

# 21.22.24 Lake McKay Station & Environs ONL

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## General Description of the Area

The Lake McKay Station and environs PA is located on the northern shoulder slopes of the Pisa/Criffel Range, extending from the Criffel Diggings Track near Mount Barker to the true right bank of Sheepskin Creek in the east. The northern boundary of the PA is defined by the toe of the mountain range or the northern crest of the Luggate Creek gorge and takes in schist landforms (Knoll A3KV) north of Luggate Creek and east of Sheepskin Creek. To the south, the PA extends to landforms that visually contain the Upper Clutha Basin (at around the 700 to 1100m contour) when viewed from proximate areas of the basin floor.

## 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

## Important landforms and land types:

1. The Pisa/Criffel Range: the westernmost and highest element of the characteristic 'basin and range' fault block landscape that stretches across Central Otago. At the northern end of the range, the PA takes in a lower 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 the deeply cut gullies of Luggate, Alice Burn, Tin Hut, Dead Horse and Sheepskin creeks dissect the landscape in a south-west to north-east direction. The lower margin of the shoulder, south and east of Luggate, has ice-scoured terrain with rock exposures and fluvially formed escarpments and terraces leading down to the basin floor.
2. Knob A3KV: a low but prominent ice-scoured schist and moraine knoll with numerous rock outcrops. The smoother moraine slopes of the knoll are outside the ONL.
3. Luggate Creek gorges: steeply incised rocky gorges in the upper reaches of the creek and separating the mountain shoulder from Knob A3KV.

## Important hydrological features:

4. The series of creeks flowing south-west to north-east from the Pisa/Criffel Range across the ice-eroded northern shoulder. The largest of these is Luggate Creek, with its major tributaries the Alice Burn (Fall Burn) and Tin Hut Creek. Further to the east are Dead Horse Creek and Sheepskin Creek, which join on the flats and flow directly to the Clutha River Mata-Au.
5. The water courses within the valley provide habitat for longfin eels, kōaro, upland bullies and Clutha flathead galaxias (nationally critical) and spawning habitat for brown and rainbow trout.

## Important ecological features and vegetation types:

6. Particularly noteworthy vegetation types include:
  - a. Shrubland and remnant forest in the lower gorge section of Luggate Creek, including remnant silver beech, Hall's totara, broadleaf and locally uncommon shrub species;
  - b. Dense regenerating kānuka-dominant shrubland in the Alice Burn (Fall Burn) and to a lesser extent in the other creek gullies. Other species associated with the shrubland include matagouri, native broom, *Coprosma propinqua*, *Coprosma crassifolia* and *Olearia lineata*;

- c. Grey shrubland, bracken and regenerating kānuka on rocky areas and escarpments unsuitable for improved pasture, adjacent to the gullies, and on the steeper slopes above the ice-eroded shoulder;
  - d. Scattered Significant Natural Areas protecting representative examples of the vegetation types listed above.
7. Other characteristic vegetation types are:
- a. Small scale radiata pine plantations and wilding spread on the lower escarpments close to Luggate;
  - b. Rough low producing pasture with scattered sweet briar, matagouri and kānuka on steeper slopes and hummocky land;
  - c. Irrigated improved pasture and lucerne cropping on smoother moraine surfaces and terraces between the creek gullies;
  - d. Willows lining lower Luggate Creek closer to Luggate township.
8. Valued habitat for skinks and geckos, a wide range of invertebrate species and native birds (including New Zealand falcon, Australasian harrier, South Island tomtit, grey warbler, fantail, silvereye and black shag).
9. Plant pest species include wilding conifers, sweet briar, tussock hawkweed (*Hieracium lepidulum*) and crack willow.
10. Animal pest species include rabbits, hares, pigs, goats, stoats, possums, rats and mice.

