

NELSON CITY COUNCIL

Nelson Resource Management Plan

Proposed Plan Change 26

Firefighting Provisions

**Planning Officer's Report - addressing submissions on
the Plan Change prior to Hearing**

Date of consideration of submissions

July 2011

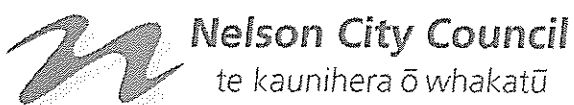


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PART A – INTRODUCTION

1. Reporting Officer

- 1.1 My name is Debra Bradley. I am employed by Nelson City Council in the role of Planning Adviser. I have been with the Council for 16 years, eight years as a Planning Assistant, and the remainder in my current role.
- 1.2 I have a Bachelor of Arts (Hons) from the University of Waikato and a Diploma of Environmental Studies from the Open Polytechnic of New Zealand.
- 1.3 I have been involved in this Plan Change from the beginning and have led the process through the notification period.

2. Overview of Proposed Plan Change

- 2.1 This change affects new buildings in the Rural Zone, requiring a total of 45,000 litres of water storage for fire fighting, half of which can also be used for domestic water supply. The permitted alternative to this level of water storage is to install a home sprinkler system through the house, reducing total water storage requirements to 23,000 litres. This change reflects the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).

3. Purpose of this Officer's Report

- 3.1 This Officer Report has been prepared under Section 42A of the Resource Management Act:
 - to assist the Independent Commissioner in making recommendations to Nelson City Council on the submissions and further submission to Proposed Plan Change 26 – 'Firefighting Provisions' to the Nelson Resource Management Plan (the Plan);
 - to assist any submitters or the further submitter who reserved the right to be heard, by providing, prior to the possible hearing and the consideration of the submissions, a staff evaluation of decisions requested in submissions.
- 3.2 The evaluations and recommendations presented in the report are based on the information available prior to the hearing, including that contained in the submissions and further submission. In evaluating the submissions and further submission, the matters considered include whether a decision requested:
 - falls within the functions of Nelson City Council under the Resource Management Act 1991 (RMA);
 - will enhance the ability of the Plan to achieve the purpose of the RMA;
 - will improve a policy, rule or other method so that it is more efficient and effective for achieving the relevant objectives;
 - will improve the Plan in relation to such matters as its lawfulness, clarity, accuracy, effectiveness and coherence.

4. Consultation

- 4.1 This Plan Change was developed in consultation with the New Zealand Fire Service Commission and the Waimea Rural Fire Authority, and with Shane Overend (The Council's Senior Engineering Officer – Development) to ensure alignment with the Land Development Manual 2010.

- 4.2 Discussions with the New Zealand Fire Service led to the agreement between the Council and the Fire Service on a pragmatic approach to meeting the requirements of the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008). The agreement was that the Council could either require a sprinkler system (and 7,000 litres of water permanently available to that system) or 45,000 litres of water tank capacity on the understanding that up to 22,000 litres of water within this storage capacity can also be used for domestic water use.

5. Notification, submissions and further submissions

- 5.1 The Proposed Plan Change was publicly notified on 25 September 2010, with submissions closing on 3 December 2010. Two submissions were received.
- 5.2 A summary of the decisions requested was notified on 30 January 2011 and closed on 12 February 2011. One further submission was received.
- 5.3 The table below lists the submissions and further submissions received:

Submission Number	Submission Name
1	Cameron Gibson & Wells Ltd
2	New Zealand Fire Service Commission

Further Submission Number	Further Submission Name
X1	New Zealand Fire Service Commission

- 5.4 There is a summary of the submissions in Part D of this report. Both submissions and the further submission support alignment with the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008), and request additional changes to further align rule RUr.28 with the Code of Practice.

6. Statutory assessment

- 6.1 Council must consider the relevant provisions of the RMA in its assessment of the Plan Change. This includes an assessment of the purpose and principles of the Act (part 2), consideration of Council's functions (s31), an assessment of the alternatives and their costs and benefits (s32), and shall consider the Regional Policy Statement, regional plans, and management plans prepared under other acts (s74 and 75). The relevant provisions of the RMA are assessed below.

6.2 Part 2

The updating of the water storage requirements to meet the requirements of the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008) enables people to provide for their economic wellbeing and for their health and safety while avoiding, remedying, or mitigating any adverse effects of activities on the environment.

6.3 Section 32

Before adopting for public notification any objective, policy, rule or other method promoted through this proposed Plan Change, section 32 of the RMA imposes upon the Council a duty to consider:

- the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and
- whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.

6.4 A Section 32 assessment was prepared and made available as part of the public notification process (see Attachment 1 of this report, document [953032](#)). Three key options were assessed in the section 32 report:

- retain the existing water storage requirements
- amend the NRMP to reflect the revised NZ Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008)
- take a non regulatory approach, and do not include water storage requirements in the NRMP. Instead, add a notice to new subdivision titles advising property owners of the recommendations in the NZ Code of Practice and information about fire risk in the Rural Zone, and allow property owners to make their own decisions on their level of protection they provide for their property.

6.5 This evaluation identified that proceeding with the Proposed Plan Change has the following benefits:

- it increases the safety of the community through increased protection from the effects of fire.
- it reduces the risk of fire spreading from a house to the wider environment, resulting in environmental and economic impacts.

