

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. Rural residential scale development at Jackson Rise within the area, coinciding with the schistose / moraine landform. Although the existing development lacks a defensible edge the surrounding Rural Zoned land is vested as a Recreation Reserve and this would likely reduce the potential for development creep into the Rural Zone.
15. Small groupings of rural living or more urban scaled lots along the south side of SH6 near Luggate.
16. 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~~ eastern portion of Luggate settlement at Jackson Reise 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

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

Mana whenua features and their locations

- 19. 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.
- 20. Parts of the area overlap the mapped wāhi tūpuna Mata-au (Clutha River) and Te Rua Tūpāpaku.
- 21. The Mata-au (Clutha River) is a Statutory Acknowledgement under the Ngāi Tahu Claims Settlement Act 1998.
- 22. 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

- 23. Kāi Tahu whakapapa connections to whenua and wai generate a kaitiaki duty to uphold the mauri of all important landscape areas.
- 24. 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.
- 25. 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.
- 26. Te Rua Tūpāpaku is a kāiika 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.
- 27. 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

28. 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.
29. 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.
30. 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

31. Valued as a scenic rural gateway to the district from the south and as a rural entrance to Luggate.
32. 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.
33. 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.
34. The impression of the schistose/moraine landform forming a relatively undeveloped landform enclosure along the norther side of east Luggate.
35. The popularity of the Upper Clutha River Trail.

Recreation attributes and values

36. 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.
37. 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

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

Particularly important views to and from the area

41. 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.
42. 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.
43. 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

44. 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.
45. 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

46. 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

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

Remoteness/wildness attributes and values

51. Impressions of rural tranquillity and quietness are localised to the river edge trail and corridor.
52. A dark night-sky impression along the river corridor edge contributes to feelings of remoteness.
53. 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

54. Appealing aesthetic attributes and values as a result of:
- 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;
 - 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
 - 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:

- 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.
- 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.
- 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.

- 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.