

# HUTT CITY COUNCIL

## RURAL FIRE PLAN

Readiness & Response 1 September 2009 – 31 August 2011  
Reduction & Recovery - 1 September 2007 – 31 August 2012



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In accordance with section of the Forest & Rural Fire Regulations 2005 section 39 the Hutt City Council Rural Fire Authority plan is adopted.

Signed ..... Date .....

Designation .....

For Hutt City Council Rural Fire Authority



# 1. INTRODUCTION

## 1.1 Purpose

The purpose of this plan is to detail the policies and procedures for undertaking reduction, readiness, response and recovery measures and activities for vegetation fires in the rural area of Lower Hutt. The plan is divided into four parts and looks at each measure in its entirety.

## 1.2 Plan Review & Approval

Each part of the plan is required to be reviewed by the Emergency Management Office and approved by the Hutt City Council. As the Fire Authority, Hutt City Council has delegated to the Principal Rural Fire Officer authority to ensure compliance with its obligations under the Forest & Rural Fires Act 1975.

The Readiness and response parts are to be reviewed every two years.

The Reduction and recovery parts are to be reviewed every five years.

## 1.3 Legislation

This plan meets the requirements of the Forest and Rural Fire 1975 and Forest and Rural Fire Regulations 2005. Legislation is further referred to in part 1 Reduction.

## 1.4 Amendments

Amendments can be made to this plan within the five year approval period. Amendments will only be made by the Emergency Management staff and distributed to plan holders accordingly.

Date	Rev No.	Change	Part

## 1.5 Distribution

A copy of the rural fire plan will be provided to:

- Principal Rural Fire Officer (1)
- Deputy Principal Rural Fire Officer (1)
- Hutt City Council Rural Fire Officers (4)
- Wainuiomata Bushfire Force (1)
- National Rural Fire Authority (1)
- Fire Permitting Officers (2)
- Wainuiomata Bushfire Force Officers/Crewleaders (5)
- FireCom (1)
- Greater Wellington Regional Council, Manager Parks & Forests (1)
- Hutt City Council webpage

## 1.6 Acronyms

BFF	Bushfire Force
BUI	Build Up Index
CIMS	Coordinated Incident Management System
DO	Duty Officer
DOC	Department of Conservation
EMO	Emergency Management Office
FireCom	Fire Communications Centre
FA	Fire Authority
FWI	Fire Weather Index
GIS	Geographic Information System
GWRC	Greater Wellington Regional Council
GWRRFC	Greater Wellington Regional Rural Fire Committee
HCC	Hutt City Council
HCC RFA	Hutt City Council Rural Fire Authority
ICP	Incident Control Point
IC	Incident Controller
IMT	Incident Management Team
NIMT	National Incident Management Team
MOU	Memorandum of Understanding
NRFA	National Rural Fire Authority
NZFS	New Zealand Fire Service
OIC	Officer in Charge
PRFO	Principal Rural Fire Officer
RFA	Rural Fire Authority
RFO	Rural Fire Officer
RIMT	Regional Incident Management Team

# RURAL FIRE PLAN

## REDUCTION

Hutt City Council  
Rural Fire Authority

Valid September 2007 – September 2012



## 2. REDUCTION

It is the policy of the Hutt City Council (HCC) to have in place and follow procedures to reduce the likelihood and consequence of fires.

### 2.1 Fire Hazard & Risk Management

#### 2.1.2 Fire Danger and Rating Value

HCC currently uses the fire danger and rating value system to determine the fire hazard, however it will be use the fire danger rating system once completed.

Within the Wellington region, five zones or polygons based on fire hazard have been identified. The polygon maps fire hazards and ratings recognise the fire fuel type, topography, remoteness, rainfall and wind etc.

#### Descriptions of Rural Fire Polygons:

Zone Land Form	Vicinity Example
1. Lowland Coastal Flat	Kapiti Coast (Peat Swamp)
2. Coastal Steeplands	Makara/Turakirae/Windy Pt
3. Indigenous Forest Steeplands	Podocarp/Beech Forest, Tussock
4. Steeplands	Scrub, Gorse, Fern, small exotic forest plantations about farmland
5. Urban Steeplands	Rural/Urban interface consisting of gorse, fern, scrub hardwoods, larger exotic forests.

The Hutt City Council Rural Fire Authority (HCC RFA) consists mainly of urban steeplands, indigenous forest steeplands and steeplands.

#### Fire Danger & Value Rating for Lower Hutt Rural Fire Polygons

Rural Fire Polygon	1 Urban Steeplands	2 Indigenous Forest Steeplands	3 Steeplands
Topography & Fuel Factors	6	2	6
Fire Climate Level	8	8	8
Additional Environment Factors	4	2	2
<b>Total to find Fire Danger Rating</b>	<b>18</b>	<b>12</b>	<b>16</b>
Basic Value Rating	5	7	3
Life & Buildings Rating	2	0	1
Additional Value Factors Rating	1	1	1
<b>Total to find Value Rating</b>	<b>8</b>	<b>8</b>	<b>5</b>
<b>Numeric Standard of Cover (STC)</b>	<b>12</b>	<b>9</b>	<b>10</b>
<b>Average Numeric STC</b>	<b>10.3</b>		
<b>Alphabetical Standard of Cover</b>	<b>C (8.0 - 11.9)</b>		

### **2.1.3 Wildfire Threat Analysis**

The Wildfire Threat Analysis (WTA) has been developed for Lower Hutt as part of a regional project. The WTA is a series of overlaying maps that each provides a picture of a particular aspect, and then combined gives the overall picture of the wildfire threat.

Technical data was been collected in relation to risk, hazards and values for Lower Hutt. The data has been entered into Geographic Information System (GIS) and the maps are currently being produced for HCC.

The WTA will be a strategic tool for the Fire Authority, and used in activities such as fire prevention, risk reduction, allocation of resources, and fire control measures.

## **2.2 Fire Prevention**

### **2.2.1 Fire Breaks & Reservoirs**

An inspection and maintenance program for firebreaks and fire reservoirs is in place. Prior to, and during the fire season, a reconnaissance of the rural areas where the HCC maintains firebreaks and reservoirs will be completed. The HCC Rural Fire Officers (RFO), Deputy Principal Rural Fire Officer (DPRFO) and Reserves Manager, Parks and Property Services Division, will identify any areas where the maintenance program needs improvement, and develop the programme further.

The Principal Rural Fire Officer (PRFO) will request the Reserves Manager to make all the necessary arrangements. Costs are covered under the reserves budget.

### **2.2.2 Weed Spraying**

Weed spraying is a means used by council to maintain vegetation in unwanted areas including urban and rural. During the colder months this is acceptable, but during the warmer months the spray causes the vegetation to die off and dry out more quickly causing a fire hazard.

The PRFO will discuss with the Divisional Manager of Utility Services during September an appropriate timeframe in which to stop the weed spraying prior to the commencement of the fire season.

### **2.2.3 Berm Cutting**

The berms require trimming prior to and during the fire season, to reduce level of grass/vegetation drying out and becoming a hazard.

### **2.2.4 Residential Property Hazard**

The HCC RFA works together with the New Zealand Fire Service (NZFS) to deal with the fire hazards in the urban/rural residential areas.

The NZFS that do an annual check around October each year, and provide a list of properties in their experience could be a fire hazard. The HCC enforcement and inspection staff then follow up by writing to or visiting the property owners. Additionally, calls from concerned property owners about neighbouring properties are managed in the same way, by a visit and a letter requesting the property be cleared of any hazards. If sections are not cleared appropriately the council has procedures in place to ensure compliance.

## **2.3 Public Education**

Each year the HCC carries out a number of initiatives aimed at increasing the awareness and knowledge of the public towards rural fire.

- Advertising the fire season through local newspapers around 1 October each year

- Advertising the declaration and lifting of a prohibited fire season in local and regional newspapers, including permitted activities
- Signage placed in areas of high risk, and public view, i.e.: beaches, all main roads into Lower Hutt
- Celebrate safely fire campaign
- Ad-hoc articles or press releases to local and regional papers of matters of interest, statistics, recent fire incidents,
- Fire safety articles in local papers, including Guy Fawkes
- NZFS/HCC residential urban/rural fringe annual campaign
- Participation in Regional Rural Fire Committee (RRFC) annual fire campaign
- Fire Permit information and brochures to permit holders
- Promotion of defensible space around dwellings

## **2.4 Fire as a Land Management Tool**

Burning is regarded as a land management tool in rural areas and is accepted in the HCC RFA. A fire permit showing the fire plan is required to use fire burning as a tool for land clearing in a restricted fire season.