6.6 These benefits outweigh the costs of the Proposed Plan Change which are:

- lack of personal choice on the acceptable level of fire risk
- visual impact from provision of two water tanks rather than one
- cost of compliance for landowners.

6.7 The Proposed Plan Change is an efficient option because it sets a permitted baseline, and any variation from this standard can be addressed through a resource consent application. It is an effective option, because it is based on expert advice from the NZ Fire Service on the water supply required to effectively control a house fire.

6.8 Regional Policy Statement

The Proposed Plan Change is consistent with the Nelson Regional Policy Statement (RPS), particularly the following provisions:

- Objective DH2.2.1 – Protection of property and human health and safety from the effects of natural hazards.
- Objective DH2.2.2 – Adverse effects from hazard events being minimised.

6.9 **NRMP**

No new objectives are included in Proposed Plan Change 26. Instead the Plan Change relies on existing operative objectives within Chapter 5 – District Wide Objectives and Policies of the Plan, specifically:

- Objective DO2.1 - An environment within which adverse effects of natural hazards on people, property, and the environment are avoided or mitigated.

6.10 The changes to rule RUr.28 (buildings – all) to increase protection from fire will support the achievement of objective DO2.1.

7. Conclusions

7.1 This report provides a statutory and effects based assessment of proposed Plan Change 26. I have described the general approach and the background and consultation leading to the development of this Plan Change. I have also assessed it against the statutory requirements under the RMA and have concluded that it meets all the relevant matters.

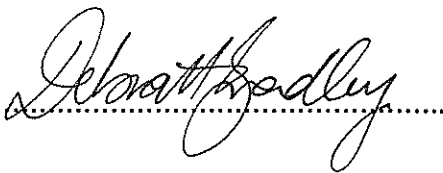
7.2 I acknowledged the various concerns, and suggestions for improvement, outlined in the submissions and further submission, and have commented on those and made specific recommendations in Part B of this Report.

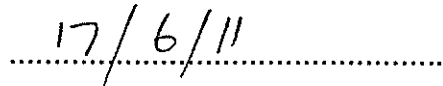
7.3 A number of recommended amendments to the Plan Change are outlined in Part C.

7.4 With those amendments I am of the opinion that the package of measures embodied in Plan Change 26 will provide a workable and realistic planning response to this resource management issue in Nelson.

Author: Debra Bradley

Date:





Peer Reviewed: Matt Heale

Date:





PART B – RECOMMENDATIONS AND REASONS

Recommendation for Plan Change 26

RUr.28.1 Buildings (all) - permitted activity

Recommendations:

A) *Accept submissions 1/1 and X1/1.*

Change clause f) to require a water source to be available within 90m of a residential unit, as shown in section C of this report (Recommended Plan Amendments).

B) *Accept submission 2/1 and X1/ 5.. Accept in part submission 1/ 5 and accept X1/ 5.*

Delete the sentence "These firefighting water supply requirements also apply for a building used or intended to be used for commercial or industrial activities, and" from clause f) of RUr.28.1, as shown in section C of this report (Recommended Plan Amendments).

Sections 46 – 47 of the Building Act provides for New Zealand Fire Service Commission to receive and give advice on relevant building consent applications including commercial and industrial buildings.

In addition, any applications for commercial and industrial buildings in the Rural Zone which require resource consent under RUr.28, will be assessed against the following new assessment criteria:

"q) the extent of compliance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008)."

C) *Accept submissions 1/ 2 and X1/2.*

Amend Clause f) i) as follows: "a sprinkler system installed (to an approved standard in accordance with SNZPAS 4509:2008) in the building ..." as shown in section C of this report (Recommended Plan Amendments).

D) *Reject submission 1/3 and accept X1/3.*

Require a 100mm rather than a 50mm connection.

E) *Accept submissions 1/ 4 and X1/4.*

Amend Clause f) ii) to state that: "Tanks shall be located more than 6m and less than 90m from the building" as shown in section C of this report (Recommended Plan Amendments).

F) *Accept submissions 1/ 6 and X1/6.*

Amend clause g) to: "Where a house has 45,000 litres of water supply storage for firefighting purposes" as shown in section C of this report (Recommended Plan Amendments).

Reasons for Recommendations:

General comments:

Both submitters support the intent of this Proposed Plan Change – which is to amend the NRMP to reflect the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).

This approach increases the safety of the community and reduces the risk of fire spreading to the wider environment, resulting in environmental and economic benefits.

The submissions are largely in agreement, as both suggest changes to the Proposed Plan Change to more accurately reflect the Code, with the objective of increasing protection from fire. These changes support the achievement of objectives in both the Regional Policy Statement (RPS) and the Nelson Resource Management Plan (NRMP), specifically:

RPS Objective DH2.2.1: “Protection of property and human health and safety from the effects of natural hazards.”

RPS Objective DH2.2.2: “Adverse effects from hazard events being minimised.”

NRMP Objective DO2.1: “An environment within which adverse effects of natural hazards on people, property, and the environment are avoided or mitigated.”

The only exception to the agreement between the submitters is the issue of whether a 100mm or 50mm connection valve should be required (in reason D). In this case the officer recommendation is to follow the advice of the NZ Fire Service, as they will be responsible for managing structure fires in the Rural Zone.

