed farmland is evident, as is the proximate urban context. The very limited level of built development within the area, along with the consistently low-intensity pastoral farming character, and back-road nature of Dublin Bay Road contribute a moderating influence with respect to the perception of naturalness.

Memorability attributes and values

34. Memorable to residents and locals as part of the 'rural hinterland' between Albert Town and Hāwea settlement.

Transient attributes and values

35. Seasonal pasture colours and changes associated with cropping.
36. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

37. Rural tranquillity and quietness are currently experienced in those parts of the area away from SH6, where there are low traffic volumes, and the levels of activity are consistent with 'working farmland'. This includes parts of the Deans Bank Track and Dublin Bay Road.

Aesthetic attributes and values

38. The experience of all of the values identified above from public and private viewpoints.
39. More specifically, this includes:
 - a. Highly attractive rural views across the terraces, risers, and moraine of the area to the surrounding mountain ranges.
 - b. The coherent patterns of open farmland.
 - c. The very low density of domestication and the effective integration of dwellings by landform or vegetation.
 - d. Aesthetic appeal of the prominent and proximate terrace riser landforms and the gently undulating moraine landform.
 - e. The juxtaposition between the tamed rural terraces, the rougher character along the river corridor, and urban character to the south.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Crosshill area can be summarised as follows:

40. **Moderate physical values** relating to the sequence of gently rolling moraine fields and glaciofluvial terrace landforms and risers, the distinctive paleochannel, the productive soils (with irrigation) and strong patterns of rural land use, and the mana whenua features associated with the area.
41. **Moderate associative values** relating to the mana whenua associations of the area, the recreational use of the track along Mata-au (Clutha River), and the shared and recognised values of the area for residents and locals as part of the 'rural hinterland' between Albert Town and Hāwea settlement.
42. **Moderate perceptual values** relating to the expressiveness of the terrace, riser, and moraine landforms, the coherence of land use patterns, the rural character, the scenic views across open pasture, the low-key rural tranquillity and quietness (in places), and the moderate level of naturalness, with the very limited level of rural living remaining subordinate to rural patterns.

Landscape Capacity

The landscape capacity of the Crosshill area for a range of activities is set out below.

- i. **Commercial recreational activities – very limited** landscape capacity for small-scale and low-key activities that: integrate with and complement/enhance existing recreation features; are located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).

- ii. **Visitor accommodation and tourism related activities – limited** landscape capacity for activities that are located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; and integrate landscape restoration.
- iii. **Urban expansions – extremely limited or no** landscape capacity
- iv. **Intensive agriculture – some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming, and rural living/visitor accommodation/tourism related activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction –very limited** landscape capacity for farm-scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Very limited** landscape capacity for larger-scale commercial renewable energy generation where topography or mature vegetation ensures it is not highly visible from public places.
- xi. **Forestry – limited** landscape capacity for scattered woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and 'domestication' through rural living development. Any additional rural living should be set well back from roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain the impression of rural views from public vantage points.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, crack willow, broom, and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.

21.23.17 Quartz Creek and Maungawera: Schedule of Landscape Values

General Description of the Area

The Quartz Creek and Maungawera area comprises rural land approximately 8km north of the centre of urban Wānaka adjoining the Mount Maude/Mount Gold/Mount Burke ONL to the north, the West of Hāwea River PA (RCL) and SH6 (Lake Hāwea Albert Town Road) to the east, Maungawera Valley PA (RCL) and Dublin Bay PA (ONL) to the south, and Lake Wānaka (ONL) to the west.

The area takes in the lower slopes framing the north side of the Maungawera Valley extending towards Mount Maude/Mount Gold/Mount Burke ONL, the lower reaches of Quartz Creek and the Maungawera alluvial fan.

Physical Attributes and Values

Geology and Geomorphology • Topography and Landforms • Climate and Soils • Hydrology • Vegetation • Ecology • Settlement • Development and Land Use • Archaeology and Heritage • Mana whenua

Landforms and land types

1. The surficial geology of the area includes glacial outwash deposits and moraine from the Hāwea Glacial Advance and the Albert Town Glacial Advance that have been eroded subsequently by river action forming a range of alluvial landforms.
2. The sequence of landforms includes:
 - a. The undulating moraine, terraces, and alluvial fans along the south side of Mount Maude/Mount Gold/Mount Burke (ONL) throughout the northern portion of the area; and
 - b. The distinctive Maungawera fan at the western end of the area, adjacent Waiariki (Stevensons Arm).
3. The relatively free-draining pallic soils with reasonable fertility reflected in pastoral farming and cropping under irrigation.