### **2.4.1 Local Bylaws**

The HCC Bylaw 1997 has no sections relevant to the Rural Fire.

### **2.4.2 Fire Control Measures**

#### **2.4.2.1 National Policies**

All national policies can be found in the National Rural Fire Authority (NRFA) Circular file or on [www.nrfa.fire.org.nz](http://www.nrfa.fire.org.nz) under NRFA circulars.

#### **2.4.2.2 Regional Policies**

Health & Safety Policy attached as Appendix A.

#### **2.4.2.3 Resource Management Act**

Under section 31 of the Resource Management Act 1991, HCC has control of any actual or potential effects of the use, development, or protection of land, including for the purpose of the avoidance or mitigation of natural hazards including fire.

#### **2.4.2.4 Local Government Act**

Under section 183 of the Local Government Act 2002, HCC may require the occupier or the owner of land within the rural fire district to cut down, eradicate, or remove any growth on the land or to remove or destroy any matter on the land if the growth or matter is likely to become a source of danger from fire in the opinion of a Rural Fire Officer (RFO).



# RURAL FIRE PLAN

## READINESS

Hutt City Council  
Rural Fire Authority

Valid September 2009 – September 2011



### 3. READINESS

It is the policy of the HCC RFA to be ready for a rural fire fighting event where practicable.

#### 3.1 Chain of Command

##### 3.1.1 Management Structure

HCC is a Rural Fire Authority under Section 7 of the Forest and Rural Fires Act 1977.

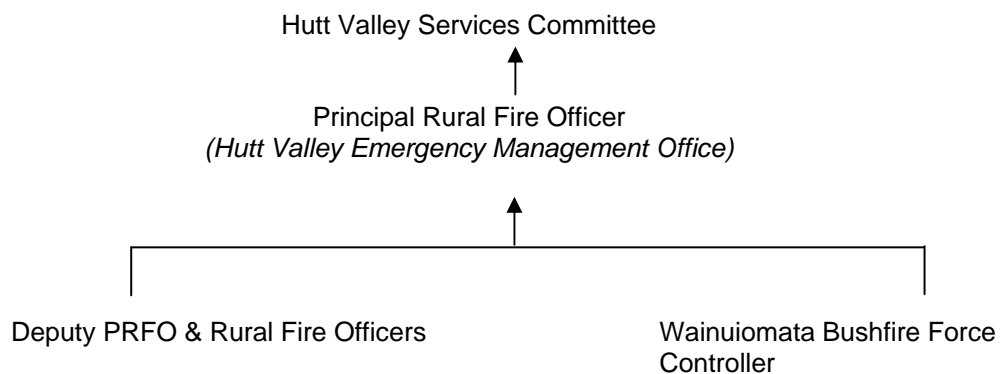
The RFA is responsible for that area of the Lower Hutt district defined by the relevant New Zealand Gazette notice as a rural fire district pursuant to Section 4 of the Forest and Rural Fires Act 1977.

The rural fire district comprises the Hutt City Council district excluding the gazetted urban fire districts and those parts of the Department of Conservation rural fire districts located within the HCC district.

HCC has formally delegated the responsibilities and functions of the RFA to the Council's PRFO.

The PRFO is responsible and accountable for ensuring all the obligations of the relevant acts are met.

The PRFO has a Deputy PRFO and Rural Fire Officers who have been delegated duties under the Forest & Rural Fires Act and the Regulations.



##### 3.1.2 Responsibilities

All positions are appointed pursuant to section 13 of the Forest & Rural Fires Act 1977 and section 38 of the Forest & Rural Fires Regulations 2005.

###### 3.1.2.1 Principal Rural Fire Officer

The incumbent is appointed by the HCC. Written notification has been given by the Hutt City Council advising of the appointment and of the delegated responsibilities of rural fire obligations.

The PRFO attends the six weekly Greater Wellington Regional Rural Fire Committee (GWRRFC) meetings and has voting rights on the committee.

### 3.1.2.2 Deputy Principal Rural Fire Officer

HCC has delegated to the PRFO specific delegations to appoint a DPRFO and RFOs.

The DPRFO has the same responsibilities as the RFOs, however, in the event that the PRFO is not in attendance at fires the DPRFO will undertake the function, powers and duties of the PRFO.

### 3.1.2.3 Rural Fire Officers (RFO)

RFO positions are appointed by the PRFO of the HCC. The PRFO will provide written notification of appointment, outlining the delegated duties and responsibilities, and a warrant of appointment identification card. The following are the responsibilities and powers at fires for RFOs and DPRFO.

Sections of the Forest & Rural Fires Act that relate to Rural Fire Officer duties and powers prior to a fire occurring:

- |            |   |
|------------|---|
| Section 2  | Interpretations. To understand the correct meanings and implications of various words and terms it is essential to refer to this section.   |
| Section 18 | RFO should assist in measuring fire hazard conditions and should remain conversant with fire weather figures and conditions for their area.   |
| Section 19 | RFOs have the power to enforce compliance with fire control measures within their district.   |
| Section 21 | RFOs may (with approval from the PRFO) prohibit certain operations or activities during periods of extreme fire hazard.   |
| Section 22 | RFOs may enforce fire restrictions or prohibitions.   |
| Section 23 | RFOs may issue, impose conditions upon or cancel fire permits where, in their reasonable opinion the use of the permit would not be in the public's best interest.  |
| Section 27 | RFOs may arrange the removal of fire hazardous vegetation, including exotic trees, to create firebreaks.  |
| Section 31 | RFOs are responsible for ensuring that no spark hazardous engines are operated in a forest.   |
| Section 58 | RFOs may inspect any site within their district to ascertain fire safety and to ensure compliance with the Act. Occupiers of the site shall be given 24 hours notice of inspection except where fire hazard conditions exist. |

Duties and powers at fires:

- |            |  |
|------------|--|
| Section 16 | A RFO can enter into contracts or arrangements for the purpose of fire control where such delegation is specified.                                     |
| Section 30 | RFOs are responsible for ensuring that fire fighting equipment is maintained.  |
| Section 36 | RFOs have the power of the PRFO if it is required of them to take charge of fires and arrange for their fire suppression in all aspects of section 36. |

## **3.2 Principal Rural Fire Officer and Rural Fire Officers**

### **3.2.1 Names**

Principal Rural Fire Officer	Paul Nickalls
Deputy Principal Rural Fire Officer	Gavin Wallace
Rural Fire Officer	Angie Rodger
Rural Fire Officer	Dave Jack
Rural Fire Officer	Noel Beale
Rural Fire Officer	Murray Ellis
Rural Fire Officer	Tim Hefford
Rural Fire Officer	Tom Goss
Rural Fire Officer	Nigel Adams
Rural Fire Officer	Steve Crome
Rural Fire Officer	Jock Darragh (WCC)

### **3.2.2 Training Arrangements**

The PRFO, DPRFO and RFOs are trained in unit standard 20399 Demonstrate Knowledge of Legislated Responsibilities of a RFO and a RFA, and must hold hold this unit standard to be eligible to be a RFO.

Contact details for the above RFOs are listed in the Agencies and Resources Available for Assistance section of this plan.

RFOs also receive training in fire environment and fire behaviour, and other training as appropriate.

## **3.3 Agreements**

### **3.3.1 Fire Protection Agreement – Fire Service Act 1975 Section 15**

*New Zealand Fire Service Commission - Hutt City Council*

- The NZFS Communications Centre will monitor all calls and NZFS units will initially attend rural fires or alarms within Lower Hutt within 15 minutes
- The NZFS provides the first hour of coverage without charge
- Gives the Fire Service Officer the authority of a RFO until relieved
- There is no expiry/renewal date. The contract will remain in force until one organisation gives the other one month's notice in writing, or one breaches the contract (see agreement for specific details)

(A copy of the agreement is attached in Appendix B)

### **3.3.2 Volunteer Rural Fire Force Agreement – Forest & Rural Fires Regulations 2005 – Section 36**

*Wainuiomata Bushfire Force - Hutt City Council – March 2009*

- Terms and conditions under which the Wainuiomata Bushfire Force (WBF) is under control and direction of the PRFO
- Purpose of WBF is fire prevention measures and responding to rural fires within Lower Hutt Rural Fire District

(A copy of the agreement is attached in Appendix C)

### **3.3.3 Greater Wellington Regional Rural Fire Committee Constitution**

The GWRRFC constitution outlines the membership and voting, the aims of the committee and the administrative functions.