Specific reasons for each recommendation:

- A) This approach is consistent with section B2 of the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).
- B) The requirements in the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008) for industrial and commercial buildings are not the same as for residential units. These need to be addressed on a case by case basis, and the discretionary activity status makes this possible.
- C) Using the Code of Practice definition of ‘sprinkler system’ increases certainty about the required sprinkler system.
- D) A 100mm female thread coupling is used by the NZ Fire Service to achieve rapid water delivery in the event of structure fire suppression. A 50mm outlet compromises water flows through the 100mm pumps even if a 50mm/100mm adaptor is used. However, a 100 mm/50mm adaptor will allow the Waimea Rural Fire Authority to also connect to the water source without compromising water flows. This approach is supported by Waimea Rural Fire Authority, as outlined in a memo from the Principal Rural Fire Officer dated 10 May 2010. This memo is attached as Attachment Two to this report.

Another reason to give priority to the needs of the NZ Fire Service (which is primarily responsible for structure fires) is that they are more likely to use water from water tanks. The Waimea Rural Fire Service is primarily responsible for vegetation fires. Water tanks have not proved to be a critical resource for this purpose.
- E) More specific requirements related to location of tanks increases the certainty of the rule, and is consistent with the Code of Practice. Requiring sources of firefighting water to be within 90m of the structure (rather than 150m) ensures the water is usable by the Fire Service in the event of a fire. Requiring the tank to be more than 6m from the structure ensures the tank won’t burn, and will be safely accessible by the Fire Service.
- F) The term ‘storage’ makes clear that the rule is referring to capacity to store 45,000 litres of water, rather than the actual quantity of water at any particular time, which will vary as only 23,000 litres needs to be stored permanently for firefighting purposes. The remainder is permitted to be used for domestic purposes.

Recommendation for Plan Change 26

RUr.28.4 Buildings (all) - assessment criteria

Recommendation:

Accept submissions 1/ 7 and X1/7.

Required amendments to the Provisions of the Proposed Plan Change:

Specifically refer to a New Zealand Fire Service Fire Risk Management Officer in assessment criteria p) as shown in section C of this report (recommended amendments).

Reason for Recommendation:

Replacing "a suitably qualified and experienced person approved by the Council" with "a New Zealand Fire Service Fire Risk Management Officer " increases certainty about how consent applications will be assessed, which improved the effectiveness and efficiency of this rule. The New Zealand Fire Service Fire Service has provided assurance that it has the ability to provide assessments in a timely manner.

PART C – RECOMMENDED PLAN AMENDMENTS

Note: these amendments reflect both the original plan change and the recommended changes in response to submissions.

Format of the Plan Change provisions

Within this Plan Change:

'Normal' text applies to current operative provisions to remain unchanged.

'Underline' text applies to proposed new provisions.

'~~Strikethrough~~' text applies to operative provisions proposed to be deleted or amended as described.

'*Italic*' text applies to instructions.

Rule RUr.28 (Buildings – all)

Delete the existing clauses f) and g) of the permitted rule of RUr.28.1 (Buildings - all) as follows:

- f) ~~in the case of a residential unit or a building used or intended to be used for commercial or industrial activities (unless it is connected to a community supply with its own fire fighting water storage), a water tank with a storage capacity of at least 23,000 litres of water is available to the site for fire fighting purposes (which must be fitted with a 50mm female 'Camlock' controlled by a valve), or a water source capable of delivering a minimum of 19 litres per second for a minimum of 20 minutes is available within 150m of the building and is accessible by a portable pump, and~~
- g) ~~in the case of a new residential unit, short term living accommodation unit or papakainga, 15,000 litre minimum storage is available to the site for household water use (unless the unit is connected to a community supply with its own storage for periods of minimum flow). (The fire fighting storage tank, as required under condition (f), should be kept full of water solely for that purpose).~~

and replace with new clauses f) and g) of RUr.28.1 (Buildings - all) by adding the following:

RUr.28.1

Permitted

Permitted if:

- f) a residential unit, (unless it is connected to a community supply with its own firefighting water storage, or a water source capable of delivering a minimum of 25 litres per second for a minimum of 30 minutes is available within 90m of the building and is accessible by a portable pump) has either:
- i) a sprinkler system installed (to an approved standard in accordance with SNZPAS 4509:2008) in the building,

plumbed to ensure 7,000 litres of water is always available to the sprinkler system in the event of a fire, or

ii) water tanks with a storage capacity of at least 45,000 litres available to the site for firefighting purposes. Tanks must be fitted with a 100mm female Screw Thread controlled by a valve. Tanks shall be located more than 6m and less than 90m from the building, and

g) a new residential unit, short term living accommodation unit or papakainga has 15,000 litres of water storage available to the site for use as a domestic water supply during periods of minimum flow (unless the unit is connected to a community supply with its own storage for periods of minimum flow). Where a house has 45,000 litres of water storage for firefighting purposes, this domestic water storage capacity can be a proportion of that total, but at least 23,000 litres needs to be stored permanently for firefighting purposes only, and

Amend clause p) of RUr.28.4 as follows:

RUr.28.4

Assessment criteria

p) in buildings without sprinkler systems, whether a lesser amount of water storage than 45,000 23,000 litres, or no storage is required, for rural firefighting purposes for a particular building, due to proximity to a water source, as assessed by a New Zealand Fire Service Fire Risk Management Officer, suitably qualified and experienced person approved by the Council. Confirmation should be provided in writing.

