



TO THE MAYOR AND COUNCILLORS OF THE MACKENZIE DISTRICT COUNCIL

MEMBERSHIP OF THE PLANNING COMMITTEE

John Bishop (Chairman)	
Claire Barlow (Mayor)	Peter Maxwell
Annette Money	Graeme Page
Graham Smith	Evan Williams

*Notice is given of a meeting of the Planning Committee
to be held on Tuesday 27 September 2011 at 9.30 am*

VENUE: Council Chambers, Fairlie

BUSINESS: As per Agenda attached.

GLEN INNES
CHIEF EXECUTIVE OFFICER

21 September 2011



PLANNING COMMITTEE

Agenda for Tuesday 27 September 2011

I APOLOGIES

II DECLARATIONS OF INTEREST

III MINUTES

Confirm and adopt as the correct records the Minutes of the meetings of the Planning Committee held on 5 July and 28 July 2011, including such parts as were taken with the Public Excluded.

ACTION POINTS

IV REPORTS:

1. Mackenzie Forum
2. Plan Change 15
3. Objection to Resource Consent Decision – Grizzly Holdings Ltd
4. Earthquake Prone Buildings Policy
5. Retail Opportunities Lake Pukaki

MACKENZIE DISTRICT COUNCIL

MINUTES OF A MEETING OF THE PLANNING COMMITTEE HELD IN THE COUNCIL CHAMBERS, FAIRLIE, ON TUESDAY 5 JULY 2011 AT 3.25 PM

PRESENT:

John Bishop (Chairman)
Claire Barlow (Mayor)
Annette Money
Peter Maxwell
Graeme Page
Evan Williams
Graham Smith

IN ATTENDANCE:

Glen Innes (Chief Executive Officer)
Nathan Hole (Manager – Planning and Regulations)
Garth Nixon (Community Facilities Manager) for part of the meeting.
Rosemary Moran (Committee Clerk)

I APOLOGIES:

There were no apologies.

II DECLARATIONS OF INTEREST:

There were no Declarations of Interest.

III MINUTES:

The Minutes of the meeting of the Planning Committee held on 24 May 2011 were confirmed and adopted as the correct record of the meeting.

Graham Smith/Annette Money

MATTERS ARISING:

The Manager – Planning and Regulations advised that the Twizel Dog Pound had been completed and was operational.

IV REPORTS:

1. ROADWAYS AND RESERVES CAMPING BYLAW 2009 AMENDMENT :

The Community Facilities Manager joined the meeting.

This report from the Community Facilities Manager referred to proposed amendments to the Camping on Roadways and Reserve Bylaw.

Resolved that the report be received.

Claire Barlow /Annette Money

Resolved that the following amended Roadways and Reserves Camping Bylaw be adopted.

Claire Barlow/Graham Smith

ROADWAYS AND RESERVES CAMPING BYLAW

1. This bylaw is made pursuant to sections 145 and 146(b)(vi) of the Local Government Act 2002, section 12 of the Litter Act 1979, and all other Acts, powers and authorities enabling the Council in that behalf.
2. This bylaw shall be known as the Roadways and Reserves Camping Bylaw 2009.
3. Camping – No person shall camp in or upon any road, roadside, reserve or area listed in the schedule hereto.
4. Power to Move On - Any warranted officer of Council may request a person camping on land referred to in the schedule to move on and may direct them to any other camping ground or other Council land where camping is permitted.
5. Offences - Failure to comply with such a request constitutes an offence under this bylaw.
6. Penalties And Offences.- Every person commits a breach of this bylaw who:
 - (a) Commits, or causes to be committed, any act contrary to this bylaw; or
 - (b) Omits, or knowingly permits to remain undone, any act required by this bylaw; or
 - (c) Refuses, or neglects to comply with, any notice or request, or any condition in any such notice or request, given by a Council Officer pursuant to this bylaw; or
 - (d) Obstructs or hinders any officer of the Council in the performance of any power or duty conferred upon him or her by this bylaw.
- 6.1 Every person who breaches this bylaw commits an offence and is liable on summary conviction to a fine not exceeding \$20,000.
7. Signs – Signs may be erected on any land in the Schedule hereto, such signs to read “No camping by order Mackenzie District Council”.
8. Definitions – For the purpose of this bylaw, the following definitions shall apply;

“Road” means road as defined in Section 315(l) of the Local Government Act 1974.

“Reserve” means reserve as defined in the Reserves Act 1977.

“Roadside” means the area between the road centre line and any private property either side of the road centre line.

“Camp” means to stay, or intend to stay at any time, and includes staying or intending to stay at any time with any form of moveable or portable accommodation.
9. Additions or Deletions – Additions or deletions to the schedule hereto may be made by the Mackenzie District Council from time to time by Resolution.

10. Exceptions - Council may grant exceptions to this bylaw. These exceptions may be made from time to time for special circumstances or one off events. The exception may be granted by Council following application and Council resolution.

Schedule

A SCHEDULE OF PERMITTED AREAS

- a) Lake Opuha Council Picnic Areas and Reserves.

<u>Lot 28</u>	<u>2.7475</u> <u>Ha</u>	<u>DP</u> <u>301677</u>
<u>Lot 29</u>	<u>.8787</u> <u>Ha</u>	<u>DP</u> <u>301677</u>
<u>Lot 30</u>	<u>1.8105</u> <u>Ha</u>	<u>DP</u> <u>301678</u>

Camper need to supply their own self-contained toilet.

No camping permitted between 23 December and the second Monday in January.

- b) Lake Ruataniwha Reserve SEC 1 SO 346762 excluding the designated camping area

No camping permitted between 23 December and the second Monday in January.

- c) Pattersons Ponds off Tekapo Canal Road Lake Tekapo

- d) Lake Wardell State Highway 8 Twizel

B SCHEDULE OF PROHIBITED AREAS

- a) All of Pioneer Drive Road Reserve from State Highway 8 intersection at the south eastern end of the road to the intersection with State Highway 8 at the north western end of the road, including all public car-parking areas and grassed areas within the road reserve.

- b) All of the Part Reserve 180 on the foreshore of Lake Tekapo in the vicinity of the Church of the Good Shepherd.

- c) All of Reserve 5182 and Pt Reserve 2923 being part of the Tekapo Domain (excluding the Motor Camp).

- d) All of the roadways in the Tekapo Domain being Domain Road and also known as Lakeside Drive and the unnamed roadway on Reserve 5182.

- e) With the exception of the Lake McGregor camping ground, the land surrounding Lake McGregor and Lake Tekapo being the following areas relating to the development of water power:

<u>Pt Res 4281</u>	<u>0.5281</u>	<u>SO8247</u>	<u>Gaz 1957</u>	<u>P615</u>
<u>Pt Res 36738</u>	<u>0.0304</u>	<u>SO8247</u>	<u>Gaz 1957</u>	<u>P615</u>
<u>Pt Res 36738</u>	<u>1.1534</u>	<u>SO8247</u>	<u>Gaz 1957</u>	<u>P615</u>
<u>Pt Res 36738</u>	<u>0.2226</u>	<u>SO8247</u>	<u>Gaz 1955</u>	<u>P2014</u>
<u>Pt Res 33695</u>	<u>0.3845</u>	<u>SO8247</u>	<u>Gaz 1955</u>	<u>P2014</u>
<u>Pt Lot1 DP9597</u>	<u>2.7562</u>	<u>SO8247</u>	<u>Gaz 1955</u>	<u>P2014</u>
<u>Pt Res 34675</u>	<u>1.1938</u>	<u>SO8247</u>	<u>Gaz 1955</u>	<u>P2014</u>
<u>Pt Res 3840</u>		<u>SO8247</u>	<u>Gaz 1955</u>	<u>P2012</u>
<u>Pt Res 36738</u>	<u>0.8701</u>	<u>SO8247</u>	<u>Gaz 1957</u>	<u>P615</u>

f) Closed Roads:

Pt Res 36738 SO8247 Gaz1957 P615

g) Pt Reserve:

Pt Res 34675 0.6404 SO8247

h) Lake Opuha Buffer Zones and Esplanade strips as described below and as identified on the attached map

<u>Lot 2</u>	<u>281.8950 Ha</u>	<u>DP 301677</u>
<u>Lot 1</u>	<u>52.2460 Ha</u>	<u>DP 301677</u>
<u>Lot 3</u>	<u>1293.270 Ha</u>	<u>DP 301677</u>
<u>Lot 27</u>	<u>5.7808 Ha</u>	<u>DP 301677</u>
<u>Lot 5</u>	<u>13.7895 Ha</u>	<u>DP 301678</u>
<u>Lot 4</u>	<u>161.4400 Ha</u>	<u>DP 301678</u>
<u>Lot 6</u>	<u>17.9460 Ha</u>	<u>DP 301678</u>
<u>Lot 7</u>	<u>7.9040 Ha</u>	<u>DP 301678</u>
<u>Lot 9</u>	<u>6.9500 Ha</u>	<u>DP 301678</u>

i) Lake Opuha Council Picnic Areas and Reserves.

Camping not permitted between 23 December and the second Monday in January.

Lot 28	2.7475 Ha	DP 301677
Lot 29	.8787 Ha	DP 301677
Lot 30	1.8105 Ha	DP 301678

Campers need to supply their own self-contained toilet.

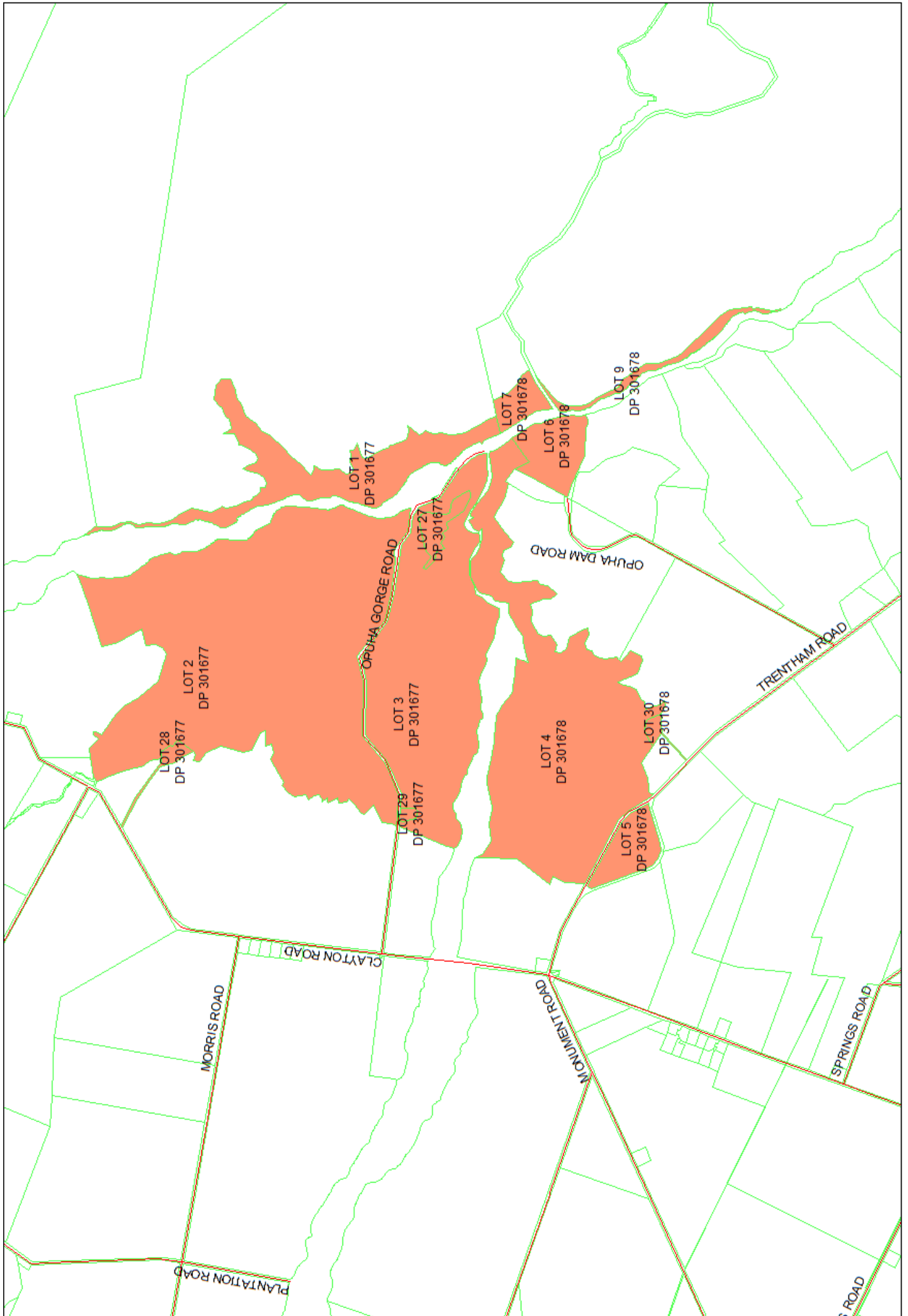
This bylaw was adopted by the Council on 15 December 2009 following the completion of a special consultative procedure under Section 86 of the Local Government Act 2002.