Hydrological features

4. Quartz Creek draining from the mountains to the north to Waiariki (Stevensons Arm). Wide braided delta at the mouth (which is outside the area in Lake Wānaka ONL).
5. Rod's Creek at the southern toe of Mount Brown.
6. Ephemeral water courses from the northern mountains that are artificially channelled across the valley floor and join to form Wai-utu-utu (Speargrass Creek) at the eastern end of the valley, flowing to the Hāwea River.
7. Two constructed irrigation ponds.

Ecological features and vegetation types

8. Particularly noteworthy indigenous vegetation features include:
 - a. Swathes and patches of regenerating kānuka and bracken across toe slopes of Mount Maude and along margins of Quartz Creek and Rods Creek and across the portion of the Maungawera fan near Quartz Creek.

9. Other distinctive vegetation types include:
 - a. Grazed and cropped pasture with conifer and poplar shelterbelts. The latter are generally oriented north-south across the valley to mitigate the localised wind tunnel effect created by Waiariki (Stevensons Arm) and the enclosing landforms.
 - b. Small scale forestry blocks and wilding old man pines occur throughout the sloping land adjacent SH6, along the base of Mount Maude and sparsely scattered across the lake terrace.
 - c. Indigenous and exotic amenity plantings around rural dwellings and farm buildings.
 - d. Wilding conifers in places, particularly throughout areas of regenerating kānuka scrub and shrubland.
10. Areas of improved pasture and areas used for cropping that are favourable seasonal feeding grounds for paradise shelduck, South Island oystercatcher, black-billed gull and spur-winged plover.
11. Rank exotic grassland and bracken along road margins and stream margins may be utilised by skinks.

Land use patterns and features

12. Distinctive and coherent pattern of cropping and pastoral farming, with large landholdings, shelterbelts, farm infrastructure such as tracks, pivot irrigation systems and a few sporadic farm buildings, and dwellings/homestead clusters.
13. SH6 along the eastern edge of the area, which is a popular scenic route between Wānaka and Lake Hāwea.
14. Some low-density rural living on the moraine ridge adjoining SH6 and two consented but unbuilt rural living platforms at the eastern end of the area. Successfully integrated development is located to optimise the screening and filtering influence of landform and established vegetation patterns and is of a modest scale and visually recessive appearance.
15. Neighbouring land uses which have an influence on the landscape character of the area due to their scale, character, and/or proximity include:
 - a. Lake Wānaka (ONL) and Dublin Bay PA (ONL) to the southwest and west. Much of this interface comprises the waters of Waiariki (Stevensons Arm) where there is little to no built modification along the lake edge. The landward component of Dublin Bay PA (ONL) is characterised by pastoral farming with areas of regenerating kānuka and kōhūhū dominant shrubland and bracken and very little built development and contains areas that are visible from Lake Wānaka, Mount Iron PA (ONF) and public places on the Upper Clutha Basin floor.
 - b. The Mount Maude/Mount Gold/Mount Burke ONL to the north. This comprises a dramatic mountain landscape with an open and undeveloped character.
 - c. Pastoral farming, forestry and a small amount of rural living in the West of Hāwea River PA (RCL) to the east, where rural living development is largely set back from the highway and/or screened by vegetation.
 - d. The mixed rural and rural living character of Maungawera Valley PA (RCL) in which built development is generally well integrated by the hummocky topography or by existing vegetation and is not visually prominent from the road network.

Archaeological and heritage features and their locations

16. McPherson House, Hawea-Albert Town Road (Ref. 532).
17. Possible mana whenua oven site to the north of Maungawera Valley Road (archaeological site F40/12).

Mana whenua features and their locations

18. The entire area is ancestral land to many whānau within the iwi of Kāi Tahu whānui and, as such, all landscape is significant, given that whakapapa, whenua and wai are all intertwined in te ao Māori.
19. The area abuts and slightly overlaps the mapped wāhi tūpuna Wānaka (Lake Wānaka).
20. Lake Wānaka is highly significant to Kāi Tahu and is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.