Add clause q) to RUr.28.4 as follows:

q) the extent of compliance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).

PART D – SUBMISSIONS

Plan change 26

RUr.28.1 Buildings (all) - permitted activity

Submitter 1: Cameron Gibson & Wells	Statement 1
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Details Clause f) refers, in brackets, to a water source within 150m of the building whereas the SNZ PAS 4509:2008 NZFS Fire Fighting Water Supply Code of Practice (COP) requires the water source to be within 90m of the 'hazard' (building). The distance stated in the Plan should be as required by the COP, unless the Council has agreement otherwise with the NZFS.

Reasons Compliance with the COP.

Remedy Clause f): Amend '150m' to '90m' unless the greater distance has been agreed with the NZFS.

Further Submitter X1: New Zealand Fire Service Commission	Statement 1
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Support

90m is consistent with the Code.

Submitter 2: New Zealand Fire Service Commission	Statement 1
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Details The Commission strongly supports Proposed Plan Change 26. Furthermore, the Commission acknowledges and commends the proactive approach Nelson City Council has taken in developing and proposing a plan change to better align the NRMP with the New Zealand Fire Service Code of Practice for Fire Fighting Water Supplies NZS PAS 4509:2008 ("the Code"). Council officers have consulted with NZFS representatives throughout the development of Proposed Plan Change 26 and there are therefore few outstanding issues for the Commission.

The only aspect of the Proposed Plan Change the Commission submits on is the inclusion of buildings intended to be used for commercial or industrial activities (end of proposed RUr.28.1 (f)). The Commission recognises that commercial and industrial buildings can be a hazard in the rural area and are covered by the Code. The Commission believes that the wording of RUr.28.1, as currently proposed, implied that the firefighting water supply requirements for commercial and industrial buildings are the same as those for residential buildings. This is not correct. The Code does apply to commercial and industrial activities but the firefighting water supply requirements are different. The Commission supports the application of the Code to commercial and industrial activities in the Rural Zone where appropriate, but considers that this is adequately provided for through the proposed addition of a new assessment criterion (clause q of Rur.28.4).

The Commission considers that deletion of the sentence "These firefighting water supply requirements also apply for a building used or intended to be used for commercial or industrial activities, and" would remove any ambiguity associated with the proposed wording while not substantively altering the application of the provisions (ie. firefighting water supply for commercial and industrial buildings in the Rural Zone could still be considered under clause q of RUr.28.4).

Remedy Approve Proposed Plan Change 26, with the deletion of the sentence "These firefighting water supply requirements also apply for a building used or intended to be used for commercial or industrial activities, and" from clause f) of RUr.28.1.

Submitter 1: Cameron Gibson & Wells	Statement 2
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Details Clause f) i) refers to 'sprinkler system'. The SNZ PAS 4509:2008N ZFS Fire Fighting Water Supply Code of Practice (COP) refers to 'sprinkler systems installed to an approved Standard' and in reference documents identifies three standards:
NZN 4515:2003 Fire sprinklers for residential occupations
NZN 4517:2002 Fire sprinklers for houses
NZN 4541:2007 Automatic fire sprinklers.

The Plan should define 'sprinkler system'.

Reasons There is no basis on which to determine if the sprinkler system will be effective.

Remedy Clause f) i): Define 'sprinkler system' in accordance with the COP.

Further Submitter X1: New Zealand Fire Service Commission	Statement 2
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Support

The Commission agrees that greater clarity around what constitutes a 'sprinkler system' would be worthwhile. The Code refers to a sprinkler system installed to an Approved Standard and then lists (in Appendix F) three New Zealand standards, relevant to different types of installation.

The Commission seeks that Statement 2 be allowed and suggests amending the wording of RUr.28.1(f) to: "a sprinkler system installed (to an Approved Standard in accordance with SNZ PAS 4509: 2008) in the building .."

Submitter 1: Cameron Gibson & Wells	Statement 3
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Details Clause f) ii) states the 'Tanks must be fitted with a 100mm female Screw Thread controlled by a valve.' The practicality of this configuration may need further consideration, and if required it needs further clarification.

Reasons My understanding is that concrete and plastic water tanks are fitted as standard with 50mm threaded outlets (although it may be possible to obtain 100mm threaded outlets from some manufacturers as an option). To modify a tank fitted with a 50mm outlet to 100mm is difficult, costly and may void any warranty from the manufacturer. Of course, just installing a 100mm threaded connection to a 50mm outlet would not significantly increase the discharge. We have heard from various sources that the fire fighters generally just remove the tank lid and put the suction pipe into the tank through the lid, although we don't know the validity of this claim. If this is the case, then a requirement for a special fitting may be unnecessary.

If a 100mm threaded connection is required, then the rule needs to clearly state that the outlet from the tank and valve need to be 100mm. As the rule is presently proposed, installing a 100mm female threaded fitting through a reducer from a 50mm outlet and 50mm valve on the tank would comply. Also, consideration would need to be given in each case as to whether an additional vent is required so that the tank does not collapse during discharge.

Remedy Clause f) ii): Reconsider the requirement for a 100mm connection. If the clause is to remain in some form, clarification of the outlet/valve/threaded fitting size is required.

