KAIPARA DISTRICT

Kaipara te Oranganui • Two Oceans Two Harbours

KAIPARA DISTRICT COUNCIL

Section 32 Evaluation Report

Plan Change 4

Fire Safety Rules (Land Use)

September 2016

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Executive Summary

Introduction

This Section 32 Evaluation Report is set out in six Sections (with supporting Appendices 1-16 contained in Section 7).

Part 1: Proposal and background

1 Part 1 summarises the background to the Fire Safety Rules (Land Use) and how they were included in the District Plan as currently written from the time the District Plan was notified in October 2009 and amended through the submission process. The New Zealand Fire Service (NZFS) made a submission and sought that the rules incorporate the *New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008* ("the Code of Practice") as a permitted activity performance standard. This was accepted by Council.

2 Implementation of the Fire Safety Rules (Land Use) including the Code of Practice as a permitted activity performance standard, commenced on 01 November 2013 when the District Plan became Operative.

3 The Code of Practice requires 45,000ltr for residential activities and 180,000ltr for commercial and industrial activities to be stored onsite and be available for NZFS to use in the event of a fire occurring on the site concerned. Many property owners who did not wish to provide these volumes were required to obtain a resource consent. 177 resource consents have been granted since the Fire Safety Rules (Land Use) became operative. This caused community frustration with the new rules. Nearly all of the resource consents granted were for residential activities.

4 It is the intention of Plan Change 4 to remove from the Fire Safety Rules (Land Use) the need for a resource consent for those who do not wish to comply with the Code of Practice when developing their properties. However, it is the intention that the Code of Practice will be a matter that will be considered at the time of subdivision.

5 Part 1 also provides a response to many of the issues raised by submitters to Plan Change 2. Other issues raised by submitters are addressed in other sections of the Evaluation Report. Plan Change 2 sought to set specific volumes of water that would be stored onsite for fire fighting purposes as a permitted activity and no resource consents would be required. The 10,000ltr for residential activities codified what had been consistently applied to previous resource consents after applicants had had their proposals approved by NZFS.

6 Plan Change 2 was not supported by the majority of submitters who requested among other matters that Council *not adopt the proposal and reconsiders the whole matter of including Fire Safety Rules in the District Plan de novo as a new proposal*.

Part 2: The District Plan and the Code of Practice

7 Central to this Plan Change is the role that the Code of Practice should have in the District Plan in respect of performance standards for permitted activities.

8 The Code of Practice is not a statutory document and it is not mandatory for Council to include it in rules in the District Plan.

9 The Foreword to the Code of Practice states that *"it is intended that the code of practice will form the basis of a partnership between the New Zealand Fire Service, territorial authorities, water supply authorities and developers so that the code may be used as a basis for territorial authority and water supply authority (WSA) conditions of supply or be called up, for example, by territorial authorities in rules regulating* ***subdivisions*** *in the district plan."* [emphasis added by writer]

10 The Code also states in clause 1.1 in respect of rural areas that:

"*In rural areas there may be water supply systems without firefighting capability. In many cases these systems are not sufficient for fire sprinkler systems unless stand-alone water supplies are provided. These are matters to be considered at the design stage of the sprinkler system.*

In rural areas, the effectiveness of a water supply for firefighting is affected by the time and distance from a fire station, the fire loading in the structure, the speed of fire development, ready access to a sufficient quantity of water, and the seasonal sustainability of the water supply. Because structures remote from a fire station are significantly more at risk from fire outbreak, the Fire Service strongly recommends that sprinklers are installed in all structures (and specifically houses) sited more than a 10 minute response time from a fire station."

It is also to be noted that the Code of Practice in clause 1.1 states:

"***The Fire Service recommends the installation of automatic fire detection devices such as smoke detection systems and fire protection systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection for life and property***." [Note - emphasis has <u>not</u> been added. This text is bolded in the Code of Practice.]

11 Part 2 outlines that the Operative Kaipara District Plan has no policy framework for structural fires. The policy framework in respect of fires focuses on wild fires. It is for this reason that Plan Change 4 proposes to add an objective, policies, a section on other methods and an outcome statement. These are in addition to the amendment to the rules that are proposed.

12 Provisions of Plans of other local authorities have been researched to determine how the Code of Practice has been addressed. In respect of the neighbouring local authorities, the Far North, Whangarei District Councils and Auckland Council (in the Rodney Plan) do not make a direct reference to the Code of Practice in their Plan. There are generic provisions "*requiring there to be adequate water for fire fighting purposes"* and for Whangarei (through their Engineering Standards document) that they be designed to conform with the Code of Practice.

13 Research has been undertaken on other District Plans that include the Gisborne District Plan. The Gisborne District Plan when it was made operative included rules that required compliance to the Code of Practice. Through the Plan Change process requiring 'compliance' with the Code was removed from the rules and replaced with an Advice Note recommending the installation of sprinkler systems as the most appropriate form of compliance with the Code of Practice.

14 The Code of Practice has been examined to determine whether there was flexibility to comply without the need to obtain a resource consent.

15 Council's preferred District Plan approach is to replace compliance with the Code of Practice in land use rules with an Advice Note and to include the Code of Practice as a matter that is considered at the time of subdivision.

16 Council's preferred approach is based on research that Council has undertaken.

Part 3: Research, other considerations and other methods

17 The Risk of Structural Fires occurring in the Kaipara District is low however the consequences can be high in terms of loss of property and even loss of life. Risk is mitigated by Building Code requirements of installing smoke alarms and ensuring means of escape from buildings in the event of fire.

18 Response times to fire events by NZFS has been provided. When consideration is given to response times, particularly to structural fire events outside the settlements, the water stored onsite may not even be used by the fire service to save a building by the time it arrives at the site concerned. It is therefore considered that an Advice Note that recommends installing sprinklers in buildings is more appropriate.

19 Opus consultants undertook research and provided Council with a report entitled "*Mangawhai Water and Fire Supply Options Feasibility and Cost Analysis*." This report looks at various options for water for fire fighting purposes including limited reticulation, aboveground and underground tanks for the Northcoast, KSR Farms, Vista Verano, Parklands and Jack Boyd Drive subdivisions in Mangawhai. Underground tanks for these subdivisions would cost $850,000; aboveground tanks $384,000 and limited reticulation $1,965,000.

20 The option of Council providing strategically located tanks specifically for the storage of water for firefighting purposes or providing volunteer fire brigades with mobile tankers or portable dams in communities that have a fire service (brigades) but not a reticulated water supply, is a method that is discussed and needs consideration. The provision of water tanks needs to be consulted on through an Annual Plan / Long Term Plan process under the Special Consultative Procedure - s83 of the Local Government Act 2002.

21 A Submitter to Plan Change 2 suggested that NZFS be provided with greater capacity water tankers. Research on this is included in this section.

22 Providing additional mobile water tanks (backed up with portable dams) to brigades in communities where there is a fire service but no reticulated water supply is another option that Council can consider. This option too would need to be consulted on through an Annual Plan / Long Term Plan process under the Special Consultative Procedure - s83 of the Local Government Act 2002.

23 The Building Code, as explained above, contains provisions that are assessed through the building consent process. There are mandatory requirements for smoke alarms to be installed and buildings to provide means of escape for people from buildings in the event of a fire.

24 There are education initiatives often on television that alert to the need of fire safety in homes.

25 Council therefore considers that the District Plan is but one of many tools available to address the issue of fire safety in the district.

Part 4: Pre-notification consultation

26 This section outlines that Council has consulted with iwi and submitters to Plan Change 4 Fire Safety Rules (Land Use). Council in written communication outlined the proposal it was considering in terms of a new Plan Change for Fire Safety and sought comments.

27 Comments have been received from both iwi and submitters to Plan Change 4. The details of this is contained in **Appendices 10** and **12**.

Part 5: Legal Requirements for Plan Changes – Sections 74 and 75 RMA

28 Section 74 specifies that a Council must prepare and change its District Plan in accordance with its functions under s31 and the provisions of Part 2. S74 also states that when preparing or changing a District Plan Council must have regards to any proposed regional policy statement or plan(s); management plans and strategies prepared under other Acts; relevant entries on the New Zealand Heritage List; the extent to which the District Plan needs to be consistent with plans of adjacent territorial authorities; relevant iwi planning documents. S74(3) specifies that Council in preparing or changing its District Plan must not have regard to trade competition.

29 Section 75 states a District Plan must *give effect to* any national policy statement, New Zealand Coastal Policy Statement and any regional policy statement and not be inconsistent with a water conservation order or a regional plan matter specified in s30(1).

30 It is considered that Plan Change 4 meets all the legal test required to be considered under s74 and s75 of the RMA.

Part 6: Section 32 Evaluation

31 Council, in addition to meeting the requirements under s74 and s75 of the RMA is also required to meet a number of specific matters contained in s32 of the RMA relating to costs and benefits; risks of acting or not acting; efficiency and effectiveness; economic growth and employment.

32 Costs and benefits; risks of acting or not acting; efficiency and effectiveness; economic growth and employment are contained in tables for three options. The three options analysed are; the status quo (no change to the District Plan), an option using alternative methods in the Code of Practice that provides flexibility and the preferred option which is set out in Part 1 of this Evaluation Report as the proposal.

33 Part 6 contains a comprehensive section on the costs of providing tanks under the current rules.

34 Part 6 explores the legal aspects of a permitted activity. As far as a permitted activity is concerned, legal test specify that they should be clear and certain to "*enable the Plan user to judge the meaning and effect of the rule at face value without having to resort to using explanations or seeking advice from those who wrote it*." [Source: Writing Effective and Enforceable Rules - Quality Planning Website.] The preferred option meets the clear and certain test while the other options do not.

Part 7: Section 32 Evaluation Report Appendices 1 -16 (separate document - supporting Appendices)

1 Proposal and background

1.1 Introduction

Council, when it prepares or makes changes to its District Plan, is required under the Resource Management Act 1991 (the RMA) to prepare an Evaluation Report in accordance with Section 32 and the Section 32 Evaluation Report is required to accompany the Plan Change.

The purpose of this Proposed Plan Change is to amend the Fire Safety land use rules in the District Plan and to insert an issue statement, an objective and policies in respect of structural fires into Chapter 2 (District-wide Resource Management Issues). Chapter 2 applies to all land in the district irrespective of its zoning. Structural fires is considered to be a district-wide issue. It is considered that the current issue statement, objectives and policies in respect of fire (in Chapter 7 - Natural Hazards) are more focused on wildfires not structural fires. It is also proposed to insert a section on other methods that assist in limiting the number and effects of structural fires - for example under the Building Code and with education campaigns promoting the use of smoke alarms and sprinklers.

The amendments to the land use rules will change the way the Code of Practice will be implemented in the District Plan.

This Evaluation Report outlines the background to Plan Change 4 and in particular provides brief responses to the submissions received to Plan Change 2. It sets out the legal matters that Council is required to consider when preparing a Plan Change in relation to Council's functions, in order to achieve the purpose of the RMA *in promoting the sustainable management of natural and physical resources*. It examines the Plan Change in relation to national and regional planning documents that Council is required to "*give effect to*" under the RMA in its District Plan and whether this Plan Change raises any conflicts or inconsistencies that would mean that Council is "not giving effect" to these documents.

As this Plan Change proposes to change the way the Code of Practice is to be used in the implementation of land use rules, this Section 32 Evaluation Report contains a specific section on the Code of Practice. It also contains sections on how structural fires are currently addressed and fire mitigation measures under the Building Act 2004 and Building Code (the Code sets out acceptable solutions for complying building work). This Evaluation Report examines the role of the District Plan in relation to rules relating to Fire Safety. It examines planning provisions in the Far North and Whangarei District Plans and how fire safety is provided for in other selected District Plans throughout New Zealand. Specific research has also been included relating to Mangawhai that has implications and application for other settlements in the Kaipara district where there are no reticulated water supplies that have sufficient capacity for fire fighting purposes.

This Evaluation Report sets out three main options that Council has considered in relation to how fire safety could be provided for in the Kaipara District Plan.

This Section 32 Evaluation Report also covers the specific matters listed in Section 32 of the RMA in relation to each of the options that have been identified.

1.2 Purpose and scope of Proposed Plan Change

The purpose of the Plan Change is to provide a policy framework for managing the risk of structural fires to life, property and the wider environment and to amend existing rules from the District Plan that is considered a disproportionate mitigation action to the risk posed by structural fire events. It is also considered that there are other methods and legislation (for example the Building Act 2004) that address the risk of structural fires and their spread other than including direct reference to the Code of Practice.

The scope of this Plan Change in respect of structural fires includes the following:

- The addition of a new issue to Chapter 2;
- The addition of a new Objective to Chapter 2;
- The addition of three new Policies and an Explanatory Statement in respect of these Policies to Chapter 2;
- The addition of four new Other Methods to Chapter 2;
- The addition of a new Outcome to Chapter 2;
- The amendment of the Fire Safety Rules (Land Use) 12.10.26; 13.10.26; 14.10.26; 15A.10.25; and 15B.10.25; and
- Amendment of the Dwelling Infrastructure Rule 15A.10.3b(c); and
- Retaining reference to the Code of Practice as a matter that will be considered at the time of subdivision in Rules 12.15.4; 13.14.4; 14.13.4; and 15B.14.4.

Submissions can be made on the new text that is proposed to be included in Chapter 2 and the amendment of Fire Safety Rules (Land Use) 12.10.26; 13.10.26; 14.10.26; 15A.10.25; and 15B.10.25 and the Dwelling Infrastructure Rule 15A.10.3b(c). Submissions can also be made on the rules that specify that the Code of Practice will be retained and considered at the time of subdivision.

1.3 Proposal - Plan Change 4 and what it means

The proposal is to add an issue, an objective and three policies to Chapter 2 - *District Wide Resource Management Issues* - as the District Plan does not contain a specific policy framework for 'structural fires.' An issue of 'fire' is included in Chapter 7 - *Natural Hazards* - where the focus is on 'wild fires' that can occur naturally but not 'structural fires'.

It is also proposed to amend existing Fire Safety Rules (Land Use) in the Rural; Residential; Business (Commercial and Industrial); Maori Purposes: Maori Land and Maori Purposes: Treaty Settlement Land Zones. In all the rules for these zones sub-clause (c) is proposed to be deleted. Sub-clause (c) reads as follows:

"*The use of buildings shall at all times be in accordance with the fire safety requirements specified in New Zealand Standard NZS 9231:1971 'Model Bylaw for Fire Prevention*". This sub-clause has been removed because the 1971 '*Model Bylaw for Fire Prevention'* no longer exists and was not replaced by an updated Bylaw.

In all rules, sub-clause (b) is proposed to be deleted and replaced with an Advice Note. Sub-clause (b) reads as follows:

"b) Water supply for fire fighting and access to this supply complies with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008;"

It is considered that implementing the Code of Practice at a land use stage for new development is a disproportionate action to mitigate the risk posed by structural fires events and in particular does not capture sites which already have been developed. It is considered that implementation of the Code of Practice is more appropriate at subdivision stage where the issue of appropriate provision of water for fire fighting purposes should be addressed upfront. It is considered that for existing sites, particularly where there are no reticulated water supplies that have sufficient capacity for fire fighting purposes, an Advice Note is a more appropriate measure.

For the Fire Safety Rules (Land Use) for the Residential, Commercial and Industrial Zones, it is proposed to delete sub-clause (d) and Note 1. Sub-clause (d) and Note 1 read as follows:

"The building is located at least 20m away from naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest.

***Note 1:** For fire safety, the New Zealand Fire Service advises that buildings should be at least 20m from the dripline of any tree and that these setbacks are also appropriate from scrubland and other similar vegetated areas."*

It is considered that sub-clause (d) and Note 1 are not generally urban issues and to retain such a provision is unnecessary and onerous, particularly where planting occurs that will be closer than 20m as part of residential amenity. It is considered that this provision relates more to wildfire situations in the rural areas.

The following sets out what is proposed under this Plan Change.

1 Add to Chapter 2 as Issue 2.3.14

"2.3.14 Potential adverse effects to life, property and environment from fires in buildings and structures

The risk to life, property and the environment is affected by the reporting of and responding to fires in buildings. The District is served by a number of volunteer fire fighting forces that need to assemble before a fire appliance is sent to the site of an incident. Response times vary depending on the distance of the incident to the fire station concerned. Firefighting appliances carry a limited water supply and an additional water supply is often required at the source of the fire to put out fires. Additional water supplies are variable across the District. In respect of the various settlements in the District, not all have reticulated water supplies that have sufficient capacity for fire fighting purposes. In addition, static water supplies such as lakes, streams, the sea and swimming pools may be too far from source of the fire for practical use. Dwellings located in the rural heartland and in some settlements where there is no reticulated water supply, provide for their own domestic water needs storing water in tanks which is often insufficient as an additional source for firefighting. Given service levels for the rural heartland of the Kaipara District, it is likely that stored water on site dedicated for fire fighting purposes, may not even be used by the Fire Service to save the buildings

by the time the Fire Truck arrives on the site. Where there may be a domestic water tanks on-site dedicated for fire fighting purposes, special couplings are required by the Fire Service to enable this water to be used. In rural areas the issue of reporting and responding to a fire can mean that the dedicated water supply for fire fighting purposes may not prevent the loss of a building."

2 Add to 2.4 District-wide Objectives as Objective 2.4.15

"*2.4.15* *To encourage and promote fire safety measures for buildings and structures to minimise fire risk to life, property and the environment."*

3 Add the following Policies to Section 2.5

"2.5.17(a) *To ensure new reticulated sites within the Reticulated Services Boundary are provided with an adequate supply of water for fire fighting for the reasonably anticipated land use;*

2.5.17(b) *To promote in non-reticulated areas that there is an adequate alternative supply of water for fire fighting purposes for the reasonably anticipated land use;*

2.5.17(c) *To encourage education on fire hazard and on fire risk reduction measures.*

The District Plan can promote measures at land use and subdivision stages to assist in minimising fire risk spread for the community. However, provisions in a District Plan are not the only method of minimising fire risk. The Building Code contains measures that are applied at the time a building consent is lodged. Council or the community for areas where there is no reticulated water supply can provide static supplies for fire fighting purposes in the form of tanks situated at strategic locations that can service a wider area."

4 Add the following to Other Methods

"2.6.2.5 *Investigate the provision of additional water supply for fire fighting purposes in non-reticulated residential areas where there is a fire service (e.g. Mangawhai, Kaiwaka and Te Kopuru) e.g. Community water tanks or providing volunteer fire brigades with mobile tankers or portable dams;*

2.6.2.6 *Implementation of the Building Code at the time of building consents;*

2.6.2.7 *Promote the installation of Sprinkler Systems by including an Advice Note on all Building Consents;*

2.6.2.8 *Support New Zealand Fire Services Fire Safety Education Initiatives."*

5 Add the following to Outcomes

"*2.7.13* *A community where the risks to life and the surrounding environment from fire is minimised."*

6 Amend Rules 12.10.26; 15A.10.25 and 15B.10.25 to read: (These are the Rural Rules)

"*Any **building** is permitted if:*

a) It does not impede the movement of fire service vehicles or equipment or generally restrict access for fire fighting purposes; and

~~*b) Water supply for fire fighting and access to this supply complies with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008;*~~

~~*c) The use of buildings shall at all times be in accordance with the fire safety requirements specified in New Zealand Standard NZS 9231:1971 'Model Bylaw for Fire Prevention'; and*~~

~~d~~b) The building is located at least 20m away from naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest.

***Note 1:** For fire safety, the New Zealand Fire Service advises that buildings should be at least 20m from the dripline of any tree and that these setbacks are also appropriate from scrubland and other similar vegetated areas.*

***Note 2**:*

"*In the interests of the protection of life and the surrounding environment, in all areas particularly non-reticulated areas over five minutes driving distance from a fire station, it is recommended that subject to the use of the building, a fire sprinkler system is installed in accordance with either the:*

- *NZS 4517 (Fire Sprinkler Systems for Houses); or*
- *NZS 4541 (Automatic Fire Sprinkler Systems); or*
- *NZS 4515 (Fire Sprinkler Systems for Life Safety in Sleeping Occupancies up to 2,000m^2)."*

7 Amend Rules 13.10.26 and 14.10.26 to read: (These are the urban rules)

*"Any **building** is permitted if:*

a) It does not impede the movement of fire service vehicles or equipment or generally restrict access for fire fighting purposes.

~~*b) Water supply for fire fighting and access to this supply complies with the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008;*~~

~~*c) The use of buildings shall at all times be in accordance with the fire safety requirements specified in New Zealand Standard NZS 9231:1971 'Model Bylaw for Fire Prevention'; and*~~

~~*d) The building is located at least 20m away from naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest.*~~

~~***Note 1:** For fire safety, the New Zealand Fire Service advises that buildings should be at least 20m from the dripline of any tree and that these setbacks are also appropriate from scrubland and other similar vegetated areas.*~~

Note 1:

"*In the interests of the protection of life and the surrounding environment, in all areas particularly non-reticulated areas over five minutes driving distance from a fire station, it is recommended that subject to the use of the building, a fire sprinkler system is installed in accordance with either the:*

- *NZS 4517 (Fire Sprinkler Systems for Houses); or*
- *NZS 4541 (Automatic Fire Sprinkler Systems); or*
- *NZS 4515 (Fire Sprinkler Systems for Life Safety in Sleeping Occupancies up to 2,000m^2)."*

8 Chapter 15A.10.3b(c) is a rule that relates to dwelling infrastructure in the Maori Purposes Maori Land Chapter. This Chapter provides for land that is owned by Maori and administered by the Maori Land Court under Te Ture Whenua Act 1993.

Amend Rule 15A.10.3b(c) to read:

"c) Where a public supply is not available, water supplies to all dwellings shall:

- *meet the requirements of the Building Act 2004; and*
- *be adequate for fire fighting purposes ~~in accordance with the New Zealand Fire Service's Code of Practice SNZ PAS 4509:2008~~;"*

9 Retain reference to the Code of Practice as a performance standard for subdivision in the Rural, Residential, Business (Commercial and Industrial) and Maori Purposes: Treaty Settlement Zones where the following is stated in Rules 12.15.4; 13.14.4: 14.13.4 and 15B.14.4:

"*1) Where a Council water supply is available:*

*a) The written approval of **Council's** Asset Manager is obtained and provided with the application to confirm that the Council water supply can be extended to serve the **subdivision**;*

*b) All **allotments** are provided, within their **net site area**, with a connection to the Council water supply; and*

c) All water pipelines vested with Council shall be protected by an Easement in favour of Council.

