

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

	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.
Benefits	<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>

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Costs	<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><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><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>

	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.