

Report No:	REP12-08-02
File No:	L223
Date:	25 July 2012
Decision Required	

REPORT SUMMARY

Report to: Environment & Planning Committee
Meeting Date: Thursday, 9 August 2012
Report Author: Neil Jackson, Policy Planner
Subject: **EARTHQUAKE FAULT LINES AND GEOTECHNICAL REPORTS**

EXECUTIVE SUMMARY

This report is a follow-up to REP12-03-08, which reviewed the need for showing active fault lines on the planning maps, and the rules relating to development in both the Fault Rupture Risk Area (FRRA) and the Slope Instability Risk Area (SIRA).

The report incorporates further advice on an age limit for geotechnical reports, as requested by the Committee in response to REP12-03-08 and recommends the deletion of the active fault lines from the planning maps and the amendment of Rule 16.13.3.1 to better reflect current expert advice. Consequential amendments to Rule 18.13.2.1 are needed to ensure consistency. The SIRA and FRRA rules also need amendment to clarify the time limit where geotechnical reports from a previous development phase are used to support a current development proposal.

DRAFT RESOLUTION

THAT the Environment & Planning Committee:

- 1. Receives Report REP12-08-02 Earthquake Fault Lines and Geotechnical Reports; and**
- 2. Adopts proposed Change 40 contained in Appendix 2.**

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1. Purpose

1.1 This report is a follow-up to REP12-03-08, which reviewed:

- (i) the merits of showing active fault lines on the planning maps;
- (ii) rules in the Fault Rupture Risk Area (FRRA) that relate to active fault lines shown on the maps; and
- (iii) rules in the Slope Instability Risk Area (SIRA).

2. Background

2.1 REP12-03-08 included a proposed rule amendment creating a two-year limit on the age of geotechnical reports being re-submitted in support of successive developments in a subdivision or on a particular site.

2.2 The Committee debated the proposed age limit, and requested further advice on that.

3. Present Situation/Matters to be Considered

3.1 Staff sought further advice from Dr M R Johnston. His final report is attached as Appendix 1.

3.2 In summary, Dr Johnston's advice for the Slope Instability Risk Area (SIRA) was:

- (1) that Council have a default two-year expiry date on geotechnical reports; but
- (2) that a new report, or re-certification, not be required if:
 - there have been no subsequent detrimental changes to ground conditions; and
 - the geotechnical report is no more than ten years old.

3.3 Dr Johnston's advice for the Fault Risk Rupture Area was:

- (1) no limit on the age of a geotechnical report that identifies the location of the fault; and

- (2) for the Waimea-Flaxmore Fault System, no limit if a competent person has determined that the plane of future movement cannot be identified.
- 3.3 For the SIRA, the condition about “no subsequent detrimental changes to ground conditions” would need to be verified in some way. It should not be left as a matter of judgement by either a person making an application, or by staff processing an application. The staff view is that a form of certification is needed for this.
- 3.4 The plan rule amendments proposed in the March report have been amended to reflect Dr Johnston’s advice, but with a requirement to verify that ground conditions have not changed.
- 3.5 The amendments are shown in Proposed Change 40, attached as Appendix 2. The conditions relating to the age of geotechnical reports are shaded. The remaining amendments are as they were in REP12-03-08.

4. Financial/Budgetary Considerations

- 4.1 Removing the active fault lines from the planning maps and amending the FRRRA and SIRA rules will incur the costs of a plan change. This change includes the reprinting costs of a significant number of Area and Zone Maps. To limit such costs, the approval and operative commencement of the previous amendments to the Planning Maps affecting the FRRRA and SIRA made by Changes 21 and 31 (previously Variation 71) can be deferred until this recommended change is at the same stage.

5. Options

- 5.1 The report recommends rules amended to meet the concerns raised by the Committee in March about the then recommended age limit for geotechnical reports. No further option is proposed in this report.

6. Significance

- 6.1 This is not a significant decision according to the Council’s Significance Policy because it amends details of TRMP maps and rules without any change to the policies they implement.

7. Recommendations

- 7.1 The first recommendation is to delete active fault lines from the planning maps and to amend Rule 18.13.3.1 to better reflect Dr Johnston’s current advice. Consequential amendments to Rule 18.13.2.1 are needed to ensure consistency.
- 7.2 The second recommendation is to amend the SIRA and FRRRA rules to include a time limit where geotechnical reports from a previous development phase are used to support a current development proposal.

8. Timeline/Next Steps

- 8.1 A resolution to remove active fault lines from the planning maps and to amend the rules would need to be implemented through a notified plan change. The amendments are largely technical in nature. The effect of the Change is such that it is considered unnecessary to consult, as there are no persons that can be easily identified as affected to a degree warranting a consultation process.