(A copy of the constitution is attached in Appendix D)

### **3.3.4 Memorandum of Understanding – Forest & Rural Fires Act – Section 16**

The Memorandum of Understanding (MOU) recognises the need for a coordinated approach to managing large fires or multiple fires in the Greater Wellington Region. It is an agreement on rural fire control measures between member organisations of the GWRRFC.

The MOU will be reviewed as decided and agreed by the members of the Wellington RRFC, and noted in the committee meeting minutes.

(The memorandum of understanding is attached as Appendix E)

### **3.4 Specially Protected Areas**

The HCC has no specially protected areas.

### **3.5 Fire Seasons**

#### **3.5.1 Open Fire Season**

An open fire season allows fires to be lit in the open air at any time. The HCC RFA does not operate an open fire season.

#### **3.5.2 Restricted Fire Season**

The HCC RFA operates a year round “restricted” fire season, unless superseded by a “prohibited” fire season. A fire permit to burn in rural areas is required at all times during a restricted season.

#### **3.5.3 Prohibited Fire Season**

A prohibited fire season is declared when certain thresholds of the fire weather index are exceeded. During a prohibited season no fire permit will be issued, and any existing permits will be cancelled. No fires are to be lit in the open air, the only exceptions are:

- Gas operated barbecue
- Charcoal barbecue on occupied residential premises
- A special permit may be granted for hangi or umu
- Any other special permit authorised by the PRFO

#### **3.5.4 Trigger points for declaring a Prohibited Fire Season**

When a prohibited fire season is being considered, the following factors shall be a guide for the PRFO:

- Frequency of fire starts and difficulty of suppressing them
- Fire resources already committed (i.e. not available for initial attack)
- Long-term weather forecast patterns
- Likely length of fire season (based on history of previous seasons length)
- Build Up Index (BUI): when above 40 in predominantly forest type fuels, a prohibited fire season should be seriously considered
- Degree of Grassland Curing: above 70% curing in predominantly grassland fuels a prohibited fire season should be seriously considered
- Specific areas, such as Wainuiomata and Eastbourne and specific situations such as school holidays
- The declaration of a prohibited fire season should preferably be co-ordinated through the Regional Rural Fire Committee to achieve uniformity and to present a fire season status over a broad area

### **3.5.5 Advertising the Fire Seasons**

It is the responsibility of the GWRRFC Chairperson to ensure that every effort is made to have a uniform approach amongst the participating fire authorities to declaring and lifting a prohibited fire season. However, it is acknowledged that there will be on rare occasions and conditions that vary sufficiently across the region to make it unreasonable to take a uniform approach. In such cases advertising will be explicit in identifying which fire authorities are participating and which are not.

Well in advance of a prohibited fire season advertisements will be drafted by the Publicity Committee, noting any anomalies related to urban fire bans.

As indices approach the threshold the GWRRFC Chairman will seek agreement of all PRFOs. This can either be a meeting of PRFOs, a conference call or by email. A date will be set for establishing the prohibited fire season and next steps agreed.

It is the responsibility of the Chairman to place the advertisements, issue press releases, and ensure that notifications are made to the NZFS, NRFA and Police at least two days prior to the prohibition being put in place.

HVEMO puts an advert in the local newspaper, and advise the local bush fire force and the NZFS District Chief Fire Officer.

Procedures for returning to a restricted fire season are the same as for imposing one.

A restricted fire season advert is placed in the local newspaper in October each year.

### **3.6 Trigger Points for Restricted Access**

HCC does not have any areas that would require restricted access, even in an extreme fire season.