#### **Land use patterns and features:**

11. Predominant land use is sheep, beef and deer farming on freehold land at Lake McKay and Criffel Stations and at 191 Luggate Cromwell Road (Sheepskin Creek area). The smoother undulating glacial till plateaus on Lake McKay Station and 191 Luggate Cromwell Road are generally irrigated and support more intensive grazing and lucerne production. Hummocky land and steeper slopes support lower intensity grazing (currently with deer on Criffel Station). Mature radiata pine forestry is present on the lower escarpment faces behind Luggate township.
12. Earthworks and built modifications are generally limited to fencing, farm tracks, sheepyards and a farm airstrip. Rock outcrops have been removed in some areas to facilitate cropping. There is a consented woolshed and two consented residential building platforms on the northern part of the Tin Creek plateau, two 7-8 hectare rural living lots in the north-eastern corner of the PA, and water supply tanks for Luggate immediately above of the township. District electricity lines cross the eastern third of the PA.
13. Commercial recreation activities, including farm and gold diggings tours, are undertaken on Criffel Station.

#### **Important archaeological and heritage features and their locations:**

14. Rich history of late 19<sup>th</sup> century gold mining and early European high-country farming. More than 28 archaeological sites including water races, wing dams, tailings, diggings, mine drives, hut/tent sites and rock shelters; pack tracks accessing the diggings, including the Criffel Diggings Track and an old track from Luggate between Dead Horse Creek and Alice Burn.

#### **Mana whenua features and their locations:**

15. The entire area is ancestral land to 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:

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

### Important historic attributes and values:

17. Associations with late 19<sup>th</sup> century gold mining, with physical evidence of mining activities and historic diggings. Mining within the PA and on the upper Criffel Range in the 1880s and 1890s was part of the last gold rush in Otago.
18. Associations with early high country pastoral farming, including evocative place and feature names.

### Important shared and recognised attributes and values:

19. Valued as an integral part of the distinctive and visually prominent southern enclosure of the Upper Clutha Basin, and for its contribution to the sense of place and identity experienced by locals and frequent visitors.

### Important recreation attributes and values:

20. Farmstay, farm and gold diggings tours at Criffel Station.
21. Limited public access, except for informal access along the Luggate Creek and Alice Burn marginal strips. Potential for improved walking access along Luggate Creek to the Luggate Creek and Fall Burn reserves.

## 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:

22. History of extensive pastoral farming has resulted in an open character and highly legible landform, reinforced by the pattern of deeply cut stream gullies and associated indigenous vegetation. The relative openness of the upper slopes, hummocky areas and moraine plateaus 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:

23. Limited public accessibility means that closer views of the PA are generally limited to the lower escarpments and mountain slopes adjoining the Upper Clutha Basin floor. The PA is however widely visible from more distant vantage points across the basin, including Kane Road, Luggate-Tarras Road (SH8A), Wanaka-Luggate Highway (SH6), Mt Barker Road, Ballantyne Road and Mount Iron. The eastern part of the PA, including Criffel Station and Knob A3KV is visible from viewpoints near Wānaka, and the hummocky or craggy topography with a mosaic of patchy grey shrubland and kānuka is a coherent and highly natural mid-ground to the higher peaks of the Pisa Range. North of the Clutha River Mata-au, expansive views of the entire PA are available from Kane Road and surrounding areas. The rough

vegetation-covered upper slopes, escarpments and stream gullies contrast with the colour and texture of improved pasture on the moraine plateaus, enhancing the legibility of the landscape and providing visual complexity and interest. From these viewpoints the PA is a continuous part of the mountainous enclosure of the basin.

24. Much of the PA is also visible from parts of the Pisa Conservation Area high on the Pisa Range and from the Deep Gully and Grandview Ridge Tracks to the east across the Clutha valley.

### **Naturalness attributes and values:**

25. Overall the PA is perceived as having a high level of naturalness. There is a low level of human modification (in the form of irrigated improved pasture, fences, tracks and occasional buildings) that is largely confined to the smoother moraine plateau and alluvial terraces. Natural patterns and process are dominant across the majority of the PA and are particularly strong in the regenerating kānuka woodland and shrubland areas, and on the steeper slopes. Rocky outcrops and spectacular rocky gorges and gullies add to perceptions of naturalness.

### **Memorability attributes and values:**

26. The memorability of the PA as part of the Pisa/Criffel range, enclosing the Upper Clutha basin to the south and contrasting strongly with the long horizontals of the basin outwash plain;
27. The spectacular rocky gorges of Luggate Creek, although these are not currently widely experienced by the public;
28. The distinctive pyramidal form of Knob A3KV, as viewed from Mount Iron and SH6, particularly on the eastern approach to Luggate;
29. Large rock outcrops adjacent to SH6 at the eastern end of Luggate are a memorable local landmark.