Oppose

In the majority of cases the first attending fire appliance in response to an emergency call out to a fire in urban and most rural areas will be from the New Zealand Fire Service (NZFS). The rural fire authority is not resourced or capable of responding as quickly as the NZFS and make take up to an hour or more to have a firefighting capability at the fire scene. The rural fire authority is not equipped or trained to fight fires in buildings and generally only deal with vegetation fires, although they can apply water on fires in buildings but from the outside only.

The only couplings carried by the NZFS on special hose suitable to obtain water from a static resource under low or negative pressure are of the 100mm round thread type. It is therefore very important that the most suitable couplings are fitted to the static fire fighting water supply tanks or the resource may be of limited value.

The most suitable coupling for the NZFS is a '100mm female round thread coupling with a control valve'. For this reason the Commission seeks that the whole of Statement 3 be rejected.

Details Clause f) ii) states that "Tanks should not be located directly beside a house".

This is vague. How close is directly? The SNZ PAS 4509:2008N ZFS Fire Fighting Water Supply Code of Practice (COP) requires the tank to be greater than 6m from the 'hazard' (building). Why not just state this?

Reasons To avoid vagueness, and to comply with the COP.

Remedy Clause f) ii): Amend to "Tanks shall be located more than 6m and less than 90m from the building."

Support

The requirement for tanks to be located between 6 and 90m from buildings is consistent with the Code.

Details Clause f) ii) states that these requirements also apply to commercial and industrial buildings.

The SNZ PAS 4509:2008N ZFS Fire Fighting Water Supply Code of Practice (COP) requires specific and generally significantly larger water supplies for commercial and industrial buildings depending upon the fire cell size and activity. However, in saying that, the volumes of storage required can be quite unrealistic for a rural situation and would probably make any rural commercial or industrial activity impractical.

Reasons The need to provide sufficient water to fight fires at rural commercial and industrial facilities.

Remedy Clause f) ii): Consider how to determine and define a practical but sufficient water supply for rural commercial and industrial activities.

Support in Part

Statement Number 5 raises a similar issue to that raised by the Commission in its submission. The Commission noted that the Code can be applied to commercial and industrial activities but that the firefighting water supply requirements are different from those for residential buildings. The Commission was concerned that as the plan provisions were drafted, they gave the impression that there is no difference in the requirements for residential, commercial and industrial activities.

The Commission considers that, in some cases, it will be appropriate for the consent authority (ie. Nelson City Council) to have regard to the requirements of the Code for commercial and/or industrial activities in the Rural Zone. As stated in its original submission, the Commission considers that this will be achieved through the proposed inclusion of a new assessment criterion (clause q of RUr.28.4).

The Commission therefore maintains its original submission point (NZFSC Statement Number 1).

- Details** Clause g) states "Where a house has 45,000 litres of water supply for fire fighting purposes" - the word 'supply' should be replaced with 'storage' since the tanks will not always be full if used as a domestic source.
- Reasons** To be clear that the rule is referring to storage and not the actual quantity of water available.
- Remedy** Clause g): Amend to "Where a house has 45,000 litres of water storage for fire fighting purposes".

Support

'Storage' rather than 'supply' is consistent with the Code. The Commission seeks that the whole of Statement 6 be allowed.

Plan Change 26**RUr.28.4 Buildings (all) - assessment criteria**

- Details** Clause (p), the replacement of 'suitably qualified and experienced person approved by Council' with 'New Zealand Fire Service Risk Management Officer', is only an appropriate change if the New Zealand Fire Service has the necessary resources to effectively perform this role.
- Reasons** In the past we have had experience where response from the NZFS in regards to confirmation of a proposed fire fighting water supply configuration took a very long time, presumably because of limited resources and other priorities.
- Remedy** Clause p): Only include the proposed change if the NZFS has confirmed that it has the necessary resource to perform this role in a timely manner.

Support

The Commission recognises that the provision of advice to resource consent applicants by the NZFS in a timely manner is essential. Liaison between applicants and NZFS personnel have sometimes been haphazard in the past and the NZFS is keen to develop a more formal liaison protocol.

The Commission considers that the proposed inclusion of 'NZFS Fire Risk Management Officer' will help to ensure that queries are dealt with expeditiously. The Commission also suggests that the Council has a nominated NZFS contact (the NZFS Fire Risk Management Officer, currently Mr Rob Dalton) that applicants can be directed to for pre-lodgement advice, etc.

The Commission seeks that the whole of Statement 7 be allowed.

Attachment One

NELSON CITY COUNCIL

Nelson Resource Management Plan

Proposed Plan Change 26
Firefighting Provisions

Section 32 Report

25 September 2010



1.0 Introduction

1.1 Purpose of report

Section 32 of the Resource Management Act 1991 (RMA) requires Council to consider alternatives and assess the benefits and costs of adopting any objective, policy, rule or method in a Plan or Policy Statement prepared under the RMA. Before publicly notifying a proposed Plan or Plan Change, the Council is required to prepare a Section 32 report summarising these considerations.

The purpose of this report is to fulfil these Section 32 requirements for proposed Plan Change 26 (Firefighting provisions).

