

Crown Pastoral Land Tenure Review

Lease name : LONG GULLY

Lease number : PO 055

Conservation Resources Report - Part 6

As part of the process of Tenure Review, advice on significant inherent values within the pastoral lease is provided by Department of Conservation officials in the form of a Conservation Resources Report. This report is the result of outdoor survey and inspection. It is a key piece of information for the development of a preliminary consultation document.

Note: Plans which form part of the Conservation Resources Report are published separately.

These documents are all released under the Official information Act 1982.

December 05



Fig. 13 This view from Trig O shows the junction of the ridge track leading east (left) across Deep Creek to Lindis Peak, and to the right the top of the track leading down to Deep Creek woolshed. If both this track on Deep Creek and the translator access road on Long Gully became available for public use this would make an excellent round trip for walkers and mountain bike enthusiasts.

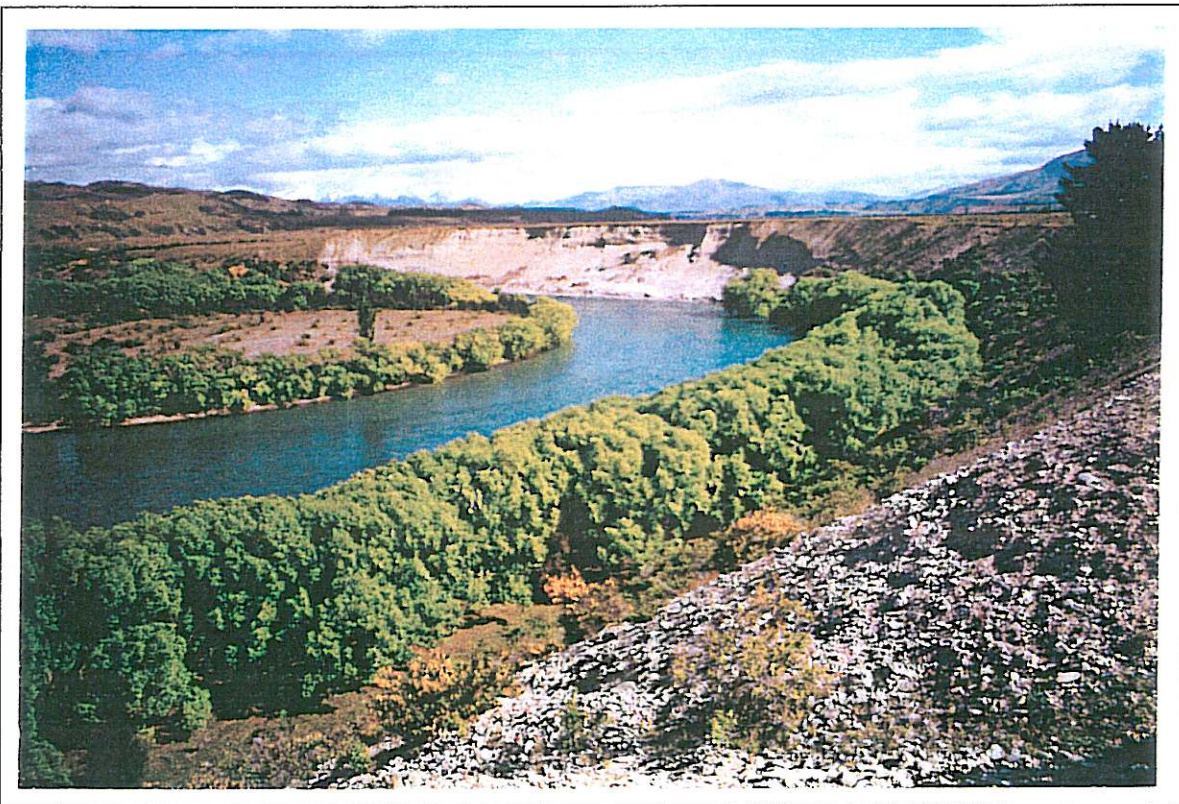


Fig. 14 The banks of the Clutha River offer opportunities for shorter walks but not all of the bank is easily accessible, or practical for relatively easy walking. Only part of the terrain to be traversed on such walks would lie within the normal marginal strip, so either the strip should be widened where necessary to provide practicable access, or an easement should be negotiated through tenure review.