2) Where a public supply is not available, water supplies to all developments shall:

a) meet the requirements of the Building Act 2004; and

b) be adequate for fire fighting purposes taking into account the New Zealand Fire Service's Code of Practice SNZ PAS 4509:2008."

10 Retain reference to the Kaipara District Council Engineering Standards 2011.

The Kaipara District Council Engineering Standards 2011 in s8 Water Supply and Reticulation contains the following statements which by reference are also District Plan rules:

"8.*2 Design Requirements*

The following requirements shall be met:

a) Water supplies to all developments shall meet the requirements of the Building Act; and

b) Reticulated water supplies to all developments shall:

(i) include an isolation valve installed immediately after the meter on every new connection;

(ii) have an approved backflow preventer installed on every new commercial or industrial connection;

(iii) be adequate for fighting purposes in accordance with New Zealand Fire Service's Code of Practice SNZ PAS 4509:2008.."

11 Retain reference to the Code of Practice in the subdivision provisions in Rules 12.15.4; 13.14.4; 14.13.4 and 15B.14.4.

12 Setbacks from Vegetation

It is considered that retaining the 20m setback for dwellings from "*naturally occurring or deliberately planted area of scrubland or shrubland, woodlot or forest"* in residential and business zones is inappropriate. For residential zones in particular, standard amenity involves planting shrubs and trees to beautify sections. It is also to be noted that settlements have fire brigades.

It is considered appropriate for the setback to vegetation provisions to remain in the rural areas as this provision relates more to wildfire effects that may present a risk to life and property. It is also to be noted that fire services response times to fire events in the rural areas is a factor of distance from a fire brigade and the response times are longer before an appliance reaches the site of a fire event. It is therefore considered appropriate that the setback provision be retained in the Rural and two Maori Purposes Zones.

Below is a table that sets out what Proposed Plan Change 4 means to property owners who wish to build on their properties.

Proposed new approach to the Fire Rules – what does it mean to me?

Zone	Reticulated water	Non-reticulated water with effective fire service	Non-reticulated water without effective fire service
Residential and Business Zones	✓ Reticulated water supply provides sufficient water. ✓ No District Plan requirements. ✓ Communities include Dargaville, Ruawai, Maungaturoto and Baylys.	✓ Council to put in communal water storage for NZFS use. ✓ No District Plan requirements. ✓ Communities include Mangawhai, Kaiwaka and Te Kopuru.	✓ District Plan advises house builders to install sprinklers. ✓ Communities include Paparoa, Tinopai, Whakapirau and Pahi.
Rural and the two Maori Purposes Zones	✓ Reticulated water supply provides sufficient water. ✓ No District Plan requirements.	✓ District Plan advises house builders to install sprinklers.	✓ District Plan advises house builders to install sprinklers.

Please Note: **Effective Fire Service** means if your building is within a five minute drive from a NZFS station. (Source: Refer point 8 Page 3 of Attachment 5.)

In Kaipara district there are NZFS stations in the following locations: Dargaville, Te Kopuru, Ruawai, Maungaturoto, Kaiwaka and Mangawhai.

1.4 Background

The Kaipara District Plan became Operative on 01 November 2013. When the District Plan was notified for submissions in October 2009, it included Fire Safety Rules (Land Use) as outlined below.

For the Rural, Residential, Maori Purposes: Maori Land and Maori Purpose: Treaty Settlement Land, Rules 12.10.25, 13.10.27, 15A.10.25, 15B.10.25 were written as follows:

"Any building is permitted if:

a) It does not impede the movement of fire service vehicles or equipment or generally restrict access for fire fighting purposes.

b) *The use of buildings shall at all times be in accordance with the fire safety requirements specified in New Zealand Standard NZS 9231:1971 'Model Bylaw for Fire Prevention'*."

For the Business: Commercial and Industrial Zones, Rule 14.10.27 was written as below. It is to be noted that this rule differed from the others in that it contained an "and' between sub-clauses (a) and (b).

"Any building is permitted if:

a) It does not impede the movement of fire service vehicles or equipment or generally restrict access for fire fighting purposes; and.

b) The use of buildings shall at all times be in accordance with the fire safety requirements specified in New Zealand Standard NZS 9231:1971 'Model Bylaw for Fire Prevention'."

These above rules (as proposed) were submitted on by NZFS and the current wording of these rules reflects the submissions that were made by NZFS. A key feature is that **the rules as currently written incorporate** the Code of Practice by way of reference. It is to be noted that reference to other documents in District Plans, either in part or in full, is provided for in Part 3 of the First Schedule to the Act. Council in drafting the rules as currently included in the District Plan, did not act outside the requirements of the RMA.

Administering District Plan Rules

Council, since the Plan became Operative, identified that complying with the Fire Safety Rules (Land Use) were creating a level of community frustration which required all infringements to the rules to be processed by way of resource consents. Council, when it identified issues in implementing the Fire Safety Rules (Land Use), held meetings with developers to outline the new requirements. Council also had meetings with NZFS (Whangarei Branch). The outcome of meetings with NZFS established a process whereby applicants for building consents that had not provided a water supply for firefighting in accordance with the relevant District Plan Fire Safety Rules (Land Use), were required to consult with NZFS once they completed the Fire Fighting Facilities Checklist which outlined what their proposal entailed. If NZFS approved what was proposed, they would provide their signoff to the proposal. It is to be noted that all applications approved provided 10,000ltr of water stored for fire fighting purposes. The 10,000ltr of water became the standard response. This was then noted in reports and decisions in respect of the resource consent concerned. It is to be noted that all building consents lodged with Council are checked to determine whether they comply with all relevant District Plan rules.

Council has granted 177 resource consents in respect of the Fire Safety Rules (Land Use) between 01 November 2013 (when the District Plan became operative) and 01 June 2016. Around 110 of these consents were single breach consents in respect of the Fire Safety Rules (Land Use) only.

It is considered that requiring resource consents for this is a disproportionate mitigation measure when compared to risks. This is the underlying basis of Plan Change 4.

Plan Change 2

Since the first meeting with NZFS (Whangarei Branch) that established the process for implementing the Fire Safety Rules (Land Use), Council and NZFS together have been exploring how the Fire Safety Rules (Land Use) could be amended to provide water volumes at thresholds that could set standards for permitted activities and still achieve fire safety. Plan Change 2 contained the agreed water volume thresholds where there was no reticulated water supplies available. For residential activities this was set at 10,000 litres and for commercial and industrial activities the volume was set at 45,000ltr. Essentially Council was of the view that the amendments to the Fire Safety Rules (Land Use), as set out in Plan Change 2, were technical in nature and codified what had been allowed through the resource consent process. The accompanying Section 32 Evaluation Report to Plan Change 2 reflected the *scale and significance* of a "tidying up of Fire Safety Rules" to make them more workable for all parties concerned - Applicants, NZFS and Council. The Summary for Notification in December 2014 included a Section 32 Evaluation Report for Proposed Plan Change 2 - Fire Safety Rules (Land Use). This is appended as **Appendix 1**.

Council publicly notified Plan Change 2 on 08 December 2014 in accordance with the provisions of the First Schedule to the RMA, with the submission period closing at 5pm on Friday 30 January 2015. Council received 121 submissions, two of which were received after the submission period had closed.

Submitters raised concerns that an effect of the proposed Plan Change would mean their sections would be 'covered' with water tanks and hardstand access areas for fire trucks. Submitters questioned the risk of fire occurring and the evidence of dwellings lost to fires because there was an insufficient water supply onsite. Submitters also commented that even if there was sufficient onsite water supply, the response times for a voluntary fire brigade to reach a particular fire and to use the stored water would not prevent the fire from destroying the house. The costs to comply with the Code was considered by submitters to be out of proportion with the risks of fire occurring at their buildings and are an unreasonable and unnecessary burden on property owners. Submitters commented that the Code of Practice sets urban standards and should not be applied in a rural district.

Submitters believed that this Council is the only Council that requires compliance with the Code of Practice at building consent stage. Investigations have shown that Far North and Whangarei District Councils, and many other District Plans, require water for firefighting purposes at subdivision stage or by reference through their engineering standards, however not at land use stage.

Submitters questioned the legality of the notification process, the legality of the Section 32 Evaluation Report that accompanied the notified Plan Change and the way the Code of Practice was incorporated (by reference) into the District Plan Rules in the first place when it is a non-mandatory and non-statutory document. Submitters requested that the Fire Safety Rules (Land Use) be deleted from the District

Plan. The matters raised in the first sentence of this paragraph were referred to Council's solicitors. Council's solicitors confirmed that the notified documentation including the Section 32 Evaluation Report and the notification process was in accordance with the provisions of the RMA.

Council's Solicitors also stated that the Code was appropriately incorporated into the District Plan. Council had notified a rule in its Proposed Plan in 2009; this has been subject to submissions and one had been made by NZFS seeking amendments to the rules; the amendments were summarised and notified for Further Submissions. At the Further Submission stage, there was an opportunity for submitters to either support or oppose the amendments sought by NZFS. Two further submissions were received in support of the NZFS submission from the Department of Conservation and a joint submission by the Farmers of NZ Inc with the Kaipara Citizens and Ratepayers Association Inc and with the Poutu o Topu A Trust. There were no submissions in opposition to the submission by NZFS. A hearing was held and decisions reflecting the amendments sought by NZFS in their submission were made. While there was an appeal to the Fire Safety Rules (Land Use) lodged with the Environment Court, this appeal (by the Department of Conservation) did not relate to including a direct reference to the Code of Practice.

In respect of submissions which sought to have the Fire Safety Rules (Land Use) deleted from the District Plan, legal advice stated that Council could not make a decision to this effect because Plan Change 2 as notified, **sought discrete amendments to existing rules**. If Council was to delete the rules, then this would go further than the Plan Change had proposed. A decision to delete the rules in their entirety would deny those who had viewed the changes proposed, had agreed with them and had chosen not to make a submission, a chance of being involved in the Plan Change process because they had anticipated a certain specific change. Council's solicitors based this legal opinion on a High Court decision (14 March 2003) on **Clearwater Resort Limited v Christchurch City Council**.

While the focus of submissions was on the role that the Code of Practice should have in the Fire Safety rule, it is also to be noted that one of the discrete amendments was to delete sub-clauses that read:

"the use of buildings shall at all times be in accordance with the fire safety requirements specified in the New Zealand Standard NZS 9231:1971 "Model Bylaw for Fire Prevention."

The above sub-clause was part of the Proposed Kaipara District Plan when it was notified. However this Standard was withdrawn and has not been replaced. This requirement is therefore redundant.

Overall the majority of submitters sought as relief in their submissions that Council:

1 "*not adopt the proposal; and*

2 *reconsiders the whole matter of including the Fire Service Rules in its District Plan de novo as a new proposal; and*

3 *prepares a new Section 32 Evaluation Report that is compliant with the Act; and*

4 *notifies the proposal in full compliance with the provisions of the Act; and*

5 *holds public meetings throughout the district to explain to the public the objectives of the proposal, the assessment of the proposal and the implications of the proposal.*"

Other submitters have specifically requested that the Plan Change be withdrawn.

The NZFS Submission

Council also received a submission from NZFS (National Office). NZFS opposed what it considered was the '*one size fits all*' approach of Plan Change 2. NZFS stated that:

"while applications have been granted for dwellings to provide only 10m^3, …the agreement to reduce water supply to this amount is reliant on each site and proposed development characteristics. The 45m^3 prescribed in the Code of Practice is a national standard requirement that should still be adhered to unless the site and proposed development characteristics lend themselves to the NZFS agreeing to a reduced amount.

The NZFS proposes that applicants should still be required to show compliance with the Code of Practice, or be given the flexibility to consult with the NZFS, who can work with the applicant to come to an agreed amount."

It is further stated in the NZFS submission that:

"the minimum water volume required by the Code of Practice is 180m^3 for commercial and industrial buildings with larger buildings or activities with a higher fire risk requiring greater volumes. The NZFS has confirmed the volumes of water required through research and analysis and included these in the Code of Practice. We note that Council has not provided an alternative analysis to determine whether the reduced water volume is appropriate. The proposed change to 45m^3 is a significant reduction in the desired water supply required for these activities and will not guarantee sufficient water for fire fighting in emergency situations. This is particularly relevant for larger buildings and high risk activities within. These proposed changes are therefore not supported by the NZFS."

Council through the submission process found itself in a position where neither its residents and ratepayers nor its major stakeholder (NZFS) were supportive of Plan Change 2. The majority of the submitters wanted Council to reconsider the whole matter of including Fire Safety Rules (Land Use) in the District Plan as a new proposal while NZFS did not want the changes that were proposed because they would be in conflict with the volumes of water specified in the Code of Practice. NZFS proposed that applicants should consult with NZFS and both parties should agree to reduced volumes of water where Code compliance was not proposed.

Since submissions were received, Council has also been working with NZFS on ways to implement the Fire Safety Rules (Land Use) to facilitate administrative efficiency so that applicants do not need to apply for resource consents if alternatives that comply with the Code of Practice, have been approved by NZFS. This is outlined below in s2.4.3 of this Evaluation Report.

Council on 28 July 2016 resolved pursuant to clause 8D of the First Schedule to the RMA, that Plan Change 2 be withdrawn and that Plan Change 4 with its Section 32 Evaluation Report, be notified.

It is to be noted that Council has not published the availability of a summary of relief sought in the submissions it received for further submissions. Council has instead considered the matters raised in submissions and has resolved to relook at the issue of fire safety and the role that the District Plan and the role of other methods in terms of fire mitigation.

2 The District Plan and the Code of Practice

Central to this Plan Change is the role that the Code of Practice should have in the District Plan in respect of performance standards in land use rules for permitted activities and as a matter for consideration at the time of subdivision. This is discussed below in sections that outline:

- what the Code of Practice contains;
- what the Kaipara District Plan currently contains in respect of the Code;
- what District Plans of other local authorities contain; and
- Council's preferred approach.

It is to be noted that Council's preferred District Plan approach has not been solely arrived at by comparing the Kaipara District Plan provisions with those of other District Plans. The preferred District Plan approach has been based on wider research and the consideration of other methods that are outlined below in Part 3 of this report and in consideration of the Kaipara context - rural heartland and small settlements not all of which have reticulated water supplies or an effective fire service.

2.1 The Code of Practice

The Foreword to the Code of Practice states that *"this code of practice was developed to provide direction on what constitutes a sufficient supply of water for firefighting in urban fire districts. This includes areas covered by any agreements under sections 38 or 39 of the Fire Service Act 1975. This code of practice is not intended to provide specifications for the water supply required for the effective operation of fire protection systems.*

It is intended that the code of practice will form the basis of a partnership between the New Zealand Fire Service, territorial authorities, water supply authorities and developers so that the code may be used as a basis for territorial authority and water supply authority (WSA) conditions of supply or be called up, for example, by territorial authorities in rules regulating ***subdivisions*** *in the district plan.*

This code of practice is published under section 30(3) of the Fire Services Act 1975."

Section 30(3) of the Fire Service Act 1975 reads as follows:

"In carrying out its duties pursuant to subsection (2) the National Commander shall publish a Code of Practice specifying standards for water supply volume and pressure which are required. This Code of Practice shall be notified by the National Commander in the Gazette."

Although the Code of Practice has been developed for urban fire districts, it is also intended to provide guidance on minimum fire fighting water supply for buildings in rural areas. The intent of the Code of Practice is to encourage measures in new development to mitigate the risks of fire. Essentially two types of measures are promoted; the proactive measure, which is to control the fire at source using sprinkler protection or the reactive measure, which is to rely on an external fire agency such as NZFS applying water. For the latter measure, a suitable fire fighting water supply needs to be available.

The Code of Practice includes the following statements in Clause 1.1 in respect of rural areas:

"In rural areas there may be water supply systems without firefighting capability. In many cases these systems are not sufficient for fire sprinkler systems unless stand-alone water supplies are provided. These are matters to be considered at the design stage of the sprinkler system.

In rural areas, the effectiveness of a water supply for firefighting is affected by the time and distance from a fire station, the fire loading in the structure, the speed of fire development, ready access to a sufficient quantity of water, and the seasonal sustainability of the water supply. Because structures remote from a fire station are significantly more at risk from fire outbreak, the Fire Service strongly recommends that sprinklers are installed in all structures (and specifically houses) sited more than a 10 minute response time from a fire station."

It is also to be noted that the Code of Practice in clause 1.1 states:

"***The Fire Service recommends the installation of automatic fire detection devices such as smoke detection systems and fire protection systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection for life and property.***" [Note - emphasis has not been added. This text is bolded in the Code of Practice.]

As noted above, it was intended that the Code of Practice would form the basis of a partnership between NZFS, territorial authorities, water supply authorities and developers so that the Code may be used as a basis for territorial authority and water supply authority conditions of supply or be used, for example, by territorial authorities in rules regulating **subdivisions** in the District Plan. It is to be noted that the Kaipara District Plan includes provisions for the Code of Practice to be considered at the time of subdivision [emphasis added by writer.] This Plan Change does not propose any changes to the subdivision provisions although this is still part of the Plan Change and is open to submissions.

The standard method for establishing the required fire fighting water supply is by use of Tables 1 and 2 in the Code of Practice. These tables assign a fire water classification (FW1 to FW7) according to the type of activity, size of fire cells and whether sprinklers are present. Each fire water classification has requirements according to whether the area is reticulated or non-reticulated. For reticulated areas, the Code of Practice specifies the minimum water pressure of the water main and the maximum number of fire hydrants to provide this water pressure. For non-reticulated areas, the Code of Practice specifies a minimum volume of water to be dedicated to fire fighting and stored within 90m of the structure.

As an example, housing (excluding multi-storey apartment blocks) is FW1 if sprinklered and FW2 if non-sprinklered. For these FW classifications in reticulated areas, a water pressure of 450L/min is required for sprinklered housing and 750L/min for non-sprinklered housing. In non-reticulated areas, sprinklered housing (single family homes) requires storage of 7,000ltr ($7m^3$) of water and non-sprinklered housing requires storage of 45,000ltr ($45m^3$) of water.

Another example is the scenario where a building is classified as FW6 (generally an industrial or commercial activity) and is located in an area that only supplies a reticulated water supply capable of supplying up to classification FW5. If upgrading of the water main is impractical, the options are to install an approved sprinkler system, divide the building into smaller fire cells or install the shortfall of fire fighting water onsite.

Clause 4.4 of the Code of Practice envisages that fire engineers or similar 'competent' persons **may develop alternative solutions** to those provided in the Code. The Code also provides a method for calculating a fire fighting water supply as an alternative to the standard approach in the Tables 1 and 2. However, to comply with the Code of Practice, such alternatives must be submitted for approval to the prescribed persons in NZFS [emphasis added by writer]. More comment is made on clause 4.4 below in s2.4.3 of this Report.

Review of the Code of Practice

The Code is generally reviewed every five years. Since the latest edition of the Code was published in 2008 (replacing the 2003 Code of Practice), a review was expected to have taken place in 2013. However at the time of writing a review had not been undertaken. After some research into review requirements of New Zealand Standards, it has been discovered that there is no legal basis of the five yearly review timeframe. From a website search www.standards.govt.nz/developoing-standards it was found that the 2008 Code of Practice is not listed for review. However, the 2008 Code of Practice does contain the following review statement:

"Review

Suggestions for improvements of this code of practice will be welcomed. They should be sent to the National Commander, New Zealand Fire Service, PO Box 2133, Wellington."

The current Code of Practice (2008) was prepared (a review of the 2003 Code) under the supervision of the *P4509 Committee* of the Standards Council established under the Standards Act 1988. The Committee consisted of representatives from the following organisations:

- BRANZ Ltd;
- Department of Building and Housing;
- Fire Protection Association New Zealand Inc;
- Ingenium;
- Insurance Brokers of New Zealand Inc;
- Local Government New Zealand;
- New Zealand Fire Equipment Association;
- NZFS; and
- New Zealand Water and Wastes Association.

The Standards Act 1988 was been replaced by the Standards and Accreditation Act 2015.

From Standards website, www.standards.govt.nz/developoing-standards it was found that "*the content in a standard is developed by an independent expert committee. Committees are made up of volunteers nominated by organisations (public and private) that have an interest in the subject covered by the standard.*

Once the content for the standard is written a draft is made available on our website for anybody to comment on. This process is called public comment. Comments submitted during the public comment period are reviewed by the committee and if necessary the standard is modified." The public comment period is usually eight weeks.

From the website it also noted that comments on joint Australia/New Zealand draft standards are to be submitted to Standards Australia.

The role of Standards New Zealand "*is to manage the process using internationally recognised best practices. The processes we use comply with the directives from the International Organisation of Standardisation (ISO)) the International Electrotechnical Commission (IEC) and the Standards and Accreditation Act 2015*."

In developing a New Zealand Standard, there appears to be no public hearing or appeal processes. This contrasts with the process specified in the First Schedule to the RMA which requires a full public process involving submissions and further submissions, hearings and appeal rights.

Implications of a reviewed Code of Practice if referenced in District Plans

Part 3 of the First Schedule to the RMA specifies in clause 31(b) that:

"An amendment to, or replacement of, material incorporated by reference in a plan has legal effect only if an approved change is made to the Plan under Part 1(and) states that the amendment or replacement has that effect." [abridged by writer]

For an amended or replacement Code of Practice to have effect in a District Plan, a Plan Change would need to proceed through the First Schedule process of being publicly notified (including a Section 32 Evaluation Report); subject to submissions; hearings and decision-making processes and possible appeals. The Plan Change that proposed amendments or replacement of the referenced document would need to be approved and merged into the Operative District Plan to have effect. **In other words, because a referred to document in a Plan has been amended or replaced, it does not mean that the amended or replaced document will have automatic effect as has been stated by some submitters to Plan Change 2.**

The *NZFS Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008* is appended as **Appendix 2**.