9. Draft Resolution

THAT the Environment & Planning Committee:

- 1. Receives Report REP12-08-02 Earthquake Fault Lines and Geotechnical Reports; and**
- 2. Adopts proposed Change 40 contained in Appendix 2.**



Neil Jackson
Policy Planner

Appendix 1: Letter dated 25 May 2012 from Dr M R Johnston: "Re: Shelf Life of Geotechnical Reports"

Appendix 2: Draft Proposed Change 40 Earthquake faultlines and geotechnical reports

**TASMAN DISTRICT COUNCIL
PROPOSED TASMAN RESOURCE MANAGEMENT PLAN**

PROPOSED CHANGE NO. 40

Review of Fault Rupture Risk Area and Slope Instability Risk Area provisions

Notified October 2012

EXPLANATORY STATEMENT

Earthquake fault lines have been shown on the planning maps since TRMP was notified in 1996. Plan rules required geological investigation for development within 100 metres either side of the fault lines.

Further information since 1996 has better defined the position of the fault lines in some locations, allowing a reduction in the width of the area in which geological investigations are needed.

In 2010, Change 21 added the Fault Rupture Risk Area (FRRA) to the planning maps and amended the rules relating to subdivision and habitable buildings in the risk area. The fault lines were retained on the maps as representing best available information on their location, although Council's geological consultant had recommended showing only the FRRA and not the fault lines.

Council has subsequently received a request that the fault lines be removed from the planning maps, in accordance with the geological consultant's advice. This plan change results from that request.

Removal of the fault lines from the planning maps does not affect the operation of the relevant TRMP rules, as these relate to the FRRA, not the fault lines. The fault line information remains in Council's database and is available to anyone who requests it.

Checking the relevance of the fault lines to plan rules has shown inconsistencies in the rules. The plan change corrects those inconsistencies.

In addition, the proposed change addresses the need for the current two year limit on the validity of existing geotechnical reports required under FRRA and SIRA rules. The proposed change enables extension of this valid duration, by stating limits to the use of existing geotechnical investigation reports for new developments.

Council has assessed alternatives and is satisfied that amendments in the proposed Change 40 are the most appropriate, effective and efficient methods of addressing the issues, with regard to their benefits, costs, and risks.

SCHEDULE OF AMENDMENTS

The Tasman Resource Management Plan is amended in accordance with the following schedule:

1. Chapter 18.12

Add a new condition to Rule 18.12.2.1:

“(d) The report required by condition (b) is prepared no more than two years before the application is received by the Council, except that the report may be more than two years old where:

(i) It is re-certified as meeting the requirements of condition (b) by the person who prepared it or by another person meeting the criteria in (b); and

(ii) The re-certification under (i) includes certification that there has been no subsequent change to ground conditions that would alter the findings and requirements in the report; and

(iii) The report is no more than ten years old.”

Add a new condition to Rule 18.12.3.1:

“(aa) The report required by condition (a) is prepared no more than two years before the building work commences, except that the report may be more than two years old where:

(i) It is re-certified as meeting the requirements of condition (a) by the person who prepared it or by another person meeting the criteria in (a); and

(ii) The re-certification under (i) includes certification that there has been no subsequent change to ground conditions that would alter the findings and requirements in the report; and

(iii) The report is no more than ten years old.”

Amend the exception following (a) (i) (c) to:

“except that this requirement does not apply where a report has already been prepared under rule 18.12.2.1 (b) or re-certified under rule 18.12.2.1 (d) in respect of the site of the proposed building, and that report certifies and specifies as provided above;”

Add a new condition to Rule 18.12.3.2:

“(b) The report required by condition (a) is prepared no more than two years before the building or earthwork commences, except that the report may be more than two years old where:

(i) It is re-certified as meeting the requirements of condition (a) by the person who prepared it or by another person meeting the criteria in (a); and

(ii) The re-certification under (i) includes certification that there has been no subsequent change to ground conditions that would alter the findings and requirements in the report; and

(iii) The report is no more than ten years old.”

Amend the exception following (a) (i) (c) to:

“except that this requirement does not apply where a report has already been prepared under rule 18.12.2.1 (b) or re-certified under rule 18.12.2.1 (d) in respect of the site of the proposed building, or the proposed earthwork that is for or in connection with the subdivision, and that report certifies and specifies as provided above;”

2. Chapter 18.13

Amend Rule 18.13.2.1 as follows:

Initial statement and condition (a) unchanged.

“(b) Subject to condition (d), a report is prepared by an appropriately competent person in geology or geotechnical engineering with specialisation in earthquake risk assessment, and submitted to Council, that:

(i) records the survey and mapping of the land subject to the Fault Rupture Risk Area at a scale of 1:500 to identify or show ~~indicate~~ as accurately as practicable, the location of the surface position of the plane of any active fault; and

(ii) shows that any building location area that extends into the Fault Rupture Risk Area can provide for the setting back of the intended buildings in accordance with conditions (b) or (ba) ~~(e)~~ of rule 18.13.3.; and

(iii) unchanged

(c) Where the fault is the Waimea-Flaxmore Fault and the report required by condition (b) certifies that ~~the location~~ of the surface position of the plane of any active fault ~~cannot~~ be identified, ~~nor its inferred position indicated with confidence,~~ then there is no further ~~restriction~~ on the location of the building or alteration in relation to the fault.