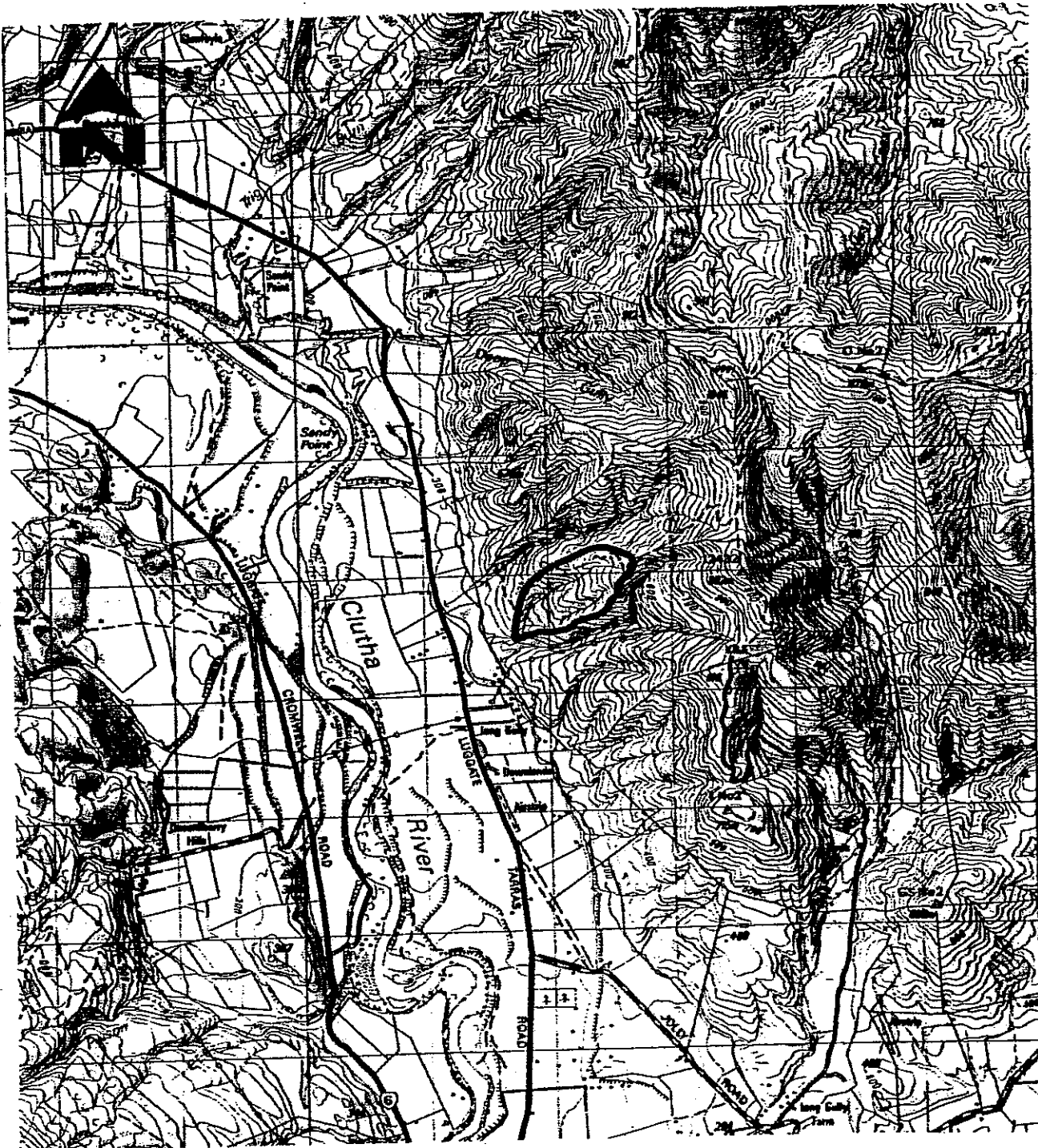
A map showing the important recreational access routes in yellow

APPENDIX FIVE Protected Natural Areas Programme Recommended Area for
Protection Reports

- Lindis RAP 13
- Lindis RAP 14

LINDIS - RAP A13

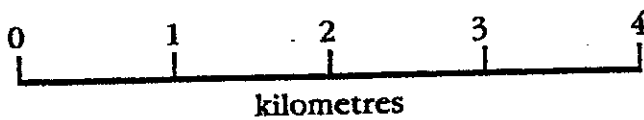
LONG GULLY



GRID REFERENCE : INFO MAP 260 G40 223 977

AREA : 40 hectares

ALTITUDE : 310m - 640m



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SECTION FOUR

LINDIS ECOLOGICAL DISTRICT

LINDIS RAP A13 : LONG GULLY

Bioclimatic Zone montane

Ecological Units	Vegetation types	Landforms
	Dis tou-Cop pro	on colluvial slope
	Car pet-Fes nov	on colluvial slope
	Fes nov	on colluvial slope
	Mixed dryland vegetation	on colluvial slope

Landform A small catchment dissecting a broad spur on the lower slopes of the eastern face of the Upper Clutha Valley. The (intermittent) stream's two equal branches divide the area into sunny and shady aspects. Smooth colluvial slopes, derived in part from old fan debris, have formed in the lengthy period since the spur was truncated by the Clutha glacier in the Lindis advance (about 140 000 y.b.p.).

Soils are dry-subhygrous yellow-grey (Arrow) earths.

Vegetation Shady slopes support fescue tussockland with abundant sweet vernal and haresfoot trefoil. At lower altitudes, the diversity of associated native species is moderate though their cover is low. Both cover and diversity of native species increases with altitude. Scabweed cushionfield occupies the driest sunny faces, and transitional areas supporting a mixed dryland vegetation with abundant *Aira caryophyllea*, *Leucopogon fraseri*, *Raoulia bookeri*, scabweed and haresfoot trefoil.