THE COMMON SEAL OF THE MACKENZIE DISTRICT COUNCIL was hereto affixed in the presence of:

The Mayor

The Chief Executive Officer

Common Seal of the Mackenzie
District Council



2. ENVIRONMENT COURT APPEAL – MACKENZIE LIFESTYLE LIMITED LANDUSE CONSENT, TWIZEL:

This report from the Manager – Planning and Regulations was accompanied by a copy of the appeal to the Environment Court from Mackenzie Lifestyle Ltd and requested approval to mediate the appeal on behalf of the Council.

Resolved:

- 1 That the report be received.
- 2 That approval be delegated to the Manager – Planning and Regulations to mediate, on behalf of Council, the appeal to RM100013 by Mackenzie Lifestyle Ltd.

Graham Smith /Claire Barlow

**THERE BEING NO FURTHER BUSINESS THE
CHAIRMAN DECLARED THE MEETING CLOSED AT 3.45 PM**

CHAIRMAN: _____

DATE: _____

MACKENZIE DISTRICT COUNCIL

MINUTES OF A MEETING OF THE PLANNING COMMITTEE HELD IN THE COUNCIL CHAMBERS, FAIRLIE, ON THURSDAY 28 JULY 2011 AT 9.30 AM

PRESENT:

John Bishop (Chairman)
Claire Barlow (Mayor)
Annette Money
Peter Maxwell
Graeme Page
Graham Smith

IN ATTENDANCE:

Glen Innes (Chief Executive Officer)
Nathan Hole (Manager – Planning and Regulations)
Rosemary Moran (Committee Clerk)

I APOLOGIES:

There were no apologies.

II DECLARATIONS OF INTEREST:

There were no Declarations of Interest.

III REPORT:

1. LAKE TEKAPO ENTERPRISES – RESERVES CONTRIBUTIONS:

This report from the Manager – Planning and Regulations sought consideration of an application by Lake Tekapo Enterprises Ltd to vary Condition 26 of RM070125 (Cairns Subdivision) to provide the Council with land in lieu of a cash reserves contribution.

Resolved that the report be received.

Annette Money/Claire Barlow

The Manager – Planning and Regulations spoke to his report. He noted that the issue was significant in that financially there was much at stake both for the consent holder and the Council and that he believed there was an obligation to honour the intent of the previous 2004 decision where Council indicated it would be prepared to add to the land then set aside as reserve as further subdivision proceeded.

The Committee expressed concern that the issue could come before it again. It was suggested that the applicant be advised that precedent would not be set by the decision made and that any further offers of land in lieu of cash for reserves contributions would need to be considered on their merits..

Resolved:

1. That the Committee accepts land in lieu of cash a reserves contribution for RM070125, so that additional land is vested to adjoin Lot 1000 DP 352127; and
2. That the area of land to vest with the Council is of the same value or greater than the cash equivalent that would have been paid as 5% of the value of each residential lot created by RM070125; and
3. That the value of the land to be vested shall be determined by a registered valuer.

Claire Barlow/Annette Money

Resolved that the applicant be advised precedent would not be set by the decision to accept a variation to condition 26 of RM070125; that if land was offered in lieu of cash for future subdivisions in the area, that would be considered on their own merits.

**THERE BEING NO FURTHER BUSINESS THE
CHAIRMAN DECLARED THE MEETING CLOSED AT 10.20 AM**

CHAIRMAN: _____

DATE: _____

MATTERS UNDER ACTION PLANNING COMMITTEE

Mackenzie Properties Ltd – Right of Way Request:

Submit lease agreement between the Council and Mackenzie Properties Ltd be approval at the Council meeting on 8 March 2011. *A draft lease has been offered to Mackenzie Properties however there has been no response to date.*

MACKENZIE DISTRICT COUNCIL

REPORT TO: PLANNING COMMITTEE

SUBJECT: MACKENZIE SUSTAINABLE FUTURES TRUST & WORKING PARTY

MEETING DATE: 27 SEPTEMBER 2011

REF:

FROM: TONI MORRISON & NATHAN HOLE

ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

To provide an update to the Committee on the process of the Upper Waitaki Shared Vision Working Party.

STAFF RECOMMENDATIONS:

1. That the report be received.

TONI MORRISON
SENIOR POLICY PLANNER

NATHAN HOLE
MANAGER – PLANNING & REGULATIONS

ATTACHMENTS:

- None.

BACKGROUND:

The purpose of this meeting paper is to provide a brief update to the Committee about the progress of the Working Party.

POLICY STATUS:

Not applicable.

SIGNIFICANCE OF DECISION REQUESTED:

Not significant.

ISSUES AND OPTIONS:

Not applicable.

CONSIDERATIONS:**Background**

In February 2011 Jacqui Dean convened a meeting of invited parties in Twizel to discuss the idea of a Trust and Working party. In March 2011 the Council met and confirmed the appointment of Mayor Claire Barlow to the Mackenzie Sustainable Futures Trust, which was to administer the funds for the Upper Waitaki Shared Vision Working Party. The Council also donated \$5000 towards the process, and subsequently appointed John O'Neill to represent the Mackenzie community on the Working Party.

Mackenzie Sustainable Futures Trust

After some delay, the Mackenzie Sustainable Futures Trust was registered as a charitable trust on 26 August 2011. The trustees include Jacqui Dean (chair), Claire Barlow, Alex Familton, Peter Skelton, and three representatives from the Working Party Group. It is unclear whether Te Runanga O Ngai Tahu will appoint a Trustee. I understand the Trust has met once and has had two telephone conferences. They are scheduled to meet on the 23rd September.

Upper Waitaki Shared Vision Working Party

The Chair of the Working Party has been confirmed as Richard Thompson. Guy Salmon has had an ongoing role as Project Manager and has organized the meetings and any presentations required. It is unclear at present if Guy is to have an ongoing role.

The Working Party has held 3 meetings so far: 4-5 May, 15-16 June, and 3-4 August. Each meeting is held over two days, in Twizel.

The meetings have so far consisted of discussion on principles and process matters for the Group (membership, timeframes, work process), and presentations by parties involved in or with interests in the Upper Waitaki. Matters to be canvassed by the Group include tourism, recreation, conservation, farming, biosecurity, land and water issues. In order to protect the integrity of the process, the specific content of each meeting and any decisions made are confidential to the Working Party throughout the process.

There was to have been a meeting on 31 August – 1 September, but this meeting was cancelled as funding was not available.

The next meetings are set down for:

- 13-14 October
- 2-3 November
- 12-13 December
- 31 January – 1 February
- 22 -23 February.

It should be noted that these are approximate and may change.

The next series of meetings will continue the information gathering phase, with more presentations from interested parties and groups.

The question of the importance of site visits in gathering and sharing information has been raised with the Group by John O'Neill. A site visit to one property has been proposed. I am not aware of any further discussion regarding visits to other areas which would encompass the wide range of issues the Group is intending to address.

By March 2012, the aim is to have a Shared Vision Strategy and a series of recommendations to central and local government and other relevant agencies.

CONCLUSION:

The Council's role in terms of the Working Party is as an Active Observer. Staff will continue to update the Committee as appropriate as the meetings progress.

MACKENZIE DISTRICT COUNCIL

REPORT TO: PLANNING COMMITTEE

SUBJECT: PLAN CHANGE 15, TWIZEL

MEETING DATE: 27 SEPTEMBER 2011

REF: REG 6//6/5

FROM: TONI MORRISON, SENIOR POLICY PLANNER
ANGIE TAYLOR, PLANNER

ENDORSED BY: MANAGER – PLANNING AND REGULATIONS

PURPOSE OF REPORT:

For the Council to formally approve Plan Change 15 and agree to publicly notify the date on which the Plan Change will become operative.

STAFF RECOMMENDATIONS:

1. That the report be received.
2. That the Committee note the correspondence with Meridian Energy Limited in relation to the Plan Change.
3. That the Committee approve Proposed Plan Change 15 (Twizel) in accordance with clause 17 of Schedule 1 to the Resource Management Act 1991 and affix Council's seal.
4. That the Committee agree that Plan Change 15 become operative on Monday 17th October 2011.

TONI MORRISON
SENIOR POLICY PLANNER

ANGIE TAYLOR
PLANNER

ATTACHMENTS:

- Correspondence from Meridian Energy Ltd dated 26 August 2011
- Response to Meridian Energy Ltd dated 9 September 2011

BACKGROUND:

Plan Change 15 was notified in September 2010, with the aim of better recognising and providing for development in and around Twizel. Submissions and further submissions were received, and a hearing was held in Twizel in May 2011. The Council's decision was notified on 23 July 2011. No appeals have been received on the Council's decision.

Following the release of the decision, Meridian Energy wrote to the Council expressing that it was 'uncomfortable' with some aspects of the Council's decisions on PC15. It appears that Meridian chose to correspond with the Council rather than lodging an appeal. A copy of that letter, and staff's response to Meridian, is attached for your information.

As no appeals were received on the Council's decision, Plan Change 15 can now be made operative and incorporated into the District Plan.

POLICY STATUS:

Not applicable. The Resource Management Act sets out the procedure for processing plan changes.

SIGNIFICANCE OF DECISION REQUESTED:

This is not a significant decision. The report covers matters previously considered by the Council.

ISSUES AND OPTIONS:

Under clause 17 of Schedule 1 of the Resource Management Act 1991, the Council is now required to approve the change and this will be given effect to by official sealing of the documents.

The changes have been collated and prepared for sealing but, because of their size, they have not been appended to this report. There are large sections of District Plan text, and several maps. However, copies are available for inspection if required.

The final copies of the changes mirror exactly the text already approved by the Council and there is no ability to make further changes or amendments at this stage. The approval process under Schedule 1 is purely procedural and the sealed changes will reflect what has already been determined.

Under clause 20 of Schedule 1 the Council is required to publicly notify the date on which the Plan changes become operative. This must be done at least 5 working days before the date on which it becomes operative. In this case the public notice is proposed to be given on Saturday 8th October 2011 and the operative date will be Monday 17th October 2011.

CONSIDERATIONS:

The Council must now approve Proposed Plan Change 15 in accordance with Schedule 1 of the Resource Management Act, as there are no appeals. This is given effect by affixing Council's seal to the plan change.

CONCLUSION:

It is recommended that the Council approve Proposed Plan Change 15 (Twizel) and affix Council's seal, and that the Plan Change becomes operative on Monday 17th October 2011.



meridian

26 August 2011

Nathan Hole
Planning Manager
Mackenzie District Council
PO Box 52
Main Street
Fairlie 7949

Dear Mr Hole

CONCERN REGARDING THE DECISION ON PLAN CHANGE 15

- 1 As you are aware, Meridian provided submissions and further submissions on the Mackenzie District Council's (MDC) Plan Change 15 (PC15) (relating to the Hocken Lane Rural-Residential zone (HLRRZ)). In those submissions, Meridian highlighted its concern around the potential flood hazard that derives from the possibility of the full or partial failure of its upstream hydro infrastructure of the HLRRZ – in this instance the Pukaki-Ohau Canal.
- 2 Meridian presented undisputed expert evidence at the hearing for PC15 regarding these concerns. The evidence noted:
 - 2.1 it was doubtful as to whether any weight could be placed on the original expert reports provided as a part of the previous subdivision consent process for the Hocken Lane area (with which Meridian had no involvement). Mr Ken Gimblett (called By Meridian) advised that the original reports had only assessed a true right (upslope) breach; and
 - 2.2 on the basis of a further expert report tabled by Meridian and prepared by Mr Nigel Connell, it was shown that a breach of the true left (downslope) bank would produce a much greater peak discharge of between 540m³/second and 930 m³/second – with the report going on to suggest that:

"Such breach outflow is likely to cause fatalities in the proposed HLRRZ"
- 3 Meridian asked that appropriate consideration be given to the possible consequences of hydro infrastructure failure in the development of new residential buildings on existing created or approved lots in the HLRRZ. This would include a new rule to make new buildings on approved lots in the HLRRZ a discretionary (rather than permitted) activity so that the flood hazard could be considered.
- 4 The Commissioners did not accept Meridian's submissions (or the undisputed expert evidence) as, in short, in their view the issue had already been dealt with by consent notices and expert reports at the time the relevant lots were approved. The Commissioners also dismissed the need to investigate the issue further due to the likely low incidence of occurrence and the high cost involved.