Agreements under S38 and S39 of the Fire Services Act 1975

As noted above, 'The Foreword" to the Code of Practice states that "*this code of practice was developed to provide direction on what constitutes a sufficient supply of water for firefighting in urban fire districts. This includes areas covered by any agreements under sections 38 or 39 of the Fire Service Act 1975. This code of practice is not intended to provide specifications for the water supply required for the effective operation of fire protection systems."*

Section 38 of the Fire Services Act reads as follows:

"38 Commission may undertake to protect from fire property outside a Fire District

(1) The Commission and the territorial authority of any rural area may from time to time enter into an agreement for the protection of that area from fire on terms and conditions to be agreed upon by the Commission and territorial authority:
provided that no payment shall be made to the Commission by the territorial authority in respect of any such protection after the commencement of this Act, whether the agreement was entered into under this section or under the corresponding provisions of any previous enactment.

(2) [Repealed]"

Council has an agreement in terms of s38 with NZFS in place for Mangawhai. It is also to be noted that in Mangawhai there is no reticulated water supply throughout the settlement whereas, there is a reticulated water supply in Dargaville that has fire fighting capability. It is to be noted that Dargaville is an **urban** Fire District under s26 of the Fire Services Act. This is set out below:

"Dargaville Fire District Notice, August 2014

Under section 26 of the Fire Service Act 1975, the New Zealand Fire Service Commission gives the following notice.

Notice

1 This notice is the Dargaville Fire District Notice, August 2014.

2 This notice comes into force on the day of its publication in the New Zealand Gazette.

3 This notice revokes and is in substitution for all previous fire district notices for the Dargaville Fire District.

Constitution of a Fire District

*(a) The **urban area of Dargaville** is constituted as a Fire District.*

(b) The Fire District is assigned the name "Dargaville Fire District".

(c) The boundary of the Fire District is defined and delineated on plans held at the National Headquarters, New Zealand Fire Service, Wellington.

Dated at Wellington this 8th day of August 2014.

PAUL BAXTER, National Commander, New Zealand Fire Service, acting under delegated authority from the New Zealand Fire Service Commission." [emphasis added by writer]

Section 39 of the Fire Services Act states:

"39 Commission may undertake to give special protection to owner of property outside a Fire District

The Commission may from time to time enter into an agreement with the owner or occupier of property situated outside a Fire District with respect to any property in the possession or under the control of that owner or occupier to afford that property a greater measure of protection from fire than it would receive under this Act or under the Forest and Rural Fires Act 1977, otherwise than by maintaining or assisting in maintaining an industrial fire brigade."

It is not known whether there are any s39 agreements between NZFS and other parties in place within the Kaipara district. It is to be noted that these are private agreements.

2.2 Current provisions in the District Plan

It is to be noted that the Operative District Plan currently incorporates, by reference, the Code of Practice in both land use and subdivision rules. It was the intention of Plan Change 2 to amend the land use rules and retain the subdivision provisions that refer directly to the Code of Practice and those that refer indirectly to the Code of Practice (through reference to the Kaipara District Council Engineering Standards 2011) as currently written in the Operative District Plan.

It is still Council's intention (in respect of subdivision) that existing rules be retained through this **Plan Change** (however these are subject to submission). Council is mindful that the Code of Practice is a non-mandatory and non-statutory document, however Council is supportive of the intent of NZFS' document that it forms the basis of a partnership between NZFS and territorial authorities and be used by territorial authorities in rules regulating **subdivisions** in the District Plan. Council and NZFS would then achieve a common objective in respect of providing water supplies for fire fighting purposes to facilitate fire safe communities.

It is to be noted that the District Plan's position on fire safety in respect of structural fires is not clear. In the Natural Hazards Chapter of the District Plan (Chapter 7) fire is identified as a natural hazard, however this is only in respect of wildfires, not structural fires. The following statement is made in respect of this:

"Fire

Wild fire is a hazard in the Kaipara District, especially during dry summer periods. Wild fires can put lives at risk, destroy property, and devastate natural areas; putting at risk natural, cultural, historical and recreational values of the District. The changing weather patterns expected from climate change (as discussed above), including the increasing intensity of droughts, are expected to increase the risk of wild fire. Providing and maintaining adequate 'defensible space' (or the separation of buildings particularly dwellings)) and bush and shrubland areas is one example of how land use planning can manage the risk to property and life as a result of wild fire."

Chapter 7 identifies two issues in respect of where 'fire' has been specifically mentioned - in 7.4.1 and 7.4.3 as follows:

"*7.4.1 There is risk to life, property and the environment from hazards including fire; flooding in low lying areas; coastal erosion; landslips; and storm damage."*

and

"7.4.3 Inappropriately located activities and development increase the likelihood of significant property damage caused by hazards, such as wild fire, land instability and subsidence.

- *Locating structures (especially dwellings) in close proximity to bush or shrubland areas or conversely allowing forestry activities close to existing residential buildings (locating property and residential activity in proximity to wild fire hazard areas)."*

It is further considered that the most relevant objectives that follow from the above issues do not clarify the District Plan's uncertain position on structural fires as the following objectives are generic in nature and can be applied to all natural hazards, including wild fires:

"7.5.1 To control subdivision and development so that it does not induce natural hazards or exacerbate the effects of natural hazards.

7.5.3 To improve public awareness of natural hazards as a means of helping the community to avoid such hazards.

7.5.4 To consider natural hazards at the time of any subdivision, land use development or when there is a significant change in land use proposed (for example a new Growth Area)."

The most relevant policies that support the above Objectives are as follows and none specifically mention "fire":

"7.6.1 By considering the potential for development, subdivision and land use activities including:

a) Vegetation clearance;

b) Draining of wetlands;

c) Changes in overland flow paths and stormwater;

d) Changes to riparian margins;

e) Earth works;

f) Buildings and building setbacks; and

g) Land reclamation;

to exacerbate any natural hazard on-site or off-site, and avoiding such activities, unless it can be demonstrated that the adverse effects can be mitigated, remedied or avoided.

7.6.5 By making information on known natural hazards available to the public to assist them with making informed resource management decisions."

To conclude, it is questioned whether the risk of structural fire could be considered an environmental issue and therefore within the core concerns of the RMA because it is not a natural hazard.

However, NZFS believes it has a responsibility under the Fire Service Act 1975 to provide for fire fighting activities in a safe, effective and efficient manner and that this role fits within the sustainable management purpose of the RMA, in particular s5(2) - *health and safety*.

It could be argued, at least as far as the Code of Practice sets standards for infrastructure design, that the District Plan addresses this through the subdivision rules either by direct reference to the Code of Practice or indirectly through referring to the Kaipara District Council Engineering Standards 2011 where reference to the Code is also included. It is considered that this meets the intent of the Code of Practice where it is specifically stated that the Code be used as a basis for territorial authorities in rules regulating subdivision in District Plans. (Code of Practice, paragraph 2 of the Foreword.)

On the other hand, it could be argued that as far as the Code of Practice relates to fire protection systems for buildings, it should not be used to impose additional requirements above those in the Building Act 2004 and Building Code. In this respect, it could be considered that the Code of Practice should not be a performance standard referred to in land use rules. It is recommended that the Fire Safety Rules (Land Use) therefore be replaced by an Advice Note worded along the following lines:

"Advice Note:

In the interests of the protection of life and the surrounding environment, in all areas particularly non-reticulated areas over five minutes driving distance from a fire station, it is recommended that subject to the use of the building, a fire sprinkler system is installed in accordance with either the:

- *NZS 4517 (Fire Sprinkler Systems for Houses); or*
- *NZS 4541 (Automatic Fire Sprinkler Systems); or*
- *NZS 4515 (Fire Sprinkler Systems for Life Safety in Sleeping Occupancies up to 2,000m^2)."*

It is to be noted that the above Advice Note reflects the statements below contained in the Code of Practice in s1.1 Aims:

"The Fire Service recommends the installation of automatic fire detection devices such as smoke detection systems and fire protection systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection for life and property."

and

"*In rural areas, the effectiveness of a water supply for firefighting* ***is affected by the time and distance from a fire station****, the fire loading in the structure, the speed of fire development, ready access to a sufficient quantity of water, and the seasonal sustainability of the water supply. Because structures remote from a fire station are significantly more at risk from fire outbreak, the Fire Service strongly recommends that sprinklers are installed in all structures (and specifically houses) sited more than a 10-minute response time from a fire station.*" [emphasis added by writer]

2.3 Provisions in other District Plans

Submitters to Plan Change 2 believe that Kaipara District Council is the only Council that requires compliance with the Code of Practice at building consent stage. Research into neighbouring and other councils has been undertaken. This has taken the form of a website search of Council District Plans and follow-up telephone conversations where appropriate with the respective Council's planning teams.

Far North, Whangarei and Rodney District Councils

The Far North District Council does not make direct references to the Code of Practice in its operative District Plan. The **subdivision chapter** simply requires all new allotments to either connect to a lawfully established reticulated water supply system or, where none is available, lots must have the ability to provide an individual water supply. Council restricts the exercise of its discretion in granting resource consents to several matters one of which is the adequacy of the water supply and access for fire fighting purposes.

Council uses standard consent notice wording in regard to future residential dwellings outside reticulated areas requiring adequate fire fighting water supplies to be provided. When an urban density subdivision is proposed, conditions of consent are included to ensure connection to water supply, the extension of the reticulated network and the installation of additional fire hydrants if required. Wherever NZFS is involved in a notified application, NZFS provides conditions for consideration and inclusion into consent decisions.

The Far North District Plan does not contain any direct reference to the Code of Practice.

The Whangarei District Plan in the Section C Policies – Part 8 Subdivision and Development contains s8.4.14 Fire Safety which reads as follows:

"To ensure that subdivision and development provides for fire safety (including appropriate design to ensure access for emergency service vehicles and an appropriate water supply for fire fighting purposes), in order to ensure the safety and well-being of the community."

The Subdivision Chapter of the Whangarei District Plan refers to the Whangarei District Council's Environmental Engineering Standards 2010 and Appendix 9. Clause A9.4.1(f) specifies that " *the water system shall meet the following objectives...provide adequate water supply for fire fighting in urban areas*." Clause A9.4.3(f) states that "*water supply systems shall be constructed to provide adequately for fire fighting, with accessible water supplies in public places, in all Environments other than the Countryside and Coastal Countryside Environments*"

It is to be noted that the Whangarei District Council's Environmental Engineering Standards 2010 ("the Engineering Standards") contain references and provisions in respect of the Code of Practice in s6 Water Supply and Reticulation. Section 6 requires an application to submit an analysis of water demand consumption and fire fighting. It also states in section 6.4.3 that "*where a water supply is available, or where a supply and reticulation system is to be provided as part of a subdivision or development, it shall be adequate for fire fighting purposes and for estimated domestic, commercial and industrial consumption. The design shall conform to the New Zealand Fire Service Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008*."

From a website search of the Whangarei District Plan, it has been determined that there are no land use rules that require compliance with the Code of Practice. The Code of Practice is therefore applied at subdivision stage for reticulated sites only.

The Rodney District Plan, a Legacy Plan that is part of the Auckland Council's planning framework, in Chapter 5 Natural Hazards, recognises that "habitable buildings should not be located where they will be at abnormal risk from fire from the surrounding environment." Chapter 5 also states that "*where buildings are located in places inaccessible to fire service vehicles, or close to inflammable vegetation, the risk of significant damage from fire increases markedly. The risks can be lessened through appropriate standards in the Plan.*" The Plan in Chapter 7 Rural contains activity specific provisions for the cutting of manuka and kanuka in the Rural Zone for property maintenance and fire protection within 10m of any existing building and consideration of forestry activities in the Countryside and Rural Living Zone because of potential fire risk or windfall. In the Business Zone there is provision for the siting of Fire Stations close to residential and other sensitive uses. In the Explanation and Reasons for the following is stated:

"Where Fire Stations are close to residential and other sensitive uses it is necessary to control the potential adverse effects of vehicle movements, activities and buildings on nearby uses and zones where practicable, while allowing for the design requirements of an effective and efficient emergency service that is acknowledged as essential in the District and generally appropriate in business zones."

In Chapter 23 Subdivision, it is stated that "*areas intensively developed without a piped water supply potentially lead to …….. ……. reduced capacity to fight fires*." Consideration is given to fire fighting at the time of subdivision and any reticulated water supply provided is "*to be sufficient for fire fighting purposes.*" There is no reference in any of the Chapters of the Rodney District Plan that were reviewed to the Code of Practice, including the subdivision Chapter.

Other councils

Hamilton City Council, Waipa, Waitomo, Western Bay of Plenty, Ruapehu, Tararua, Hurunui and Ashburton District Councils address water supply for fire fighting purposes at the time of subdivision either through generic statements or direct reference to the Code in subdivision rules. These councils do not have land use rules for fire fighting in their District Plans.

For councils which do not have land use rules, it is a common practice at the time of a resource consent to evaluate the merits of a proposal and if there are any fire safety issues, conditions will be imposed as appropriate.

The Kapiti District Plan is similar to the other councils mentioned in the paragraph above where water supplies for fire fighting purposes are assessed at the time of subdivision and there are no land use rules. However, the Kapiti District Plan in its objectives and policies includes the following reference to sprinkler systems *"new dwellings are designed to minimise fire risk, for example, by installing domestic sprinklers*." It is further drawn to the reader's attention that there is a requirement by the Kapiti District Plan for properties to provide a 10,000 litre water tanks for garden watering and toilets. It is to be noted that this provision is not for firefighting purposes.

The Whanganui District Plan has subdivision rules for the Rural and Residential Zones. It also has **land use rules for the Rural Zone only** - there is an assumption that in urban areas there is a reticulated water supply. The Tasman District and Nelson City Plans' approaches are similar to that of Whanganui. [emphasis added by writer.]

Otorohanga has special provisions in its Plan for the **Kawhia community** requiring on-site storage of 20,000 litres and water for fire fighting is addressed at the time of subdivision.

It is to be noted that while provision is made for fire fighting by the above councils in their District Plans, this may be through including a reference to the Code of Practice in Rules; or through a general rule that specifies water for firefighting purposes which may refer to a Council engineering document that contains a specific reference to the Code of Practice - mainly at the time of subdivision. Where there are land use rules, these are for specific areas or to cover water storage for garden and toilet purposes and do not apply throughout the entire districts of the councils concerned.

The Gisborne and Whakatane District Council approaches

The **Gisborne District Council** in 2013 replaced their land use rules for fire fighting water supply with an Advice Note. This was done through a Plan Change that followed the First Schedule process under the RMA. The Council's decision in respect of this was appealed to the Environment Court by NZFS. The appeal was settled by negotiations between NZFS and the Gisborne District Council and the Environment Court issued a consent order which reads:

"Advice Note:

In the interest of the protection of life, property and the surrounding environment new subdivisions and development should be compliant with the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008. This NZ standard contains methods of providing sufficient water supply and access for firefighting purposes in both reticulated and non-reticulated areas. In all areas

particularly non-reticulated areas over six minutes driving distance from a fire station the New Zealand Fire Service recommends that the installation of a fire sprinkler system in accordance with Fire Sprinkler Systems for Houses NZS 4517:2010 is the most appropriate form of compliance with SNZ PAS 4509."

It is further to be noted that the **Proposed Whakatane District Plan** in Rule 13.2.30 Water (in Chapter 13 Transportation and Services) proposes an Advice Note. This Advice Note as proposed reads as follows:

*"**Advice Note 2:** The New Zealand Fire Service recommends that water storage volumes and delivery systems be installed in accordance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice SNZ PAS 4509:2008. The Fire Service advises that often the best method to achieve compliance with this code of practice is through the installation of a home sprinkler system in accordance with Fire Systems for Houses NZS 4517:2010, in each new **dwelling**. The qualified staff of the New Zealand Fire service would be happy to assist and advise." [emphasis not added by writer]*

The same Advice Note is included in s18.2.5.3 of the Proposed Whakatane District Plan.

It is further stated in s18.7.1 Other Methods that:

*"The **Council** will place an advice note on every subdivision consent granted and, where the consent pertains to a site that has already been created through the subdivision process, but on which a permitted building has not yet been built, an advice note on every building consent granted. The advice note will read:*

*The New Zealand Fire Service recommends that water storage volumes and delivery systems be installed in accordance with the New Zealand Fire Service Firefighting Water Supplies Code of Practice:2008. The Fire Service advises that often the best method to achieve compliance with this code of practice is through the installation of a home sprinkler system in accordance with Fire Systems for houses NZS 4517:2003, in each new **dwelling**. The qualified staff of the New Zealand Fire Service would be happy to assist and advise". [emphasis not added by writer]*

Overall conclusion

From the above it is to be noted that there are a number of ways that the Code of Practice has been incorporated into District Plans. They include councils (such as Whanganui) that have rules which require compliance in both land use and subdivisions consent applications **in part of their districts**. There are District Plans where the Code of Practice and water for fire fighting purposes is assessed or considered at the time of subdivision only, there being no Fire Safety Rule (Land Use). A common practice in respect of resource consent applications for land use activities is to assess whether there is a fire safety issue and if there is, appropriate conditions are likely to be included in the granting of the consent involved. It is also to be noted that the Gisborne District Council has replaced its land use rules with an Advice Note. This approach is being followed in the Proposed Whakatane District Plan. However, the Whakatane District Plan also states that all sites created through the subdivision process on which a permitted building has not yet been constructed are to have an Advice Note on their property files drawing attention to the Code of Practice and fire safety. [emphasis added by writer]

It is to be noted that the approaches adopted by both the Gisborne and Whakatane District Councils are in general accordance with the aims stated in s1.1 of the Code of Practice. Section 1.1 states that:

"The Fire Service recommends the installation of automatic fire detection devices such as smoke detection systems and fire protection systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection for life and property." *[emphasis not added by writer]*

It is to be noted that the approach advocated by this Plan Change is that the land use rules be replaced with an Advice Note that is similar to the one that is part of the Operative Gisborne District Plan. It is considered that such an approach is consistent with the guidance nature of the Code of Practice which has a focus on subdivision. It is not to be overlooked that the Kaipara district is largely rural and the Code of Practice makes the following statements in respect of rural areas in s1.1. Aims:

"Fire districts may have a range of water supply systems such as a fully reticulated water supply system (an urban water supply area), a rural water supply system that feeds a supply tank (a rural water supply area), or a stand-alone tank supply using rain water or a local well or bore tor maintaining its contents.

Many areas outside fire districts will normally only have a rural water supply system or a stand-alone tank supply (although there may be some private reticulated water supply systems).

Where this code identifies firefighting water supply requirements for any of the three water supply systems above, these requirements can be used to provide advice for similar systems outside fire districts, that is, in rural areas.

In rural areas there may be water supply systems without firefighting capability. In many cases these systems are not sufficient for fire sprinkler systems unless stand-alone water supplies are provided.

These are matters to be considered at the design stage of the sprinkler system.

In rural areas, ***the effectiveness of a water supply for firefighting is affected by the time and distance from a fire station,*** *the fire loading in the structure, the speed of fire development, ready access to a sufficient quantity of water, and the seasonal sustainability of the water supply. Because structures remote from a fire station are significantly more at risk from fire outbreak, the Fire Service strongly recommends that sprinklers are installed in all structures (and specifically houses) sited more than a 10-minute response time from a fire station."* [emphasis added by writer]

2.4 How should the Code be included in the District Plan – Preferred Approach

2.4.1 Subdivisions only not land use

The District Plan currently refers directly to the Code of Practice in performance standards for subdivision in the Zone Chapters with the exception of the Maori Purposes - Maori Land Zone where subdivision has not been provided for. The performance standard in the Zones reads as follows:

"Be adequate for fire fighting purposes in accordance with the New Zealand Fire Service's Code of Practice SNZ PAS 4509:2008." (Rules 12.15.4; 13.14.4; 14.13.4 and 15B.14.4.)

For reticulated areas:

The Zone Chapters also refer to the Kaipara District Council Engineering Standards 2011 as a matter for control in Rules 12.12.1; 13.11.1; 14.11.1 and 15B.11.1 where the following is stated:

"The subdivision complies with the requirements of the relevant performance Standards in the Kaipara District Council Engineering Standards 2011 or has been confirmed as appropriate by Council's Engineer."

The Engineering Standards in Chapter 8 Water Supply and Reticulation state the following:

"8.2(b)(iii) Design Requirements - Reticulated water supplies to all developments shall…be adequate for fire fighting purposes in accordance with NZ Fire Service's Code of Practice SNZ PAS 4509:2008."

In respect of the Engineering Standards, it is to be noted that the Code applies to subdivisions where a reticulated water supply is contemplated.

Reticulated areas in the Kaipara include Dargaville, Baylys Beach, Ruawai, Maungaturoto, Glinks Gully and small areas in Mangawhai. It is appropriate that in these areas there should be adequate water supply for fire fighting purposes. Refer **Appendix 3** which shows the mapped Water Supply Targeted Rate Areas for the communities listed as contained in Council's Annual Plan 2016/2017.

For non-reticulated areas:

Within the Kaipara district, in addition to the rural heartland, there are a number of communities that do not have a reticulated water supply. These communities are Mangawhai, Kaiwaka, Te Kopuru, Paparoa, Tinopai, Whakapirau, Kaihu, Kelly's Bay, Pouto and Pahi. It is also to be noted that not all the above communities are served by a Volunteer Fire Brigade either by NZFS or Rural Fire Services (i.e. Whakapirau, Paparoa, Kaihu, Tinopai, Kelly's Bay, Pouto and Pahi - Rural Fire Services.)[1]

There are a number of benefits to the consideration of the Code at subdivision stage as opposed to land use (building stage). It allows consideration of possible integrated, multi-lot options for example, a shared water source where reticulation is not available or where a water supply is insufficient to meet the Code requirements. Another benefit of requiring compliance with the Code at subdivision stage is the removal of the 'surprise element'. As all new subdivisions are required to gain a resource consent, those subdividing land can be made aware of the requirement to comply with the Code early on in the consenting process. Consent notices can be imposed as part of a consent granting a particular subdivision.

The Code would only be enforced on new buildings if a condition to be secured by consent notice was imposed at subdivision consent stage on the Lot to require compliance at building stage, which would help to avoid unplanned costs at building stage.

[1] It is to be noted that under s36(1)(a&c) of the Forest and Rural Fires Act 1977, the Principal Fire Officer or the Rural Fire Officer has powers "*if in his opinion the fire constitutes a hazard to life or property, endeavour by all practical means to extinguish the fire and prevent the spread thereof and to save lives and property in danger*" and "*if necessary, break open any outer or inner doors of any house or building which may be on fire or in the near neighbourhood of any fire for the purpose of taking any steps which he deems necessary*." [Abridged by Writer]

It is to be noted that the Code states in the Foreword that:

"It is intended that the Code of Practice will form the basis of a partnership between the New Zealand Fire Service, territorial authorities, water supply authorities and developers so that the Code may be used as a basis for territorial authority and water supply authority (WSA) conditions of supply or be called up, for example, by territorial authorities in rules regulating ***subdivisions*** *in the District Plan."* [emphasis added by writer]

It is considered that if reference to the Code was retained in the District Plan to be taken into account at the time of subdivision, Council would be meeting the objectives of the Code and would be a good partner organisation with NZFS in providing for the common goal of fire safety for the community.