## 3.7 Fire Danger Rating System

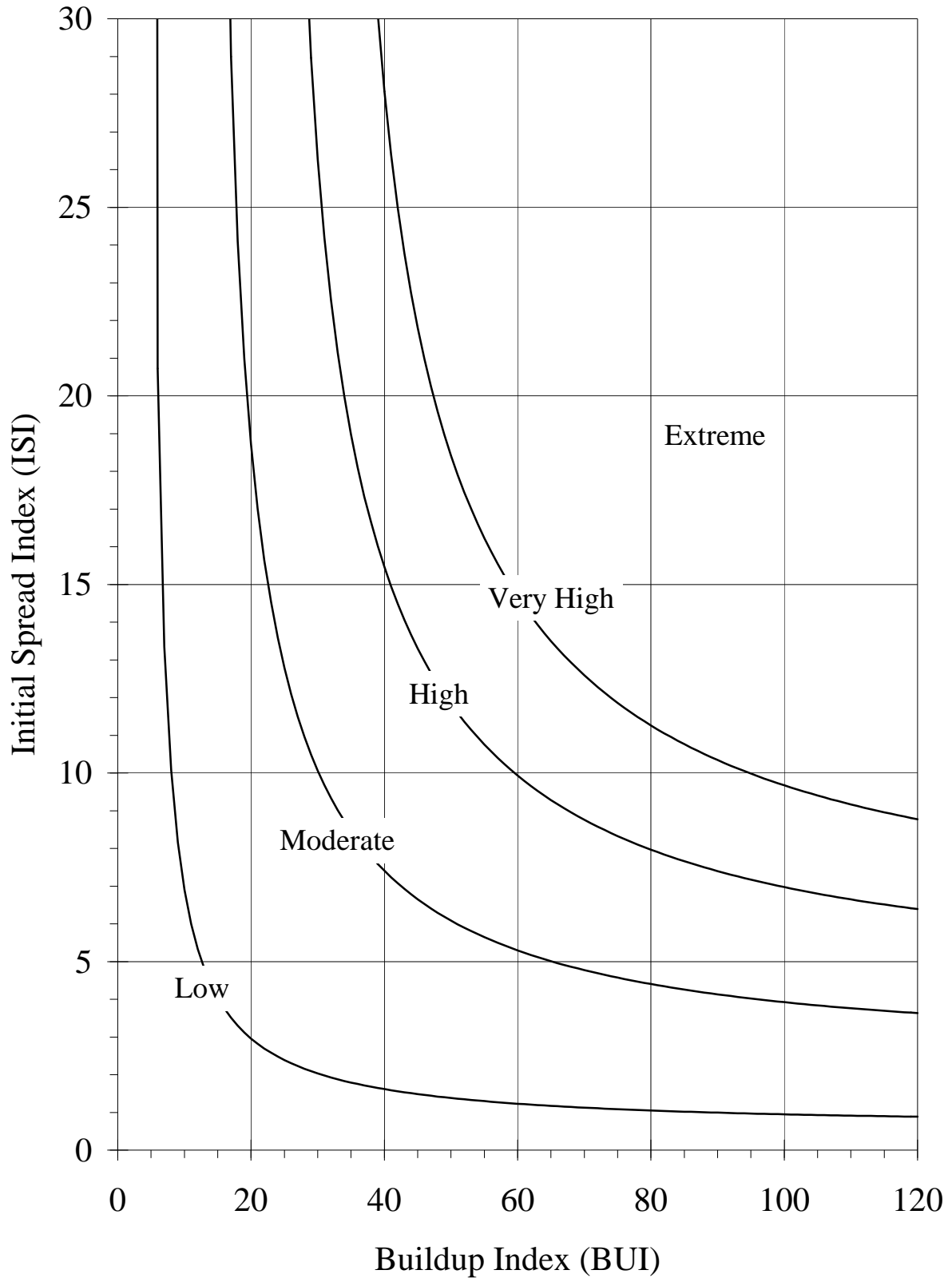
### 3.7.1 Fire Danger Classifications

#### 3.7.1.1 Fire Danger Class Criteria

Fire Danger Class	Description of Probable Fire Potential And Implications for Fire Suppression	Nominal Max. Flame Height
<b>Low</b>	New fire starts are unlikely to sustain themselves due to moist surface conditions. However, ignition may take place near large and prolonged or intense heat sources (e.g. camp fires, windrowed slash piles) but the resulting fires generally do not spread much beyond their point of origin and if they do, control is easily achieved. Mop-up or complete extinguishment of fires that are already burning may still be required provided there is sufficient fuel and it's dry enough to support combustion. Colour is GREEN	No visible flame
<b>Moderate</b>	From the standpoint of moisture content, fuels are considered to be sufficiently receptive to sustain ignition and combustion from both flaming and most non-flaming (e.g. glowing) firebrands. Creeping or gentle surface fire activity is commonplace. Control of such fires is still comparatively easy but can become troublesome as fire damage can still result and fires can become costly to suppress if they aren't attended to immediately. Direct manual attack around the fire perimeter by firefighters with only hand tools and backpack pumps is possible. Colour code is BLUE	Up to 1.3 metres
<b>High</b>	Running or vigorous surface fires are mostly likely to occur. Any outbreak constitutes a serious problem. Control gradually becomes more difficult if it is not completed during the early stages of fire growth following ignition. Water under pressure (from ground tankers or fire pumps with hose lays) and bulldozers are required for effective action at the fire's head. Colour code is YELLOW	1.4 to 2.5 metres
<b>Very High</b>	Burning conditions have become critical as the likelihood of intense surface fires is a distinct possibility; torching and intermittent crowning in forests can take place. Direct attack on the head of a fire by ground forces is feasible for only the first few minutes after ignition has occurred. Otherwise, any attempt to attack the fire's head should be limited to helicopters with buckets or fixed wing aircraft, preferably dropping long-term chemical retardants. Until the fire weather severity abates, resulting in subsidence of the fire run, uncertainty of successful control exists. Colour code is ORANGE	2.5 to 3.5 metres
<b>Extreme</b>	The situation should be considered "explosive". The characteristics associated with the violent physical behaviour of conflagrations or firestorms is a certainty (e.g. rapid spread rates, crowning in forests, medium to long range mass spotting, firewhirls, towering convection columns, great walls of flame). As a result, fires pose an especially grave threat to persons and their property. Breaching of roads and firebreaks occur with regularity as fires sweep across the landscape. Direct attack is rarely possible given the fire's probably ferocity except immediately after ignition and should only be attempted with the utmost caution. The only effective and safe control action that can be taken until the fire run expires is at the back and up along the flanks. Colour code is RED	3.6 + metres

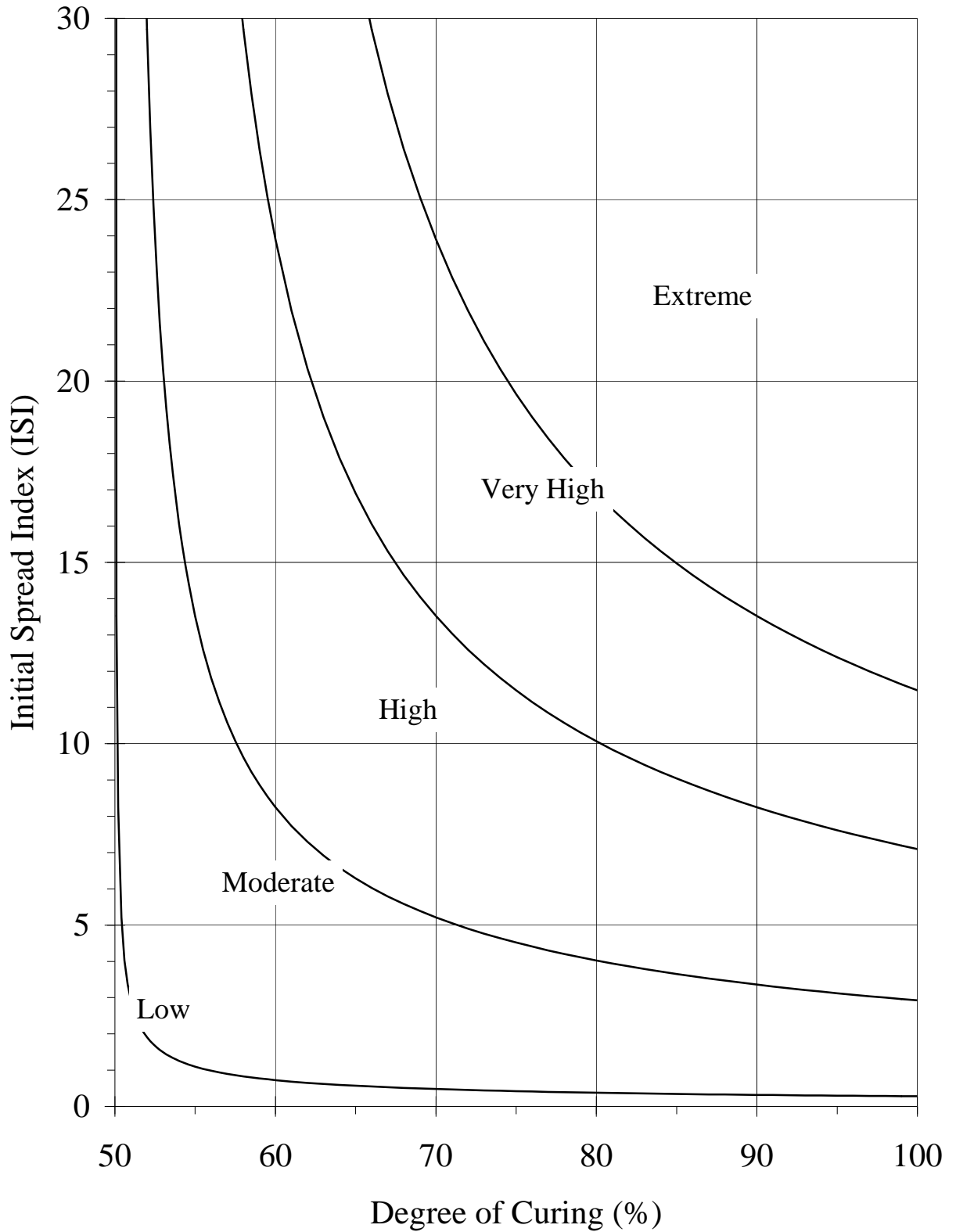
3.7.1.2 Fire danger class criteria – Forest

## Forest Fire Danger Class Graph



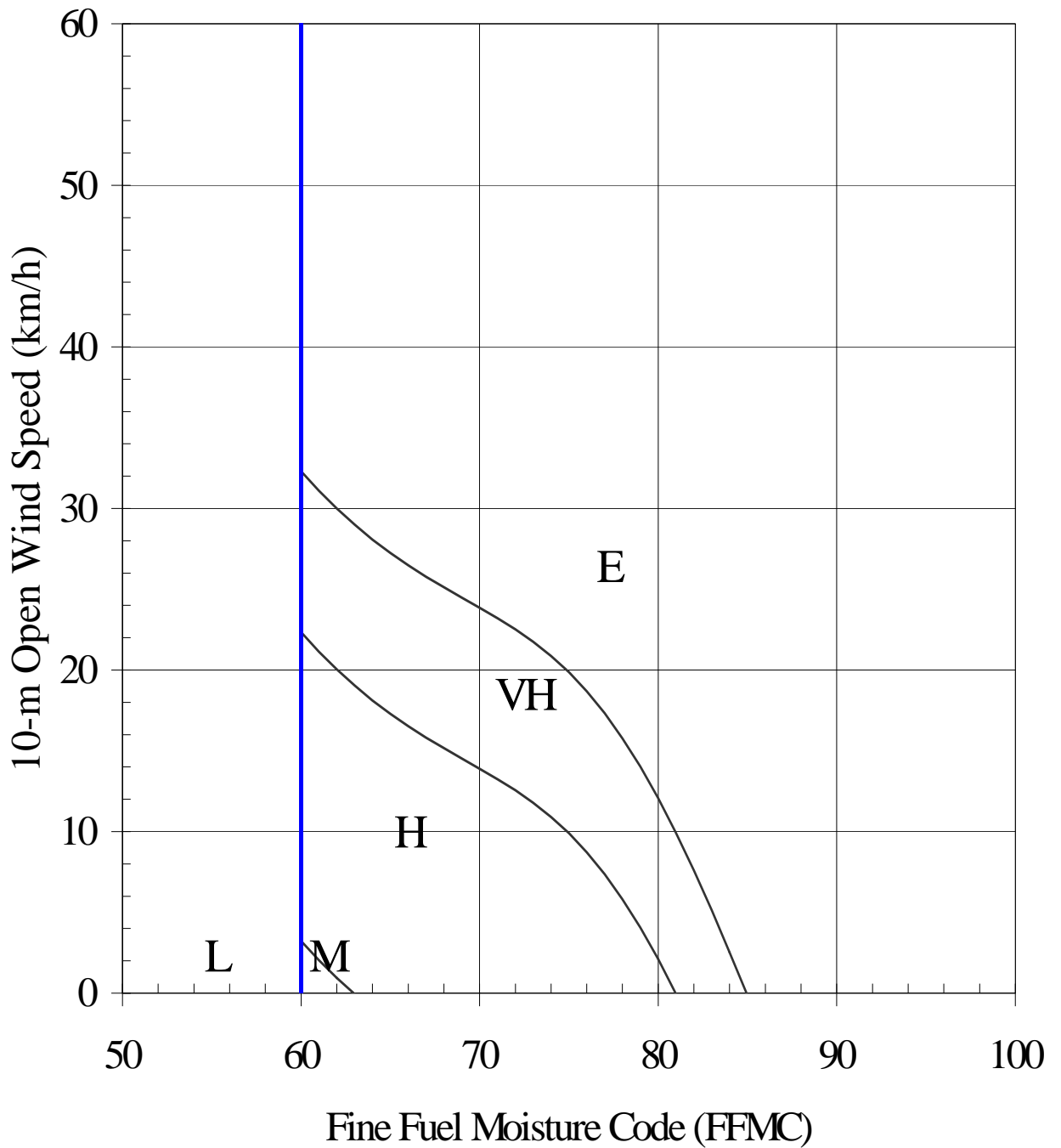
3.7.1.3 Fire danger class criteria – Grassland