- 5 Accordingly, we consider it appropriate to advise that:
- 5.1 Meridian remains uncomfortable with the Commissioners reasoning or approach in respect of breach assessment for the HLRRZ; but
- 5.2 having now 'given notice' to the Council around the potential breach risk and the possibility of flooding and fatalities it is now up to the Council, and not Meridian, to provide an appropriate planning framework to manage the issue accordingly.
- 6 To this end Meridian also wishes to advise that given the notice provided and the Council's responsibilities as the relevant territorial authority, Meridian considers itself absolved from any future liability that may or may not arise as a result of any breach.
- 7 Given the significance of these concerns, we consider it appropriate that a copy of this letter be placed on each individual property file for all properties within the HLRRZ and that the issue of flood hazard (via breach) is advised to all future purchasers.
- 8 Please note that unless we hear otherwise we understand the Council accepts this approach.

Yours sincerely



Andrew Feierabend
Planning Manager

DDI 03 3579 731

Fax 03 3579821

Mobile 021 898143

Email andrew.feierabend@meridianenergy.co.nz



Mackenzie District Council

9 September 2011

Meridian Energy Ltd
PO Box 2454
CHRISTCHURCH

Attention: Andrew Feierabend

Dear Andrew

Plan Change 15 - Twizel

Thank you for your letter of 26 August 2011 outlining Meridian's response to the Council decision on Plan Change 15.

We have considered the letter and have sought advice in relation to the matters raised within it. In respect of your paragraph 8, we confirm that Council does not accept the approach outlined. While it has always been the Council's role to provide an appropriate planning framework, it is our understanding that this does not remove the duties and liabilities on landowners and operators in the event of damage being caused to the property of others. We do not accept the proposition that any future liability can be extinguished in the manner your letter attempts to do.

We are somewhat disappointed with the approach that Meridian has taken. The Commissioners made their recommendation based on the evidence before them. No further evidence has been provided on which Council could reasonably change its position. If Meridian was "uncomfortable" with the decision, it had appeal rights which it has chosen not to exercise.

Given our advice that your letter is fundamentally incorrect, we will not be placing a copy of it on the property files. The issue of flood hazard, including the potential inundation from canal breach, is recorded in the relevant processes including Council's Land Information Memoranda, and of course is identified in the District Plan (following the recently released decisions on Plan Change 15).

Yours sincerely

Nathan Hole

PLANNING & REGULATIONS MANAGER

REG 6/6/5

MACKENZIE DISTRICT COUNCIL

REPORT TO: PLANNING COMMITTEE

SUBJECT: OBJECTION TO RESOURCE CONSENT DECISION – GRIZZLY HOLDINGS LTD

MEETING DATE: 27 SEPTEMBER 2011

REF: RM110035

FROM: MANAGER – PLANNING AND REGULATIONS

ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

For the Planning Committee to make a decision on an objection to a resource consent decision relating to the calculation of the reserves contribution.

STAFF RECOMMENDATIONS:

1. That the report be received.
2. That the objection is upheld and the reserves contribution is calculated as if the land was zoned rural. That is, 5% of the average value of 1500m² of each lot assessed as a site for a residential unit.

NATHAN HOLE
MANAGER – PLANNING & REGULATIONS



GLEN INNES
CHIEF EXECUTIVE OFFICER

BACKGROUND:

This objection relates to a three lot subdivision on North West Arch in Twizel which will create two additional residential lots.

The land was zoned rural at the time the application was lodged, but at the time a decision was made on the application the land was zoned Residential 4 under Plan Change 15. After receiving some very brief legal advice I made the decision to require the reserves contribution payment to be calculated in accordance with the new zoning, rather than the rural zone. This is what the objection focuses on.

ATTACHMENTS:

A copy of the objection dated 24 August 2011.

SIGNIFICANCE OF DECISION REQUESTED:

This is a routine decision. The delegation for making such decisions rests with the Council which in turn has been delegated to the Planning Committee.

CONSIDERATIONS:

This is the only subdivision consent that has been caught by timing with the change in zoning from rural to residential.

As this subdivision is only creating two additional lots, I am of the view that it is best to uphold this objection rather than argue the merits of it. I consider that the difference in the reserves contribution payable will be negligible regardless of the calculation.

In the rural zone the reserve contribution is calculated at 5% of the average value of 1500m² of each lot assessed as a site for a residential unit. In the residential zones this is calculated at 5% of the whole site. The additional lots are approximately 3500m², but will not be able to be further subdivided easily as they are already under the minimum lot size of 4000m². This is the reason why I think there will be minimal difference in value. You cannot do anything more with a 3500m² section than you could a 1500m² section.

This will not set a precedent as this is the only application caught this way.

CONCLUSION:

While I do not necessarily agree that my original assessment was wrong, the objection is still arguable. To avoid delay and further costs I consider that the best outcome is to uphold the objection, especially given that this situation will not occur again.

Resource Management Act 1991
EXHIBIT RM 110035
Date Received 25.8.11
Hearing Date



Nikki McGill
 PO Box 2009
 Raumati Beach
 Paraparaumu 5255
NEW ZEALAND

+64 4 902 4744 | P |
 +64 4 902 4742 | F |
 +64 27 4988 745 | M |
nikki@writeonpoint.co.nz | E |

24 August 2011

The Chief Executive Officer
 Mackenzie District Council
 PO Box 52
FAIRLIE

Our Ref: 566
 Your Ref: RM110035

Attention: Planning/Subdivisions

Dear Sir/ Madam

**OBJECTION TO CONDITION OF RESOUCCE CONSENT Sec 357A 1991 RM Act.
 FINANCIAL CONTRIBUTION FOR:**

**3 LOT SUBDIVISION OF LOT 1 DP 302021 , NW ARCH , TWIZEL
 GRIZZLY HOLDINGS LTD CT 8077 RM 110035**

This objection is to condition 15 of the Resource Consent which relates to financial contributions, more specifically the reserves contribution.

This subdivision application was acknowledged as received by Council on 27 June 2011. Further information was provided to the Council on 14 July 2011. At this time the land concerned was zoned rural and the consent has been given on the basis that it is a subdivision of rural land – other than in respect of condition 15.

On 23 July 2011 the Council published its notification of a plan change and variation to the district scheme. Condition 15 applies the reserves contribution calculation set out in the plan change as notified on 23 July 2011, nearly a month after the application was received by the Council.

Section 88 of the Resource Management Act 1991 (RMA) states:

88 Description of type of activity to remain the same

- (1) Subsection (1A) applies if—
 - (a) an application for a resource consent has been made under section 88 or 145; and
 - (b) the type of activity (being controlled, restricted, discretionary, or non-complying) for which the application was made, or that the application was treated as being made under section 87B, is altered after the application was first lodged as a result of—
 - (i) a proposed plan being notified; or
 - (ii) a decision being made under clause 10(1) of Schedule 1; or
 - (iii) otherwise.

(1A) The application continues to be processed, considered, and decided as an application for the type of activity that it was for, or was treated as being for, at the time the application was first lodged.

Under this section any application that is made prior to a plan change must continue to be processed under the plan in force at the time the application was made. Clearly, this is how

| 2 |

the present application has been processed *EXCEPT FOR* the condition relating to reserves contribution.

Under section 108(10) of the RMA a consent authority **must not include a condition** in a resource consent requiring a financial contribution unless-

108(10)(b) The level of contribution is determined in the **manner described in the plan or proposed plan.**

At the time of the application, the District plan operative at that time permitted a reserve contribution under 7(d) (see District scheme, chapter 7 on subdivisions), which stated:

7(d) Provision of Land for Open Space and Recreation

Rate of Contribution - Residential Purposes

Where any subdivision creates separately saleable, additional allotments for Residential zones, or the Rural zone, a cash contribution shall be made to the Council towards the provision of land for open space based on the following rates:

(i) Vacant allotments

In the Rural Zone 5% of the average value of 1500m² of each lot assessed as a site for a residential unit.

This was the amount that the directors of Grizzly Holdings Ltd were told would apply at the time they put in their application and which should apply, given that the application was accepted before the plan change was notified.

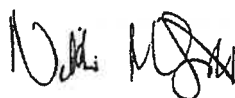
The subsequent plan change since the application was filed does not apply to this application **in any way whatsoever** as it did not have legal effect at the time. Under section 86B(1) of the RMA it states:

A rule in a plan has legal effect **only once a decision** on submissions relating to the rule is made and **publicly notified** under clause 10(4) of schedule 1.

The plan change was publicly notified nine days after the latest information was given to the Council (on 14 July) There are a number of exceptions to section 86B(1), which permit the Council to apply new environmental standards to an application made under an earlier plan, but none relate to financial contributions. Outside of these exceptions the Council **does not have the authority** to determine which aspects of an application are to be determined under a new plan which did not have legal effect at the time of the application. The Council therefore does not have the authority to determine that the reserves contribution in this application is to be calculated under the new plan.

Accordingly, we request that condition 15 be changed so that the reserves contribution to be paid is calculated in accordance with chapter seven of the plan in force at the time the application was made. The contribution should therefore be 5% of the average value of 1500m² for 2 new lots.

Yours faithfully



Nikki McGill
Lawyer

MACKENZIE DISTRICT COUNCIL

REPORT TO: PLANNING COMMITTEE
SUBJECT: EARTHQUAKE PRONE BUILDINGS POLICY
MEETING DATE: 27 SEPTEMBER 2011
REF: REG 2/1/22
FROM: MANAGER – PLANNING AND REGULATIONS
ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

To review the Council's policy on earthquake prone buildings.

STAFF RECOMMENDATIONS:

1. That the report be received.
2. That the Committee approves the adoption of the existing earthquake prone building policy for a further two years.

NATHAN HOLE
MANAGER – PLANNING & REGULATIONS



GLEN INNES
CHIEF EXECUTIVE OFFICER

BACKGROUND:

Section 132 of the Building Act 2004 requires the Council to adopt a policy on earthquake buildings after having worked through the special consultative procedure under the Local Government Act 2002.

The policy must be reviewed within five years of the policy being adopted, but can only be amended or replaced in accordance with the special consultative procedure. However, the special consultative procedure does not apply if the existing policy is readopted without change.

The Council's earthquake prone buildings policy was adopted on 16 May 2006.

The current policy involves the identification of earthquake prone buildings, but does not require any structural upgrading unless a change of use occurs (see section 5, page 5 of the attached policy).

ATTACHMENTS:

The current policy is attached.

SIGNIFICANCE OF DECISION REQUESTED:

This is a routine decision.

CONSIDERATIONS:

The key consideration is the impact of the Christchurch earthquakes and what changes the Government might make to the Building Act, which may require changes to our current earthquake prone buildings policy.

I consider that it might be premature to embark on a special consultative procedure when we may be required to revisit the policy in the near future. My estimate is that the Council should wait 12 to 18 months to see if any changes to the Building Act are proposed by the Government.

Following that period the Council could then commence a more detailed review of the policy.

CONCLUSION:

A review of the policy is necessary but I believe that it would be prudent to wait to see if any changes or guidance is forthcoming from the Government in the near future.



POLICY ON EARTHQUAKE PRONE BUILDINGS

1 INTRODUCTION

The Mackenzie District Council, under Section 132 of the Building Act 2004, is required to adopt a Policy on earthquake prone buildings within its District.

The Policy must state:

- The approach the Council will take in performing its functions (under Part 2 of the Act).
- The Council's priorities in performing those functions.
- How the Policy will apply to heritage buildings.

Attached as Appendix A is the flow chart detailing the process for assessing Earthquake prone buildings.