It is to be noted that under this Plan Change it is **proposed to retain reference to the Code of Practice** in the District Plan's subdivision provisions.

2.4.2 Land use rules and advice note

The Code in s1.1 specifies that NZFS recommends that automatic fire detection devices and fire protection systems such as sprinklers in buildings (irrespective of the water supply) be installed to provide maximum protection for life and property.

Section 1.1 further states that "*in rural areas there may be water supply systems without firefighting capability. In many cases these systems are not sufficient for fire sprinkler systems unless stand-alone water supplies are provided. These are matters to be considered at the design stage of the sprinkler system.*

In rural areas, ***the effectiveness of a water supply for firefighting is affected by the time and distance from a fire station****, the fire loading in the structure, the speed of fire development, ready access to a sufficient quantity of water, and the seasonal sustainability of the water supply. Because* ***structures remote from a fire station are significantly more at risk from fire outbreak, the Fire Service strongly recommends that sprinklers are installed in all structures (and specifically houses) sited more than a 10 minute response time from a fire station****."* [emphasis added by writer]

Notwithstanding that sprinklers are accepted as more effective in un-reticulated areas, these need to have an onsite water supply. It is to be noted that a sprinkler system will be activated where a fire breaks out at source and requires 7,000 litres as per Table 2 for single family homes.

In the interests of applying the most effective fire mitigation measures, requiring new developments to have sprinklers installed in accordance with NZS4517:2010, as opposed to requiring compliance with the Code, would be the most effective approach in un-reticulated areas.

It is considered that there are benefits of encouraging a sprinkler system to be installed, particularly in non-reticulated parts of the District. It is considered that this takes into account the Code of Practice, the response times to fire events by NZFS within the district (as set out in the table below) and static water supplies in Mangawhai (which is the largest un-reticulated 'urban' settlement within the district.)

For the above reasons it is considered that land use rules specifying compliance with the Code be deleted and replaced with Advice Notes that recommend the use of sprinklers. It is proposed that the Advice Note be worded as follows:

"Advice Note:

"In the interests of the protection of life and the surrounding environment, in all areas particularly non-reticulated areas over five minutes driving distance from a fire station, it is recommended that subject to the use of the building, a fire sprinkler system is installed in accordance with either the:

- *NZS 4517 (Fire Sprinkler Systems for Houses); or*
- *NZS 4541 (Automatic Fire Sprinkler Systems); or*
- *NZS 4515 (Fire Sprinkler Systems for Life Safety in Sleeping Occupancies up to 2,000m^2)."*

The above Advice Note reflects that:

- The District Plan provides a flexible approach for commercial and industrial activities to establish in the Rural Zone and the two Maori Purposes Zones in addition to houses. The two Maori Purposes Zones are of a 'rural' nature.
- The District Plan provides a flexible approach for commercial and industrial activities to establish in the Residential Zone in addition to houses.
- The District Plan provides for residential activities in Commercial Zones in addition to shops and offices.

It is also to be noted that the three standards referenced in the Advice Note have not had their dates included. This means that if any of the Standards is reviewed, the latest version will be the version that would be most appropriately used for a property owner to consider, in terms of installing sprinklers for their building project. Refer also to s5.16 of this Evaluation Report.

2.4.3 Greater flexibility using provisions in the Code

Further flexibility or discretion over the application of the Code at **implementation of land use rules** is a possible approach. For example, NZFS has in discussions with Council advocated that there is flexibility within the Code and that applying the water supply volume requirements as stated in Table 2 of the Code could be varied by using Appendices H and J of the Code to determine firefighting water supplies and still comply with the Code requirements. This is contained in s4.4 of the Code and reads as follows:

"4.4 Method for calculation of firefighting water supply

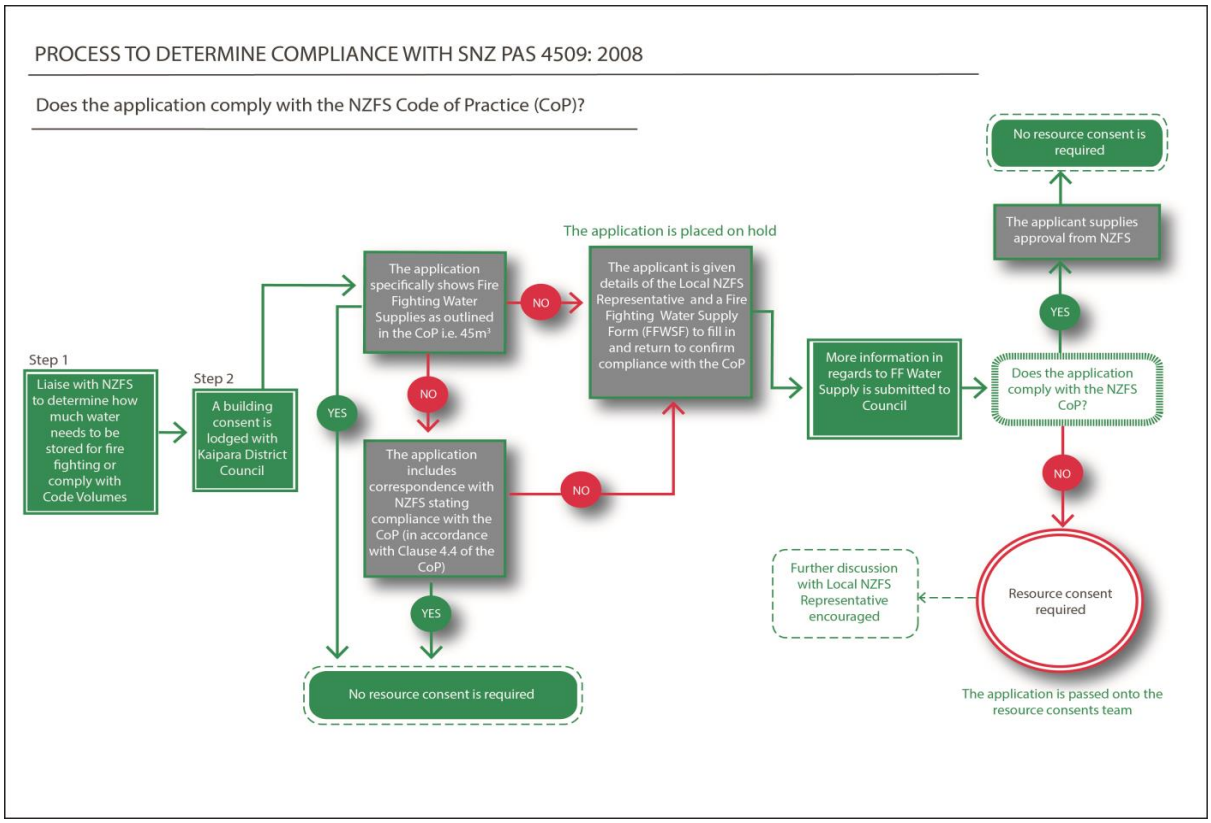
Fire engineers or similar competent persons may use alternative methods, such as those detailed in Appendix H and Appendix J to determine firefighting water supplies. To comply with this Code of Practice, such alternatives must be submitted for approval to the person(s) nominated by the National Commander. The person(s) so nominated will approve these cases on confirmation that the method and calculations used are correctly applied.

Alternative methods will need to show that the calculated firefighting water supply makes allowances for tactical flow rates (that is, the amount needed above a theoretical amount to absorb the released heat for operational effectiveness)."

Under this approach, applicants would need to consult with NZFS on their specific proposals. If the proposals complied with the calculations using Appendix H and Appendix J, NZFS would provide their sign-off on the proposal. This documentation would then be submitted as part of a **building consent**

and a resource consent (if sign-off was obtained for a particular project) would not be required. NZFS sign-off would be deemed to satisfy the land use rules as currently written. This approach would require dedicated water to be stored on every site for fire fighting purposes.

A process of assessment (at the building consent stage) is set out diagrammatically below:



Under this approach, the **Fire Safety Rules (Land Use) as currently written would not change** however the way they are implemented would. There would need to be a formal Memorandum of Understanding (MOU) or similar working agreement between Council and NZFS that would establish a set of understood procedures including definitions and methods to facilitate this approach and to minimise subjectivity in assessing proposals under Appendices H and J.

Council in order to understand the practical implications of the calculations under Appendices H and J submitted three building projects to NZFS to test this approach. NZFS provided the following results:

Building	Floor area m^2	K2 time Minutes (second) (K2 = Time taken from alert to first appliance arriving at the incident.)	Fire size Mw	Water Quantity M^3
Pahi	221	16.06(966)	55	19.2
Mangawhai	95	13.05(785)	23	8.3
Kaiwaka	111	12.08(728)	28	9.7

The calculations are based on the following assumptions:

1) No allowance for fire spread to surrounding bush/grass in a rural setting.
2) Assumes that on arrival fire will be extinguished within 10 minutes.
3) The K2 travel time is that in the report on KDC fire brigade response times ref P&P/2015/09/21 by Deane Ingram, Region 1 P&P Manager.

Council had NZFS results peer reviewed by an independent Fire Engineer. The results are set out in the Table below:

Project and address	NZFS calculation results	Independent calculation results
Pahi	19.2m^3	22.3m^3
Mangawhai	8.3m^3	8.3m^3
Kaiwaka	9.7m^3	9.9m^3

While the results of water volumes assessed by NZFS and 'confirmed' by Council's independent peer reviewer are in general alignment, Council's peer reviewer has used different assumptions:

"Assumptions used for KDC results:

1 *The houses are sufficiently remote to allow 100% unrated construction.*
2 *The entire external wall is assumed as a ventilator, as it is not rated construction it is not assumed to exist (this assumes that the wall vanishes in the early stages of a fire).*
3 *The entire roof area is assumed as a ventilator, as it is not rated construction it is not assumed to exist (this assumes that the roof vanishes in the early stages of a fire).*
4 *The house is a single firecell, treated as a single space with no internal rooms (this assumes no firecells in the building).*
5 *The fuel load is assumed to be timber, not a representative load and therefore a "generic" fuel source for the fire is used. This relates to the use of a fire involving timber only as required by 4509. This takes no specific recognition of the actual contents of the house, such as foamed plastics, curtains, seats, bedding etcetera which could increase the fire load and change the characteristics of the fire.*
6 *That the constant for the value of Q" (taken from table H2 PAS 4509) is applicable and suitable for housing. A higher value would adjust the results.*
7 *The fire service has immediate access to the water at the moment of arrival.*
8 *The fire service arrives within a few minutes and starts to attack the fire, otherwise saving the house would probably be impossible.*
9 *That 4509 is applicable to houses (which it does not cover).*
10 *That 4509 is current."*

Council's peer reviewer stated that:

"It is important to recognise that the use of PAS 4509 (the Code of Practice) relies on the user making assumptions. The use of Appendix H and J is not possible without these assumptions. Therefore it is possible that the outcome will differ between different users of the document."

The advice Council received from its peer reviewer was discussed with NZFS. In the cases above, different assumption sets were used and despite this, there was a general alignment of water volumes. NZFS in discussions indicated that in assessing 'applications' under clause 4.4 of the Code of Practice, if there was a variance, they would discuss this with the applicant or the applicant's consultant and reach a negotiated outcome.

Council and NZFS had been working on a Draft MOU. Council was willing to trial the alternative approach for six months to determine the workability of such an approach. If the approach **was** deemed to be successful it would then be adopted as a permanent method for implementing the existing Fire

Safety Rules (Land Use). However, protracted negotiations resulting in delays in implementing the trial proved detrimental. A clause in the draft MOU stated that Plan Change 2 would be withdrawn after the six month trial period. This draft was forwarded to Council's solicitors for review.

With regard to the clause (in the draft MOU) stating that Proposed Plan Change 2 would be withdrawn, Council's solicitors made the following comments:

"I think this will be frowned upon i.e. it is poor practice not to proceed to hear and decide the submissions and objections to the proposed change - Te Aroha Air Quality v Waikato Region (No2) (1993) 2 NZRMA 574."

It is to be noted that a withdrawal of the Plan Change, after a trial period of six months and implementing the MOU approach, would not have addressed all the submissions that were received to Plan Change 2 with the exception of the submission lodged by NZFS. This would have been considered as poor practice in terms of the case law referred to by Council's Solicitors.

A withdrawal of a Plan Change, as provided for in clause 8D of the First Schedule to the RMA, is different in that no party's interest would have been considered in formulating an outcome at the expense of other parties after submissions had been received. There would be an opportunity for all parties to consider a new plan change de novo and make submissions accordingly.

2.4.4 Preferred approach

Council, after taking into consideration:

1 the Aims of the Code of Practice;
2 an option of using alternative methods in clause 4.4 of the Code of Practice under an MOU between Council and NZFS;
3 advice on the alternative approach and the MOU by Council's solicitors; and
4 District Plan provisions by other councils;

has determined its preferred approach in respect of the role of the Code of Practice. It is considered that the preferred planning approach is to retain provisions which reference the Code of Practice as a matter to be considered at the time land is subdivided. It is also considered that for land use rules, it is appropriate to replace reference to complying with the Code of Practice with an Advice Note that recommends installing sprinklers.

It is considered that Council's preferred District Plan approach is in accordance with s1.1 of the Code of Practice.

Council also considers that retaining the Fire Safety Rules (Land Use) as written and determining compliance through a system that implements clause 4.4 of the Code creates a level of uncertainty for property owners and plan users in terms of the volume of water required as this would need to be assessed on a case by case basis. One of the key principles of a permitted activity rule is that it should be clear and certain to all plan users. It is also considered to be poor legal practice in relation to not dealing with submissions to Plan Change 2.

3 Research, other considerations and other methods

3.1 How are structural fires CURRENTLY addressed?

Putting to one side the legislative standards and Codes of Practice that provide guidance or require fire protection systems, there are a number of general approaches to address structural fires.

3.1.1 Detection systems

Smoke alarms provide early warning – they can alert occupants to fires within dwellings prior to flaming stage. Early warning enables occupants to evacuate and if possible extinguish the fire at an early stage (portable extinguishers can be used when early warning is given). Some alarms are monitored by NZFS, which may provide an earlier response time for fire fighting. Smoke alarms are a requirement under the Building Code clause F7.

3.1.2 Fire fighting systems

a) Sprinklers

Sprinklers can keep fires to a minimum size (if not extinguish them) and can contain them to the room of fire origin. Sprinklers also reduce the amount of smoke produced, enabling occupants more time to evacuate and also extinguish the fire if the sprinkler has not fully done so. Sprinklers therefore provide human protection while also (in most cases) providing property protection.

b) Reticulated water supply

Reticulation provides a key water source for fire fighting.

c) Water Storage

Stored water e.g. water tanks, are used by fire fighters as a source of water for extinguishing the fire, especially where reticulated water is unavailable. However, as fires quickly worsen, time is of the essence. The time it takes for fire fighters to arrive at the fire depends on how long it takes for them to be alerted, as well as the distance from the station. To be able to use the water for fire fighting, it must be accessible and include suitable couplings.

In some subdivisions, where there is no reticulated water supplies that have fire fighting capability, water tanks situated in strategic locations provide a source of water specific for fire fighting purposes. This is the case with Gisborne District Council and was a project that was agreed to by NZFS.

3.1.3 Building design

Appropriate building design reduces the risk to life and property during a structural fire e.g. minimising the length of escape routes, advising on firecell sizes and fire resistant construction materials. The Building Act contains provisions for mitigating fire risk in terms of protection of life in the “C-Docs”. Refer to s3.7 below.

3.1.4 Education

Education can also help to reduce the risks from structural fires. NZFS currently does home fire safety checks to educate people on safe fire practices and home escape plans. There are also television advertisements promoting smoke alarms and ‘safe cooking’ practices.

3.2 Risk of structural fire within the Kaipara district

Risk is the potential of gaining or losing something of value. Risk consists of two components: the *probability* that the loss or gain will occur and the *magnitude (consequence)* of the potential loss or gain. In this case risk will be about the potential loss of a structure from fire, in particular a dwelling. It is not uncommon for the words risk and hazard to be used interchangeably. However, 'a h**azard** is a potential *source* of harm or adverse health effect on a person or persons' and may include a number of risk factors.

In terms of this section we are considering the hazard (structural fires) and the risk associated with this hazard (probability of a fire occurring and the potential magnitude of the consequence of a fire).

3.2.1 Risk – probability

According to data from NZFS, an average of 25 structural fires occurred each year in the Kaipara district in the five years from 2011/2012 to 2015/2016 with a range between 21 and 29 structural fires occurring in any given year during these five years. The majority of these (65%) were structural fires in a Rural setting. Structural fires within an urban fire district accounted for 35% of the structural fires. Structural fires include fires that occurred within residential dwellings, garages, and farm out-buildings or other buildings.

New Zealand Statistics estimates that there are 10,875 residential dwellings within the Kaipara district at the time of the 2013 census. The 2013 census was conducted two years late as a result of the Christchurch earthquake. A census should have been held in 2011 and the date of the latest census would have occurred in March 2016. Had the 2011 census been held as planned and a census held again in 2016, this would have provided the number of dwellings (both occupied and unoccupied) for the years to enable risks over the 2011/2016 period to be calculated with accuracy and compared. In the absence of such data, it is only possible to use the figures for the 2013 census and apply this as an average for all the years from 2011 to 2016. It is acknowledged that this introduces a level of inaccuracy that may have some limitations. In an attempt to narrow the inaccuracies, a search on Statistics New Zealand website was undertaken to determine whether there were any projected dwelling figures available. The website search did not provide any answers. Statistics New Zealand was then contacted and asked whether they had any projections for the Kaipara district that were readily available that could be used. Statistics New Zealand stated that such projections are not readily available.

Further to this, the low of 21 fires occurred in the 2012/2013 year and the high of 29 fires occurred in the 2013/2014 year, so the use of the 2013 census data is considered to be appropriate as an estimate of dwellings over the five year period, while acknowledging that before 2013 there would have been fewer dwellings and after 2013 there would have been more.

Taking the average of 25 structural fires within the Kaipara district over the last five years means that there is an estimated 0.0023% chance of any given residential dwelling being affected by a fire within the next 12 months. This percentage is potentially less as there is no consideration of other structures, being non-residential dwellings that may be affected within the 25 average of structural fires per year in this calculation (e.g. garages, farm buildings). If we consider the lower end of the range of 21 structural fires in a year the chances of a structural fire is 0.0019% and at the higher end of the range of 29 structural fires the chances of a structural fire is 0.0026%.

It should be noted that information showed that 65% were structural fires that occurred in a rural setting while only 35% of structural fires were within an urban fire district. This means if we were to break the probability down further into Rural and Urban fires we will find that the risk of a fire occurring in the Rural area is twice as likely than the risk of a fire occurring in an Urban area. It should also be noted that a significant portion of the Kaipara district is Rural and could account for why most fires occur in a rural setting.

3.2.2 Risk - Magnitude

There were no fatalities due to fires within the Kaipara district between the period 2011/2012 to 2015/2016. This could be seen to indicate that the average annual risk to an individual dying from a structural fire within the Kaipara district is very low. While it is easy to say that there is no individual risk, given that no fatalities due to fires have occurred within the last five years, the context needs to be considered. Fires are considered a hazard i.e. they have the potential to cause harm and even the death of people. Fires are known to spread quickly and cause a lot of damage and can, if warning systems are not in place, have a high potential for anyone within a burning building to die as a result. Therefore every structural fire has the potential to end with a fatality. Given that a fatality is possible, it means that the magnitude of the consequence of any given fire that occurs could be considered to be high and therefore the overall risk moderate to high.

Even though there were no recorded fatalities due to fires in the last five years this does not mean there is no risk, rather, it means that no fatalities due to fires have occurred within the last five years. Therefore it is easy to mistake the risk as being low. We need to consider that while the *probability* of a death is low, the *magnitude* of the consequence is high therefore the *risk* is also considered moderate to high.

Another consequence is the cost to repair a structure after a fire has occurred. According to the NZFS website, the average house fire causes $42,000 in fire and smoke damage. The average annual estimated fire damage from these structural fires in the Kaipara district is therefore approximately $1,050,000. The magnitude of the cost will depend on individual circumstance, for example for someone who has insurance the impact could be considered less than if they did not have insurance.

A further consequence that cannot be quantified is personal loss. Personal loss in terms of memories, photographs and association with the structure, including personal costs in terms of having to potentially move elsewhere either temporarily or permanently. Along with this can come increased stress levels that potentially could result in ongoing health issues. The magnitude of this will vary from person to person, depending on personal resilience.

Council has not found data to compare losses in structures with fire fighting water supply meeting the code (e.g. sprinklers) to those that do not.

3.2.3 Risk Mitigation (lowering the risk)

The risk associated with loss of life due to a structural fire can be mitigated through early warning systems i.e. fire alarms and through building design i.e. ease of getting out of a building. Building design could also include sprinkler systems which can help suppress a fire before it is able to take hold in a building.

Fire alarms and building design with relevance to structural fires are considerations of the Building Code. Therefore the risk in terms of loss of life as a result of a structural fire could be seen as being lowered with appropriate mitigation measures having been put in place.

Education is another risk mitigation measure. Educating people on having fire warning systems and what to do if a fire does occur in their home, is considered an ongoing mitigation measure.

3.2.4 Conclusion on risk

Risk is the potential of gaining or losing something of value. Risk consists of two components: the *probability* that the loss or gain will occur and the magnitude of the potential loss or gain. In this case it will be about the potential loss of a structure from fire, in particular a dwelling. However, 'a h**azard** is a potential *source* of harm or adverse health effect on a person or persons'. It is not uncommon for the words risk and hazard to be used interchangeably.

Therefore when considering Fire Safety Rules (Land Use), it can be said that the hazard is 'fire' as it has the potential to cause harm and that the 'probability' of this hazard occurring is 'low' and the 'consequence' can be 'high'. With mitigation measures put in place the consequence can be lowered and hence the risk is lowered.