## Grassland Fire Danger Class Graph



3.7.1.4 Fire danger class criteria – Scrubland

## Scrubland Fire Danger Class Graph



## 3.7.2 Fire Weather Index

The Fire Weather Index (FWI) on the NRFA website is monitored daily during the fire season by the PRFO and RFOs. The Rural Fire staff at the HVEMO discuss the FWI on a weekly basis when the fire danger is High or above, and more frequently as it continues to rise. The FWI is also discussed with the BFF Controller.

Copies of fire weather information archives and the daily weather indices can be obtained through the NRFA website.

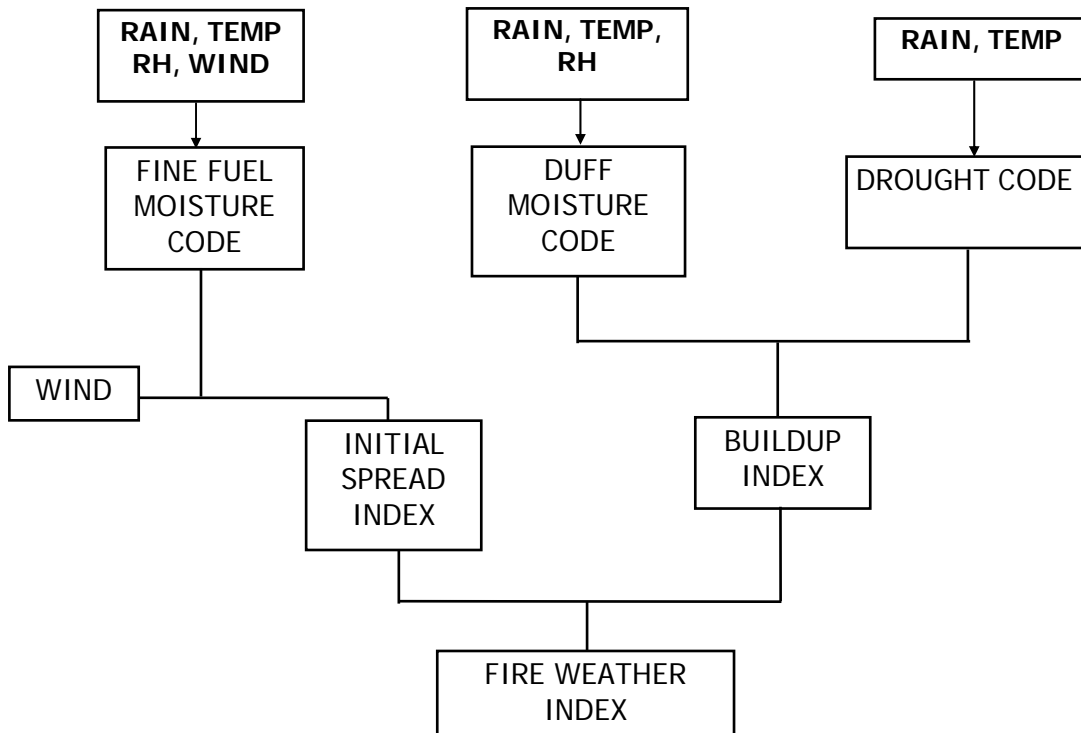
### 3.7.2.1 Fire Weather Index Components

The fire weather index comprises three Fuel Moisture Codes and three Fire Behaviour Indices. This system provides a uniform method of rating fire weather severity. The six components are:

- **Fine Fuel Moisture Code (FFMC)**; numerical rating of moisture content of litter and other cured fine fuels; indicates relative ease of ignition/flammability of fine fuel.  
From 0 – 101 / Above 70 = High/ the threshold for ignition starting
- **Duff Moisture Code (DMC)**; numerical rating of average moisture content of loosely compacted organic layers of moderate depth; indicates fuel consumption in moderate duff layers and medium size woody material.  
From 0 – 150 Above 30 = dry / **At 40 no controlled burning wise**
- **Drought Code (DC)**; numerical rating of average moisture content of deep, compact, organic layers; useful indicator of seasonal drought effects on forest fuels, total fuel consumption and amount of smouldering in deep duff layers and large logs.  
0 – 800 Cumulative Range / Above 200 is high, **Above 300 no controlled burning wise**
- **Initial Spread Index (ISI)**; numerical rating of expected relative spread of fire soon after ignition; is the combined effect of wind and FFMC on rate of spread without the influence of variable quantities of fuel.  
Range 0 - 100 High = double figures. eg ISI = 10 = firehead speed = 10km/hr
- **Build Up Index (BUI)**; numerical rating of total amount of fuel available for combustion.  
Range from 0 to over 200 / **60 = cut off point for controlled burning**
- **Fire Weather Index (FWI)**; numerical rating of fire intensity; applies best to pine forests but suitable as a general index of fire danger. An indicator of fire control spread.  
0 to over 150 no particular upper limit of FWI / Low = 0 - 7 / Moderate = 8 - 16 / High = 17 - 30 / Extreme >30.

### 3.7.2.2 Fire weather index table

(Based upon noon fire weather readings of parameters)



Daily FWI readings are recorded and used to set fire danger signs in the district. The fire danger signs are to be set using the New Zealand Fire Danger Classes as shown in the Forest Fire Danger Class Graph, the Grassland Fire Danger Class Graph and the Scrubland Fire Danger Graph (see previous pages). The FWI is also used to determine a Prohibited Fire Season (see section on Fire Seasons above).

### 3.8 Fire Danger Signs

In a restricted fire season 'Fire by Permit Only' signs are strategically placed in fixed areas, that includes areas that have typically had fire problems such as near rural beach areas and entrances to rural reserves. They are also placed in entrances into Hutt City and at the entrances of rural community areas. Signage advises the public that a fire permit is required for all fires.

In a prohibited fire season, the HCC RFA replaces the existing 'Fire by Permit Only' signs with the triangular red and white "TOTAL FIRE BAN" signs.

Specifically, these are located at:

- Just north of Stokes Valley
- SH2 Lower Hutt to Upper Hutt, just south of the Haywards turnoff
- SH2 Lower Hutt to Wellington, just south of Horokiwi
- Wainuiomata Hill
- Moores Valley Road, Wainuiomata
- Parkway Extension (east), Wainuiomata
- Coast Road Wainuiomata
- Entrance to Eastbourne
- End of Muritai Road Eastbourne
- Cnr of Normandale & Pouto Roads, Normandale
- Beginning of Stratton Street & Dowse Drive, Normandale
- Cnr Hill Road & Sweetacres Drive, Belmont
- Kaitangata Cres, Kelson

These signs are erected and maintained by the RFOs.

## 3.9 Fire Danger Resource Response Level

### *Fire Weather Index*

Low to Moderate	Normal Activation Levels <ul style="list-style-type: none"><li>• Equipment tested and operating normally</li><li>• All response personnel carry pagers</li><li>• FWI monitored weekly by PRFO and RFOs</li></ul>
High	Normal Activation Levels <ul style="list-style-type: none"><li>• All equipment tested and operating normally</li><li>• All response personnel carry pagers</li><li>• FWI monitored daily by PRFO and RFOs</li><li>• Response crews kept informed and in heightened readiness</li></ul>
Very High / Extreme	Heightened Activation Levels <ul style="list-style-type: none"><li>• All equipment tested and operating normally</li><li>• Equipment checked and maintained after fires</li><li>• All response personnel carry pagers</li><li>• Response crews kept informed in heightened readiness</li><li>• BFF members to notify Controller of location over this period to ensure adequate turnout</li><li>• Patrols initiated in rural areas to determine risk factors</li><li>• Rural water catchment levels observed</li><li>• FWI monitored daily by PRFO and RFOs – situation advised to response crews</li><li>• Long term weather report analysed in detail</li><li>• Close links with other RFAs are maintained and information sharing on personnel and equipment is undertaken</li></ul>

## 3.10 Fire Protection Works

### 3.10.1 Fire Break Specifications

Firebreaks are situated on the eastern hills and are maintained to meet prevailing fire conditions for Lower Hutt.