Associative Attributes and Values

Mana whenua creation and origin traditions • Mana whenua associations and experience • Mana whenua metaphysical aspects such as mauri and wairua • Historic values • Shared and recognised values • Recreation and scenic values

Mana whenua associations and experience

21. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
22. Wānaka is one of the lakes referred to in the tradition of “Ngā Puna Wai Karikari o Rākaihautū” which tells how the principal lakes of Te Wai Pounamu were dug by the rakatira (chief) Rākaihautū. Through these pūrakau (stories), this area holds a deep spiritual significance both traditionally and for Kāi Tahu today.
23. Identified Kāi Tahu values in this area may include, but are not limited to, wāhi taoka, mahika kai, , nohoaka.

Historic attributes and values

24. There is known to have been early Māori occupation in the vicinity of the area. Buried archaeological remains may be present that are representative of the area’s mana whenua history.
25. The agricultural history and development of the area follows a similar trajectory to other locales in the Upper Clutha, with low-intensity pastoralism transitioning to more intensive farming and settlement over time. However, the lower reaches of Quartz Creek within the area encompasses an area that has endured as a pastoral lease from the 1850s through till today.

Shared and recognised attributes and values

26. The low population density and relatively low level of ‘through traffic’ (noting that Maungawera Valley Road is a ‘dead end’ road), means that the valley is not a significant component of the shared and recognised landscape values of the Upper Clutha. However, it is valued by local residents as part of their ‘sense of place’.
27. The local popularity of the informal access to Waiariki (Stevensons Arm) via private land at the western end of Maungawera Valley Road.

Perceptual (Sensory) Attributes and Values

Legibility and Expressiveness • Coherence • Views to the area • Views from the area • Naturalness • Memorability • Transient values • Remoteness / Wildness • Aesthetic qualities and values

Legibility and expressiveness attributes and values

28. The more gently rolling landform of the moraine, flat terraces and smooth fans are expressive of the interaction of the glacial and fluvial processes that have shaped the Upper Clutha Basin. The Maungawera Fan is thought to be the best and most legible example of an alluvial fan in the district.

Particularly important views to and from the area

29. The sequence of attractive short range 'rural' views from SH6 to the moraine slopes at the eastern end of the area. Dense conifer woodlot, shelter and scrub plantings across the slopes limit the visibility of buildings across the eastern slopes of the area and, in combination with the vegetated slopes of West of Hāwea River PA (RCL) on the eastern side of the highway, create the impression of an enclosed and wooded stretch of highway.
30. Attractive short and mid-range views from Maungawera Valley Road across the pastoral terrace and fans, seen backdropped by the moraine at the eastern end of the area, and the mountain ONL context. The patterning of regenerating vegetation adds to the appeal and impression of naturalness of the outlook. The farmed and managed terraces and fans contrast with the unmodified upper slopes of Mount Brown and surrounding mountains in these views. Overall, there is a strong 'working farm' character, with the very little built development evident displaying a distinctly working rural character or obscured by vegetation.

Naturalness attributes and values

31. There is a moderate level of naturalness with a predominance of natural rather than built elements, but human intervention as managed farmland and rural living (albeit very limited) is evident. The variable but coherent patterns of rougher pasture and regenerating kānuka on the steeper moraine slopes and throughout gullies contribute to perceptions of naturalness.

Memorability attributes and values

32. Memorable to residents and locals as an enclosed valley with a strong rural character and as an informal access point to Waiariki (Stevensons Arm).

Transient attributes and values

33. Seasonal foliage, pasture or crop colours.
34. The changing shadow patterns from shelter belts and the presence of stock and wildlife such as hawks.

Remoteness/wildness attributes and values

35. The lack of through traffic and easy access to the lake, together with a low population density, give the area a very strong sense of rural tranquillity, quietness and remoteness.

Aesthetic attributes and values

36. The experience of all of the values identified above from public and private viewpoints.

37. More specifically, this includes:

- a. the highly attractive rural views across open pastoral/cropping land to the dramatic and sublime landforms of the Mount Maude/Mount Gold/Mount Burke range and to the elongated form of Mount Brown, with its regenerating kānuka cover;
- b. the coherent patterns of open farmland interspersed with regenerating steep slopes and gullies;
- c. the spacious and tranquil 'working farm' rural character;
- d. the low occurrence of domestication;
- e. the effective integration of buildings by landform or vegetation.

