Toitu te whenua
Land Information
New Zealand

Crown Pastoral Land Tenure Review

Lease name: ORCHARD ESTATE

Lease number: PT 092

Fish & Game Report

As part of the process of Tenure Review Fish & Game councils may provide advice on significant inherent values within the pastoral lease, and the information may be incorporated in the Conservation Resources Report. The advice is part of the information gathered and assessed for the development of a preliminary consultation document.

March 05

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NEW ZEALAND

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23 APR 1997
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TENURE REVIEW REPORT

PROPERTY: OMAHAU STATION

LOCATION: TWIZEL

1. Brief Description of Property

Omahau Station, located 1 km north from Twizel, comprises two separate blocks.

The Hill block includes about 2300 ha of predominantly steep land class VII and VIII with some class VI along the flatter lands bordering the south east and east boundaries. Altitude ranges from 520 to 1,400 m.

The Home Block includes some 2600 ha of flat land; predominantly class VI and VII terrace lands bounded by the Twizel and Tekapo rivers to the north and the Ohau River to the south. Altitude range for this block is 390 - 470 m.

2. Sportsfish and Game Resource Information

2.1 Rivers Lakes and Streams

Except for Darts Bush Stream which forms part of the northern boundary, there are no other water bodies of note within the Hill Block.

The Tekapo and Twizel rivers form much of the north eastern boundary of the Home Block. Flow in the Tekapo River is now much reduced from that which occurred historically. All flow into the lake is diverted into the Tekapo-Pukaki Canal for power generation purposes. Where prior to the mid 1970's the flow in the Tekapo River averaged around 80 cumecs, the average flow is now about 7-10 cumecs and sourced primarily from the Forks and Grays rivers, Maryburn and Irishman's Creek.

The same situation arises with regard to the Pukaki and Ohau river channels. The Pukaki riverbed is now dry with all water being diverted from Lake Pukaki down the Pukaki - Ohau canal for power generation purposes. Similarly the Ohau River flow is diverted at Lake Ruataniwha into the Ohau canal which runs parallel to the south bank of the historic Ohau River channel.

The original riverbed continues to be used as a spillway channel for the Ruataniwha Dam. A small flow between pools and wetland areas in that channel is maintained by seepage and the occasional spillage from the dam. The riverbed continues to provide a valued wildlife habitat.

The Twizel River at its confluence with the old Ohau River channel has an estimated mean flow of about 6 cumecs with a mean annual low flow around 2 cumecs.

2.2 Sportsfish and Gamebird Species

2.2.1 *Sportsfish*

Rainbow and brown trout inhabit the Tekapo and the Twizel rivers.

Drift Diving surveys have been conducted over recent years on both rivers adjacent to the subject property. Results for the Tekapo Delta area are shown in Table 1 while data for the Twizel River for the Section above and below SH 8 is shown in Table 2. In each case the surveyed reach is 1 km long.

The Tekapo River supports a high number of takeable fish per kilometre and is arguably the best trout fishing river in the whole of the Central South Island Fish and Game region. The river is also noted for its high numbers of juvenile stocks clearly demonstrating its significance as a nursery rivers.

Although not as productive as the Tekapo, the Twizel is still an important fishery in its own right. Because of its ready access from the main road the section downstream from the SH 8 Bridge is popular with locals and more particularly visitors to the district. Average takeable fish size is less than for the Tekapo.

A National Angler Survey conducted by NIWA (National Institute of Water and Atmosphere sciences) in 1993/94 angler season records 612 angler days spent fishing the Twizel River. This compares favourably with the Ahuriri (4478 angler days), the Tekapo (2225 angler days) and the Ohau River (636 angler days).

The Lake Benmore fishery is reliant upon rivers such as the Twizel, Tekapo, and Ahuriri which provide the spawning and juvenile habitat necessary to sustain that lake fishery. Trout spawning is known to occur well up the Twizel into the Duncan Stream.

Regular trout spawning surveys have been carried out in the Tekapo River and that information is summarised in Table 3.

2.2.2 *Gamebird*

Mallard and grey duck, paradise shelduck and Canada geese are present throughout the area. Numbers on this property are comparatively low and confined mainly to the wetland habitat areas in the Tekapo-Ohau delta areas fronting Lake Benmore.

Upland gamebirds species such as quail and chukor are not known to be present in significant numbers.

3. Recommendations:

3.1 Access

We note the existence of a marginal strip along both sides of the Twizel River from the SH 8 Bridge to its confluence with the Ohau. This extends upstream from SH 8 and continues along the Fraser Stream.
There is no marginal strip on the Twizel or Dry Creek between their confluence with the Fraser and the Omahau Station boundary. Given its popularity as an angling river CSIFG seeks continuation of the marginal strip to include all the Twizel from the Ohau confluence through to the boundary with Ben Ohau Station.