### **Transient attributes and values:**

30. 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.

### **Remoteness and wildness attributes and values:**

31. A strong sense of remoteness as a consequence of the very low level of domestication and human activity in most parts of the PA.

### **Aesthetic attributes and values:**

32. The PA is predominantly experienced from outside its boundaries (although this may change if public access to Luggate Creek and Alice Burn is improved), and its aesthetic attributes therefore mainly relate to the views available from the floor of the Upper Clutha Basin and elevated places around the basin.
33. Specific characteristics contributing to aesthetic values include:
  - a. The pattern of ice-eroded moraine plateaus dissected by deep rocky kānuka-clad gullies;
  - b. The spectacular Luggate Gorge, with its steep rough, rocky cliffs and dense kānuka woodland;
  - c. The high level of perceived naturalness and remoteness, with very little built infrastructure (other than farm roads) visible from outside the site;
  - d. At a finer scale, the following aspects contribute to the aesthetic appeal:
    - i. the predominance of regenerating vegetation;

- ii. the contrast between the colour and texture of the intensively farmed plateaux/terraces and the steeper slopes, hummocks and gullies.
- iii. 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 PA ONL Lake McKay Station and environs Valley can be summarised as follows:

- (a) **High physical values** as a predominantly unmodified landform shaped by uplift, glacial and fluvial processes, as part of the recognised basin and range landform sequence in Central Otago, the important and intact vegetation types and habitats, and the mana whenua features associated with the area.
- (b) **Moderate associative values** relating to the mana whenua associations of the area, the historic attributes of gold mining and high-country pastoralism, and the shared and recognised values contributing to local identity and sense of place.
- (c) **High perceptual values** relating to the open character and resulting legible and expressive display of topography, the high level of perceived naturalness, the distinctive patterns of indigenous vegetation and pasture, and the memorability of various features within the PA.

## Landscape Capacity

The landscape capacity of the PA ONL Lake McKay and environs for a range of activities is set out below.

- i. **Commercial recreational activities – some** landscape capacity for small scale activities that utilise existing infrastructure, enhance public access and protect the area’s ONL values.
- ii. **Visitor accommodation and tourism related activities – very limited** landscape capacity for visitor accommodation activities that are co-located with existing consented infrastructure or are temporary or seasonal in nature, and are: located and designed to be barely discernable from external viewpoints; of a sympathetic scale, appearance and character; integrate appreciable landscape restoration and enhancement; enhance public access (where appropriate); have a low key ‘rural’ character; and protect the area’s ONL values. **No** landscape capacity for tourism related activities.
- iii. **Urban expansions – no** landscape capacity.
- iv. **Intensive agriculture – some** landscape capacity on the terraces and moraine plateaus for agriculture under irrigation that maintains openness and protects the legibility and ecological values of the PA.
- v. **Earthworks – limited** landscape capacity for earthworks and trails that protect naturalness and expressiveness attributes and values and are sympathetically designed to integrate with existing natural landform patterns.
- vi. **Farm buildings – limited** landscape capacity for modestly scaled recessive buildings that are reasonably difficult to see from outside the site.

- vii. **Mineral extraction – very limited** landscape capacity for farm-scale extraction that protects the area’s ONL values.
- viii. **Transport infrastructure – no** landscape capacity.
- ix. **Utilities and regionally significant infrastructure – limited** landscape capacity for infrastructure that is co-located with existing facilities, 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 co-located with existing infrastructure and designed and located so that they are not visually prominent.
- x. **Renewable energy generation – no** landscape capacity for commercial scale renewable energy generation. **Limited** landscape capacity for discreetly located and small-scale renewable energy generation that protects the area’s ONL values.
- xi. **Production forestry – very limited** landscape capacity for small scale production forestry.
- xii. **Rural living – very limited** landscape capacity for rural living development that is co-located with existing development and contained by landform and/or existing vegetation – with the location scale and design of any proposal ensuring that it is barely discernible from external viewpoints. Developments should be of a modest scale’ have a low key ‘rural’ character; integrate landscape restoration and enhancement; enhance public access (where appropriate); and protect the area’s ONL values.