Summary of Landscape Values

Physical • Perceptual (Sensory) • Associative

Rating scale: seven-point scale ranging from **Very Low** to **Very High**.

very low	low	low-mod	moderate	mod-high	high	very high
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The physical, associative, and perceptual attributes and values described above for the Quartz Creek-Maungawera area can be summarised as follows:

38. **Moderate – high physical values** relating to the glacially formed outwash terraces, alluvial fans and moraine, the distinctive Maungawera fan, the productive soils (with irrigation) and the strong patterns of rural land use, and the mana whenua features associated with the area.
39. **Moderate associative values** relating to the mana whenua associations of the area, the historic heritage of European pastoral farming, and the shared and recognised values of the area for residents and locals.
40. **Moderate-high perceptual values** relating to the expressiveness of the terrace, escarpment and downland landforms, the coherence of vegetation and land use patterns, the strong rural character, the scenic views across open pasture, the low-key rural tranquillity and quietness, and the moderate level of naturalness, with very limited built development remaining subordinate to rural patterns.

Landscape Capacity

The landscape capacity of the Quartz Creek - Maungawera area for a range of activities is set out below.

- i. **Commercial recreational activities – very limited** landscape capacity for small-scale and low-key activities that: are located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate).
- ii. **Visitor accommodation and tourism related activities – limited** landscape capacity for activities that are: co-located with existing development; located to optimise the screening and/or filtering benefit of natural landscape elements; are designed to be of a small scale and 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); and enhance public access (where appropriate). **Extremely limited or no** landscape capacity for tourism related activities that are: visually recessive; designed to be small scale and have a low key 'rural' character; and integrate landscape restoration.
- iii. **Urban expansions – extremely limited or no** landscape capacity.

- iv. **Intensive agriculture – some** landscape capacity where the quality of views and aesthetic attributes and values are maintained or enhanced.
- v. **Earthworks – limited** landscape capacity to absorb earthworks associated with trails, farming and rural living/visitor accommodation activities that maintain naturalness and expressiveness values and integrate with existing natural landform patterns.
- vi. **Farm buildings – some** landscape capacity for modestly scaled buildings that reinforce the existing rural character.
- vii. **Mineral extraction – very limited** landscape capacity for farm-scale quarries that maintain or enhance the quality of views, naturalness values and aesthetic values.
- viii. **Transport infrastructure – very limited** landscape capacity to absorb additional infrastructure that is of a modest scale and low-key rural character.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for additional district-scale infrastructure that is buried or located such that they are screened from external view. In the case of utilities such as overhead lines or cell phone towers which cannot be screened, these should be designed and located so that they are not visually prominent. In the case of the National Grid, **limited** landscape capacity in circumstances where there is a functional or operational need for its location and structures are designed and located to limit their visual prominence, including associated earthworks. **Very limited** capacity for other larger-scale regionally significant infrastructure.
- x. **Renewable energy generation – some** landscape capacity for small-scale wind or solar generation located where topography or mature vegetation ensures it is not highly visible from public places. **Limited** landscape capacity for larger-scale commercial renewable energy generation.
- xi. **Forestry – limited** landscape capacity for scattered small scale woodlots of up to 2 hectares in area.
- xii. **Rural living – very limited** landscape capacity to absorb additional rural living without cumulative adverse effects on associative and perceptual values. The rural character of the area is vulnerable to fragmentation and 'domestication' through rural living development. In a similar vein, development across the northern side of the valley near the adjacent ONL runs the risk of detracting from the naturalness and aesthetic values of the neighbouring ONL. Any additional rural living should be set well back from ONL edges, roads and public tracks; co-located with existing development; integrated by existing landform and/or existing vegetation; designed to be of a modest scale; have a 'low-key' rural character; integrate landscape restoration and enhancement (where appropriate); enhance public access (where appropriate); and should maintain public views across open land to surrounding landforms.

Plant and Animal Pests

- A. Plant pest species include wilding conifers, hawthorn, broom, sweet briar, crack willow and lupin.
- B. Animal pest species include rabbits, stoats, feral cats, possums, hedgehogs, rats, and mice.