From the data supplied by NZFS, it is considered that the probability of fire occurring within the Kaipara district is low, however the impact (potential loss) can be high when they do occur. The risk can be minimised by early warning systems, building design and sprinkler systems. It should be noted that the installation of early warning systems i.e. smoke alarms in new homes is a requirement under the Building Code. With such mitigation required to be in place, the risk can be reduced.

In terms of safety of people within the district the risk associated with the risk of a fatality occurring as a result of a structural fire is also considered low for the Kaipara district based on data from NZFS which covers the last five years. This means where a fire has occurred people have been able to get out.

Therefore, for Plan Change 4, the focus should be on getting people out of buildings, regardless of whether or not the fire occurs in a rural or residential setting and promoting other methods, for example sprinklers, to help minimise the risk associated with a fire (hazard). Each situation is different and as such the plan should be flexible to address each situation. The use of other methods helps to provide this flexibility.

Refer **Appendix 4** that contains information on structural fires and fatalities in the Kaipara district. This information was provided by NZFS.

3.3 NZFS response times

NZFS has supplied data, refer table below, showing response times from fire stations within the Kaipara district.

Station name	Average time (minutes) inside urban fire district	Average time (minutes) outside urban fire district
Dargaville Volunteer Fire Brigade	6.38	18.35
Kaiwaka Volunteer Fire Brigade	9.11	12.08
Maungaturoto Volunteer Fire Brigade	7.34	16.06

Station name	Average time (minutes) inside urban fire district	Average time (minutes) outside urban fire district
Ruawai Volunteer Fire Brigade	7.38	14.19
Mangawhai Voluntary Fire Brigade (Auxillary)	N/A	13.05
Te Kopuru Voluntary Fire Brigade (Auxillary)	N/A	25.15
Average time	**7.45**	**16.35**

Notes: The average time from a station being alerted and an appliance arriving at an incident within the Urban Fire District is 7 minutes 45 seconds. This is inside the target of 11 minutes however it reflects that most Urban Fire Districts within the Kaipara district are small in size and therefore quick to drive to.

For incidents outside the Urban Fire District the average is 16 minutes 35 seconds. There is no target to meet outside Urban Fire Districts as this encompasses all rural areas where the primary responsibility resides with the Rural Fire Forces.

When taking into account the response times to fire incidents in the rural heartland areas of the Kaipara district, water stored onsite for fire fighting purposes may not even be used to save a building by the time the fire services arrive at a site. It is therefore considered that installing sprinklers is the best approach for the rural areas of the district. It is to be noted that this is consistent with what is advocated in s1.1 of the Code.

The information received from NZFS in respect of response times within the district is appended as **Appendix 5**.

Reticulated settlements and static water supplies

Most of the district does not have a reticulated water supply. Dargaville Glinks Gully, Maungaturoto, Ruawai and small areas of Mangawhai have reticulated water supply.

Paparoa, Kaiwaka and Te Kopuru do not have a reticulated supply. In respect of Mangawhai, most of this settlement (including Mangawhai Heads) is un-reticulated.

NZFS has provided maps and tables showing static water supplies in Mangawhai. It identifies sources (the sea; brooks/creeks; ponds and lakes), the seasonal availability and volumes available. The tables have also identified that there are two fire hydrants, one near the intersection of Molesworth and Greenview Drives (Nº39 in area B1) and the other on Fagan Place (Nº4 in area B2.2).

The information received from NZFS in respect static water supplies in the Mangawhai area is appended as **Appendix 6**.

3.4 Mangawhai water and fire supply options feasibility and cost analysis

Opus International Consultants were commissioned to undertake a water supply study for Mangawhai (Village and Heads) that included consideration of water for fire fighting purposes. The Opus Report, "*Mangawhai Water and Fire Supply Options Feasibility and Cost Analysis*" dated 29 April 2016, states in respect of that part of Mangawhai that is reticulated (some 18 sites that includes the Wood Street shops, a retirement village and the camping grounds), that "*no part of network can supply the fireflow required. This is due to the small diameter of pipework that the majority of the network is comprised of. In order to supply fireflow, the network will require:*

- *Upgrade the main pipes to 100-150mm diameter;*
- *A new fireflow pump at the northern campground site to supply the downstream customers;*
- *Installation of at least 19 fire hydrants along the main pipe. This is based on a maximum distance between hydrants of 135m along the 2,500m long main pipe. This would only cover those properties adjacent to the main pipe.*

*Indicative costs for these network upgrades have been estimated at **$842,910**.* [emphasis not added by writer.]

The extent of works to provide protection to the whole of Mangawhai Heads was not considered, as this would require a significant expansion of the current network."

The Opus Study in s4 outlines an assessment of options for a communal firefighting and identifies three options as follows:

1 "*Do nothing.*

2 *Options for a communal firefighting water supplies in the key Mangawhai subdivision areas of Northcoast, KSR Farms, Vista Verrano, Parklands and Jack Boyd Drive including*

a) underground tanks;

b) aboveground tanks;

c) reticulated network and localised water supply.

3 *Options based on a potential agreement between NZFS and KDC*."

In respect of Option 1, there would be continued reliance on the District Plan Fire Safety Rules (Land Use) for land use and subdivision. This approach would only deal with new builds.

In respect of Options 2a and 2b, both underground and aboveground tanks would ideally be located within the roading corridor, preferably between the property boundary and the footpath. The tanks would be strategically located around the subdivisions. To satisfy the requirements set out in the Code of Practice, at least two tanks will be located at a maximum distance of 90m from each property to be protected. The volume of water for each tank would be 25,000 litres. The option of the aboveground positioning of tanks is cheaper however "*it creates a significant visual impact and may be subject to vandalism, vehicle, environmental or other damage which have associated costs*."

While the Opus Report focuses on compliance with or satisfying requirements of the Code of Practice, if the Code is to be taken out of the District Plan, then there is more flexibility on where and how static water storage can be provided.

Option 2c consists of ponds or adequate water sources strategically located around Mangawhai. It is reasonable to assume that due to the topographical characteristics of the landscape of the area and property constraints, "*ponds cannot be located at the required distance of 90m from each property. Therefore, a reticulated water network will be required in addition to ponds, including:*

- *Reliable pump system (preferably a diesel pump);*
- *Pipe network able to deliver the required flow (indicatively via a 100mm PE pipe)"*

The table below provides an analysis of advantages and disadvantages and indicative costs for Options 2a, 2b and 2c. It is to be noted that the indicative costs have been further developed for five existing Mangawhai subdivisions in the table immediately below.

Option	Advantage	Disadvantage	Indicative costs*
2a Underground tanks.	• No visual impact; • Simple and reliable solution; • Low/nil maintenance costs.	• Requires excavation.	$10,000 per tank.
2b Aboveground tanks.	• Low/nil maintenance costs; • Simple and reliable solution; • Economic solution.	• High visual impact; • Vulnerability to damage, vandalism etcetera.	$4,500 per tank
2c Limited reticulation.	• Depending on the pond size and location, large areas can be serviced /supplied.	• Water reticulation required; • Solution requiring specific design; • High costs associated with water reticulation and maintenance.	• $15,000 for a diesel pump; • $300/m for PE 100mm dia pipe installation; • $3,500 for each hydrant; • Pond installation, maintenance and stormwater system costs to be evaluated for each case.

* Note that indicative costs include average costs for installation (material delivery, excavation, backfilling, reinstatement etcetera) and materials. Design and MSQA, Geotechnical Investigation, Archaeological Monitoring, risk associated with design variations and construction price market variation are not included in the cost.

Indicative option costs for five Mangawhai subdivisions

Subdivision	Indicative costs*		
	Option 2a Underground tanks	Option 2b Aboveground tanks	Option 2c Limited reticulation
Northcoast	$240,000	$110,000	$470,000
KSR Farms	$80,000	$36,000	$145,000
Vista Verrano	$120,000	$54,000	$290,000
Parklands	$40,000	$18,000	$125,000
Jack Boyd Drive	$370,000	$160,000	$935,000
	$850,000	**$384,000**	**$1,965,000**

* Note that indicative costs include average costs for installation (material delivery, excavation, backfilling, reinstatement etcetera) and materials. Design and MSQA, Geotechnical Investigation, Archaeological Monitoring, Risk associated with design variations and construction price market variation are not included in the cost.

Potential Agreement between NZFS and KDC

NZFS and KDC could explore the possibility of providing an agreed volume of water storage in the form of tanks strategically placed in Mangawhai and potentially other communities without reticulated water supplies but with firefighting capability, similar to the agreement between NZFS and Gisborne District Council.

Gisborne Agreement (pro-rata water capacity for Wainui, Okitu and Tolaga)

	Population	Pro-rata capacity (1/pp)	Water capacity (litres)
Wainui and Okitu community	1,680	54	90,000
Tolaga Bay	800	75	60,000

The table below shows the required water capacity based on the current population and indicative cost for Mangawhai based on Gisborne communities covered by the firefighting agreement:

Water capacity and indicative cost for Mangawhai Heads and Village

	Population	Pro-rata capacity (1/pp)	Water capacity (litres)	Indicative costs
Mangawhai Heads and Village	2,682	54-75	145,000-200,000	$60,000-$80,000

The above, based on pro-rata capacity (Gisborne) offers an indicative capacity only. Further assessment related to location, access and size of the tanks should be part of an agreement process between NZFS and KDC. This option for Mangawhai Heads and Village has the potential to:

- Eliminate the current resource consent requirements in the District Plan Fire Safety Rules (Land Use) for new residential buildings;
- Provide a fire fighting water supply system for future use that addresses existing buildings that may not have sufficient volume of water onsite for fire fighting purposes:
- Reduce the tank proliferation, the cost of extra tanks and difficulties with accommodating tanks on smaller lots. This assists in improving amenity values of residential areas.

The full Opus Report *"Mangawhai Water and Fire Supply Options Feasibility and Cost Analysis*" is attached as **Appendix 7**.

Costs of providing communal water tank for fire fighting purposes based on the Gisborne Agreement on a pro-rata basis per ratepayer for Mangawhai, Te Kopuru and Kaiwaka

An analysis has been undertaken to determine what it would cost each ratepayer in Mangawhai, Te Kopuru and Kaiwaka if Council was to provide water tanks in these communities that would be reserved for fire fighting purposes. Charges would be imposed as part of an Annual Plan process under the Local Government Act 2002 after being consulted on using the Special Consultative Procedure as set out in s83.

Community	Population 2006 Census	Pro-rata capacity (1/pp)	Water capacity (litres)	Number of houses	Indicative costs per ratepayer
Mangawhai Heads and Village	2,682	54-75	200,000ltr as per Opus Study	1,542 Census 2006	**$52.00** ($80,000/1542 highest figure used as per Opus Study)
Te Kopuru	453	453/800 = 57% based on the pro rata population of Tolaga Bay)	57% of 60,000ltr = 34,200 ltr (based on Tolaga Bay)	210 Census 2006	**$95.00** (2x 25,000ltr - $20,000/222)
Kaiwaka	537	537/800 = 67% (based on the pro rata population of Tolaga Bay)	67% of 60,000ltr = 40,200ltr (Based on Tolaga Bay)	192 Census 2006	**$104.00** (2x 25,000ltr - $20,000/192)

Notes:

The costs for tanks for Mangawhai have been taken from the Opus Study. The Opus Study states that the costs are indicative and based on a 25,000ltr aboveground tank costing **$10,000** including **supply and installation**. This same methodology has been applied to the calculations for Te Kopuru and Kaiwaka.

The Opus Study used 2006 Census data for Mangawhai (population). The 2006 Census data was also used for Te Kopuru and Kaiwaka.

It is to be noted that the costs per ratepayer for the provision of community tanks for fire fighting purposes are indicative **one-off costs** for tanks only and do not include:

- Any costs associated with filling the tanks with water; and
- Any costs associated with Council having to purchase land that it does not currently own; and
- Any ongoing maintenance or depreciation costs.

3.5 Mobile water supply for Mangawhai

Submitters to Plan Change 2 stated that the Mangawhai Fire Brigade carries its own water for firefighting in the form of 2,000ltr (an appliance) and a tank containing 6,000ltr or a combined total of 8,000ltr. Submitters also stated that there is water from household tanks available to draw from to put out fires if the 8,000ltr is not sufficient. Submitters stated that if there were fire fighting concerns about the current mobile supply that the Brigade should acquire larger tanks capable of holding 10,000ltr. One submitter commented that the current fire tank with 6,000ltr capacity should be replaced and that the replacement cost of a 10,000ltr tank would be $240,000. Submitters stated that providing the Brigade with a water tanker with a larger capacity would be cheaper than the present system which required property owners to install tanks with a dedicated volume of water for firefighting purposes. One submitter stated that Council should levy a rate to cover the cost of a fleet of fire fighting tankers.

Council has undertaken a limited internet research on the costs of providing an additional tanker or upgrading the present tanker with one that has greater water volume capacity. For example, a 2002 Scania P114GB8x4 Tanker with an 18,000ltr tank was available on the internet at a quoted price of $108,000. Other cheaper options are also available but have less than the 10,000ltr water capacity suggested by submitters. Council acknowledges that providing an additional tanker or upgrading to a tanker that has a greater water volume capacity is a possibility.

From internet research it has been discovered that there are 'portable dams' some of which are similar to para-pools that come in a variety of sizes that are used for firefighting. A tanker can empty its contents into one or more portable dams and then fill up from a nearby source and shuttle backwards and forwards to the fire incident with the required water as necessary. A shuttle service similar to the one described is an established practice in rural areas where there is no reticulated water supply that has firefighting capability.

From the internet it was discovered that the Motueka Volunteer Fire Brigade is building a new tank for the town and is converting a 12,000ltr milk tank sourced at a low price from Fonterra. The article (dated 17 July 2015) stated that 70% of the Motueka township was not reticulated by an on-demand pressure hydrant system that would supply a more reliable fire fighting water supply. The Motueka situation does have a level of commonality with Mangawhai in terms of lack of reliable reticulated water supply for fire fighting purposes. However, the article also states that funding applications to the Tasman District Council for this project had been declined.

3.6 Use of neighbours' static water supplies

Many submitters stated that "*all dwellings that do not have reticulated water supplies tend to have a rainwater tank. This and/or neighbours provide a water supply in the very unlikely event a fire occurs.*"

One submitter commented that it is normal firefighting practice to utilise water from the first arriving appliance, rainwater tanks of the affected building, the tanks of adjacent neighbours and swimming pools and that this practice will continue to be used in the unlikely event that a building is on fire. S28(2) of the Fire Services Act 1975 sets out the "Functions, Duties and Powers of the Chief Fire Officer" and states that:

"In the event of any alarm of fire or any fire happening, the Chief Fire Officer of the Fire District, or in his or her absence, the Deputy Chief Fire Officer, or, in the absence of both of them, the person for the time being in charge of the fire brigade, shall forthwith proceed, or direct some other member of the brigade to proceed forthwith, to the place to which the brigade has been called, ***and endeavour by all practicable means to extinguish and prevent the spread of the fire (if any), and to save lives and property in danger****."* [emphasis added by writer.]

S28(4)(b)&(n) further states that:

"In the event of fire or other emergency, the person for the time being in charge of the fire brigade so engaged—

(b) may enter upon any land, building, or structure and, if necessary, break into any building or structure which may be on fire or otherwise endangered ***or which is in the near neighbourhood of the***

***emergency**, for the purpose of taking any steps which he deems necessary in order to carry out his duties; ...*

(n) ***may generally do all other things that are reasonably necessary** for protecting life or property in dealing with the fire or other emergency*:" [emphasis added by writer.]

From the above it can be seen that submitters to Plan Change 2 who stated that neighbouring water tanks could be used were correct.

3.7 Fire mitigation and the Building Act 2004 and building code

Purpose of the Building Act

Rely on the Building Code to provide fire safe buildings with means of escape at land use stage. It is to be noted that the purposes of the Building Act are specified in s3 of the Building Act as follows:

"This Act has the following purposes:

(a) to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings to ensure that:

(i) people who use buildings can do so safely and without endangering their health; and

(ii) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and

(iii) ***people who use a building can escape from the building if it is on fire**; and*

(iv) buildings are designed, constructed, and able to be used in ways that promote sustainable development:

(b) *to promote the accountability of owners, designers, builders, and* ***building consent authorities who have responsibilities for ensuring that building work complies with the building code*****.**" [emphasis added by writer – clauses (a)(iii) and (b).]

It is to be noted that health, safety, escape and sustainability are key matters related to the purpose of the Building Act which underpins the Code. These purposes are similar to the purpose of the Resource Management Act specified in s5 Sustainability and Health and Safety. However, the District Plan provides an added element in respect of health and safety in that water for fire fighting purposes is required.

The Building Code and its fire safety provisions have been discussed below.

The Building Code

Fire safety that promotes the purpose of the Building Act is included in the Building Code under Clauses C1-C6 Protection from Fire. Clause C1 of the Building Code sets out three overarching objectives as follows:

- To safeguard people from an unacceptable risk of injury or illness caused by fire;
- To protect 'other property' (i.e. property not in the same allotment or ownership) from damage caused by fire;
- To facilitate fire fighting and rescue operations.

Notably, the Building Act and Building Code do not focus on reducing damage to the properties on fire[2], **but rather the spread of fire from one property to another and personal safety**. [emphasis added by writer.] In contrast, the Code of Practice focuses on adequate water supply for 'fire fighting'. This appears to include for the purpose of reducing damage to the property on fire, as the Code notes '*the provision of a readily available sufficient water supply will affect the extent to which a fire fighting resource can save life and property'* (S1.1 of the Code).

To achieve the objectives of clause C1, clauses C2 to C6 of the Building Code sets out functional requirements and performance standards for building and fixture design. **These standards cover prevention of fire; prevention of fire affecting areas beyond the source; movement of people to place of safety; and access and safety for fire fighting operations**. The standards vary according to the 'importance level' attributed to the building (levels 1-5) where stricter standards apply to those buildings posing a higher risk to human life or the environment or performing a higher level of societal benefit. **Standards also vary according to whether sprinklers are installed or not**. There are also exceptions to the standards for certain types of buildings. [emphasis added by writer.]

Relevant standards include:

C2.1 Fixed appliances using controlled combustion and other fixed equipment must be designed, constructed, and installed in buildings in a way that reduces the likelihood of illness or injury due to a fire.

C3.3 Buildings must be designed and constructed so that there is a low probability of fire spread to other property vertically or horizontally across a boundary.

C4.1 Buildings must be provided with an effective means of giving warning of fire and visibility in escape routes complying with clause F6.

C5.1 Buildings must be designed and constructed so that there is a low probability of firefighters or other emergency services personnel being delayed in or impeded from assisting in rescue operations and performing firefighting operations.

C5.2 Buildings must be designed and constructed so that there is a low probability of illness or injury to firefighters or other emergency services personnel during rescue and fire fighting operations.

C5.5 Buildings must be provided with the means to deliver water for fire fighting to all parts of the building (however this does not apply to some types of buildings including detached dwellings).

The Building Code also sets out a series of 'verification methods' for different 'risk groups' (types of development) which provide a means of complying with the Building Code standards in clauses C1 to C6. **The Acceptable Solutions cover matters such as escape routes, firecell size and fire safety systems**. [emphasis added by writer.]

There are seven Acceptable Solution clauses (C/AS1 to C/AS7) that support the Building Code clauses C2-C6**. Each Acceptable Solution applies to a risk group, which is based on the risk presented by the activities carried out in that part of the building**. [emphasis added by writer] Examples of building risk groups covered by Acceptable Solutions are listed below:

2 However, the Building Code does apply stricter standards to buildings with societal benefits.

CF/AS1 - Houses. Detached houses and buildings sub-divided into multiple dwellings, provided that they are a maximum of two units high. There are no limits on the number of side-by-side units. This risk group does not include buildings where there is a corridor or stairway serving more than one dwelling.

C/AS2 - Permanent accommodation such as apartments and temporary accommodation such as hotels, motels, hostels, backpackers and education accommodation.

C/AS3 - Institutions, hospitals, residential care, rest homes, medical day treatment (using sedation) and detention spaces in police stations and courthouses.

C/AS4 - Halls, recreational centres, public libraries (with less than 2.4m storage), cinemas, shops, schools, restaurants and cafes and early childhood centres.

C/AS5 - Offices (including professional services such as law offices and accountancy practices) laboratories, workshops, manufacturing (excluding foamed plastics) factories, storage units capable of less than 5m high storage.

C/AS6 - Warehouse (capable of 5m or more storage) cool stores and trading and bulk retail (with 3m or more storage).

C/AS7 - vehicle parking within a building or a separate building that is, any place where vehicles are parked or stored, including car parks, truck and bus parks, stacked boat storage and light aircraft hangers.

Refer **Appendix 8 -** C1-C6 Protection From Fire, A3 Building Importance Levels and Acceptable Solutions C/AS1 - C/AS7

Single household units and small multi-unit dwellings are covered by Acceptable Solution C/AS1. Fire alarms are required however most single household units will be consistent with Acceptable Solution C/AS1 without provision of sprinklers. In contrast, the Acceptable Solutions for high risk groups may require alarms, sprinklers and smoke control systems.

Building hydrants (designed in accordance with NZS 4510) are also required for some types of buildings, for example, permanent accommodation such as apartments may require hydrants, depending on the escape heights.

There is a crossover between the Code of Practice and the Building Code in that any building hydrants required under the Building Code require sufficient water pressure, while the Code of Practice specifies water pressure requirements for reticulated water supply. There is also an overlap to the extent that they both address when sprinklers may be required in buildings.

The Plan Change proposes to include in Chapter 2 a section on Other Methods to state that at the time a building consent is lodged, the Building Code will be implemented. It is considered that there can be reliance on the Building Code for fire safety for people. It is therefore appropriate that the District Plan contains an advice note promoting sprinklers which is considered sufficient.

3.8 Advocacy and education

Education in collaboration with NZFS could be a key method in changing the community's perception of the benefits of fire mitigation measures. Educational measures to support fire mitigation measures could include publications and other pamphlets, workshops and supporting any relevant programmes put forward by NZFS.

Advocacy (in collaboration with NZFS) involves explaining to the community and sub-dividers / developers the benefits of fire mitigation early on in the building process, and what the best and most cost-effective methods are. Advocacy supports regulatory mechanisms used by Council to manage developments.