The Parks & Gardens Division of HCC is responsible for ensuring firebreaks are checked and maintained. HVEMO RFOs check the fire breaks by driving them prior to the fire season. They liaise with the Parks & Reserves Division on an annual basis to discuss the annual maintenance plan, and highlight any areas of concern for works to be undertaken.

### 3.10.2 Access Requirements

For the Lower Hutt reserves/rural areas, the Parks & Gardens Division provide the keys for all gates providing access onto reserve land. A key to each gate is provided to the Wainuiomata Bushfire Force Controller, the District Chief Fire Officers within the Lower Hutt district and the HCC RFA.

Keys are kept on the Wainuiomata Bushfire Force Vehicles 9580 and 9571.

### **3.10.3 Water Point Requirements**

Within Lower Hutt there are a number of water filling options including Hutt River, Wainuiomata River, the sea, portable dams and water dams.

There are several water dams in the eastern hills. The Parks & Gardens Division is responsible for providing monthly reports on the water levels of the dams throughout the fire season to the HVEMO. They are indicated on the rural fire maps held at the HVEMO. Once water supplies are depleted over summer they are not refilled manually.

A 40,000 litre portable dam is owned and maintained by the GWRRFC. This is called out by RFAs to fires through FireCom.

Since 1977 HCC has regulated for all new housing development in the rural sector to ensure water storage/supply is installed for firefighting purposes. This is either through the increase in the reticulated water supply or water tanks being installed during the building of the house.

### **3.10.4 Aircraft Support Facility Standards and Specifications**

Air support at vegetation fires plays an important role in fast initial attack.

A regional Air Ops Team is established and undertakes training on a regular basis. The team is paged to fires as soon as a helicopter is requested at a fire. The team provides management and support of aircraft to allow the firefighters to continue with their firefighting.

The GWRRFC has developed a protocol to ensure compliance with CAA legislation and national standards. At all times the regional Air Ops Team will coordinate air support.

The RFA have arrangements in place with Helipro and Westpac Trust for their services at fires.

## **3.11 Health & Safety**

### **3.11.1 Regional Health & Safety Policy**

The GWRRFC has produced a comprehensive health and safety policy that outlines the obligations and responsibilities of the RFA in relation to fire and staff management, safety and welfare.

Each RFO must be familiar with the contents of the health and safety policy and incorporate the contents of the OSH plan into any fire management strategy that they develop.

The health and safety policy is included as Appendix A.

### **3.11.2 Common Denominators of Behaviour in Fire Tragedies**

Research has shown that there are four common characteristics present where injuries or fatalities have occurred on the fireground.

These characteristics are:

- The effect of slope or broken terrain
- Fuels that carry the fire rapidly
- Changes in wind direction and rate of spread
- Rapid transition of the fire's development.

### **3.11.3 Hazard Assessment for Fire Control**

Hazards, once identified, need to be managed. The Health and Safety Employment Act 1992 prescribes three control measures that can be implemented. These control measures are:

- Elimination – this involves totally get rid of the hazard.
- Isolation – this involves reducing the hazard potential by removing the hazard from people or people from the hazard.
- Minimising – this involves reducing the effect of the hazard on people.

### **3.11.4 Rural Fire Hazards Register**

A comprehensive rural fire hazards register has been developed and is reviewed annually in consultation with the Bush Fire Forces in the Hutt Valley. The RFA identifies potential and known hazards, then determines appropriate measures to isolate, eliminate or minimise the hazard. A copy of the Hazards Register is in this plan under the Response Section, Health & Safety on the Fireground.

### **3.11.5 Health & Safety Training**

All BFF fire fighters are required to complete unit standard 497 during their recruitment process.

The RFA is to ensure that the Bushfire Force Controller provides a health and safety session to all members at the beginning of each fire season. The session should cover:

- Responsibility
- Personal Protective Clothing (PPE)
- Hydration
- Smoke inhalation
- Radiant heat
- Entrapment
- LACES (lookouts, awareness, communications, escape routes, safety)
- 20 Watchout Situations
- 10 Standard Fire Orders

These general points are from the green Rural Fire Management Handbook

## **3.12 Map of Fire Authority**

The attached map shows the HCC RFA district and areas it is responsible for, boundaries of the neighbouring Fire Authorities, and the principal roads.

### **3.13 Agencies and Resources Available for Assistance**



# RURAL FIRE PLAN

# RESPONSE

Hutt City Council  
Rural Fire Authority

Valid September 2009 – September 2011



## 4. RESPONSE

It is the policy of the HCC RFA to have effective response actions to fires where practicable.

### 4.1 Receipt of Fire Calls

The NZFS Communications Centre (FireCom) receives fire notifications via the 111 emergency telephone system and initiates the service response to fire incidents in the HCC RFA district on a continuous 24-hour, year round basis.

The HCC RFA provides a continuous 24-hour RFA Duty Officer (RFA DO) response to rural fire incidents in its rural fire district. FireCom initiates this through its service response turnout process by activation of the RFA DO pager.

Bushfire Force (BFF) members or Council staff receiving fire notifications directly from any non-NZFS source are to advise them to contact 111.

### 4.2 Initial Response

1. On receipt of a call advising of a fire in the HCC RFA district the NZFS FireCom will:
  - Respond the closest available NZFS appliance, and
  - Notify the RFA DO by pager of the incident within 5 minutes of the confirmation.
2. FireCom will notify Department of Conservation (DoC) Duty Officer of fire calls within their reserve land.
3. On receipt of the paging alert, the RFA DO will contact FireCom by phone to acknowledge the call and seek additional information as required.
4. THE NZFS OIC (or most senior person) will become Incident Controller, assume command of the incident, complete the initial size-up, and provide a sitrep to FireCom.
5. The attending NZFS IC unit will request a RFA response (i.e. BFF) via FireCom. This will occur:
  - Where the responding NZFS unit assesses that they cannot suppress the fire within 30 minutes
  - Where there are significant exposures or values, or
  - An immediate request for the BFF at times of very high and extreme fire risk
6. In the event the NZFS IC requests a helicopter:
  - It shall follow the procedures set out in the Regional Air Operations Protocol
  - The regional Air Ops Team will be paged
  - The RFA DO must already have been contacted by FireCom and required to attend the incident
7. The NZFS unit(s) will continue with initial attack until relieved by the BFF or the fire is out.
8. The RFA DO will respond within 30 minutes of notification.
9. On arrival on the incident ground the RFA DO will:
  - Locate the NZFS IC and receive a briefing on resources in attendance, or requested (including helicopters), situation report
  - Determine the ownership of fire, i.e. urban or rural, and RFA district
  - Assess the firefighting needs

- Take command as Incident Controller of the fire, unless it is a small fire that can easily be extinguished by the NZFS within half an hour, whereby the RFA DO will remain and assist the NZFS on the incident ground

### 4.3 RFA Incident Controller Responsibilities

(Following on from above initial response)

1. Brief and task Crew Leaders, firefighters and NZFS (assign and/or re-confirm roles and responsibilities).
2. Assess resources already on the incident ground.
3. Ensure the BFF control vehicle is set up as the incident control point in a suitable location with appropriate Incident Control Point signage visible.
4. If not already in place, set up an incident management system.
5. Ensure that all incoming and outgoing personnel and equipment are recorded.
6. Decide whether NZFS help is needed once BFF are operational, and relieve them if no longer required.
7. Set up a communications system and develop a communications plan (refer to communication details in Section 6).
8. Ensure a fire log is commenced (refer to Fire Log details in Section 5).
9. Notify and brief the PRFO of the incident (or a HVEMO RFO, in the absence of the PRFO)
10. Advise neighbouring RFAs or forest owners in the vicinity where they may be affected. If fire in or close to DOC reserve, ensure DOC is notified.
11. Warn any persons, landowners or authorities likely to be affected by the fire.
12. Initiate recording of fire behaviour.
13. Arrange logistical support. (Refer to logistics section 4.10).
14. Ensure photos are taken of the fire including the area around the suspected point of origin, and any possible evidence or source of ignition
15. Patrol and mop up procedures:
  - Hot spots and smoulders are to be manually located and thoroughly suppressed.
  - When there are high drought codes and deep-seated fires, further checking by infrared cameras if required.
16. Where appropriate notify and obtain assistance from:
  - Police (if close to a major road, houses) for road closures or evacuations.
  - Electricity authority (if pylon lines, high voltage lines, buildings threatened)
  - Ontrack (if adjacent to rail lines)
17. Declaration of fire out:
  - A statement is to be issued regarding the declaration that the fire is out only when it is certain that the fire is completely extinguished.
18. Complete a hot debrief with Crew Leaders and Safety Officer (on appropriate debrief form).
19. Check that fire statistics and all records are completed and retained.
20. Consider the needs of the fire investigation including protecting the fire origin (Copy of fire investigation report attached as Appendix G).