The Tekapo and Ohau riverbeds are, we understand, already included in the conservation estate and that the Omahau property boundary is located along the top of the terrace removed from the riverbed.

Access to the Tekapo-Ohau delta area already exists by way of the Ohau C Road, branching off at the Ohau C powerhouse via a 4 WD track to ford the lower Ohau. Alternative access to that area is provided via a road down the true left bank of the Pukaki River to Iron Bridge.

There is also a 4 WD track from SH 8 along the north side of the Ohau. With some upgrading and extension this track could provide improved access to the Twizel River midway between SH 8 and the Ohau confluence.

We also seek continuation of the marginal strip along Darts Bush Stream upstream from the Ben Ohau boundary along the Omahau section.

3.2 Habitat

The Proposed Mackenzie District Plan identifies the Tekapo and Ohau riverbeds as sites of significant habitat and CSI Fish and Game supports the retention of those areas to the conservation estate in order to preserve fisheries and wildfowl habitat values of those areas.

Frank Scarf
Fish and Game Officer
14.4.97

Attachments: Fig 1 - Recommended Marginal Strip, Public Access and Habitat Reserve Requirements

Table 1. Numbers of known brown and rainbow trout observed by repetitive drift diving of approximately 1 km sections of the Tekapo River in 1992 – 95 and other years where available.

TEKAPO RIVER

	Juvenile					Small (<25cm)							Large (>25cm)						
	Feb 1992	Mar 1993	Nov 1993	Apr 1994	Mar 1995	Feb 1989	Feb 1990	Feb 1992	Mar 1993	Nov 1993	Apr 1994	Mar 1995	Feb 1989	Feb 1990	Feb 1992	Mar 1993	Nov 1993	Apr 1994	Mar 1995
BROWN TROUT																			
Top Reach (1200m)	12	205	6	3	15	231	94	2	68	33	20	345	134	38	1	131	94	121	141
Middle Reach* (1150m)	300	20	1	4	78	30	7	66	17	33	10	247	41	35	83	96	105	37	95
Delta (1000m)																			
Main Braid	23	0	30	2	128	59	29	49	8	52	16	100	79	34	96	86	49	27	133
Middle Braid	31	0	0	1	45	–	–	63	10	15	3	54	–	–	163	219	30	46	74
True Left Braid	13	0	0	0	18	–	–	2	1	10	1	18			47	39	29	18	27
Total Delta	67	0	30	3	191			114	19	77	20	172			306	344	108	91	234
RAINBOW TROUT																			
Top Reach	274	205	0	11	105	266	1350	0	18	1	10	144	113	9	0	5	2	7	20
Middle Reach*	1614	20	0	11	96	120	850	101	13	0	8	48	42	6	23	9	0	6	14
Delta																			
Main Braid	1125	0	1	96	593	291	559	54	5	23	6	38	24	2	55	2	2	1	43
Middle Braid	609	0	0	4	246	–	–	41	0	3	5	15	–	–	22	0	4	7	14
True Left Braid	141	0	0	0	75	–	–	0	0	0	3	43	–	–	0	0	1	0	15
Total Delta	1875	0	1	100	914			95	5	26	14	96			77	2	7	8	72

* Prior to the January 1994 floods the middle reach contained only one braid. Subsequent to this 2 braids were surveyed. In April 1994 approx 70% of water remained in the original braid with 30% in the new braid. In March 1995 approx 40% of flow in the original braid and 60% in the new braid.