The Plan Change proposes to include in Chapter 2 a section on Other Methods to state Council will support NZFS education initiatives.

3.9 Legislation, organisational responsibilities and review of fire services

1 Fire Service Act 1975

This Act establishes the NZFS Commission, the Fire Service and the National Rural Fire Authority and prescribes their functions and organisational arrangements.

The NZFS Commission is the controlling board for NZFS. The Commission has five members, who are appointed by the Minister of Internal Affairs. Under the Act, the Commission is also the National Rural Fire Authority. As the Authority, the Commission has strategic and oversight roles for rural fire control but not for the operational responsibilities of individual rural fire authorities.

NZFS is responsible for a network of urban fire districts, which account for approximately 3% of New Zealand's land area, but more than 85% of the population.

NZFS has brigades established in Mangawhai, Kaiwaka, Maungaturoto, Ruawai, Dargaville and Te Kopuru. These are all volunteer brigades.

2 Forest and Rural Fire Act 1977

This Act provides for a system of Fire Authorities, which are responsible for the fire protection of approximately 97% of New Zealand's land area that lies outside of the urban fire districts. Fire Authorities are generally territorial authorities, however also include the Ministers of Conservation and Defence, and rural fire committees comprising mixed membership.

While this Act addresses mainly the management risks associated with forest and vegetation fires, Fire Authorities have responsibility for all fires in their areas.

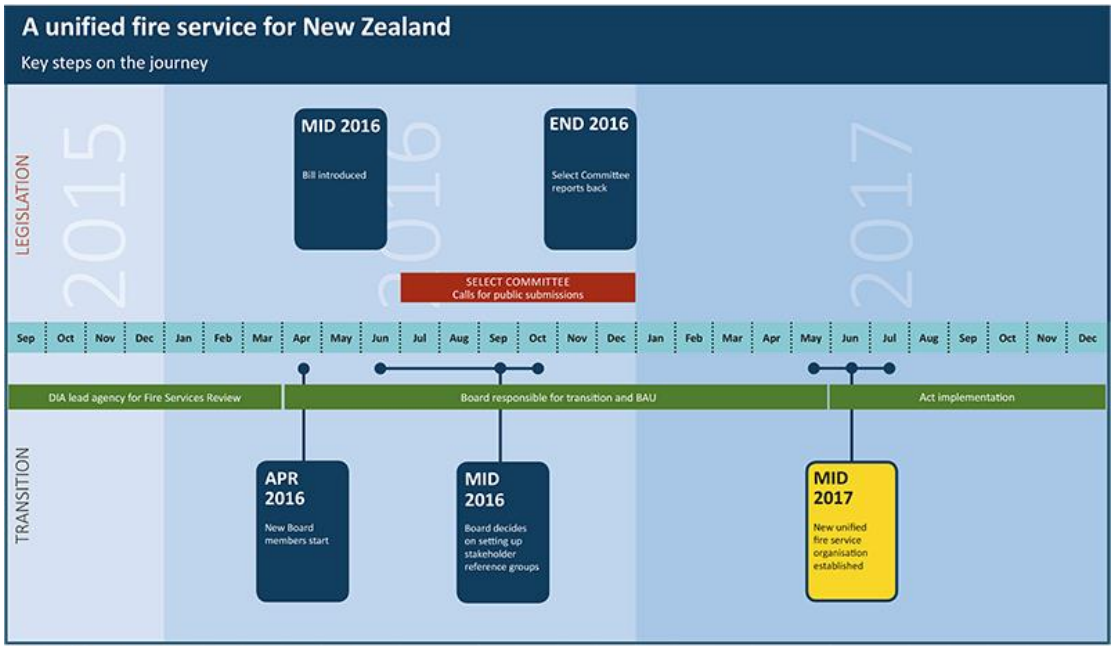
Under s22 of the Forest and Rural Fires Act 1977, the Kaipara District Council is a Fire Authority for the area under its administrative jurisdiction. The other Fire Authority within Kaipara district is the Department of Conservation which administers the fire responsibility for all conservancy areas within the Kaipara district. The fire and emergency response resources in Kaipara district include Volunteer Rural Fire Forces based at Paparoa and Tinopai.

A Principal Rural Fire Officer (PRFO) is employed as a contractor and reports to the General Manager Infrastructure of the Kaipara District Council. The PRFO is responsible for carrying out the fire control functions of the district including response to fire incidents.

3 Fire Services Review

On 29 April 2016, Peter Dunne announced that urban and rural fire services will be merged and that the name of the new organisation would be "**Fire and Emergency New Zealand**". The new organisation will be a merger of 52 rural fire authorities, the National Rural Fire Authority and NZFS. The last two mentioned organisations are part of the NZFS Commission.
From the Department of Internal Affairs website the following statement and diagram have been sourced:

"*The new organisation is expected to be set up around the middle of 2017. The initial transition work will focus on what must be achieved for the new organisation to be legally unified by that time*. *All the dates on this timeline could change, depending on the Parliamentary process*."



Note: All dates and milestones are indicative.

It is to be noted that the above timeline is indicative. It is to be noted that a Bill is intended to be introduced into Parliament mid-2016 and that the Select Committee is to report back to the Parliament the end of 2016. The details of the new Bill were not known at the time of writing but it is expected that the current pieces of legislation will be repealed.

It is also noted that transition arrangements into one unified fire service have commenced. On 17 March 2016, the new Board to guide the amalgamation was announced. It is intended that the new Board will lead a new organisation that is flexible, modern and efficient and values and supports its volunteer and paid workforce.

4 Conclusion

There is to be substantial change in the way that fire services are to be organised and this may affect the way services are to be delivered within the district. Such organisational changes may need to be considered in any proposal that Council promotes in its District Plan. However, as with all structural reviews, it may take some time to determine whether the strategic aims once implemented are achieved and delivering results.

3.10 Other methods play a role and conclusion

It can be seen from the research undertaken that there are many ways to mitigate and address structural fires.

The Building Code contains methods that assist in mitigating **fire risk** and these include the installation of smoke detection systems. Building design is controlled under the Building Code in terms of the "C-Docs". Fire safety is therefore taken into account at the time a building consent is assessed by Council, in its role as a Building Consent Authority.

From the *Mangawhai Water and Fire Supply Options and Cost Analysis Study*, it can be seen that for settlements where there are presently no reticulated water supplies, that an option is to establish community water tanks located in strategic locations from which water can be drawn from in the event of a fire occurring in the settlement concerned. The establishment of a communal water tank system in Mangawhai and other settlements will require funding and this will need to be included in Annual Plans and consulted on under the Special Consultative Procedure under s83 of the Local Government Act. Similarly, if the community or NZFS wished to upgrade mobile water supplies in the form of larger or additional fire appliances or mobile tankers backed up with 'portable dams', particularly in settlements and areas where there are no reticulated water supplies, this too will need to be consulted on under the Special Consultative Procedure under the Local Government Act.

For areas where tank supplies are required for domestic water supplies, there is also a legal basis for NZFS to use the water of a neighbour's tank should that be required.

In addition, fire safety awareness is heightened by education initiatives that are undertaken by NZFS through media such as television.

It is considered that the District Plan is but one tool that in combination with other tools assists in providing a comprehensive toolbox that involves pro-active and reactive measures. Fire Safety Rules (Land Use) in the District Plan provide consideration of fire safety at the time of subdivision. Measures for fire safety, such as water storage for a multi-lot subdivision, can be made at this time and this is considered appropriate.

For land use activities, given that the vast majority of the district consists of rural heartland and not all settlements within the district have reticulated water supplies that have fire fighting capability, land use rules target new developments only - there being no provisions to retrofit. This provides a piecemeal outcome that limits the effectiveness of land use rules. It is considered therefore that a more appropriate approach is to replace current land use rules with Advice Notes that recommend the installation of sprinkler systems and it is therefore up to a property owner to determine risk of fire occurring and how they may make provision should such an event occur. In respect of this it is to be noted that response times to attend to a fire in settlements where there are fire brigades, would form part of the risk profile that a property owner would consider.

4 Pre- Notification Consultation

Pre-notification consultation was undertaken. Council sent all submitters to Plan Change 2 a document entitled **Fire Safety within the Kaipara district – Plan Change 2 Update and Summary of Proposed new Approach**. Refer **Appendix 9**. This document was also sent to practitioners. In this document Council outlined that it was reconsidering the District Plan's Fire Safety Rules (Land Use). It outlined an approach as an alternative to that of Plan Change 2. This would mean that Plan Change 2 would be withdrawn. The document in a table drew attention to what the new approach would mean as follows: (Please note that the table that was included in s1.3 of this Evaluation Report has had additional text added that was not included in the original table.)

Proposed new approach to the Fire Rules – what does it mean to me?

Zone	Reticulated water	Non-reticulated water with effective fire service	Non-reticulated water without effective fire service
Residential	✓ Reticulated water supply provides sufficient water. ✓ No District Plan requirements. ✓ Communities include Dargaville, Ruawai, Maungaturoto and Baylys.	✓ Council to put in communal water storage for NZFS use. ✓ No District Plan requirements. ✓ Communities include Mangawhai, Kaiwaka and Te Kopuru.	✓ District Plan advises house builders to install sprinklers. ✓ Communities include Paparoa, Tinopai, Whakapirau and Pahi.
Rural	✓ Reticulated water supply provides sufficient water. ✓ No District Plan requirements.	✓ District Plan advises house builders to install sprinklers.	✓ District Plan advises house builders to install sprinklers.

Please Note: **Effective Fire Service** means if your building is within a five minute drive from a NZFS station.

The document encouraged submitters to provide their thoughts on what was being considered and to provide comments by return email or by post by **Thursday 30 June 2016**.

Council received 48 responses from submitters to Plan Change 2. Included were 17 responses by parties that were identical.

The document also advised that Council "*will be holding a **drop-in session** at the Mangawhai Council Offices, at Unit 6 The Hub, 6 Molesworth Drive, Mangawhai, on Wednesday 22 June 2016 between 3.00pm and 6.00pm. Please feel free to come a long and discuss any concerns or ideas you have on this subject with Council staff."*

The drop-in session was attended by seven persons.

Comments received are included in **Appendix 10**.

There has also been pre-consultation with iwi on a range of District Plan and other matters. This is set out in **Appendix 11**.

On 13 July 2016, Council received an email from Te Uri o Hau that stated:

"The Kaipara District Council is consulting with Te Uri o Hau as part of the pre-notification process under the Memorandum of Understanding between Te Uri o Hau Settlement Trust and Kaipara District Council.

This is to confirm that Te Uri o Hau have no issues with the proposed plan change for Fire Safety (Rules 12.10.25, 13.10.25, 14.10.25, 15A.10.25 and 15B.10.25)."

On 26 August 2016 Council received a response from Te Roroa that stated the following:

"*Te Roroa noted that the proposed Plan Change is to remove the water storage requirement (in District Plan rules) and replace it with an Advice Note recommending that people install sprinklers. Te Roroa also noted that for communities that do have a fire service but no reticulated water supply that the Council is to put in communal tanks for the fire service to use - these being Mangawhai, Kaiwaka and Te Kopuru.*

Te Roroa seeks that a uniform charge on rates be set across the district to finance the cost of new communal tanks and their continued maintenance.

While Te Roroa state that there is no cultural impact to Te Roroa with the rule charge, there are iwi members residing in these (afore-mentioned) communities that may feel the effect of increased charges."

The responses received from Te Uri o Hau and Te Roroa have been included in **Appendix 12.**

Consultation documentation was also posted on Council's website.

5 Legal requirements for Plan Changes - Sections 74 And 75 RMA

5.1 Introduction

Council using the First Schedule process under the RMA commenced the review of its District Plan with the notification of the Proposed Plan in October 2009. This Plan, which became operative on 01 November 2013, sets out objectives, policies and methods in respect of controlling the actual or potential effects of the use, development and protection of the land within the District for which Council is responsible (s31). The purpose of the District Plan as stated in s72 of the RMA is "*to assist territorial authorities to carry out their functions in order to achieve the purpose of this Act*." S73(1) specifies that "*there shall at all times be one district plan for each district prepared by the territorial authority set out in Schedule 1*".

Section 74 specifies that a Council must prepare and change its District Plan in accordance with its functions under s31 and the provisions of Part 2. S74 also states that when preparing or changing a district plan Council must have regards to any proposed regional policy statement or plan(s); management plans and strategies prepared under other Acts; relevant entries on the New Zealand Heritage List; the extent to which the District Plan needs to be consistent with plans of adjacent territorial authorities; relevant iwi planning documents. S74(3) specifies that Council in preparing or changing its District Plan must not have regard to trade competition.

Section 75 states a District Plan must *give effect to* any national policy statement, New Zealand Coastal Policy Statement and any regional policy statement and not be inconsistent with a water conservation order or a regional plan matter specified in s30(1).

These matters are discussed below.

5.2 Part 2 - Purpose and principles of the RMA

Part 2 of the Resource Management Act 1991 (the RMA) provides the overarching purpose and principles of the RMA that are required to be considered when undertaking any process under the RMA including Plan Changes. The purpose of the RMA is to promote the sustainable management of natural and physical resources as stated in s5(1). S5(2) defines sustainable management as follows:

"In this Act, "sustainable management" means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while –

a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and

c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."

It is not considered that this Plan Change compromises the purpose of the RMA. People and communities will still be able to provide for their health and safety and have the opportunity to install sprinkler systems in their dwellings at the time of building which in s1.1 of the Code is strongly recommended for "*all structures (and specifically houses) sited more than a 10-minute response time*

from a fire station." It is also to be noted that water for fire fighting purposes will still be required to be addressed at the time of subdivision. The proposal to require a 20m separation distance of a building in the 'rural zones' from "*naturally occurring or deliberately planted area of scrub or shrubland, woodlot or forest"* assists in the protection of these natural resources from fires that might originate in buildings or structures. In the urban areas the sites are smaller, and in particular with respect to residential sites, if the provisions were to be retained, a landowner is held to some extent accountable in terms of siting a building, in proximity to a neighbour's trees and shrubs. It is not to be overlooked that trees and shrubs are a normal part of residential amenity and streetscape. It is also to be noted that most of the Kaipara settlements have fire services available to fight fires should they occur and this assists in mitigating the spread of fire across boundaries into neighbouring properties and vegetation.

It is considered that the proposed additional provisions (an issue; an objective; three policies; three other methods and an outcome) to Chapter 2 *District Wide Resource Management Issues* provides an appropriate framework and context in respect of structural fires on which the District Plan is currently silent. These additional provisions seek to fulfil the purpose of the Act in promoting the sustainability of natural and physical resources. It is not considered that these additional provisions conflict with any other provisions in the District Plan as they cover a discrete subject matter for example, they do not conflict with 'fire' provisions in Chapter 7 *Natural Hazards* as the focus of these provisions is on 'wildfires'.

Fire safety under the Building Code will still need to be addressed at the time of a building consent. This is a method outside the District Plan. Other methods outside the District Plan include community water tanks placed in strategic locations specifically reserved for fire fighting purposes in settlements where there is no reticulated water supply. It is also to be noted that there are fire brigades and NZFS operates in settlements within the district.

Section 6 Overview

Section 6 of the Act specifies that all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, **shall recognise and provide for the matters of national importance**. These include the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development; the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development; the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna; maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers; the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga; the protection of historic heritage from inappropriate subdivision use and development; and the protection of customary rights.

It is not considered that the proposed changes will impact on matters of national importance. There are other provisions in the District Plan which manage the location of buildings and structures on sites that take into account the matters specified in s6 of the Act, for example indigenous vegetation clearance. This Plan Change does not propose any change to these existing provisions.

Section 7 Overview

Section 7 of the Act outlines that all persons exercising functions and powers under the RMA when managing the use, development and protection of natural resources, **shall have particular regard** to Kaitiakitanga; the ethic of stewardship; the efficient use and development of natural and physical resources; the efficiency of the end use of energy; the maintenance and enhancement of amenity values; intrinsic values of ecosystems; maintenance and enhancement of the quality of the environment; any finite characteristics of natural and physical resources; the protection of the habitat of trout and salmon; the effects of climate change; and the benefits derived from the use and development of renewable energy.

The proposed changes will not impact on the other matters listed in s7 of the RMA. Amenity matters specified in s7, which are the most relevant to this Plan Change, will not be compromised as water tanks for domestic use are a common part of the environment in parts of the district where there is no water reticulation. Water tanks will still continue to be erected on such sites. Individual property owners will have a choice of whether to provide additional volume of water on sites that would be reserved for fire fighting purposes.

Section 8 Overview

Section 8 requires that all persons exercising functions and powers under the RMA, in relation to managing the use, development and protection of natural and physical resources, shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

On 17 June 2016, Council wrote a memorandum to Te Uri o Hau and Te Roroa outlining a number of projects that Council wanted to consult with iwi on. The memorandum stated in bolded font:

"This memorandum serves to raise awareness of projects being undertaken at Council and to provide an opportunity to be included in these projects. Below is an outline of projects that Council's Policy, Parks and Community Teams are currently working on and projects that are scheduled to be undertaken over 2016."

The projects included the proposed Fire Safety Rule Plan Change. The memorandum concluded with a statement (applicable to all the projects listed) "*that we would like to meet…regarding these projects, in particular to discuss how and when consultation on, participation in or contributions to projects may occur*."

On 13 July 2016, Council received an email from Te Uri o Hau that stated:

"The Kaipara District Council is consulting with Te Uri o Hau as part of the pre-notification process under the Memorandum of Understanding between Te Uri o Hau Settlement Trust and Kaipara District Council.

This is to confirm that Te Uri o Hau have no issues with the proposed plan change for Fire Safety Rules (Land Use) 12.10.25, 13.10.25, 14.10.25, 15A.10.25 and 15B.10.25)."

On 26 August 2016 Council received a response from Te Roroa that stated the following:

"*Te Roroa noted that the proposed Plan Change is to remove the water storage requirement (in District Plan rules) and replace it with an Advice Note recommending that people install sprinklers. Te Roroa also noted that for communities that do have a fire service but no reticulated water supply that the*

Council is to put in communal tanks for the fire service to use - these being Mangawhai, Kaiwaka and Te Kopuru.

Te Roroa seeks that a uniform charge on rates be set across the district to finance the cost of new communal tanks and their continued maintenance.

While Te Roroa state that there is no cultural impact to Te Roroa with the rule charge, there are iwi members residing in these (aforementioned) communities that may feel the effect of increased charges."

The Memoranda to Te Uri o Hau and Te Roroa are attached as **Appendix 11**.

The responses received from Te Uri o Hau and Te Roroa have been included in **Appendix 12.**

5.3 Conclusion on the Evaluation on Part 2 of the Resource Management Act 1991

It is not considered that any of the matters specified in Part 2 of the RMA (s5-8) are affected by this Plan Change. **Appendix 13** contains Part 2 RMA matters.

5.4 National Policy Statements

Introduction

National Policy Statements are prepared by central government to cover matters of national significance. District Plans prepared under the RMA must give effect to National Policy Statements [S75(3)(a) and (b)].

National Policy Statements

There are four National Policy Statements in force at present. These are as follows:

- National Policy Statement for Freshwater Management;
- National Policy Statement for Renewable Electricity Generation;
- National Policy Statement on Electricity Transmission;
- The New Zealand Coastal Policy Statement.

The National Policy Statement for Freshwater Management directs the regional councils amongst a number of matters to safeguard fresh water's life supporting capacity, ecosystem processes and indigenous species including their associated ecosystems; managing freshwater bodies so that people's health is safeguarded; and maintain or improve the overall quality of freshwater within a region. This National Policy Statement first took effect in 2011 however was superseded on 01 August 2014.

It is not considered that this Plan Change, which focuses on fire safety provisions, will be affected by or affect the objectives of the National Policy Statement for Freshwater Management. It is also to be noted that this Policy Statement directs the regional council to manage fresh water resources to achieve the objectives of the Policy Statement, which is in accordance with the functions of a regional council as specified in s30 of the RMA.

The National Policy Statement for Renewable Electricity Generation took effect on 13 May 2011. It applies to renewable electricity at any scale and covers the construction, operation and maintenance of structures associated with renewable electricity generation. It covers all renewable electricity generation types; hydro, geothermal, biomass, wind, solar and marine. It also provides for investigative activities

for renewable electricity generation such as wind masts and geothermal test bores.

It is not considered that this Plan Change, which focuses on fire safety provisions, will be affected by or affect the objectives of the National Policy Statement for Renewable Electricity Generation Management.

The National Policy Statement on Electricity Transmission took effect on 10 April 2008. It provides guidance for local authorities on how to recognise the national significance of our national grid in RMA planning documents. The District Plan, which became operative on 01 November 2013, contains provisions that give effect to this Policy Statement such as the rules specifying "no build" areas in respect of electricity transmission corridors.

It is not considered that this Plan Change, which focuses on fire safety provisions, will be affected by or affect the provisions contained in the District Plan that give effect to the National Policy Statement on Electricity Generation.

The New Zealand Coastal Policy Statement was first issued in 1994. An updated statement took effect on 03 December 2010. Council must give effect to relevant provisions of the New Zealand Coastal Policy Statement when preparing or changing the District Plan.

It is not considered that this Plan Change, which focuses on fire safety provisions, will be affected by or be inconsistent with the provisions of the New Zealand National Coastal Policy Statement.

5.5 National Environmental Standards

National Environmental Standards (NES) are prepared by central government to provide consistency throughout the country for specific activities. District Plans prepared under the RMA must take the provisions of NES into account [s32(4)].

S32(4) states that *"if the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction is justified in the circumstances of each region or district in which the prohibition or restriction would have effect."*

National Environmental Standards that are in force are:

- Air Quality;
- Sources of Human Drinking Water;
- Telecommunication Facilities;
- Electricity Transmission Activities;
- Assessing and Managing Contaminants in Soil to Protect Human Health.

It is to be noted that the NES will need to be complied with should they be relevant in specific circumstances and as they may arise. The time of assessment would be through the resource consent process for both land use and subdivision applications.

It is to be noted that this Plan Change does not impose greater prohibitions or restrictions on matters to which any NES applies.

Conclusion on National Policy Statements and National Environmental Standards

None of the above National Policy Statements has any implications in respect of this Plan Change, and this Plan Change does not impose greater prohibitions or restrictions on matters to which any NES applies.