1.2 Steps followed in undertaking the Section 32 evaluations

The 7 broad steps which this section 32 evaluation follow are:

1. identifying the resource management issue;
2. evaluating the extent to which any objective is the most appropriate way to achieve the purpose of the RMA;
3. identifying alternative policies and methods of achieving the objective;
4. assessing the effectiveness of alternative policies and methods;
5. assessing the benefits and costs of the proposed and alternative policies, rules, or other methods;
6. examining the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods; and
7. deciding which method or methods are the most appropriate given their likely effectiveness and their likely cost, relative to the benefit that would likely deliver.

1.3 Description of proposed Plan Change

RUr.28.1 currently requires residential units in the Rural Zone to have one 23,000 litre water tank solely for firefighting water, and one 15,000 litre water tank for domestic water use. There are exemptions to this rule where sufficient water is available from community supplies and/or natural watercourses. Under the Code of Practice 2008, the amount of water required to be available from natural water courses has also increased, from 19 litres per second for a minimum of 20 minutes, to 25 litres per second for a minimum of 30 minutes.

Clauses f) and g) of Rule Rur.28.1 have been rewritten to make the meaning of the provisions clearer.

Assessment criterion (p) has been amended to state that a New Zealand Fire Service representative should make the judgements on where a lesser amount of storage than 45,000 litres is required (rather than the vaguer term of a suitably qualified and experienced person approved by the Council).

An additional criterion (q) has been added "extent of compliance with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice (SNZ PAS 4509:2008)" to allow applicants the option of using that Code to establish alternative means of compliance with the Code, as a discretionary activity.

A change from the requirement for a 50mm valve on the tank, to a 100mm valve is also proposed. A 50mm outlet compromises water flows through 100mm pumps even if a 50mm/100mm adaptor is used. A 100mm outlet provides the required water flows for the urban fire brigade (who attend structure fires and are the most likely users of the water in water tanks). A 100mm/50mm adaptor will allow the rural firefighter's pumps to also connect without compromising water flows.

1.4 Consultation

After discussions with the New Zealand Fire Service, a pragmatic approach to meeting the requirements was agreed upon – to either require a sprinkler system (and 7,000 litres of water permanently available for that system), or 45,000 litres of water tank capacity on the understanding that up to 22,000 litres of this water can also be used for domestic water use.

2.0 Resource Management issue

2.1 Resource Management issue being addressed

An issue is an existing or potential problem that must be resolved to promote the purpose of the RMA. The RMA does not require the identification or analysis of issues within Section 32 evaluations. Notwithstanding this issues are being included in this report because it will be helpful to users to understand the basis and origin of the issue as this provides a context for the evaluations of the objectives and policies that follow.

The Plan Change relies on an existing operative issue within clause RI9 (risk from natural hazards) of Chapter 4 (Resource Management Issues) of the Plan:

RI19.1.i Risk to property and human life associated with community use and occupation of hazard prone areas.

3.0 Appropriateness in achieving the purpose of the RMA

3.1.1 Evaluation of the objective(s) – the environmental outcome to be achieved

Section 32 requires an evaluation of the extent to which the objective is the most appropriate to achieve the purpose of the Act. Appropriateness is not defined in the Act. In undertaking the evaluation it has generally been helpful to consider alternative forms of the objective and test them in terms of how well they met the environmental, social/cultural, and economic outcomes in Section 5, plus achieving other Part 2 matters. Often these assessments require value judgements because they are not readily quantified. Usually the objective is also tested against how well it addresses the elements of the issue.

In the case of Plan Change 26 no new objectives are being proposed. Instead the Plan Change relies on existing operative objectives within Chapter 5 – District Wide Objectives and Policies of the Plan, specifically:

DO2.1 natural hazards

An environment within which adverse effects of natural hazards on people, property, and the environment are avoided or mitigated.

Given the operative status of this objective, adoption of the NZ Fire Service recommendations related to home sprinklers and/or water storage is considered the most appropriate way to achieve the purpose of the RMA.

The changes to rule RUr.28 (buildings – all) to increase protection from fire is intended to enable people and communities to provide for their safety while avoiding, remedying or mitigating any adverse effects of activities on the environment.

3.2 Whether the policies, rules, or other methods are the most appropriate for achieving the objectives in terms of their efficiency and effectiveness, benefits and costs, and in regards to the risk of acting or not acting

3.2.1 Introduction

The evaluation of appropriateness assesses the alternative policy options under the headings of efficiency, effectiveness, benefits, costs, and the risk of acting and of not acting.

A range of criteria/matters have been used to assist in undertaking the evaluations:

efficiency	the ratio of inputs to outputs. Efficiency is high where a small effort/cost is likely to produce a proportionately larger return. Includes the ease of administration/administrative costs e.g. if the cost of processing a grant or collecting a fee exceeds the value of the grant or fee, that is not very efficient;
effectiveness	how well it achieves the objective or implements the policy relative to other alternatives. The likelihood of uptake of a method;
benefits	social, economic, environmental - as both monetary and non monetary cost/benefits;
costs	social, economic, environmental - as both monetary and non monetary cost/benefits; and
risk	the risk of taking action and not taking action in say the next 10 years because of imperfect information e.g. the cause/effect relationships are not fully understood.

In the case of the proposed Plan change no new policies are being proposed. Changes are proposed to Rule RUr.28 to reflect the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).

The report concludes with a summary of the analysis undertaken and outlines which option best meets the requirements of Section 32 of the RMA.