Within 12 months of the date of this Policy being adopted, Council will identify and classify, from our records, those buildings that could be "Potentially Earthquake Prone". In doing so, it will also take into account work that has been carried out over the life of the building. An initial desktop exercise to identify potentially at risk earthquake prone buildings are highlighted in Appendix B.

2 THE BUILDING ACT 2004

(1) Section 122 of the Building Act 2004 defines an earthquake prone building as:

1. *A building is earthquake prone for the purposes of this Act if having regard to its condition and to the ground on which it is built and because of its construction, the building –*
 - (a) *will have its ultimate capacity exceeded in a moderate earthquake (as defined in the Regulations) and*
 - (b) *would be likely to collapse causing –*
 - (i) *injury or death to persons in the building or to persons on any other property, or*
 - (ii) *damage to any other property"*
2. *Subsection 1 does not apply to a building that is used wholly or mainly for residential purposes unless the building –*
 - (a) *comprises two or more storeys, and*

- (b) contains three or more household units.

A "moderate earthquake" is defined in the Building Code Regulations to the Building Act 2004 as:

For the purposes of Section 122 (meaning of earthquake prone buildings) of the Act, moderate earthquake means in relation to a building, an earthquake that would generate shaking at the site of the building that is of the same duration as, but is one third as strong as, the earthquake shaking (determined by normal measures of acceleration, velocity and displacement) that would be used to design a new building at that site.

Council Building Control Staff estimates, that of Mackenzie's building stock, as defined by Section 122 of the Act:

- **10% were built prior to 1930 and have had no major structural upgrade.**
- **60% were built or undertook major structural upgrade between 1930 and 1980.**
- **30% were built or undertook major structural upgrade after 1980.**

- (2) Section 112: Alteration to Existing Building.

There is no requirement under Section 112, to require structural upgrading, however Council would draw to the owner's attention under the PIM process that the building had been classified earthquake prone.

- (3) Section 114 Change of use, extension of life and subdivision of buildings, and
Section 115 Code compliance requirements – change of use.

There is a requirement under these sections to upgrade any building to current code standards "as nearly as reasonably practicable". In such cases, Council will require:

- (a) an assessment from an appropriately qualified structural engineer
- (b) that the building be upgraded as far as is reasonably practicable to meet or better 66% of current performance standards under the Building Code

2 ASSESSMENT CRITERIA

The Mackenzie District Council will use the New Zealand Society for Earthquake Engineers document "Recommendations for the Assessment and Improvement of the Structural Performance of Buildings in Earthquakes".

3 EARTHQUAKE HAZARD IN THE MACKENZIE DISTRICT

The Mackenzie District Council commissioned a report on geological hazards facing the Mackenzie, associated with a rupture along the Alpine Fault. The report was prepared for Council by Geotech Consulting Limited in 1998. The report details earthquake hazard as assessed under the Modified Mercalli scale, not the Richter Scale therefore there is a differing degree of earthquake magnitude between the two scales. This report is attached as Appendix C and forms part of this Policy.

For the purpose of this Policy, Council has adopted three classes of at risk buildings, based on building materials and workmanship, and two types of window construction and water tanks that has the potential to be damaged during an earthquake event.

The following table details building, window and water tank types and definition.

Type	Construction definition
Type I building	Weak materials such as mud brick and rammed earth; poor mortar; low standards of workmanship.
Type II building	Average to good workmanship and materials, including some reinforcement, but not designed to resist earthquakes.
Type III building	Buildings designed and built to resist earthquakes to normal use standards i.e. no special damage limiting measures undertaken (mid 1930's to c.1970 for concrete and to c.1980 for other materials).
Windows Type I	Large display windows, especially shop windows.
Windows Type II	Ordinary sash or casement windows.
Water Tanks Type I	External, stand mounted, corrugated iron water tanks.
Water Tanks Type II	Domestic hot-water cylinders unrestrained except by supply and delivery pipes

The Geotech report identified the following implications for buildings for the scale of earthquake events considered under the Modified Mercalli scale and associated with a rupture along the Alpine Fault:

MM VII: Albury and Cave areas

- Un-reinforced stone and brick walls cracked
- Buildings Type 1 cracked and damaged
- A few instances of damage to Buildings Type II
- Unbraced parapets and architectural ornaments fall
- Roofing tiles, especially ridge tiles, may be dislodged
- Many reinforced domestic chimneys broken
- Water tanks Type I burst
- A few instances of damage to brick veneers and plaster or cement-based linings
- Unrestrained water cylinders (Water Tanks Type II) may move and leak
- Some Type II windows cracked

MM VIII: Foothills areas Fairlie and Twizel

- Buildings Type II damaged, some seriously
- Buildings Type III damaged in some cases
- Monuments and elevated tanks twisted or brought down
- Some pre-1965 infill masonry veneers damaged
- Weak piles damaged
- Houses not secured to foundations may move

MM IX: Mount Cook, Headwaters of Lake Pukaki and Tekapo

- Very Poor quality un-reinforced masonry destroyed
- Buildings Type II heavily damaged, some collapsing
- Buildings Type III damaged, some seriously

- Damage or permanent distortion to some Buildings and Bridges
- Houses not secured to foundations shifted off
- Brick veneers fall and expose frames

4. OVERALL APPROACH

Council assesses earthquake prone risk in this context of four main components:

- 1 The structural integrity of the building.
- 2 The number of people in it.
- 3 How long the people are in it.
- 4 The use of the building for priority planning (eg, emergency services buildings)

In practical terms the life of a commercial building involves a series of major and minor renovations over the “life” of the building. The intensity of occupation (numbers of people over a given time period) normally decreases as the building ages and uses change. An intensification of the occupancy of the building in most cases will involve a “Change of Use” as defined by the Building Code.

4.1 Program of Policy Implementation

- (1) The Council believes it must:
 - (a) Ensure that its citizens, and in particular building owners, are aware of the scale and probability of the earthquake risk in the Mackenzie area.
 - (b) Encourage ongoing and incremental improvement in the performance of the Mackenzie building stock in relation to earthquake risk.
- (2) The Council concludes, with respect to risk from earthquake prone buildings in the Mackenzie, that:
 - It is prudent to plan to sensibly minimise risk, especially for emergency services buildings where it is essential to have structurally sound buildings in case of an emergency situation.
 - Significant numbers of injuries or fatalities are only likely to result in or near buildings of poor structural integrity from the worst scenario of an event with a fairly high probability of occurring in the building’s life (50 years).

4.1.1 Process to Identify Earthquake-Prone Buildings

- 1 Council staff will carry out a relatively simple desktop examination of its building stock to determine which buildings have the potential to be earthquake-prone and worthy of closer consideration. Building age and construction materials and use by the public will be key indicators in this preliminary survey.
- 2 Owners of any building that fail the desktop evaluation, will be notified and discussions held with them to advise of the implication of having earthquake-prone status for their building.
- 3 Buildings that the desktop exercise suggests may be earthquake-prone will be subject to an on-site initial evaluation process (IEP) by Council Building Control staff. The

objective of the evaluation is to identify, as closely as possible, aspects of the building that may be earthquake prone within Council's jurisdiction.

The New Zealand Society of Earthquake Engineers (NZSEE) has developed an initial evaluation process that Council Building Control staff will use to assess earthquake-prone status of buildings.

- 4 For all buildings that the IEP indicate are likely to be earthquake prone, Council will advise, and discuss the implications with the owner. Although an IEP provides only a moderately accurate assessment of the performance of a building, there will be some buildings whose evaluation indicate with little doubt, that they are earthquake-prone without the requirement for further detailed assessment. If Council was to be satisfied, that a building was indeed earthquake prone, it would be appropriate to issue the owner a notice under section 124, requiring action to reduce or remove the danger.
- 5 Where an initial evaluation indicates that a building is likely to be earthquake prone but the precise earthquake prone status of the building may be in doubt due to the complexity of the issues, the owner shall be advised that a detailed assessment of the building is needed, to determine more precisely whether the building falls within the Building Act's definition of earthquake-prone.

An engineering consultant suitably experienced in this aspect of structural design shall carry out this assessment. The cost of the detailed assessment shall be borne by the Council. A copy of the report shall be given to the affected property owner for their information. If the building was found to be earthquake prone, Council shall issue a notice under the provisions of section 124 of the Act.

- 6 From the information gathered throughout the assessment process, Council shall establish and maintain a list of priority buildings requiring the earliest attention. Any emergency services buildings will be high priority for Council to remedy. Council will encourage all owners to address the hazards associated with the building.

5 TAKING ACTION ON EARTHQUAKE PRONE BUILDINGS

Where a building is classified as earthquake prone, Council will:

- 1 Make an appropriate note on the Council's property file.
- 2 Consider any appeal from the owner as to the classification. The appeal shall be lodged with the Council within 30 days of receiving the notice, or within an agreed period of time negotiated between the owner and Council.
- 3 Where a building is classified as earthquake-prone a note on any application for a PIM, or a LIM, will occur.
- 4 Require structural upgrade of the building in terms of the **Change of Use** criteria under the Building Act 2004 (Section 115).

Council will follow the procedure set out in Sections 124-130 of the Building Act 2004.

6 SOCIAL, ECONOMIC, ENVIRONMENTAL AND CULTURAL IMPACT OF POLICY

The Council believes that by adopting a Policy based on education and sharing of knowledge and intervention only as a last resort, an improvement in the earthquake performance of Mackenzie's non-residential building stock will be achieved in a way that is:

- Socially acceptable
- Economically viable
- Environmentally sustainable
- Culturally sensitive

In that a degree of risk is accepted, and acceptable, but that sensible procedures are in place to identify, control and reduce the level of risk.

7 APPLYING THE POLICY TO HERITAGE BUILDINGS

Where a building is identified as potentially earthquake prone from Council records and the building is also classified as Category I or Category II by the Historic Places Trust, or Category X,Y or Z in the District Plan, the Council will notify the building owner and the Historic Places Trust of its initial assessment, and take into account any submissions from the Trust and the building owner before making a decision on the earthquake prone classification.

Council will take into account the heritage value of the building, any particular structural characteristics of the building and characteristics of its use with respect to risk to people and property from earthquakes.

Council may then decide to classify the building as earthquake prone in accordance with this Policy.

The Council shall also apply this process to building consent applications involving Sections 112, 114 and 115 of the Act.

8 EXEMPT STRUCTURES FROM THIS POLICY

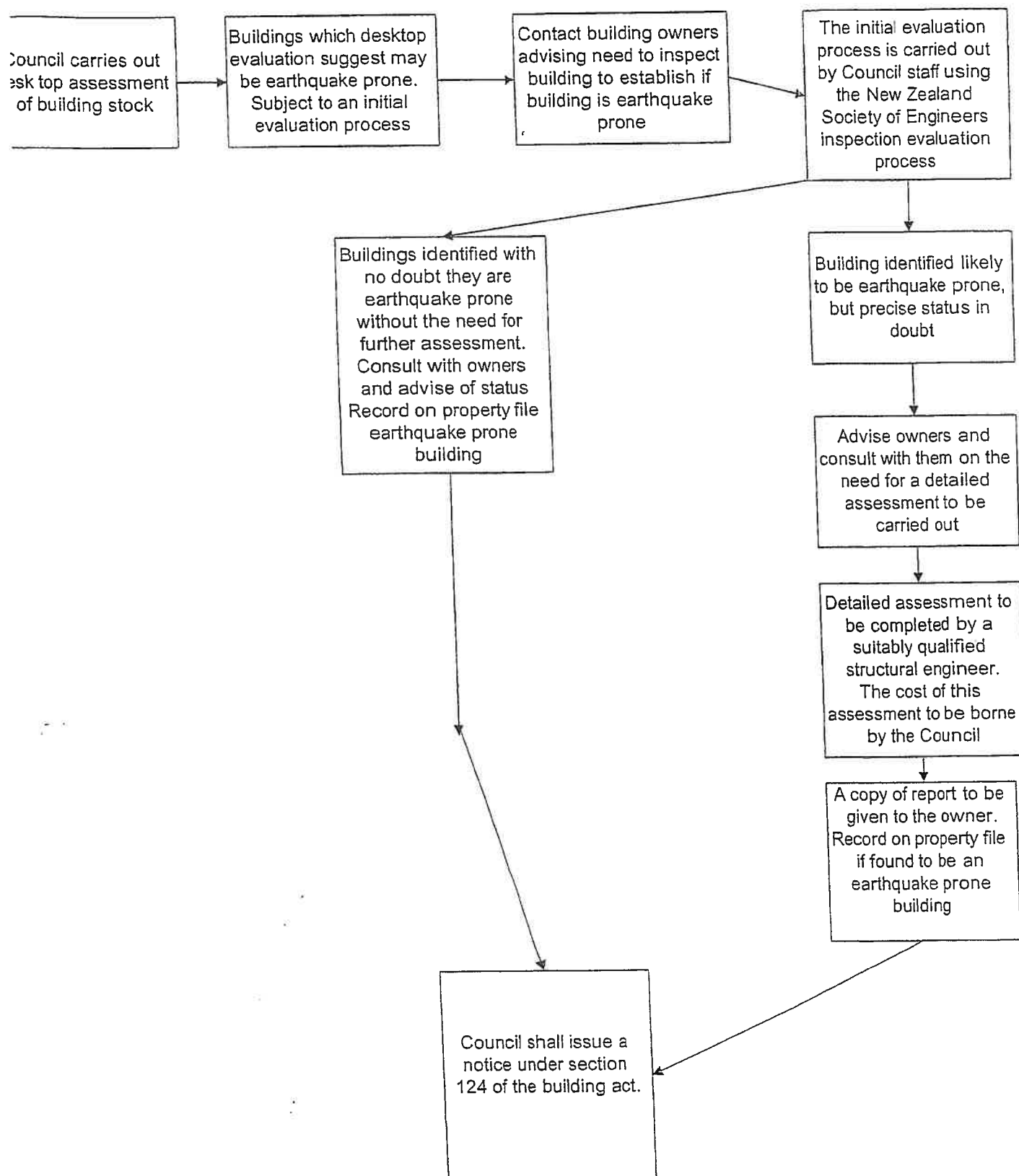
Council and Transit New Zealand infrastructure covered by an asset management plan provided:

- Transit NZ make available to Council any seismic strength and retrofit reports on bridges in the District, together with any reviews and updates as and when they occur.
- Council carries out a annual District bridge inspection programme to assess structural integrity.

Appendix A

Flow Chart Detailing Process of Assessing Earthquake Prone Buildings.

MACKENZIE DISTRICT COUNCIL
Earthquake policy flow chart



Appendix B**List of Earthquake Prone Buildings from Initial Desktop Assessment.**

List of Earthquake Prone Buildings: Initial Evaluation

To be Appraised	Pass	Further assessment required	Priority
Albury Tavern – Albury	Y		P1
Gladstone Hotel – Fairlie		Y	P1
Mackenzie DC - Office Building	Y		P1
Mackenzie DC – Hall Complex	Y		P1
Fairlie Hotel		Y	P1
Fairlie High School	Y		P1
St Joseph School	Y		P1
Fairlie Primary School	Y		P1
Fairlie CBD Buildings		Y	P1
Fairlie St Johns	Y		P1
Fairlie Museum		Y	P1
Fairlie Fire Station	Y		P1
Fairlie BP Garage	Y		P1
Fairlie Churches		Y	P1
Motels- all towns	Y		P1
Kimbell Hotel	Y		P1
Kimbell Motel	Y		P1
Halls – all of District	Y		P1
Tekapo CBD	Y		P1
Tekapo Churches	Y		P1
Mackenzie DC Community Hall	Y		P1
Tekapo Fire Station	Y		P1
Tekapo Homestays	Y		P1
O’Sullivan	Y		P1
Tekapo Lodge	Y		P1
Camping Ground	Y		P1
Challenge Garage	Y		P1
YHC	Y		P1
Squash Club- all towns	Y		P1
Twizel CBD		Y	P1
Twizel Event Centre	Y		P1
Fire Station- all towns	Y		P1
RSA- Twizel	Y		P1
Servicemans Club- Twizel	Y		P1
Three Springs Historic Woolshed		Y	P1
South Island Rowing	Y		P1
Meridian Buildings	Y		P1
Twizel School	Y		P1
Glentanner Building	Y		P1
Mt Cook Airport	Y		P1
Hermitage Hotel	Y		P1
Glencoe	Y		P1
Doc Buildings	Y		P1
Alpine Guides	Y		P1
YHC Backpackers	Y		P1
Raincliff Camp	Y		P1
Raincliff Scouts	Y		P1

Appendix C

Geotech Consulting Limited Report on Earthquake Hazard in the Mackenzie District

PROBABILITY AND CONSEQUENCES OF THE NEXT ALPINE FAULT EARTHQUAKE

FOR
MACKENZIE DISTRICT COUNCIL

MAY 1998



GEOTECH CONSULTING LTD
GEOLOGISTS & ENGINEERS

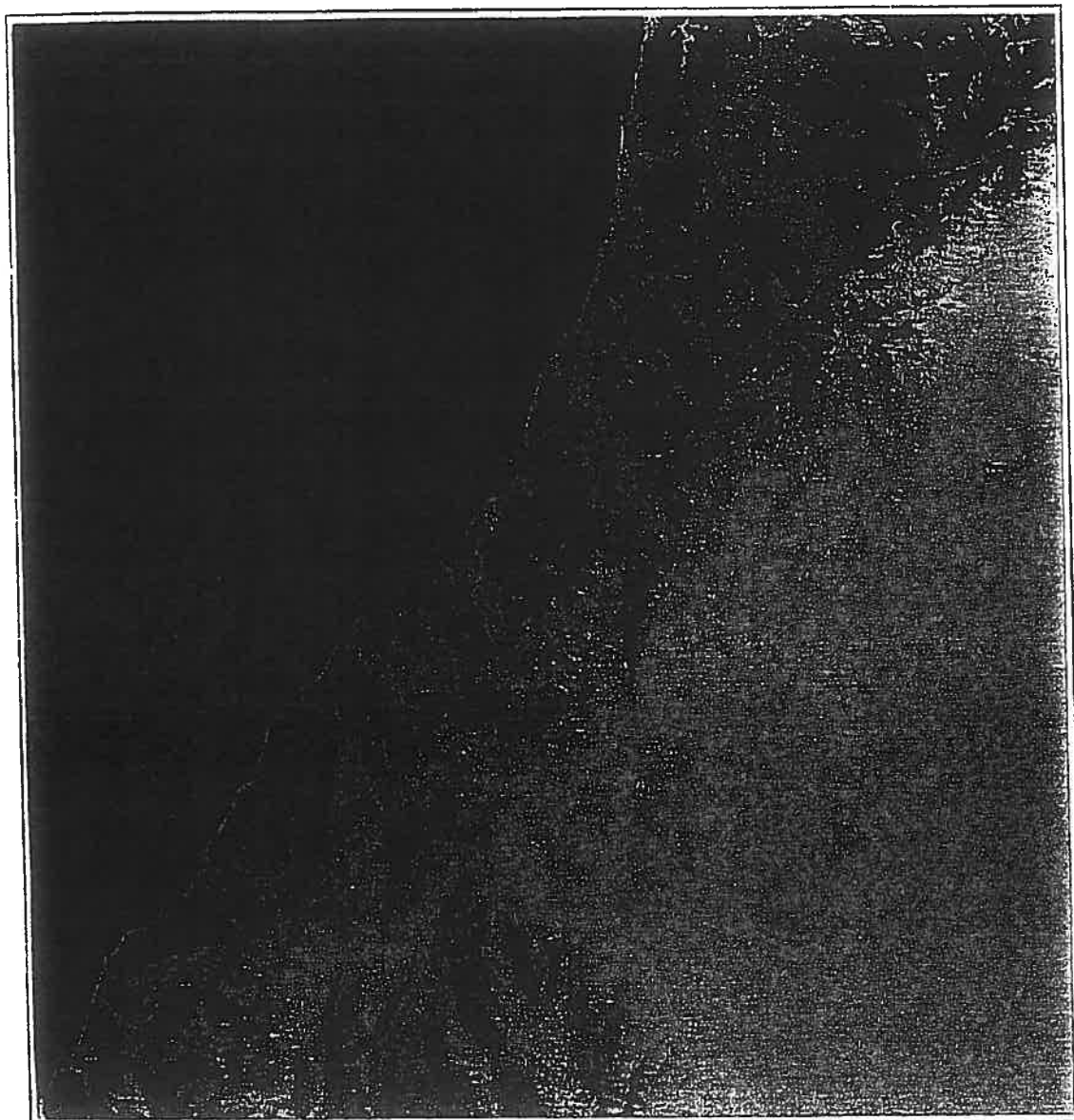
PROBABILITY AND CONSEQUENCES OF THE NEXT ALPINE FAULT EARTHQUAKE

SPECIFIC REPORT TO MACKENZIE DISTRICT COUNCIL

May 1998

Prepared by Mark Yetton & Nick Traylen
Geotech Consulting Ltd

Disclaimer: The assumptions and predictions made both in this specific report, and our main report of 31 March 1998, are based on the research findings outlined. They are the most reliable interpretation of the current data, however our conclusions are still interpretations of research data. As such no liability is accepted for any differences between the predictions made in either report and the actual consequences of the next Alpine Fault earthquake.



The Alpine Fault forming the obvious straight line at the western boundary of the Southern Alps. The fault is shown here between the Karangarua River in the south and the Robinson River in the extreme north. This satellite image, taken in the late winter of the 1974, clearly shows the abrupt elevation difference across the fault marked both by the extent of snow cover and the change in the pattern of valley dissection.

PROBABILITY OF THE NEXT ALPINE FAULT EARTHQUAKE AND THE LIKELY CONSEQUENCES FOR MACKENZIE DISTRICT

Scope

This brief report summarises the main report of March 1998 entitled "Probability and Consequences of the next Alpine Fault earthquake" and then specifically considers the likely general impacts for Mackenzie District. Recommendations are made for future action and various relevant work targets are defined.

1) Summary of main report

A recently completed three year project has been funded by the Earthquake Commission, the New Zealand National Society of Earthquake Engineering, Mackenzie District Council and numerous other local authority and infrastructure providers. It evaluates the probability and consequences of a future earthquake on the Alpine Fault in the central South Island.

The Alpine Fault is the largest active fault in New Zealand and extends over 650 kilometres from Milford Sound to Blenheim. The Southern Alps are a consequence of uplift along the fault, but by far the greatest component of fault movement is horizontal, with an estimated offset of matching strata of around 470 kilometres. The evidence suggests this offset is episodic and each movement of several metres is accompanied by a large earthquake.

The most active part of the fault is the central section which forms the western boundary of the Southern Alps from Haast to the Taramakau River at Inchbonnie. Further north the fault becomes progressively less active as movement is transferred to numerous branch faults within Marlborough. This project has focussed on the seismic hazard associated with the central and north section.

To evaluate the probability of a future earthquake the history of past earthquakes must first be established. This has been done by a combination of four methods, many of which have been applied to the Alpine Fault for the first time. The first and most direct method is the excavation of trenches and pits across the most recent area of fault rupture. By defining and dating older sheared strata, and overlying younger post earthquake sediments, the timing of past fault ruptures and associated earthquakes can be estimated. Dating requires the presence of organic material to allow the use of ^{14}C radiocarbon methods but fortunately organic material is relatively common in the forested areas of Westland. The resolution possible with radiocarbon dating is limited but the timing of the last earthquakes can be bracketed within broad date bands.

Previous earthquakes in rugged forested terrain in New Zealand and overseas have demonstrated the profound effects of earthquakes on forests in the epicentral area. Earthquakes can damage forest by triggering landslides on sloping ground, causing liquefaction of alluvial areas, and by shaking the trees until some fall. Much of the dead vegetation is either buried in the landslide debris or enters the river systems as these aggrade in response to the earthquake debris. Radiocarbon dates from numerous landslides and aggradation terraces in Westland match the trench date ranges of the past earthquakes but do not significantly improve the estimates of timing.

Following a large earthquake new forest will simultaneously re-establish in the clear areas of the landslide scars and along uplifted flood plains leaving a potential record of the timing of the disturbance in the age structure of the forest. Forest age can be estimated by carrying out ring counts on large numbers of living trees, a more precise dating method than radiocarbon dating, and by combining the data it is possible to define narrow modes of forest age coinciding with each of the earthquake date ranges.

Some trees also survive the earthquake but still suffer root damage, broken branches and tilting. This is often recorded in their growth rings which potentially provide a very accurate way to estimate the precise timing of earthquake disturbance.