## 4.4 PRFO Responsibilities

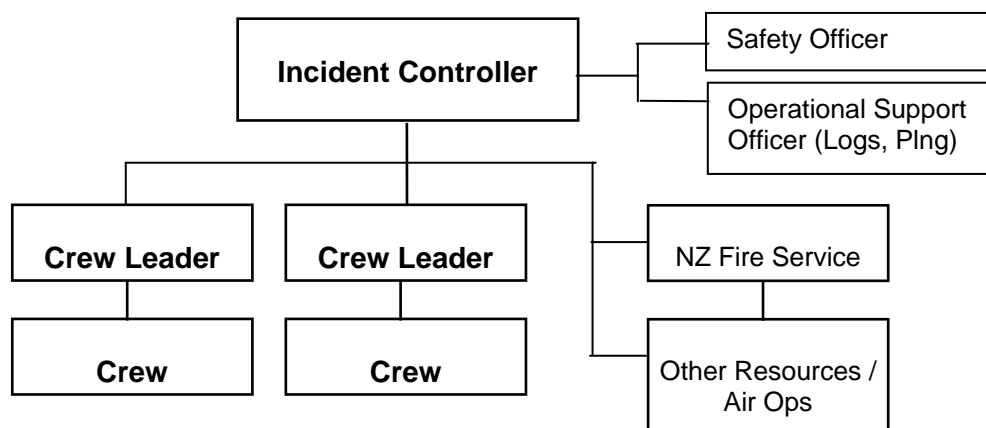
The PRFO will:

- Obtain and receive regular situation reports from the IC (if the PRFO is not at the incident)
- Take charge of the fire as IC where the incident dictates it
- Activate the RIMT if required
- Notify NRFA within 24 hours if:
  - There is a likelihood of a claim on the Rural Fire Fighting Fund
  - If death or injury occurs
  - If there is significant fire damage

## 4.5 Organisation Structures for Fires

### 4.5.1 Organisation Chart for Small Fires

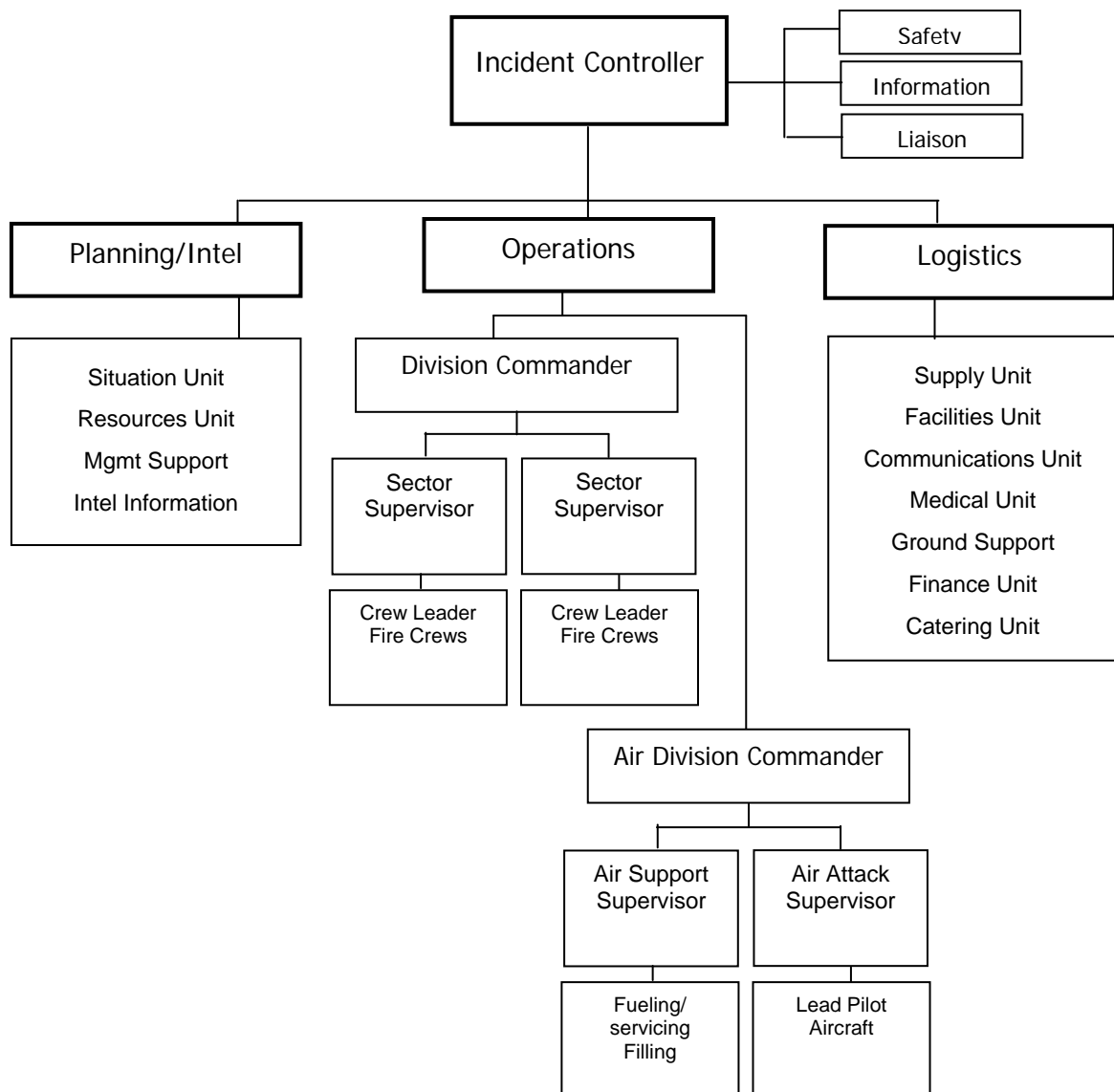
Most rural fires in Lower Hutt fall into this category, and supervision is “direct line” from IC to Crew Leader to the firefighters. The Safety Officer, Logistics/support Officer and NZFS (if still in attendance) also report directly to the IC.



## 4.5.2 Organisation Chart for larger fires

The organisation chart depicted below and the associated position descriptions are modelled on the New Zealand Coordinated Incident Management System (CIMS). CIMS will be used by the HCC RFA for the effective management and suppression of larger fires, and where there is a multi-agency incident.

The CIMS structure may be adapted to meet the particular operational requirements of each fire incident. The incident control structure adopted for each incident will depend upon the size and nature of the fire incident. As the size of the fire increases, more personnel will be required to support the Incident Controller.



## 4.5.3 Job Descriptions

The basic job descriptions for the CIMS positions are in the green Rural Fire Management Handbook. The handbook is kept in the control vehicle. Additionally each member of the RIMT has copies of the job descriptions. More detailed checklists for the positions are in the HVEMO IMT kits.

## 4.6 Additional Resources

Any RFO warranted by the HCC RFA acting as the Incident Controller, or the NZFS OIC (as per section 2.30 of the agreement), may call upon such additional assistance and resources considered necessary for the early containment and suppression of vegetation fires in the rural fire district, as per Section Agreements section 3.4.

This authority applies to:

- The immediate deployment of, or placement of, helicopters or other aircraft on standby (following the regional air operations protocol).
- The immediate deployment of, or placement of, regional fire fighting resources including Rural Fire Forces on standby
- The immediate use of, or placement on standby, of equipment, chemicals and other resources available to the Fire Authority (FA) through contracts or mutual fire agreements

Each request for additional resources is to clearly identify the type, quantity and priority of the resources requested e.g., ground crews, smoke chaser, water tanker, pumps, chemicals etc. The “blanket” or “non-specific” call out of resources is generally to be avoided.