5.6 Operative Regional Policy Statements

The Regional Policy Statement became operative on 09 May 2016 (except for discrete matters relating to genetic engineering and release of genetically modified organisms to the environment which are still subject to legal challenge). It contains the following provisions that have been considered by Council to determine whether this Plan Change could create inconsistencies with this document.

Provisions

Section 2.7 of the Regional Policy Statement identifies that:

"Natural hazards, particularly flooding and coastal erosion and inundation, have the potential to create significant risk to human life, property, community and economic well-being in Northland. This risk is projected to increase as a result of a changing climate."

In the explanation to the above issue the following is stated:

Explanation:

Natural processes become known as natural hazards when they affect sites that people value (this may include structures and/or land). For Northland, flooding and coastal hazards (like coastal inundation and erosion) are the most significant natural hazard risks.

The potential impacts of natural hazard events range from general nuisance to creating significant damage and loss of property and, in extreme cases, loss of lives. In the last decade natural hazard events have caused millions of dollars' worth of damage to property and infrastructure (such as roads). For example, the March 2007 floods resulted in more than $12 million in insurance claims and the 2009/2010 drought is estimated to have cost Northland's economy more than $330 million. Over the coming decades, the frequency and severity of flooding and coastal hazards in Northland is projected to increase as a result of a changing climate. Other hazards projected to increase as a result of a changing climate include droughts, high wind events and ***wild fire****."*

It is identified in issue 2.7 that objective 3.13 addresses hazard risk. Objective 3.13 reads:

"3.13 Natural hazard risk

The risks and impacts of natural hazard events (including the influence of climate change) on people, communities, property, natural systems, infrastructure and our regional economy are minimised by:

(a) Increasing our understanding of natural hazards, including the potential influence of climate change on natural hazard events;

(b) Becoming better prepared for the consequences of natural hazard events;

(c) Avoiding inappropriate new development in 10 and 100 year flood hazard areas and coastal hazard areas;

(d) Not compromising the effectiveness of existing defences (natural and manmade);

(e) Enabling appropriate hazard mitigation measures to be created to protect existing vulnerable development; and

(f) Promoting long term strategies that reduce the risk of natural hazards impacting on people and communities;

(g) Recognising that in justified circumstances, critical infrastructure may have to be located in natural hazard-prone areas."

Objective 3.13 is achieved by the policies stated in 7.1 and 7.2. The policies in 7.1 relate to "*development in natural hazard-prone areas*" and those in 7.2 relate to "*general risk reduction policies*". Appended as **Appendix 14** is Chapter 7 of the Regional Policy Statement setting out policies and methods in respect of natural hazards (May 2016). It is to be noted that it is in the explanation to issue 2.7 that there is reference to **wild fire**. There is only one further reference to "fire" in the "methods" that address issues relating to natural hazards in 7.1.8 as follows:

"7.1.8 Method – Monitoring and information gathering

(1) The regional council will investigate and define new 10-year and 100-year flood hazard areas and areas potentially affected by coastal hazards over at least the next 100 years, progressively map them, and make this information available to the district councils for inclusion in district plans and anyone else on request.

The regional council, when undertaking its functions under section 30 of the Resource Management Act 1991, will co-ordinate the gathering and collating of research at a regional scale on flooding and coastal hazards (including tsunami) and the effects of climate change on these hazards.

*(2) The district councils, when undertaking their functions under section 31 of the Resource Management Act 1991, will co-ordinate the gathering and collating of research on natural hazards and their risks and impacts at a district scale. This shall include landslides, stormwater management and **rural fire risk**.*

(3) The regional council and district councils should work together to collaboratively establish and maintain an integrated natural hazards database for the region." [Emphasis added by writer]

It is to be noted that the focus of the policies that address natural hazards is to adopt a general risk management approach (7.1.1) manage flood hazards (7.1.2); coastal hazards (7.1.3); existing development in known hazard prone areas (7.1.4); regionally significant infrastructure and critical infrastructure (7.1.5) and taking into account the latest national guidance and best available information on likely effects of climate change (7.1.6). Methods are identified in 7.1.7 - 7.1.9. These include statutory plans and strategies, monitoring and gathering information and advocacy and education.

It is to be noted that the Regional Policy Statement does not specifically address structural fires although mention is made in s7.1.8 that it will monitor and gather information on rural fire risk.

In preparing this Plan Change, the provisions of the Regional Policy Statement have been considered in terms of s75(3)(c). The Regional Policy Statement does not require the District Plan to give effect to any provisions that relate to structural fire safety. As stated above, the Regional Policy Statement is silent on this matter. It is therefore not considered that this Plan Change which addresses the risk and

potential management of structure fires would be inconsistent with any fire provision in the Regional Policy Statement.

5.7 Regional Plans

The Regional Council has three Operative Plans. There are no proposed Regional Plans. The three Operative Plans are discussed below.

1 The Regional Air Quality Plan for Northland

This plan applies to air in the whole of the Northland region, excluding the coastal marine area. The plan identifies the significant air quality issues and sets out policies and rules so that these will be managed. Air quality in the coastal marine area is managed through the Regional Coastal Plan for Northland.

The Regional Air Quality Plan sets a framework for managing the effects of activities where fire might be used in industrial processes and thereby cause air particulate pollution that may be harmful to the environment and human health, including the obtaining of a resource consent where this is specified. There are also provisions relating to smoke from backyard fires and bonfires. The Regional Air Quality Plan does not contain any provisions in respect of structural fires.

2 The Regional Coastal Plan for Northland

This plan covers the region's "coastal marine area", which is the area from Mean High Water Springs (MHWS) to the 12 nautical mile (22.2km) limit of New Zealand's territorial sea. The Plan assists the regional council, in conjunction with the Minister of Conservation, to promote the sustainable management of the coastal marine area.

The Regional Coastal Plan provides for the taking and use of sea water for fire fighting purposes as a permitted activity. It also provides for the discharge of seawater for fire fighting purposes.

3 Regional Water and Soil Plan for Northland

This plan covers the effects of land use activities on water and soil in Northland above the line of MHWS. The plan identifies the significant water and soil issues and seeks to address these through the policies and rules.

The Regional Water and Soil Plan includes the wording of s14(3)(e) of the RMA which includes the only reference to “fire” in the Plan”. S14 relates to restrictions relating to the use of water. S14(3)(e) states that “*a person is not prohibited from taking, using, damming or diverting any water if the water is required to be taken or used for fire fighting purposes*”.

Conclusion

It is therefore concluded that there would be no inconsistencies with any regional plan as to whether the District Plan contains provisions or otherwise to manage the risk of structural fires.

5.8 Other Management Plans and Strategies prepared under other Acts

There are no other relevant Management Plans or Strategies under other Acts that need to be considered. The Strategies that have been looked at in reaching this conclusion have been:

- Council's Infrastructure Strategy under the Local Government Act;
- Northland Regional Council's Pest Management Strategy under the Biosecurity Act;
- Northland Regional Council's Marine Pest Management Strategy; and
- Northland Regional Council's Mooring and Marinas Strategy.

5.9 Directions by the Minister for the Environment

There has been no direction given under s25A by the Minister for the Environment to prepare this Plan Change. This Plan Change has been initiated by Council.

5.10 Historic Heritage

This Plan Change does not involve changing any item on the New Zealand Heritage List.

5.11 Regulations relating to the conservation, management or sustainability of fisheries resources

It is considered that as this Plan Change relates to rules that manage activities on land, that it will have no effect on the conservation, management or sustainability of fishery resources.

5.12 Extent of consistency with the Plans or Proposed Plans of adjacent territorial authorities

Both Whangarei and Far North District Councils provide for fire safety at subdivision stage. It is not proposed to amend the Kaipara District Plan by amending or deleting subdivision provisions that either directly or indirectly refer to the Code of Practice. This Plan Change would be consistent with the approach taken by Kaipara's two adjoining authorities as both adjoining Councils do not have land use rules. (Refer to s2.3 "Provisions in Other District Plans" of this report for further details relating to the Far North and Whangarei District Plans.)

In respect of the Rodney District Plan fire safety is recognised for specific activities and water for fire fighting purposes is provided for at subdivision stage where there is reticulated water supply available and recognised as an issue where there is no reticulation. It is not considered that the Kaipara District Plan would be inconsistent with the Rodney District Plan under this proposed Kaipara District Plan Change which would retain provisions for water for fire fighting purposes to be retained as a matter for consideration at the time of subdivision. (The Rodney District Plan as a Legacy Plan is now part of the Auckland Plan.)

Proposed Plans

Section 74(2)(c) requires consideration of proposed Plans of adjacent territorial authorities. The Far North District Council is to conduct a full review of its Plan. The Far North District Council, at the time of writing, is currently at an issues scoping stage and a draft proposed plan will not be ready until the end of 2017.

The Whangarei District Council is to undertake a rolling review over a 10 year period. This will commence with the notification of 11 Plan Changes in August 2016. From enquiries made to Council's Planning Department, none of the proposed Plan Changes yet to be notified will include any provision or refer to the Code of Practice.

A web search on 'fire' of the Proposed Auckland Unitary Plan provided two references to the Code of Practice; one for the 2008 version and the other for the 2003 version, the latter having been superseded by the former. Both these references relate to precinct areas one in Cleveland (provision 4.10 - the 2008 version) and the other in Whitford Village (5.3 the 2003 version). The precinct rules are found in Chapter 3 - District Rules Chapter K. For the remainder Auckland Plan there is a general requirement that "*the proposed water supply is suitable for fire fighting purposes*."

Submissions to the Proposed Auckland Unitary Plan have been heard by the Independent Hearing Panel. At the time of writing the panel had not released their recommendations.

Both this Plan Change and the Proposed Auckland Unitary Plan make provision for water supply for fire fighting purposes. The Kaipara District Plan under this Plan Change will include the consideration of a water supply for fire fighting purposes for fire safety at the time of subdivision with consideration given to the Code of Practice while the Proposed Auckland Unitary Plan provides for fire safety in terms of a general requirement without reference to the Code of Practice. While the provisions are different, there is consistency in that fire safety is addressed and cross boundary inconsistencies are minimised.

5.13 Iwi Management Plans

As stated in s74(2A) a territorial authority when preparing or changing a District Plan must take into account any relevant planning document recognised by an iwi authority that has been lodged with the territorial authority to the extent that its contents have a bearing on resource management issues of the district.

There are two iwi that include within their rohe areas that are within the Kaipara district; Te Uri o Hau and Te Roroa.

5.13.1 Te Uri o Hau

Te Uri o Hau's planning document is entitled "Te Uri o Hau Kaitiakitanga o Te Taiao" (overview in **Appendix 15**).

It is not considered that this Plan Change will hinder Te Uri o Hau's kaitiaki role or its development aspirations for its land and waters. It is also not considered that this Plan Change will affect sites of significance to Te Uri o Hau.

5.13.2 Te Roroa

Te Roroa's planning document is entitled "Nga Ture mo Te Taiao o Te Roroa - Te Roroa Iwi Environmental Policy Document". The status of this document is "Draft" and is dated 2008. (overview in **Appendix 15**).

In reviewing this document, it is considered that this Plan Change does not affect any resource management issue contained in Te Roroa Iwi Environmental Policy Document.

5.14 Trade Competition

This Plan Change has been developed without any regard for trade competition or the effects of trade competition.

5.15 Water Conservation Orders

Existing water conservation orders for New Zealand water bodies are listed on the Ministry for the Environment's website. There are no water conservation orders in the Kaipara district (refer to table below).

Water Conservation Orders apply to the following rivers and bodies of water:

Ahuriri River	Motueke River
Buller River	Motu River
Grey River	Oreti River
Kawerau River	Rakaia River
Lake Wairarapa	Rangitata River
Manganuioteao River	Rangitikei River
Mataura River	Te Waihora / Lake Ellesmere
Mohaka River	

5.16 Material incorporated by reference

This Plan Change does not propose to incorporate any new material by reference into the District Plan. The Code of Practice is already incorporated by reference. It is not proposed that reference to this document will be deleted in the subdivision rules. However, the reference will be removed in the Fire Safety Rules (Land Use) for the District Plan zones.

It is to be noted that the proposed **Advice Note** does include new references to Standards that are not currently included in the District Plan. These are:

- NZS 4517(Fire Sprinkler Systems for Houses); or
- NZS 4541 (Automatic Fire Sprinkler Systems); or
- NZS 4515 (Fire Sprinkler Systems for Life Safety in Sleeping Occupancies up to 2,000m^2).

However, reference to these Standards does not have the force of a rule and therefore it is considered that no new material has been incorporated into the Plan by way of reference.

It is also to be noted that the three standards referenced in the Advice Note have not had their dates included. This means that if any of the Standards are reviewed, the latest version will be the version that would be most appropriately used for a property owner to consider, in terms of installing sprinklers for their building project.

5.17 Conclusion:

From the above analysis, it has been considered that this Plan Change meets all the requirements associated with the preparation and change of a District Plan under s74 and s75 of the RMA (refer **Appendix 16**).

- It is consistent with the functions of Council under s31 of the RMA;
- It does not infringe any provisions of Part 2;
- No direction was given by the Minister for the Environment to prepare this Plan Change under s25A of the RMA;
- It does not conflict with or cause any inconsistency with the Regional Policy Statement;
- It does not and is not affected by any provision in any Regional Plan for Northland;

- There are no other management plans and strategies that affect or are affected by this Plan Change;
- It does not compromise any relevant entry on the New Zealand Heritage List;
- Consideration has been given to whether there needs to be consistency with provisions of adjoining territorial authorities;
- It does not cause conflict with any resource management issue identified in the relevant iwi planning documents;
- It does not give trade completion advantage to any business organisation;
- It does not affect any provision of a national policy statement that has been 'given effect to' in the District Plan;
- It does not compromise any provision in the New Zealand Coastal Policy Statement that must be 'given effect to' in the District Plan;
- It does not compromise a water conservation order;
- It is not proposed to incorporate any new material by way of reference. It is however proposed that reference to the Code of Practice will be removed in the land use rules; and
- It does not affect the implementation of any National Environmental Standard that is in force.

6 Section 32 Evaluation

6.1 Overview

Council is required to consider the matters set out in s32 of the RMA and produce a report that shows that the requirements under s32 have been addressed.

6.2 Requirements for Section 32 RMA (Overview of legislation requirements)

Section 32 of the RMA 1991 requires that any Plan Change or variation must be supported by an evaluation as to the costs and benefits of the proposal. S32 states:

32 Requirements for preparing and publishing evaluation reports

(1) An evaluation report required under this Act must—

(a) examine the extent to which the objectives of the proposal being evaluated are the most appropriate way to achieve the purpose of this Act; and

(b) examine whether the provisions in the proposal are the most appropriate way to achieve the objectives by—

(i) identifying other reasonably practicable options for achieving the objectives; and

(ii) assessing the efficiency and effectiveness of the provisions in achieving the objectives; and

(iii) summarising the reasons for deciding on the provisions; and

(c) contain a level of detail that corresponds to the scale and significance of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the proposal.

(2) An assessment under subsection (1)(b)(ii) must—

(a) identify and assess the benefits and costs of the environmental, economic, social, and cultural effects that are anticipated from the implementation of the provisions, including the opportunities for—

(i) economic growth that are anticipated to be provided or reduced; and

(ii) employment that are anticipated to be provided or reduced; and

(b) if practicable, quantify the benefits and costs referred to in paragraph (a); and

(c) assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions.

*(3) If the proposal (an **amending proposal**) will amend a standard, statement, regulation, plan, or change that is already proposed or that already exists (an **existing proposal**), the examination under subsection (1)(b) must relate to—*

(a) the provisions and objectives of the amending proposal; and

(b) the objectives of the existing proposal to the extent that those objectives—

(i) are relevant to the objectives of the amending proposal; and

(ii) would remain if the amending proposal were to take effect.

(4) If the proposal will impose a greater prohibition or restriction on an activity to which a national environmental standard applies than the existing prohibitions or restrictions in that standard, the evaluation report must examine whether the prohibition or restriction

is justified in the circumstances of each region or district in which the prohibition or restriction would have effect.

(5) The person who must have particular regard to the evaluation report must make the report available for public inspection—

(a) as soon as practicable after the proposal is made (in the case of a standard or regulation); or

(b) at the same time as the proposal is publicly notified.

(6) In this section,—

***objectives** means,—*

(a) for a proposal that contains or states objectives, those objectives:

(b) for all other proposals, the purpose of the proposal.

***proposal** means a proposed standard, statement, regulation, plan, or change for which an evaluation report must be prepared under this Act.*

***provisions** means,—*

(a) for a proposed plan or change, the policies, rules, or other methods that implement, or give effect to, the objectives of the proposed plan or change:

(b) for all other proposals, the policies or provisions of the proposal that implement, or give effect to, the objectives of the proposal.

6.3 Reasonably practicable options

The tables in s6.6 of this Section 32 Evaluation Report summarise the benefits, costs, efficiency and effectiveness of each of the options that have been developed to address the identified issues relating to application of the Code through the District Plan. These options are as follows:

1 Status Quo - Retain existing provisions where the Code applies to all development through land use rules and is assessed at the time of subdivision, in both reticulated and non-reticulated areas. Retain setback to vegetation - the 20m dripline rule.

2 Provide a more flexible approach in administrating existing Fire Safety Rules (Land Use) using the 'alternative' provisions of clause 4.4 where proposals will be assessed by NZFS in accordance with Appendices H and J of the Code of Practice to determine compliance as part of a building application. Retain all rules as written, including the vegetation setback rule - the 20m dripline rule.

3 Delete the Fire Safety Rules (Land Use) from District Plan and replace with an Advice Note. Reference to Code retained in Subdivision Rules. Delete the vegetation setback rule for the Residential and Business Zones and retain in the Rural Zones - the 20m dripline rule. It is to be noted that the Code will still be applied to developments that require Council reticulation through the Kaipara District Council Engineering Standards 2011.

4 Amend rules by setting a lower volume of water being required onsite for fire fighting purposes than the volumes required under the Code of Practice.

In respect of Option 4, this was the approach Council adopted in Plan Change 2. This approach was opposed by the community and NZFS. It is considered that repeating this approach of setting thresholds less than required by the Code of Practice (because it is referenced in a District Plan

rule) is not a plausible option. For this reason this option has not been included and analysed in the tables in s6.6 of this Evaluation Report.

6.4 Permitted Activities and Option Assessment

The central issue in the Kaipara District Plan is "*what should a Fire Safety Rule (Land Use) specify in terms of a permitted activity performance standard*" with regard to risk management and health and safety of people? A fundamental question is whether the inclusion of Fire Safety Rules (Land Use), that address risk potential for structures and buildings, is within the core purpose of the RMA; the promotion of the sustainable management of natural and physical resources of the district.

Currently the Fire Safety Rules (Land Use) in the District Plan specify that water supply for fire fighting is to comply with the Code of Practice. This document is a non-statutory document. It is not mandatory to include a reference to this document in the District Plan. The Foreword of the Code states that "*it is intended that the Code of Practice will form the basis of a* ***partnership between the New Zealand Fire Services, territorial authorities****, water supply authorities and developers so that the Code may be used as the basis of water supply conditions, for example, by territorial authorities in rules regulating subdivisions in the District Plan."* [abridged and emphasis added by writer]

As far as a permitted activity is concerned, legal tests specify that they should be clear and certain to "*enable the Plan user to judge the meaning and effect of the rule at face value without having to resort to using explanations or seeking advice from those who wrote it*." [Source: Writing Effective and Enforceable Rules - Quality Planning Website.]

Status Quo - Implication of Current Rules Not Clear and Certain

It is considered that the current land use rules are clear and certain in conveying that a water supply for buildings must comply with the Code of Practice. However, the **implications** are not immediately obvious in that for residential activities to comply with this performance standard requires availability of 45,000ltr of stored water and industrial and commercial activities 180,000ltr. It is considered that details of a rule, hidden in a referred-to document, does not meet the legal tests of a rule being clear and certain for a Plan user to judge the meaning and effect of the rule at face value. It is to be noted that the implementation of this rule impacts on the settlements where there **are** no reticulated water supplies. The volumes specified above are to be stored onsite for the specific purpose of being used by NZFS in the event of a fire.

The implementation of the rule since 01 November 2013 has generated 177 resource consents for water quantities that do not comply with the volumes specified in the Code of Practice. In each case, this required an applicant to consult with NZFS and obtain **its** approval for a reduced volume.

Provide a more flexible approach in administering the existing Fire Safety Rules (Land Use) using the 'alternative' provisions of clause 4.4 of the Code of Practice - Implication of rules not clear and certain.

Council worked with NZFS to understand **its** submission and to explore whether the Fire Safety Rules (Land Use) could be implemented differently using the alternative provisions of the Code of Practice. Under this approach the Fire Safety Rules (Land Use) would remain the same and applicants would submit their proposals to NZFS which would undertake assessments to determine whether they would

comply with the Code of Practice and therefore the permitted activity performance standards in the rules. Under this scenario, the clear and certain tests for rules that could be understood by all Plan users are not met. It could also be argued that determining the permitted activity status is 'delegated' to a third party which is unlawful. This approach is legally further complicated by Council not addressing all the submissions to Plan Change 2 through the Plan Change process under the RMA by entering into agreements for the benefit of one submitter only. [Te Aroha Air Quality v Waikato Region (No2) (1993) 2 NZRMA 574.]

Delete the Fire Safety Rules(Land Use) from the District Plan and replace with an Advice Note recommending sprinkler systems be installed – Implication of Rules Clear and Certain.

Plan Change 4 proposes that the Code of Practice as a performance standard for permitted activities be removed from the Fire Safety Rules (Land Use) and replaced with an Advice Note that recommends that sprinklers be installed in buildings.

It is considered that the approach adopted under Plan Change 4 is appropriate in terms of risk management. It is also to be noted that there are other legislation and methods that address risk of fires in buildings for example, requirements under the Building Code to install smoke alarms and provide for means of escape. The settlements have volunteer fire brigades which respond to fire emergencies.

Replacement of references to comply with the Code are clear and certain and provides applicants at the time of building, with an opportunity to consider fire risk and install sprinkler systems if that is their choice. This is consistent with s1.1 of the Code of Practice where it is stated:

"The Fire Service recommends the installation of automatic fire detection devices such as smoke detection systems and fire protection systems such as sprinklers in buildings (irrespective of the water supply) to provide maximum protection for life and property."