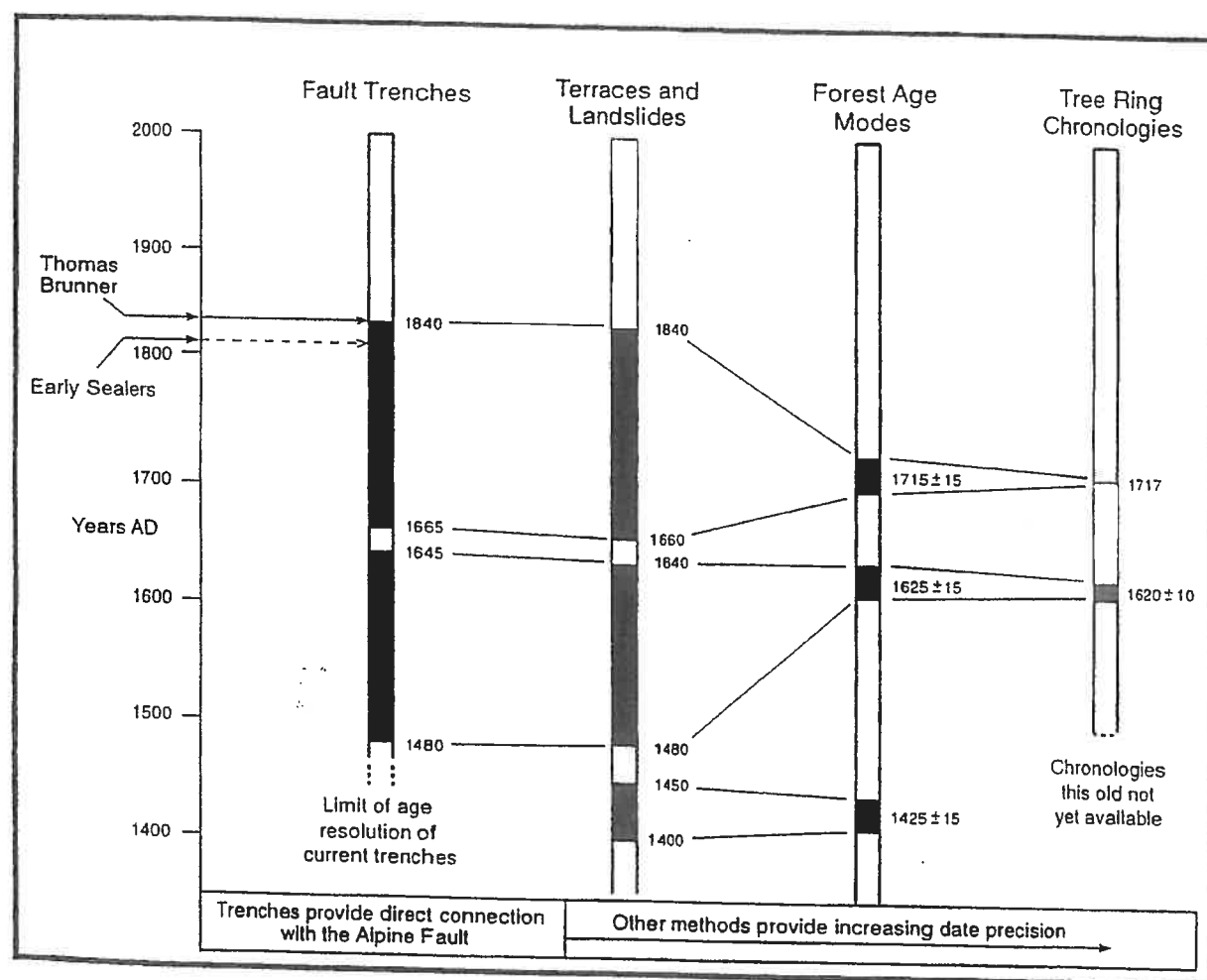


Figure 1: Summary of the four methods used to establish the timing and extent of the last two Alpine Fault earthquakes.

All four of these methods have been applied to the Alpine Fault between the Paringa River and the Rahu Saddle near Reefton. They produce a consistent record from which we infer two recent earthquakes on the Alpine Fault in the last 500 years. Figure 1 summarises the data for the two most recent earthquakes.

The most recent event appears to have taken place in 1717 AD and the surface fault rupture extended in length from Milford Sound to the Haupiri River, a distance of at least 375 kilometres. Approximately 100 years earlier, at around 1620 AD, another earthquake occurred in the north section of the fault and extended at least as far south as the Paringa River. Prior to this, another earthquake at around 1450 AD is suggested by the data, but this has not yet been recognised in trenches.

The implied pattern of earthquake recurrence is not regular by averages around 200 years and varies from 100 years to at least 280 years, which is the lapsed time since the last earthquake. Probability estimates can be made using the record of Alpine Fault earthquake recurrence and a combined analysis of earthquake timing on other plate boundary faults around the world. Other faults also exhibit a wide range in recurrence behaviour, but for the Alpine Fault the probability estimates of the next earthquake are consistently high, with a probability of $65 \pm 15\%$ over the next 50 years increasing to $85 \pm 10\%$ over the next 100 years (refer Table 1)

<u>Years Hence from 1998</u>	<u>Probability of an earthquake event (%)</u>	
	<u>Average</u>	<u>Range</u>
5	10	6-14
15	27	12-26
20	35	20-45
30	45	30-60
40	55	40-70
50	65	50-75
70	75	60-90
100	85	75-95

Table 1: Probability estimates for the next Alpine Fault earthquake on the central section of the Alpine Fault using an updated version of the method of Nishenko & Buland (1987) as outlined in Chapter 6 of the main report.

Based on the rupture length we estimate both of the most recent earthquakes were around Magnitude 8 and reconstructions can be made of the most likely pattern of earthquake shaking intensity. Those earthquakes which also rupture the more northern portion of the fault, like the one around 1620 AD, have generally more impact on the main population centres and Figure 2 shows the estimated shaking pattern.

The next Alpine Fault earthquake is likely to produce very strong shaking in locations close to the Southern Alps. In particular locations such as Arthurs Pass, Otira, Mount Cook and Franz Josef will be seriously affected. Hokitika and Greymouth will also be strongly shaken. Predicted intensities are generally less on the east coast but in virtually all central South Island locations the next Alpine Fault earthquake will be

stronger than any other earthquake experienced there in the last 100 years. Figure 3 summarises the predicted intensities and compares these to other recent earthquakes.

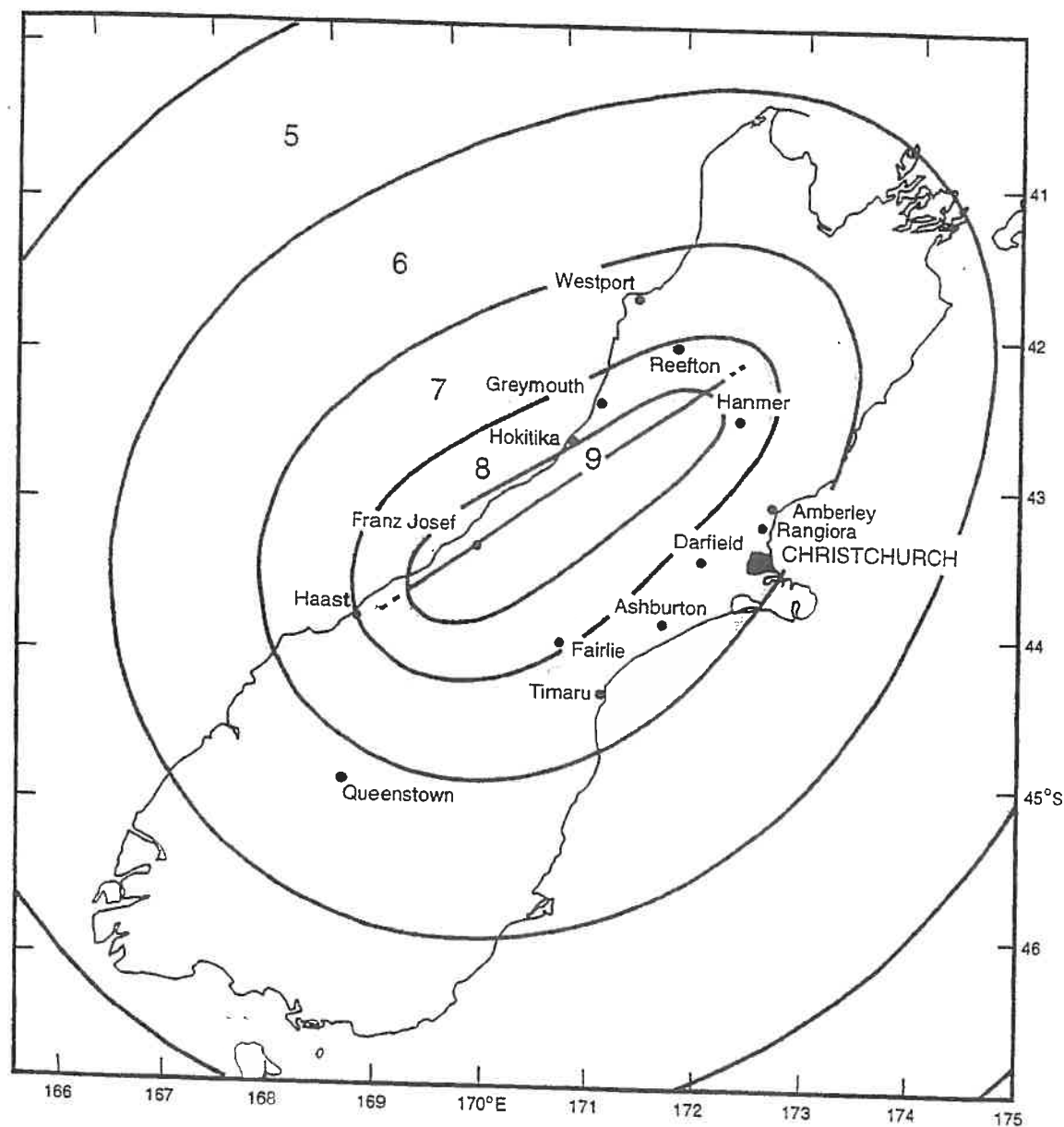


Figure 2: Estimated Modified Mercalli Intensity isoseismals (lines defining equal shaking intensity) for the Alpine Fault earthquake around 1620 AD based on the computational methods of Smith (1995) as outlined in Chapter 7 of the main report. Reproduced courtesy of Warwick Smith, Seismological Observatory.