3.2.2 Format of the evaluation

The following tables provide an evaluation of the costs and benefits of the proposed policies, and considers whether these policies are the most appropriate for achieving the objectives, having regard to their efficiency and effectiveness. The terms efficiency and effectiveness are not defined in the RMA and, therefore, the criteria set out in Part 3.2.1 of this report have been used to help focus the analysis.

Costs and benefits have largely been assessed subjectively and or comparatively because of the great difficulty in assessing/quantifying intangible costs e.g. environmental costs. In some cases quantitative assessments of costs have been given.

The concept of risk has two dimensions, the probability of something adverse occurring and the consequence of it occurring. For example, if there is low risk associated with acting but high risk associated with not acting, then taking action is clearly the sensible thing to do. Risk is usually expressed as 'probability times consequence' and associated

with a cost – usually a severe economic, social or environmental cost. Assessing the risk of acting or not acting means assessing the probability of a cost occurring and the size of that potential cost.

The policy alternatives assessed in this section will achieve the objective to different degrees and combinations of policy approaches will be used to form the final preferred option.

The following three broad options are evaluated in Table 1 (Part 3.2.3 of this report):

- Option 1 Do nothing (retain existing water storage requirements)
- Option 2 Amend the Plan to reflect the revised NZ Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).
- Option 3 Non-regulatory approach - do not include water storage requirements in the Plan. Instead, add a notice to new subdivision titles advising property owners of the recommendations in the NZ Code of Practice and information about fire risk in the Rural Zone, and allow property owners to make their own decisions on their level of protection they provide for their property.

3.2.3 Table 1: Assessment of Alternative Options

	<p>Option 1: Status quo Retain existing water storage requirements.</p>	<p>Option 2: Proceed with Plan Change Reflect the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).</p>	<p>Option 3: Non-regulatory approach Provide information to property owners on the NZ Fire Service recommendations.</p>
<p>Benefits</p>	<p><u>Social Benefit (Community):</u> Retains the existing protection from fire.</p> <p><u>Economic Benefit (Council):</u> Small financial saving from not having this Plan Change, and subsequent reporting and hearing costs.</p>	<p><u>Environmental Benefit (Community):</u> Reduces risk of fire spreading from a house to the wider environment.</p> <p><u>Social Benefit (Community):</u> Increases safety of the community, through increased protection from the effects of fire. The Plan Change also provides more clarity about the alternative ways people can manage fire risk.</p> <p><u>Economic Benefit (Landowners and Community):</u> Potential savings from fires being controlled more quickly, causing less damage to property.</p>	<p><u>Social Benefit (Landowners):</u> Enables property owners to make their own decisions about the level of protection they require, and the risks they are prepared to accept.</p> <p><u>Economic Benefit (Landowners):</u> Property owners have a choice whether to install sprinklers or tanks or not, saving \$2,500 - \$3,500.</p>

	<p>Option 1: Status quo</p> <p>Retain existing water storage requirements.</p> <p><u>Social Cost (Community):</u> Potential that water storage is not sufficient to control rural house fires.</p> <p><u>Economic Cost (Landowners):</u> Resource consent will be required for houses which do not meet the permitted activity conditions related to firefighting.</p> <p>Costs for current requirements: Two tanks: 15,000 litres (for domestic water supply) – \$2,495 25,000 (for firefighting) – \$2,995</p>	<p>Option 2: Proceed with Plan Change</p> <p>Reflect the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).</p> <p><u>Social Cost (Landowners):</u> Lack of personal choice on the acceptable level of fire risk. Visual impact from provision of two water tanks rather than one (if home sprinkler system is not chosen). This effect can be mitigated by partially burying the tank and through landscaping.</p> <p><u>Economic Cost (Council):</u> Small financial cost of undertaking this Plan Change, and subsequent reporting and hearing costs.</p> <p><u>Economic Cost (Landowners):</u> Resource consent will be required for houses which do not meet the permitted activity conditions related to firefighting. Costs of compliance with the revised standard are \$500 more for increased tank size, and \$500 - \$1000 more if homeowner chooses to install a sprinkler system throughout the house. Costs for proposed requirement: Two tanks: 25,000 (for firefighting only) – \$2,995 At least 20,000 litres but more common tank size is 25,000 litres (for domestic water supply and firefighting) – \$2,995 OR Home sprinkler systems: \$350 x 10 = \$3,500 Plus need 1 tank of at least 23,000 litres (for water supply and firefighting) – \$2,995</p>	<p>Option 3: Non-regulatory approach</p> <p>Provide information to property owners on the NZ Fire Service recommendations.</p> <p><u>Environmental Cost (Community):</u> Increased risks of fire spread to the wider environment if water storage/home sprinklers are not installed</p> <p><u>Social Cost (Landowners and Community):</u> Increased safety risks if water storage/home sprinklers are not installed. (NZ Fire Service officers advise that these are not usually installed if it is voluntary.)</p> <p><u>Economic Cost (Council):</u> Small financial cost of undertaking a Plan Change to remove the firefighting provisions in rule RUr.28, and subsequent reporting and hearing costs.</p> <p><u>Economic Cost (Landowners and Community):</u> Cost of fire damage, firefighting, and potential for even higher costs if fires escalate beyond one house. Costs for proposed requirement: 15,000 litres (for domestic water supply) – \$2,495 No set cost for firefighting water supply.</p>
<p>Costs</p>			