Add a new condition as follows:

“(ca) There is no limit to the age of a report that meets the requirements of condition (b), provided that it has been prepared by or certified by a person who meets the criteria of condition (b).”

(d) – (f) unchanged.

Amend Rule 18.13.3.1 as follows:

“The construction or alteration of a building is a permitted activity that may be undertaken without a resource consent, if it complies with the following conditions:

- (a) Except as provided by condition (e), where the construction of any habitable building or external alteration to a habitable building is within the Fault Rupture Risk Area shown on the planning maps, a report is prepared by an appropriately competent person in geology or geotechnical engineering with specialisation in earthquake risk assessment, and submitted to Council. ~~that records~~ The report must record the survey and mapping of the site at a scale of 1:500 to identify, or show ~~indicate~~ as accurately as practicable, the location of the surface position of any active fault.
- (b) Where the report required by condition (a) identifies ~~or indicates~~ the location of the surface position of the plane of any active fault, then the building or alteration is set back at least:
 - ~~(i) 50 metres from that surface position where the active fault is that part of the Alpine Fault that is east of St Arnaud and the surface position is indicated on the planning Maps as inferred, but the trend of the inferred position changes within or adjacent to the site; or~~
 - ~~(ii) 30 metres from that surface position where the active fault is that part of the Alpine Fault that is east of St Arnaud and the surface position is indicated on the Planning Maps as inferred, but the trend of the inferred position is the same within or adjacent to the site; or~~
 - ~~(iii) 20 metres from the top or toe scarp of the fault where the active fault is the Alpine Fault that is within or east of St Arnaud and there is an identified fault scarp feature on the Planning Maps; or~~
 - ~~(iv) 40~~ 20 metres from that surface position where the active fault is the Alpine Fault that is within or east of St Arnaud, ~~and~~ or 10 metres if the report contains the results of specific site investigations that support this setback; or
 - ~~(iv)~~ 10 metres from that surface position where the active fault is part of the Waimea-Flaxmore Fault System ~~that is between~~ from north-east of St Arnaud to ~~and~~ the District boundary east of Richmond; or any other active fault except for the Alpine Fault east of St Arnaud ~~the margin on lake Rotoiti as provided for in (i) to (iv) above;~~ or
 - (viii) 5 metres from that surface position where the active fault is part of the Waimea-Flaxmore Fault System that is north of the Wairoa River, and the report contains the results of specific site investigations that support this lesser setback.
- (ba) Where the fault is the Alpine Fault that is within or east of St Arnaud and the report required by condition (a) does not identify the surface position of the plane of any active fault, but:

- (1) the report assesses the fault as being within a fault scarp, then the building or alteration is set back at least 20 metres from the top or toe of the scarp; or
- (ii) the report shows the inferred surface position of the plane of the fault, then the building or alteration is set back from that inferred position a distance that is recommended in the report that is at least the distance shown by a line drawn between points that are:
- (a) either 20 metres from the identified surface position of the plane of movement of the fault (as in (b) (i)); or
- 20 metres from the top or toe of the scarp (as in (b) (ii)); and
- (b) 30 metres from the mid-point of the inferred section of the fault.
- If the fault changes direction within the inferred section then the 30 metres is measured from that inferred point of change in direction.
- (c) Where the fault is the Waimea-Flaxmore Fault System and the report required by condition (a) certifies that the location of the surface position of the plane of the any part of any active fault cannot be identified or indicated with confidence, then there is no further restriction on the location of the building or alteration in relation to the fault.

(ca) There is no limit to the age of a report that meets the requirements of condition (a), provided that it has been prepared by or certified by a person meeting the criteria of condition (a).

(d) Any external alteration does not increase the area of building coverage that may extend within the relevant setback distance as given in conditions (b) or (ba) by more than 20 per cent.

(e) unchanged

Note 1: The report required by condition (a) should state the limits of the methods used in the investigation. Except where the fault is well defined by a scarp on the ground surface or by rupture along the fault, the methods are likely to include test pitting or trenching, or other subsurface techniques.

Note 2: The provision of a report on fault rupture hazard risk as required by rule 18.13.2.1 is a means of compliance with condition (a) if the report addresses the matter of the identification or indication of the surface position of the plane of any active fault, in relation to any proposed building location.

Add a new condition to Rule 18.13.3.2:

“(b) There is no limit on the age of a report that meets the requirements of condition (a), provided that it has been prepared by or certified by a person who meets the criteria of condition (a).”

Amend the second paragraph of the Reasons 18.13.20 as follows:

~~“The planning maps show the Fault Rupture Risk Area. containing the indicative position of active faults at a scale that is too small to assist in the location of a building on a particular site. Generally the Council does not have fault line data at sufficient accuracy to assist in the location of a building on a particular site. larger scale maps available. Therefore the rules require both subdivision and habitable buildings within the Fault Rupture Risk Area to have the surface location of the active fault surveyed and mapped more accurately in order to position any allotment or habitable building in relation to the relevant fault required setback.”~~

3. Planning Maps and Legend

Delete active fault lines and fault scarps within the Fault Rupture Risk Area.