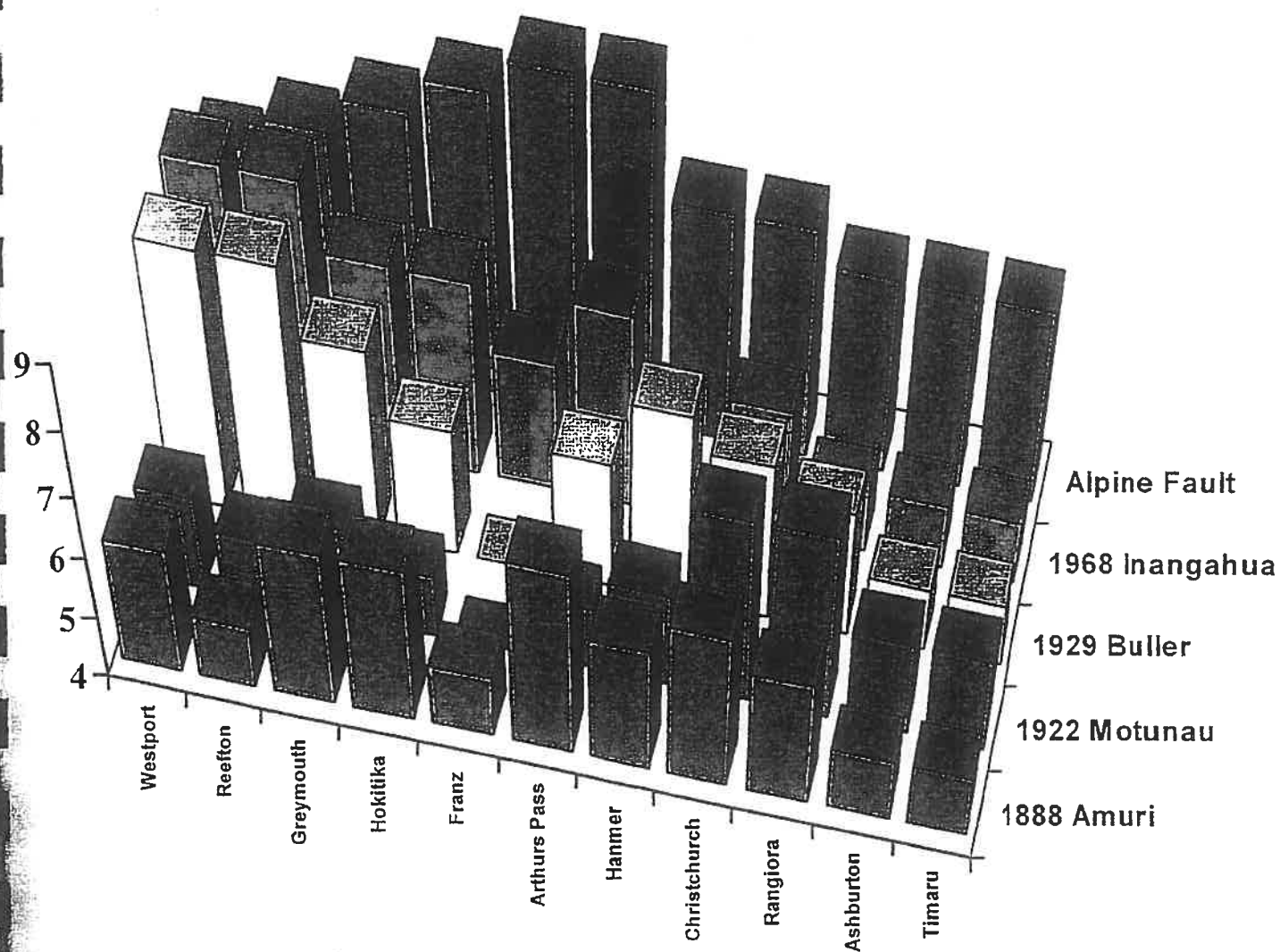


Figure 3: A comparison of predicted shaking intensities for the next Alpine Fault earthquake with those experienced in other large earthquakes this century for a range of locations. The vertical scale shown here from 4 - 9 is the Modified Mercalli Intensity scale.

Mackenzie District will experience the strongest shaking in the relatively unpopulated western area of the district including the west end of Lake Pukaki, Mount Cook Village, and the headwaters of the Tasman and Godley Rivers. These areas are likely to experience shaking of Modified Mercalli Intensity 9 or greater. The towns of Twizel and Fairlie will also experience very significant shaking of around Modified Mercalli Intensity 8. Further east at Albury and Cave the intensity will be less at around MM 7. In all these areas this will be the strongest earthquake shaking experienced since settlement of the district.

Direct effects of the next earthquake will include landslides and liquefaction. Landslides will be most severe in and around the Southern Alps. It is likely some large rock and debris avalanches will be triggered but the majority of landslides will be relatively shallow failures of weathered soil and rock. Temporary landslide dams are likely to be created. Landslides will also be triggered in sloping ground in the foothills.

One of the most profound long term impacts will be to the river regimes of catchments which drain the Southern Alps. Increased sediment load from landslide material entering the rivers will result in river aggradation and channel shifting, particularly in the upper catchments. This has potential implications for river control, bridging and hydro-electric generation. Lake Pukaki and Lake Tekapo will act as very large sediment traps minimising this effect in these catchments but the Opuha and Opihi Rivers may be affected.

2) Likely consequences for Mackenzie District

The principle impact for Mackenzie District will be very strong earthquake shaking and secondary effects such as landslides, liquefaction etc associated with the shaking. Only along the Alpine Fault itself is direct ground rupture expected and this is well west of the district. We have prepared an enlarged version of the synthetic shaking intensity maps which show in more detail the likely intensities experienced in various east coast districts, including Mackenzie District, during the last two Alpine Fault earthquakes. It is likely the shaking patterns in the next Alpine Fault earthquake will broadly resemble these previous two earthquakes and this forms the basis for the discussion below.

Both Figures 4 & 5 show the strongest shaking will be experienced in the western areas of the district, particularly in the Southern Alps west of the Lake Pukaki and Tekapo. In the Southern Alps area the shaking intensities are likely to reach or exceed Modified Mercalli Intensity 9. We summarise the characteristics of MM 9 and the other levels of shaking in Table 2 below. This area of maximum shaking includes Mount Cook village and headwaters of the Tasman and Godley Rivers. Further east, and extending to around Fairlie, shaking is likely to reach MM 8 (refer again Table 2).

The town of Fairlie benefits from being on the eastern side of the district. Furthermore the town is built on relatively firm gravel rich river alluvium which generally produces only minor amplification during an earthquake. However shaking of approximately MM 8 is still a very significant level of shaking from which material damage will result, particularly to older buildings, building contents and commercial stock. The next

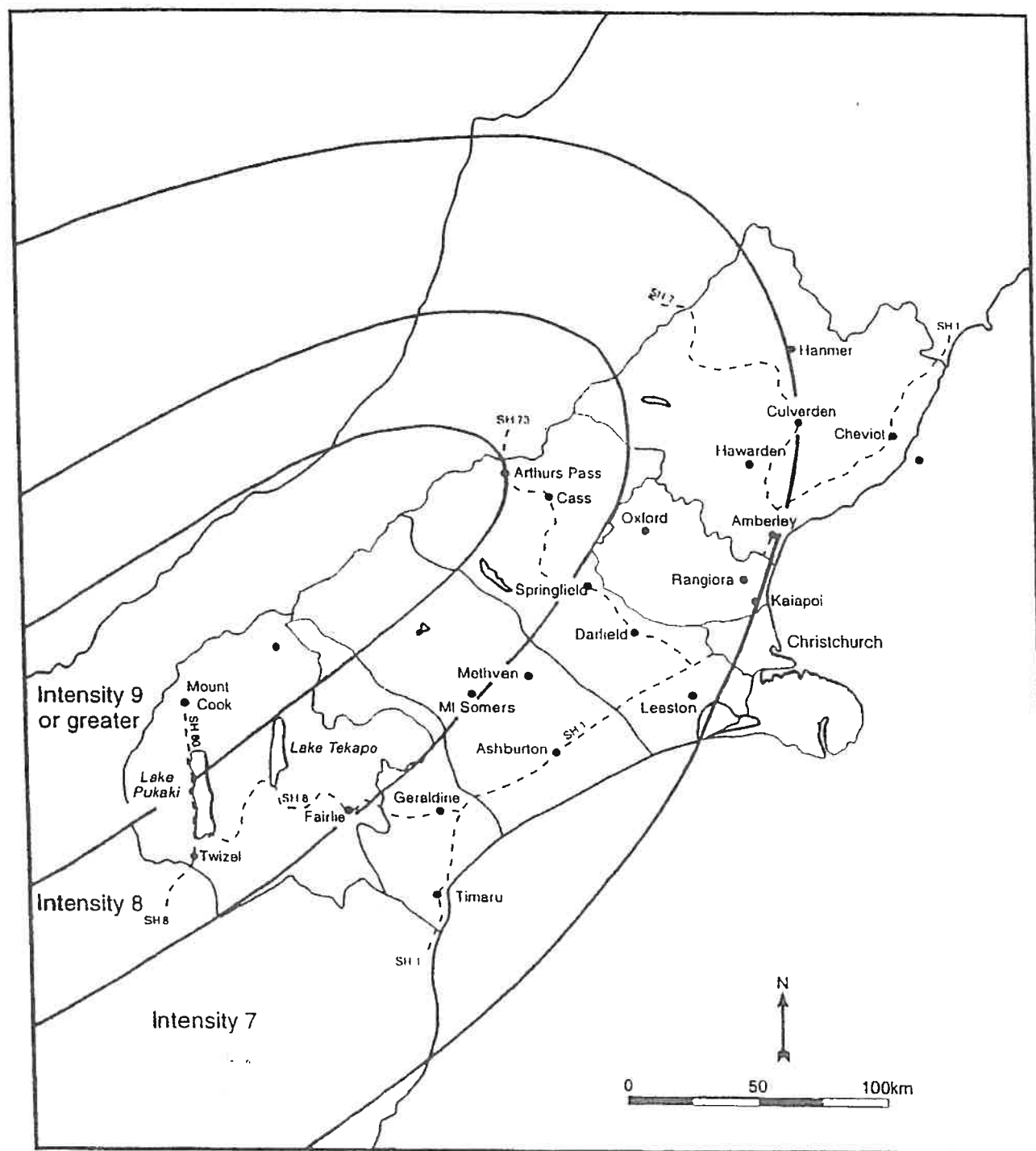


Figure 4: Synthetic isoseismals for the Alpine earthquake of 1717 AD based on the computational methods of Smith (1995) as outlined in Chapter 7 of the main report. Reproduced courtesy of Warwick Smith, Seismological Observatory.

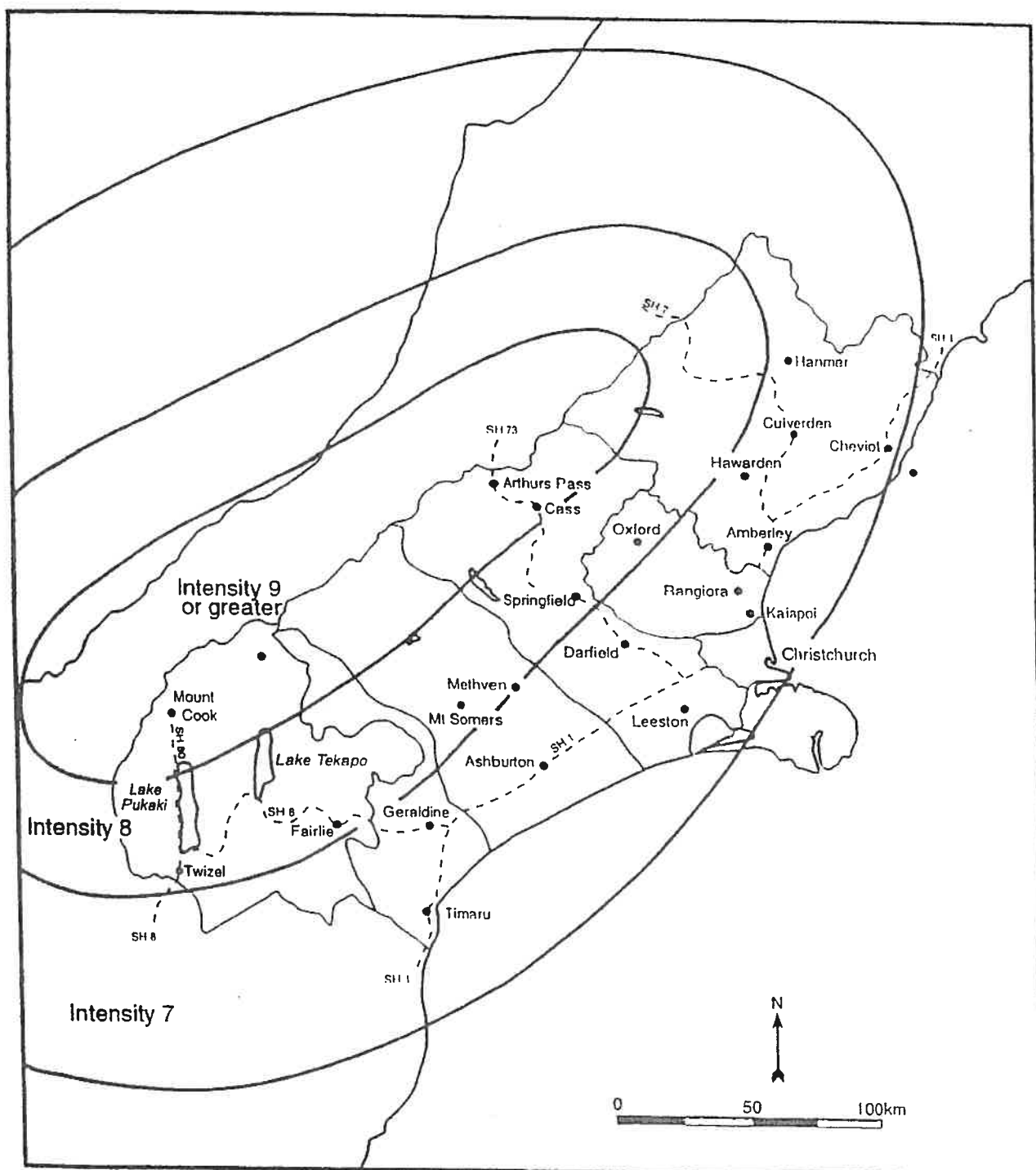


Figure 5: Synthetic isoseismals for the Alpine earthquake of approximately 1620 AD based on the computational methods of Smith (1995) as outlined in Chapter 7 of the main report. Reproduced courtesy of Warwick Smith, Seismological Observatory.