	Option 1: Status quo Retain existing water storage requirements.	Option 2: Proceed with Plan Change Reflect the revised New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008).	Option 3: Non-regulatory approach Provide information to property owners on the NZ Fire Service recommendations.
Benefit and Costs Summary	The current option does not comply with the NZ Fire Service recommendation, but it does provide some protection from fire.	There is a balance of environmental, social and economic benefits from pursuing this plan change.	The safety risks associated with this option outweigh the benefits of personal choice and potential for economic savings.
Effectiveness and Efficiency	The status quo option is an efficient way to meet the objectives of the Plan, but is less effective than Option 2. <u>Efficiency</u> This existing provision sets a permitted baseline. Any variation from this standard can be addressed through a resource consent application. <u>Effectiveness</u> The existing provision specifies a lesser amount of water storage than recommended by the NZ Fire Service.	The Plan Change is an efficient and effective way to address the operative issues and achieve the objectives. <u>Efficiency</u> This Plan Change sets a permitted baseline. Any variation from this standard can be addressed through a resource consent application. <u>Effectiveness</u> The Plan Change adopts the NZ Fire Service recommendations on the water supply required to effectively control a house fire.	This option is not effective because NZ Fire Service advice is that people will not voluntarily install water storage or home sprinklers for fire protection purposes.
Risk of Acting or Not Acting if there is uncertainty or insufficient information	Council has sufficient information on Option 1 to make a decision on its effects. Therefore there is no risk of acting of not acting.	Council has sufficient information on Option 2 to make a decision on its effects. Therefore there is no risk of acting of not acting.	Council has sufficient information on Option 3 to make a decision on its effects. Therefore there is no risk of acting of not acting.

4.0 Conclusion

An evaluation of three alternative options of status quo (do nothing), proceed with the Plan Change and a non-regulatory approach has been undertaken in Part 3.2.3 of this report. The report has evaluated these alternative options against the benefits, costs, effectiveness, efficiency, the risk of acting and the risk of not acting.

This evaluation has clarified that Option 2 (proceed with this Plan Change) balances environmental, social and economic benefits, and is the best option in regards to its efficiency and effectiveness with no risks of acting or not acting.

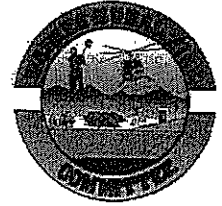
The alterations to the Plan as a result of the proposed Plan Change will be:

- an increase in the water storage capacity of residential units in the Rural Zone (where home sprinkler systems are not installed)
- a more clearly written rule
- an explicit statement that NZ Fire Service needs to approve any departure from the permitted activity standard
- a new assessment criterion related to extent of compliance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice (SNZ PAS 4509:2008)
- A change from the requirement for a 50mm valve on water tanks, to a 100mm valve.

The Plan Change relies on an existing operative issue (risk from natural hazards) and an existing operative objective (natural hazards).

These issues and the objective are not being considered in this report because of their operative status.

WAIMEA RURAL FIRE AUTHORITY



10 May 2010

To: Stakeholders
Waimea Rural Fire Committee

From: Neil Eder
Principal Rural Fire Officer

Subject: Water Tank Outlet Couplings

The WRFD Fire Plan contains a rule that water tanks supplying rural properties will have a 50mm female camlock fitting with an on/off valve.

As a result of past submissions to TDC and NCC the requirement for a 50mm camlock fitting has also been included in the respective Council rules.

The NZ Fire Service has expressed concern that this connection type is not compatible with the 100mm female thread coupling that is used by the Urban Brigades to achieve rapid water delivery in the event of structure fire suppression. This compromises the effectiveness of these water supplies in areas where the responding Fire Appliance is an Urban Brigade. This occurs in areas such as rural areas adjacent to Nelson City, Richmond, Wakefield, Mapua, Motueka, Tapawera, Murchison etc.

Following discussions with the NZ Fire Service I recommend that the WRFC supports a change in specifications so future water tanks are fitted with the 100mm female thread option rather than the 50mm female camlock option.

The primary reason is that the 50mm outlet compromises water flows through the 100mm pumps even if a 50mm/100mm adaptor is developed. However a 100mm outlet provides the required water flows for the Urban Brigades and a 100mm/50mm adaptor will allow the Rural Pumps to also connect without compromising water flows.

There will be a cost of providing each VRFF with a 100mm/50mm adaptor (possibly in the order of \$300 per VRFF although a quote has not yet been obtained).

A further reason for providing support to the 100mm "structure" focus is in the case of vegetation fires the water tanks have not proved to be a critical resource. The use of the Rural Fire Appliances for water carrying has meant that to my knowledge a rural water tank has not been used to supplement water supplies at any fire suppression event.

Although there is potentially some merit in very isolated properties having a water tank supply for vegetation fires there is actually a high likelihood that fire fighters will not use these tanks because it will be too dangerous to put fire fighters in these locations. Helicopters are more likely to be used in any attempt to protect the structure from a spreading fire.

TDC is currently undertaking a fast track amendment process and the 100mm amendment could be included in this process. If possible I would be grateful if you could respond by this Thursday with your thoughts.

Regards

Neil Eder
Principal Rural Fire Officer