6.5 Cost to comply with the Fire Safety Rules (Land Use)

There are settlements within the Kaipara district that do not have reticulated water supplies. These include Mangawhai, Paparoa, Kaiwaka, Te Kopuru, Tinopai and Pahi. In such settlements, and in the Rural Heartland, all habitable buildings must have a water supply that is potable (drinkable) as specified by the Building Code (G12). Under the Building Code the water supply must also be protected from contamination, and must not contaminate the water supply system or source.

In areas where people are required to supply their own domestic water requirements because there is no reticulated supply, in most cases this is achieved through a tank system that collects rainwater from roofs. Costs related to this are known for houses that are built in these areas.

The District Plan requires buildings to provide a dedicated water reserve for fire fighting purposes that is additional to that required for domestic purposes. The analysis below relates to the additional costs that are associated with this requirement.

It is to be noted that the Building Code does not specify the amount of water required for household purposes. Council's Building Consent Officers have stated that typically 25,000ltrs would be the minimum amount of water needed for the household supply in order to meet the Building Code requirements, although in some dry summers the tank may need refilling by a tanker. This means that people typically have two tanks although this a choice rather than a requirement.

People can choose to use plastic and/or concrete tanks, most people decide to use two 25,000ltr plastic or two 25,000ltr concrete tanks (some people use two 22,500ltr tanks). The need for a second tank could be due to the effects of the fire rule where they are required to hold 10,000ltrs at all times as per a resource consent condition. It could be considered more cost-effective to have an additional 25,000ltr tank which also allows for additional water for household purposes than to obtain an additional 10,000ltr tank.

Tank suppliers can be found on the internet. Suppliers of plastic tanks typically had prices advertised whereas concrete tank suppliers typically did not. Most of the plastic tank suppliers had free delivery whereas the concrete tank suppliers did not. This may be a reflection of the weight of the tanks; plastic compared to concrete and how easy the tanks are to move/lift. The cost of transporting tanks depends on where the concrete tanks needed to be delivered to. For the purpose of this research the focus is on meeting the residential requirements (for fire fighting water supply) of the District Plan, either with a resource consent requiring 10,000ltrs of water to be stored for fire fighting purposes or without a resource consent. The residential provisions have been the focus of nearly all resource consents applied to Council for non-compliance with the fire safety rule and have generally allowed for 10,000ltrs. Some concrete tanks are can be made onsite. This may occur when access to a site is difficult and makes transportation of a tank to the site impossible. No costing have been obtained for this situation.

Costs were researched for a variety of different tank options. The purpose was to help determine the cost of complying with the fire safety rule in the residential zone. The average cost of a resource consent was also considered so the cost to comply through this process could be determined.

Average cost of different sized tanks and tank material

Type of tank	Average/approximate cost per tank
10,000ltr plastic tank	$2,485.00
25,000ltr plastic tank	$3,055.00
12,500ltr concrete tank	$3,269.00
25,000ltr concrete tank	$3,507.00

Average cost of resource consent plus $1,000.

Cost to comply with the Fire Safety Rule (additional costs) – different scenarios

Below are different scenarios as to how people may comply with the Fire Safety Rule including when a resource consent is obtained.

Scenario- type of tank and how the provisions are met (these scenarios do not include the 25,000ltr for household purposes)	Cost to comply with Fire Safety Rule
10,000ltr plastic tank for fire fighting plus resource consent	10,000ltr tank ($2,485) plus resource consent ($1,000) = $3,485.00
12,000ltr concrete tank for fire fighting plus resource consent	12,000ltr tank ($3,269) plus resource consent ($1,000) = $4,269.00

Scenario- type of tank and how the provisions are met (these scenarios do not include the 25,000ltr for household purposes)	Cost to comply with Fire Safety Rule
1x25,000ltr plastic tanks - 15,000ltrs for household purposes and 10,000ltr for fire fighting plus resource consent	25,000ltr tank ($3,055.00) plus resource consent ($1,000) = $4,055.00
1x25,000ltr concrete tank - 15,000ltrs for household purposes and 10,000ltr for fire fighting plus resource consent	25,000ltr tank concrete ($3,507.00) plus resource consent ($1,000) = $4,507.00
3x25,000ltr plastic tanks 45,000ltrs for fire fighting)	3x25,000ltr plastic tanks (3 x $3,055.00) = $9,165.00
3x25,000ltr concrete tanks 45,000ltrs for fire fighting)	3x25,000ltr concrete tanks (3 x $3,507.00) = $10,521.00

The above cost information does not include the cost of:

- any transportation of the tanks to the sites. Most plastic tanks are transported at no additional cost, however concrete tanks involve an additional transport cost and the amount will vary due to the distance it needs to travel; or
- any plumbing or pumps systems to the house. These costs are not considered in the prices above as these costs are required for the household water supply and are not needed for the fire fighting water supplies.

The main 'other cost' is the cost of any required 'coupling" which NZFS would use to access the water in the tanks in the event of a fire. In some cases the coupling maybe bought already attached to a tank in which case the prices above will cost more or the coupling may be bought separately. The price of a coupling is approximately $1,474.00 (for a plastic tank).

House sprinkler systems

A fire sprinkler system installed in a new dwelling needs to meet the requirements of **NZS 4517:2010 Fire Sprinkler Systems for Houses.** This standard contains specified minimum requirements for the design, material, manufacture and installation of fire sprinkler systems to provide improved protection against loss of life.

NZFS has estimated the cost of the installation of an in-home sprinkler system into a new house would be around 1-2% of the total building costs. Research has also indicated that a sprinkler system could cost from $3,000 upwards. In addition a water supply of 7,000ltr is required according to the Code of Practice (refer FW1 – table 2). A 7,000ltr tank is not a standard tank size, the cost of a 10,000ltr tank would be considered the closest size to meet this requirement.

Alternative water supplies

More cost-effective options are available for some housing developments. For example, developments which have swimming pools, ponds or rivers nearby can apply to have these alternatives approved by Council and NZFS provided they are within 90m of the dwelling and are going to supply sufficient volumes of water in peak summer conditions and the hardstand area to support the fire appliance is established.

Sufficient costs and time can also be spent negotiating a non-standard solution or getting signoff that a design meets the Code of Practice. Expert reports may be required and there may be differences of opinion between experts representing the applicant and NZFS.

Hardstands and driveway/access

Hardstands and driveway/access to the water supply need to be considered. It is estimated that $2,900 is required for constructing a hardstand area of 11m x 4.5m to water supplies and 30m of driveway/access to support a 20 tonne fire appliance. The costs are likely to vary depending on the where the alternative supply is located.

Conclusion

There are significant costs involved with meeting the Code of Practice water supply volumes of 45,000ltrs for a residential activity. While a resource consent can be obtained, this also could be considered significant, with other supply options available that mean that supplies are not kept onsite but are still unable to be considered under the Code of Practice when individual land use projects are being considered under the District Plan processes.

6.6 Tables setting out benefits; costs; risks of acting or not acting; efficiency and effectiveness; economic growth and employment

Option 1:

Status Quo - Retain existing provisions where the Code of Practice applies to all development through Fire Safety Rules (Land Use) and is assessed at the time of subdivision, in both reticulated and non-reticulated areas. Retain setback to vegetation - the 20m dripline rule.

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
Provides consistent protection for un-reticulated areas against fire risk as all new developments are required to comply with the Code of Practice. Activities that do not comply with the Code of Practice can seek resource consent where applications are assessed on their merits. Awareness of the Code of Practice's requirements could continue to increase. Less transitional costs related to administration for Council as no new systems would need to be developed.	Compliance with the Code of Practice has additional construction costs for some developments, especially for non-reticulated housing and some types of non-residential development. There are also design costs and consenting costs for new development to meet the Code of Practice. Adds another cost to affordable housing development. There is little personal choice for applicants or developers. Little opportunity to determine their own preferred approach to fire risk. Some may view as overly bureaucratic. On small sites there are issues with the placement of tanks when one is required specifically for fire fighting	NZFS has provided Council with the number of fire events between 2011 and 2016. These figures have been broken down into the various communities in the Kaipara district including figures for the rural heartland. The risk of a fire starting is low and the risk of a house or building being completely destroyed varies across the district depending on factors such as whether there is a fire brigade, distance from the fire brigade and whether there is a reticulated water supply that has fire fighting capability. These variables will not change. In respect of settlements with reticulated water supplies, fire fighting capability is assessed at the	All infringements require resource consents which creates administrative inefficiencies for Council when a standard volume of water (being 10,000 litres) is granted for each consent or any other amount that varies from Table 2 of the Code of Practice. Inefficiencies also involves the time required by NZFS in assessing each application on its merits and the time an owner needs to prepare appropriate documentation for NZFS to assess. Efficiencies can be hindered when subjective judgements are required and new staff have different views and may be less flexible in assessing proposals.	Retaining the status quo would not facilitate economic growth or create new employment opportunities.

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
	purposes and affects amenity considerations. It is to be noted that in areas where there is no reticulated water supply, property owners need to provide for their own domestic water requirements. It is the additional costs associated with additional water storage dedicated for fire fighting that needs to be considered. This has been set out in a separate section on costs. Where there is reticulated water supply, there are no costs for property owners when they build on their properties. The fire safety rule has its greatest impact in and around Mangawhai which has the highest growth rate in the district. There are time costs to obtain NZFS approvals for volumes that do not comply with Table 2 of the Code of Practice.	time of new subdivisions and the design to achieve this is controlled by Council's Engineering Standards. This will not change. The source of water for fire fighting may not affect the outcome of a fire i.e. storage onsite or water brought in by a tanker; due to distance from a fire station. The Building Code provides for smoke alarms and means of escape that assist in mitigating the potential for loss of life (i.e. minimises risks to people). Refer Also to s3.2 of this Evaluation Report for a comprehensive analysis of risk of structural fires.	Efficiency and effectiveness rely on a good relationship with NZFS being maintained. There are no formal protocols between NZFS and Council to facilitate more efficient and effective processing of resource consent applications. The number of resource consents granted for lesser water volumes suggests that lower volumes of water are effective for fire safety. The District Plan at present does not contain issues, objectives, policies and other methods that provides a resource management rational for provisions relating to structural fires because its focus is on wild fires from a natural hazards perspective. There is a lack of flexibility when applying rules with an outcome of keeping people safe rather than protecting buildings. This compromises effectiveness and	

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
	Refer also to s6.5 of this Evaluation Report which sets out costs to comply with the Fire Safety Rules (Land Use). <u>Costs of Other Methods</u> Indicative costs of providing aboveground concrete communal tanks for Mangawhai, Te Kopuru and Kaiwaka per ratepayer are included in s3.4 of this Evaluation Report. An indicative cost for providing an additional tanker for Mangawhai to provide increased mobile supply is included in s3.5 of this Evaluation Report.		efficiency from a District Plan perspective. Case by case assessment allows effective volumes to be set appropriate to building and location. Refer also to s6.4 of this Evaluation Report - Permitted Activities and Option Assessment.	

Option 2:

Provide a more flexible approach in administrating existing Fire Safety Rules (Land Use) using the 'alternative' provisions of clause 4.4 where proposals will be assessed by NZFS in accordance with Appendices H and J of the Code of Practice to determine compliance as part of a building application. Retain all rules as written, including the vegetation setback rule - the 20m dripline rule.

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
No Plan Change would be required as the existing Fire Safety Rules (Land Use) would be implemented at the time of building consent being lodged. If a building project submitted documentation that had been approved by NZFS, this would be deemed to comply with the Code of Practice under alternative methods (clause 4.4) and therefore the Fire Safety Rules (Land Use). No resource consents would be required. A level of community frustration with the existing rules will be alleviated.	There would be no Plan Changes costs in terms of staff time, public notification and hearing costs. There may be more significant costs if the Plan Change is appealed. There are costs in terms of the time required to have proposals assessed by NZFS. However, these costs in terms of time are likely to be less than those associated with resource consents. Where prior approval is obtained, it removes a cost component arising from resource consents that will assist in affordable housing development. It may be considered by some that the process of obtaining prior consent from NZFS is overly bureaucratic.	NZFS has provided Council with the number of fire events between 2011 and 2016. These figures have been broken down into the various communities in the Kaipara district including figures for the rural heartland. The risk of a fire starting is low and the risk of a house or building being completely destroyed varies across the district depending on factors such as whether there is a fire brigade, distance from the fire brigade and whether there is a reticulated water supply that has fire fighting capability. These variables will not change if the existing Fire Safety Rules (Land Use) are implemented differently. In respect of settlements with reticulated water supplies, fire	There would be administrative efficiencies for Council as it would not need to process resource consent applications where prior approval had been obtained from NZFS. The implementation of the Fire Safety Rules (Land Use) would not be clear and certain as the current rules do not state that a prior approval can be deemed as one way to comply with the Code of Practice. This may cause a new level of community frustration, particularly as the community has come to accept that 10,000ltr has been approved for around 177 properties between 01 November 2013 and 01 June 2016. The assessment of building projects under the alternative process	This approach is similar to the status quo in terms of economic and employment growth as additional tanks would still be required. It is considered that it would not facilitate economic growth or create new employment opportunities.

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
	Plan Change 2 would need to be withdrawn and there are costs associated with this. However the costs would be less than continuing the Plan Change process with the potential for appeals to the Environment Court. There would be costs of putting in individual tanks. Refer also to s6.5 of this Evaluation Report which sets out costs to comply with the Fire Safety Rules (Land Use). <u>Costs of Other Methods</u> An indicative cost for providing aboveground concrete communal tanks for Mangawhai, Te Kopuru and Kaiwaka per ratepayer are included in s3.4 of this Evaluation Report. An indicative cost for providing an additional tanker for Mangawhai to provide increased mobile supply is included in s3.5 of this Evaluation Report.	fighting capability is assessed at the time of new subdivisions and the design to achieve this is controlled by Council's Engineering Standards. This will not change if the existing Fire Safety Rules (Land Use) are implemented differently. The source of water for fire fighting may not affect the outcome of a fire i.e. storage onsite or water brought in by a tanker, due to distance from a fire station. The Building Code provides for smoke alarms and means of escape that assist in mitigating the potential for loss of life (i.e. minimises risks to people). Refer also to s3.2 of this Evaluation Report for a comprehensive analysis of risk of structural fires.	requires assumptions to be made and different fire engineers are likely to make different assumptions that can translate into different water volume requirements. If there are differences between an applicant's fire engineer's assessment to that 'checked' by NZFS fire engineers, this may require lengthy negotiations with parties to resolve. This would not add to administrative efficiencies. Refer also to s6.4 of this Evaluation Report - Permitted Activities and Option Assessment.	

Option 3:

Delete the Fire Safety Land Use Rules (Land Use) from District Plan and replace with an Advice Note. Reference to Code of Practice retained in Subdivision Rules. Delete the vegetation setback rule for the Residential and Business Zones and retain in the Rural Zones - the 20m dripline rule.

Benefits	Costs	Risk of acting/not acting if uncertain or insufficient information	Efficiency and effectiveness	Economic growth and employment
Removing the application of the Code from new developments will reduce the costs of construction and consents for non-reticulated residential development. Resistance from the community would be reduced as most concerns have related to the Code of Practice's requirements for non-reticulated residential developments. Resource consent charges will no longer be required nor will additional tanks for dedicated water supplies for fire fighting. Removes an additional cost to affordable housing development in non-reticulated areas. Allows greater personal choice about how to address the risk of fire.	Plan Changes have associated costs attached in terms of staff time, public notification and hearing costs. There may be more significant costs if the Plan Change is appealed. There would be costs in putting in tanks and the cost of installing sprinklers but owners would have a choice as to whether they would be prepared to pay these costs. <u>Costs of Other Methods</u> Indicative costs of providing aboveground concrete communal tanks for Mangawhai, Te Kopuru and Kaiwaka per ratepayer are included in s3.4 of this Evaluation Report. An indicative cost for providing an additional tanker for Mangawhai to provide increased mobile supply is	NZFS has provided Council with the number of fire events between 2011 and 2016. These figures have been broken down into the various communities in the Kaipara district including figures for the rural heartland. The risk of a fire starting is low. The risk of a house or building being completely destroyed varies across the district depending on factors such as whether there is a fire brigade, distance from the fire brigade and whether there is a reticulated water supply that has fire fighting capability. These variables will not change. In respect of settlements with reticulated water supplies, fire fighting capability is assessed at the time of new subdivisions and the design to achieve this is controlled	There would be administrative efficiencies for Council as it would not need to process resource consent applications for breaches of the fire rules. At the time of subdivision the issue of fire fighting should be considered in areas where there is no reticulated water supply. Specific solutions can be provided. This promotes effectiveness of provisions and there are no surprise elements at the time a property owner wishes to build on such sites. Proposal contains issues, objectives, policies and other methods and provides a resource management rationale for provisions relating to structural fires that is absent from the current District Plan which has a focus on wild fires from a natural hazards perspective.	It is considered that this Plan Change will be neutral in terms of economic growth. It is considered that the Plan Change will neither facilitate nor detract from economic growth. The economic impacts if more sprinkler systems were to be installed would be cancelled out by the reduced number of water tanks required. In terms of an employment effect, it may impact on firms that make water tanks as there is likely be less demand for additional tanks. However, there may be positive employment effects on firms that make sprinkler systems.

An Advice Note alerts Plan users to the issue of fire safety. For new subdivisions, fire safety will be assessed in both reticulated and non-reticulated areas with the Code of Practice applying in reticulated through Council's Engineering Standards.	included in s3.5 of this Evaluation Report.	by Council's Engineering Standards. This will not change. The source of water for fire fighting may not affect the outcome of a fire i.e. storage onsite or water brought in by a tanker - due to distance from a fire station. The Building Code provides for smoke alarms and means of escape that assist in mitigating the potential for loss of life (i.e. minimises risks to people). Refer also to s3.2 of this Evaluation Report for a comprehensive analysis of risk of structural fires.	The Plan Change recognises that the District Plan is one tool to be used in combination with other methods to achieve fire safety. An example of this are the requirements under the Building Code to install smoke alarms and provide means of escape. This creates efficiencies by focusing on other methods where they are likely to be more effective. Provides flexibility when applying rules with an outcome of keeping people safe rather than protecting buildings. This enhances the effectiveness and efficiency from a District Plan perspective. Refer also to s6.4 of this Evaluation Report - Permitted Activities and Option Assessment.	

6.7 Evaluation of proposed objective of the Plan Change

The District Plan is silent on structural fires. Fire is mentioned in Chapter 7 - Natural Hazards - where the focus is on the 'wild fires.'

It is considered that the objective and policies proposed through this Plan Change are appropriate as they seek to provide the policy framework and resource management rationale for the land use and subdivision rules.

It is considered that the objective…

"to encourage and promote fire safety measures for buildings and structures to minimise fire risk to life, property and the environment."

…is most appropriately achieved and given effect to through Option 3 for all the reasons contained in this Evaluation Report.

The objective is to be implemented by three policies which will be given effect to through the amendments to rules which are outlined below. [S32(1)(a)&(b)]

The three proposed policies and explanatory text are as follows:

"***2.5.17(a)*** *To ensure new reticulated sites within the Reticulated Services Boundary are provided with an adequate supply of water for fire fighting for the reasonably anticipated land use;*

2.5.17(b) *To promote in non-reticulated areas that there is an adequate alternative supply of water for fire fighting purposes for the reasonably anticipated land use;*

2.5.17(c) *To encourage education on fire hazard and on fire risk reduction measures*.

The District Plan can promote measures at land use and subdivision stages to assist in minimising fire risk spread for the community. However, provisions in a District Plan are not the only method of minimising fire risk. The Building Code contains measures that are applied at the time a building consent application is lodged. Council or the community for areas where there is no reticulated water supply can provide static supplies for fire fighting purposes in the form of tanks situated at strategic locations that can service a wider area."

It is considered that the amendments to the rules **proposed** to implement the objective and policies are appropriate. They enable people and communities to have a choice as to how to provide for their health and welfare within the context of considering risk.

It is also considered appropriate that the vegetation setback rule, the 20m dripline rule, be deleted from the Residential and the Business Zones. Residential Zones contain trees and shrubs and which contribute to the pleasantness of settlement amenity values. These zones are in the urban areas of the district. These are areas that are served by fire brigades. It is however appropriate that the vegetation setbacks be retained in the rural zones of the district where distance and time from a fire brigade presents risk in terms of mitigating the spread of structural fire events. The provision also assists in mitigating the effects of wildfire events on structures in the rural areas of the district.

It is also appropriate that redundant provisions relating to NZS 9231:1971 Model Bylaw for Fire Prevention be removed from all Fire Safety Rules (Land Use).

6.8 Conclusion - preferred option

The preferred option is Option 3 - the replacement of land use rules with an Advice Note and retention of references to the Code of Practice in the District Plan that will apply at the time of subdivision. Included in this option is the removal of the vegetation setback requirement in the Residential and Business Zones of the district. Also included in this option is the removal of redundant provisions relating to NZS 9231:1971 Model Bylaw for Fire Prevention.

An Advice Note is recommended to be worded as follows:

"Advice Note:

In the interests of the protection of life and the surrounding environment, in all areas particularly non-reticulated areas over five minutes driving distance from a fire station, the New Zealand Fire Service recommends that the installation of a fire sprinkler system in accordance with Fire Sprinkler Systems for Houses NZS 4517:2010 is the most appropriate form of compliance with SNZ PAS 4509:2008."

It is to be noted that the District Plan requires infrastructure to comply with the Kaipara District Council Engineering Standards 2011 at the subdivision stage. Subdivision Rules 12.12.1, 13.11.1, 14.11.1 and 15B.14.4 state as a criterion that:

"the subdivision complies with the requirements of the relevant performance standards in the Kaipara District Council Engineering Standards 2011 or has been confirmed as appropriate by Council's Engineer."

Chapter 8 of the Kaipara District Council Engineering Standards 2011 is entitled "*Water Supply and Reticulation*". It contains amongst other provisions a reference to the Code of Practice in s8.2 as follows:

"8.2 Design Requirements

The following requirements shall be met:

(a) Water supplies to all developments shall meet the requirements of the Building Act;

(b) Reticulated water supplies to all developments shall:

- *(i) Include an isolation valve installed immediately after the meter on every new connection;*
- *(ii) Have an approved backflow preventer installed on every new commercial or industrial connection;*
- *(iii)* ***Be adequate for fighting purposes in accordance with New Zealand Fire Service Code of Practice*** *SNZ PAS 4509:2008."* [emphasis added by writer]