Shrubs, particularly native broom and matagouri with occasional kanuka, *Melicytus alpinus*, *Coprosma parviflora* and *C. crassifolia* are lightly scattered across most of these communities. Matagouri - *Coprosma propinqua* shrubland with a ground tier of exotic grasses occupies small sections of the lower flues. Native broom forms two concentrations, near the lower margin, and near the top of the area where cover is 15-30%.

Flora Flora is more diverse than is typical for the District at this altitude, but no uncommon species are noted.

Discussion This small RAP contains a good range of communities representative of lower altitude colluvial slopes, here in more natural condition than elsewhere at equivalent altitude, and with an unusually high diversity of native species.

The only examples of native broom shrubland in the Lindis, Pisa and Dunstan Districts occur in this priority area and nearby. They are possibly a response to topdressing, at least in part. The area has been lightly oversown and topdressed and supports a considerable rabbit population in addition to sheep grazing.

The RAP consists of two almost perfectly matched sub-catchments (currently separated by a fence), each with sunny and shady aspects. It would be an ideal area for studying the effects of alternative management regimes on native communities at low altitudes where the vegetation is in a dynamic balance between native and exotic components and between shrubs and herbaceous species.

The mapped track shown within the RAP is misplaced: it lies to the north of the area except in the uppermost 60 metres.

CRITERIA SUMMARY : LINDIS RAP A13 - LONG GULLY

Representativeness	H	Important low altitude slope communities.
Diversity	M	Good variation for small area.
Naturalness	M	Higher than typical for altitude but exotic species common.
Special Features	M	Native broom shrubland.
Viability	M	May need careful monitoring and management to sustain existing communities.
Buffering	M	Self-contained within complete catchment, but small size.
Threat	M	Exotic plant dominance by pasture development or weed spread.
Landform	M	Complete but small catchment representing only lower half of southern Grandview land system.

LINDIS RAP A14 : LONG GULLY TERRACE

Bioclimatic Zone Lowland

Ecological Units	Vegetation types	Landform
	Mixed dryland vegetation	on alluvial surface
	Mixed dryland vegetation	on terrace riser
	Rao aus	on alluvial surface
	Rao aus	on terrace riser
	Poa cit	on alluvial surface

Landform River terrace in Upper Clutha land system. The area was included by Leamy and Saunders (1967) in the semi-arid climatic zone of the Upper Clutha Valley, in contrast to the subhumid classification of the South Hawea Flat RAP (Lindis A12). Rainfall is estimated at 400 mm per annum. Soils chiefly consist of Molyneux Shallow sandy loam with Molyneux stony sand important also. By contrast Hawea Flat RAP consists mainly of Luggate soils.

Vegetation The area has dry terrace vegetation characteristic of the Upper Clutha Valley and contains predominantly native plant species. The heath *Leucopogon fraseri* ssp. *muscosa* dominates much of the area giving it a noticeable reddish colour. The soft hairy cushions of *Pimelea pulvinaris*, the orange *Scleranthus biflorus* mats, the small green hairy *Colobanthus brevisepalus* and three *Raoulia* species (*R. parkii*, *R. australis* and *R. bookeri*) are also common.

Herbs in the genera *Stelleria* and *Dicbondra* occur around the many stony patches often in association with the herb *Oreomyrrhis rigida*. The subshrub *Vittadinia australis* and erect shrubs of *Meliccytus alpinus* and *Discaria toumatou* are scattered over the terrace while tussocks of *Poa cita* occur in hollows. The diminutive patch grass *Poa mantototo* is common as is the small *Carex breviculmis*. Bare ground, mosses and lichens are also important and characteristic features of the terrace plant community.

Flora The flora is typical of semi-arid terraces in the Upper Clutha Valley. *Oreomyrrhis rigida* is a relatively uncommon species and *Pimelea pulvinaris* has a very limited distribution.

Discussion Although various components of the vegetation are represented in other RAPs of the Upper Clutha land system, the species composition of this area is substantially different and important as a remnant example of natural terrace vegetation of the land system.

The insect fauna, reflecting the open, dry habitat is quite different from that found on silver tussock dominated terraces (Lindis A12) or saline soils (Pisa A5 and B2) on the same land system. The insect fauna contains both a representative example of the typical species of the Upper Clutha Valley together with some much rarer species. Both banded dotterel and pipit are known to breed in the stony areas of the terrace.

The distinctive shallow, stony and sandy soils combined with the representative insect fauna and vegetation make this RAP of considerable importance as the best example of a relatively natural Upper Clutha land system semi-arid terrace flats. Its size should allow sufficient buffering from outside influences.

CRITERIA SUMMARY : LINDIS RAP A14 - LONG GULLY TERRACE

Representativeness	H	Example of semi-arid terrace flats flora and fauna.
Diversity	M	Few vegetation types but reasonable native species diversity.
Naturalness	M	Much higher than is usual for low altitude river terraces.
Special Features	M	Some rare insect species present.
Viability	M	No catchment boundaries but size of priority area gives some protection from outside influences.
Threat	M	Pastoral development.
Landform	H	Good example of Upper Clutha river terrace.