Alpine Fault earthquake will be the largest earthquake experienced since the district was settled.

A review of the Seismological Observatory files for Fairlie and Twizel indicates no felt intensity data is available for historical earthquakes. However analysis of published isoseismal maps for the South Island suggests the highest previous intensity was around MM 5 in the 1929 Arthurs Pass and Buller earthquakes and also the 1946 Lake Coleridge earthquake. More recently the highest intensities in these towns include MM 4 in the Inangahua earthquake of 1968 and a similar relatively low level of shaking in the 1994 Arthurs Pass earthquake.

<u>Intensity (& locations likely to experience this)</u>	<u>Impact on People & fittings</u>	<u>Impact on Structures</u>
MM = 7 Albury Cave	General alarm Difficulty in standing Noticed by drivers of cars Furniture moves on smooth floors and may move on carpeted floors. Some contents disrupted.	Unreinforced stone and brick walls, and poorly built rammed earth and mud houses (Type I) cracked. Some damage to old but well built unreinforced masonry buildings (Type II). Unbraced parapets and architectural ornaments fall. Roofing tiles dislodged. Many chimneys broken. A few instances of damage to brick veneers and plaster or stucco linings. Water cylinders move or leak. Some cracked windows.
MM = 8 Foothills Areas Fairlie Twizel	Alarm may approach panic Steering of cars greatly affected. Furniture and contents damaged.	Well built but old unreinforced masonry buildings (Type II) damaged, some severely. Some cases of damage to Pre 1970 - 1980 buildings (Type III). Monuments and external tanks fall. Brick veneers damaged, some post 1980. Weak piles damaged and houses not secured to foundations may move.
MM = 9 or more Mount Cook Headwaters of Lakes Pukaki and Tekapo	General panic. Furniture and contents greatly damaged.	Well built but old unreinforced masonry buildings (Type II) heavily damaged, some collapsing. Pre 1970 - 1980 buildings damaged, some seriously. Damage and distortion to modern buildings and bridges. Houses not secured to foundations shift off them. Brick veneers fall and expose framing.

Table 2: Average intensities for locations in Mackenzie District which could experience significant ground shaking in the next Alpine Fault earthquake. The method of intensity prediction is outlined in Chapter 7 of the main EQC report.

57

Mount Cook village and the surrounding Alpine area experienced MM 7 during the relatively low magnitude Bruce Bay earthquake of 1962. This had a magnitude of only 5.7 with an epicentre in Westland close to the Alpine Fault. Avalanches and rockfalls were widely triggered around Mount Cook and contents damaged at Mount Cook village and Tekapo, however no significant structural damage resulted.

Secondary effects from earthquake shaking include landslides and liquefaction. We would expect extensive landslides in the MM 8 and 9 zone. Fortunately there are no towns on or near sloping ground in this area. The main impacts of the landslides will be debris inundation of access routes, rivers and streams. Landslide dams in the main river gorges are a possibility. Increased sedimentation in the upper catchments of the major rivers is likely with associated aggradation. This could affect flood hazard as the river bed levels rise. Lake Pukaki and Tekapo will act as sediment traps for these catchments but parts of the Opuha and Opihi Rivers may also be affected.

Liquefaction is likely to be extensive along river and lake margins in the MM 9 zone. This includes much of the low lying swampy ground near the head of Lakes Tekapo and Pukaki. We would not expect liquefaction to be a serious problem in many other areas of the district because of the gravel rich sediment and the relatively deep water tables. Exceptions would include localised silty and sandy areas along the lowest and youngest terraces of the main rivers. These are generally also the flood prone areas and as a result these are seldom developed.

Large earthquakes can generate waves on lakes called seiches, which are essentially oscillations induced by the ground waves. These may elevate lake levels by several metres but depending on lake levels at the time this may not cause much problem from the District Council viewpoint.

3 General Recommendations

- 1) Mackenzie District Council should incorporate the potential consequences of an Alpine Fault earthquake in their planning for the next 50 - 100 year time period.
- 2) This requires a short term immediate post earthquake contingency plan which will apply for the period of minutes and continue up to several days after the earthquake.
- 3) Assumptions to be made in the short term planning include:
 - No vehicular access on SH 80. Slips affecting access on many other roads, including SH 8.
 - Very significant damage to buildings and services inland of the SH 80 junction with SH 8.
 - Significant damage to buildings in Twizel and Fairlie
 - Loss of power and fixed telecommunications across most of the district

- Disruption to utilities (water, power, sewer, telephone) and possibly to emergency service facilities in Twizel and Fairlie.
 - A possible short term flood hazard from breaching landslide dams on many of the rivers draining into Lakes Pukaki and Tekapo. This may also occur in the foothills and affect the Opuha and Opihi Rivers.
- 4) Planning is also required to attempt to minimise the longer term impacts of the earthquake which are generally the most profound.
 - 5) Such planning should allow for restricted vehicular access to many inland areas for at least several weeks following the earthquake.
 - 6) There will also be disruption to the power generation and transmission network on both sides of the main divide.

4 Future Work Targets

- 1) To our knowledge Mackenzie District has had little, if any, detailed investigation of the likely seismic performance of the foundation materials at key emergency facilities such as the hospital, fire station and police station. This investigation need not be extensive but should also include a structural engineering review of the likely building performance during a moderately strong earthquake.
- 2) A scaled down lifelines study reviewing town services and critical infrastructure, similar to much larger studies recently completed for Wellington and Christchurch, should be considered for Fairlie and Twizel.
- 3) Emergency response teams in the district should incorporate a realistic model of the next Alpine Fault earthquake in their future training and exercise programmes.
- 4) Commercial operators and industries in the district should be advised of the potential future risk and consider their exposure to possible contents damage, business disruption and insurance consequences from a future Alpine Fault earthquake.

Main Report Reference:

Yetton, M.D.; Wells, A; Traylen, N.J. 1998 The Probability and Consequences of the next Alpine Fault earthquake. *Unpublished Earthquake Commission Research Report Number 95/193.*

MACKENZIE DISTRICT COUNCIL

REPORT TO: PLANNING COMMITTEE
SUBJECT: RETAIL OPPORTUNITIES – LAKE PUKAKI
MEETING DATE: 27 SEPTEMBER 2011
REF: REG 6/2
FROM: MANAGER – PLANNING AND REGULATIONS
ENDORSED BY: CHIEF EXECUTIVE OFFICER

PURPOSE OF REPORT:

To provide the Committee with an assessment of the planning rules in relation to undertaking retail activities at Lake Pukaki

STAFF RECOMMENDATIONS:

1. That the report be received.



NATHAN HOLE
MANAGER – PLANNING & REGULATIONS

GLEN INNES
CHIEF EXECUTIVE OFFICER

BACKGROUND:

This is an information report only, providing a guide as to what planning rules apply in relation to undertaking retail activities at Lake Pukaki.

ATTACHMENTS:

An aerial photograph of the Lake Pukaki information centre site.

SIGNIFICANCE OF DECISION REQUESTED:

No decision is required.

DISCUSSION:

The Lake Pukaki information centre is located within the lakeside protection area and the Mackenzie Basin subzone. This means that any addition to an existing building, or a new building would be a non-complying activity. For resource consent to be granted for a non-complying activity the proposal needs to either have minor effects or not be inconsistent with the objectives and policies in the District Plan.

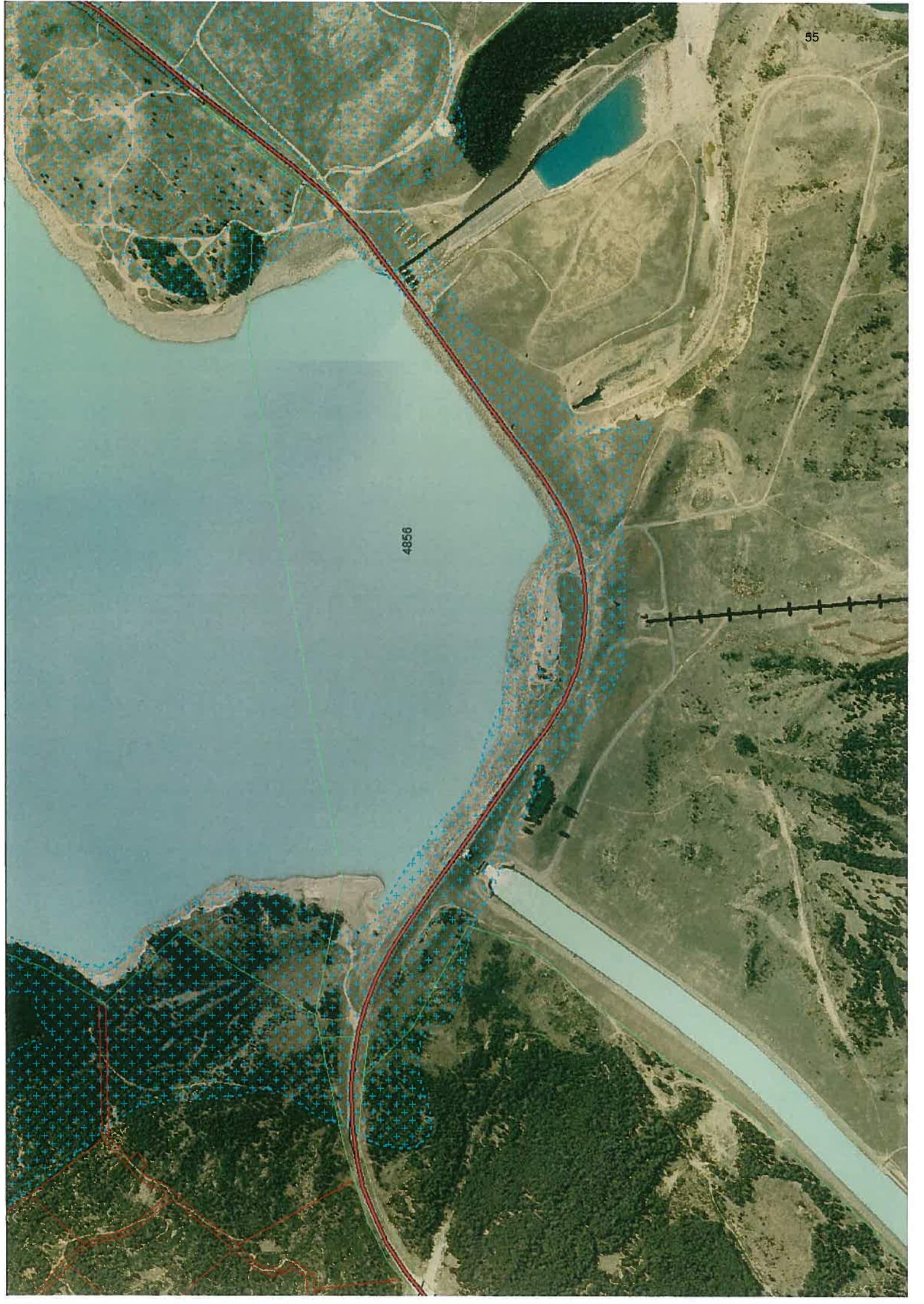
Retail sales would be a discretionary activity.

There is no policy in the District Plan specific to retail activity. The policy that is present generally relates to protecting rural amenity and landscape values. Any application that is made for retail activity at Lake Pukaki would need to be assessed against the effects of the current existing use, as well as how the activity would fit within the rural landscape. In other words, the scale of any proposal would be an important consideration.

The Resource Management Act now specifically excludes trade competition from being considered when determining a resource consent application. This means that the trading effects on Twizel businesses could not be considered.

CONCLUSION:

It would be fair to say that the plan does not support retail development at this site. However, if existing buildings were to be used for retail sales then you might say that the Plan does not deter applications from being made for what would be a small scale activity by the sheer nature of the building space available.



4856