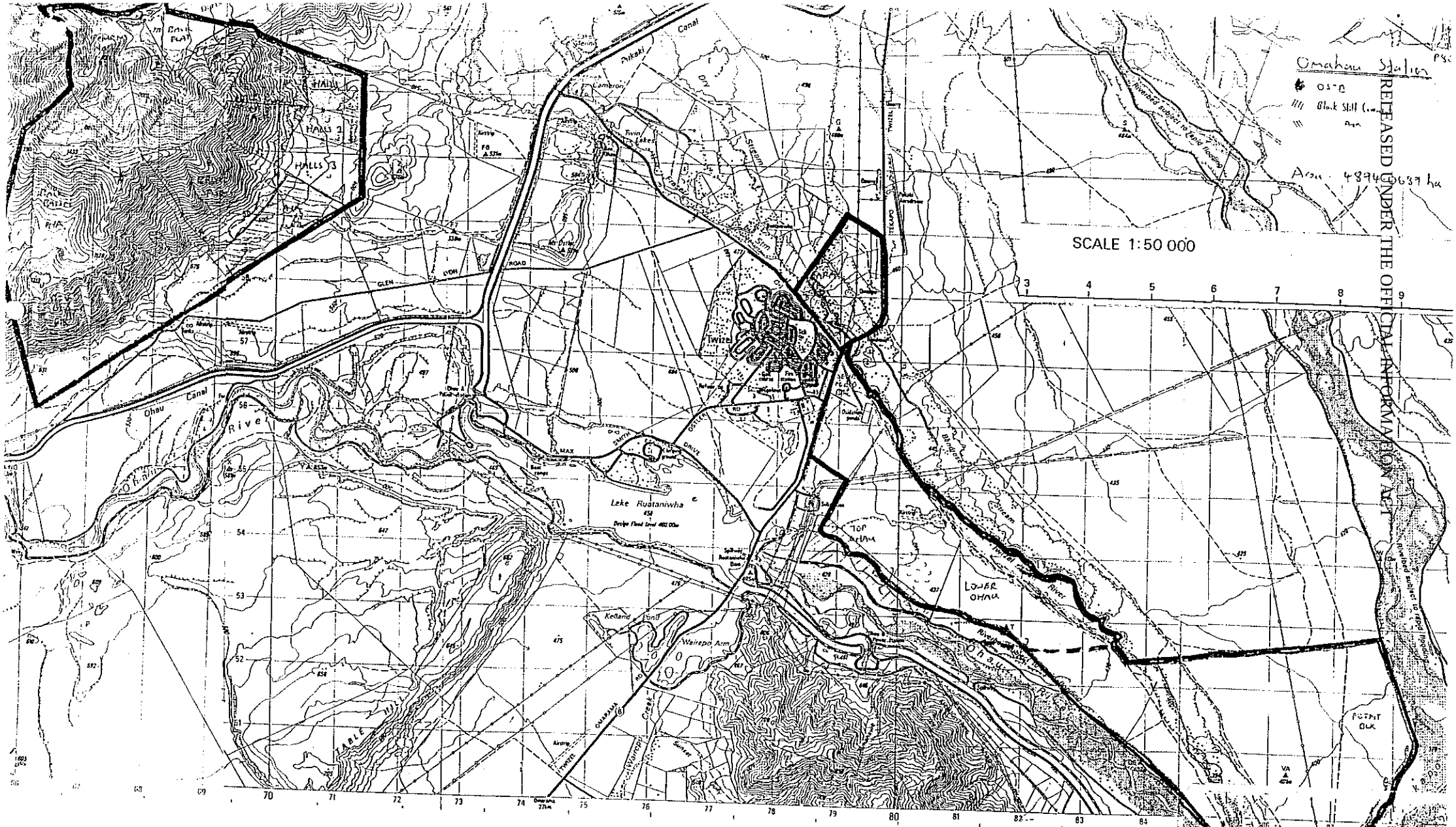
TABLE 2: CSIFGC DRIFT DIVING - 30/31 MARCH 1996

Size Categories: Trout Large: >25 cm Small: < 25 cm Juvenile: Young of year
Salmon Large: adults Juvenile: Young of year

	Length (m)	Black Disk (m)	Brown Trout L	Brown Trout S	Brown Trout J	Rainbow Trout L	Rainbow Trout S	Rainbow Trout J	Salmon L	Salmon J
Ahuriri River										
Delta	1,000	2.65	29	30	0	7	27	0		
Clay Cliff	1,000	3.20	8	8	0	0	28	0		
Longslip	1,000	3.70	4	2	0	1	18	8		
Headwater	1,200	6.90	7	0	0	0	0	0		
Twizel River										
Above SH 8	1,000	3.95	4	52	15	0	43	17		
Below SH 8	1,200	3.95	21	99	0	0	155	0		
Hakataramea River										
Above SH 72	1,000	4.15	7	37	0	20	453	43	8	NC
Above Hatchery	1,000	4.15	5	3	66	12	256	315	4	2480

TABLE 3. TEKAPO RIVER SPAWNING COUNTS

	10/7 1990	17/7 1992	6/7 1993	12/7 1994	18/7 1995
500 m below Pylons above Mary Burn to Pylons	34	8	7	54	3
Pylons - Mary Burn	54	31	27	40	19
Mary Burn - Simons Hills (Dive Section Top)	19	14	5	21	9
Simons Hills - 1 km abve Highbank)			29	83	29
1 km above Highbank - Highbank)	48	36			
Dive Section - Middle)			4	6	6
Highbank - Steel Bridge	18	24	33	27	24
Steel Bridge - Pukaki Confluence	4	19	5	10	5
Pukaki Con - 1200 m above Mth)			14	38	4
1200m above mouth-mouth TLH Braid)	34	40	0	9	0
Dive Section Delta)					
Mid Braid)			0	5	0
(main) TRH Braid)			5	30	3
TOTAL	211	197	129	323	102



OMAHAU STATION

Marginal strip

4WD access