Contact details for additional help and resources are located in section 4 of the Readiness Section - Agencies and Resources Available for Assistance.

The NRFA can assist with national resources including: National Incident Management Teams and Seasonal Fire Firefighter teams.

### 4.6.1 Regional Incident Management Team Callout

The Wellington region has a Regional Incident Management Team (RIMT) available to assist any local RFAs for fire management on request.

If the fire is becoming larger and more complex and beyond the capabilities of the Local Incident Management Team and RIMT assistance is required, the Chairperson of the GWRRFC is to be contacted, and that person will arrange the RIMT to respond. A RIMT Operational Procedure is currently being developed and should be referred to for specific detail.

The contact details of the chair of the GWRRFC are available within the Information Listing section of the fire plan. If the Chair is unavailable, then the deputy chair should be contacted to arrange the assistance, and then the Manager Rural Fire.

Further assistance for ongoing RIMT involvement can and should be arranged through the Logistics Manager of the original IMT appointed by the RFA. It will be the responsibility of the Logistics Manager to arrange timings, resources, facilities and support for further RIMTs as required.

Contact details for the RIMT are in the Readiness section – Agencies and Resources Available for Assistance.

## 4.7 Instructions for Resources Attending

A Resource consists of all personnel and major items of equipment available for assignment to incidents. Equipment resources will include the personnel required to operate/staff them, e.g. bulldozer and driver.

1. Check in at the Incident Control Point (ICP)
- Complete the Checkin-out sheet
2. Advise of all personnel, resources, appliances and equipment arriving at the incident.
3. Receive a full briefing from the IC or Operations Manager of the incident including the:
  - Safety issues
  - Communications system (disposition of comms equipment, call signs, radio channels)
  - Current Situation - fuel types, methods of suppression, sectors, threats, weather forecasts, hazards, etc
  - Method of keeping time records (i.e. all personnel to complete Daily Time Records)
4. Receive a defined task from the IC or Operations Manager identifying:
  - Strategies and tactics
  - Designation within the incident control structure
  - To whom you are responsible
  - Responsibilities including supervisors, personnel, equipment and sector etc
  - Additional resources available
5. Brief accompanying personnel
  - Safety brief
  - Ensure that accompanying personnel have assigned responsibilities and tasks
  - Ensure they complete a Daily Time Record
6. Carry out assignment
  - Maintain communication and provide progress reports up the chain of command
7. Ensure that all personnel at the fire continue to work safely as described in the training manuals.
8. Monitor the progress of the fire, wind direction, fire behaviour and location of fire crews to ensure that any changes do not result in personnel being trapped by the fire.
9. Maintain communications up and down the fire command chain at all times.
10. Demobilisation
  - Ensure successor is briefed
  - Stand down on the instruction of the IC
  - Ensure the accompanying personnel and/or equipment are checked out
  - Ensure that all resources to the fire are recorded

## **4.8 Communications**

### **4.8.1 Initial Turnout**

FireCom will take details of the incident and turnout the nearest NZFS brigade. The HCC RFA DO will also be notified by pager.

### **4.8.2 Fireground**

The NZFS brigades will utilise their ESB band incident ground radio system. "Fire One" simplex is the primary incident ground channel. The IC will assign other channels as required.

The Wainuiomata BFF use UHF handheld radios for their operations (PRS radios). They also have ESB handheld radios and an ESB band base set in their Control Vehicle, which will be used to liaise with the NZ Fire Service.

### **4.8.3 Fireground to FireCom / ICP to FireCom**

Communications to FireCom will be via the NZFS LMR network utilising the "Wellington" channels. Cell phone communication will be used for backup or for confidential communications with FireCom.

### **4.8.4 Ground Air Ops to Air**

ESB "Fire Four" is the preferred channel for Ground/Air. Wainuiomata BFF also carry an AM airband radio and can operate on any of the designated air channels. The Regional Air Operations Team has communications with the aircraft and the ICP and will act as the liaison.

### **4.8.5 Fireground to Incident Control Point (ICP)**

When Wainuiomata Bushfire Force are in control UHF is used for fireground to ICP.

Where more than one RFF is at the fire, the ICP monitors both the UHF and ESB radio channels.

For small to medium incidents this will be NZFS "Fire One". A separate channel may be allocated for larger incidents.

For major incidents and/or where simplex communications with the ICP is not adequate:

- The Civil Defence (CD) repeaters (ES131 on Mt Fitzherbert or ES7 on the Maungaraki Water Tower) are available for Fireground/ICP. The Wainuiomata Bushfire control vehicle has these CD channels on its base and portable ESB radios. Additional radios are available from the HVEMO if required.
- The ES liaison repeater channel situated on Mt Climie is available for inter-agency communications.
- The NZFS portable repeater can be deployed as a Fireground/ICP channel. Contact FireCom and request the repeater from the Wellington Command Vehicle (City Station) or request unit held by Masterton Station. Only the portable "NZFS Repeater" channel should be used in the Hutt Valley region as the "Liaison Duplex" channel will interfere with the fixed site on Mt Climie.

### **4.8.6 Incident Control Point to Emergency Operations Centre**

Either of the Mt Fitzherbert (ES131) or Maungaraki (ES7) repeaters can be assigned for ICP to EOC communications. Wainuiomata BFF have these channels in their control vehicle and on their ESB handheld radios. Additional radios are available from HVEMO if required.

#### 4.8.7 ICP/EOC to Other Agencies

The preferred communications are:

- ESB Liaison Simplex (ESX39)
- ESB Liaison Duplex (ES164)
- Cellphone

#### 4.8.8 Key Channel Frequencies

ESB "Fire One"	ESX66	143.8250 MHz	
ESB "Fire Two"	ESX63	143.7875 MHz	
ESB "Fire Three"	ESX34	140.9250 MHz	
ESB "Fire Four"	ESX09	140.6125 MHz	
ESB "Liaison" Simplex	ESX39	140.9875 MHz	
ESB "Liaison" Duplex	ES164	140.0500 MHz (Tx)	143.0500 MHz (Rx)
NZFS Repeater	ES180	140.2500 MHz (Tx)	143.2500 MHz (Rx)
CD Mt Fitz Repeater	ES131	139.6375 MHz (Tx)	142.6375 MHz (Rx)
CD Maungaraki Repeater	ES7	138.0875 MHz (Tx)	141.0875 MHz (Rx)

#### 4.8.9 Additional Communications

HVEMO has a mobile IP Star. This system provides phone (VOIP), email, and internet access over satellite. Half a dozen computers and printers can be connected to the system at any given time.

#### 4.8.10 Communications Plan

A template communications plan is used for all small incidents using the NRFA Communications Plan RF 205. This can be adapted as the size of the incident increases. The template plan is kept in the WOA Control Vehicle.

### 4.9 Record Personnel and Equipment

On arrival personnel register themselves as in attendance by putting their name tag on the fireground whiteboard. These are subsequently recorded in the Fireground Management System (FMS) (electronic system maintained in the control vehicle). As well, a Daily Time Record must be completed by each Crew Leader in each vehicle, with vehicle and crew details.

The FMS records all personnel's attendance, movements on and off the fireground, movements between crews, and time finished.

The FMS log keeps track of equipment use.

At the end of each incident this information is printed out by the BFF and provided to the RFA with the necessary records.

## 4.10 Logistics Support

At small to moderate fires the Operational Support Officer will organise the necessary logistical arrangements including:

- Setting up the Incident Control Point and other necessary facilities – lights, signs, traffic mgmt etc
- Establishing communications & preparing a comms plan if required
- Catering (for all personnel at the incident)
- Additional equipment & supplies - fuel, water, batteries etc
- Ground support – organise personnel as runners for equipment and supply delivery to and around the fireground
- First aid / medical / H&S issues
- Back-up crews if fire is likely to exceed four hours

A Standard Operating Procedure for the Logistics/Operational Support position is kept in the control vehicle. The procedure details the specific functions and tasks to be carried out at an incident.

At larger fires CIMS will be implemented, a Logistics Manager and personnel appointed to cover the necessary logistics units, including:

- Communications
- Medical
- Supply
- Catering
- Ground Support
- Facilities
- Finance

## 4.11 Fire Behaviour Monitoring

For small to moderate fires the Incident Controller is responsible for monitoring fire behaviour and obtaining weather reports. The IC may task this to the Operational Support Officer. Additionally, the Crew Leaders have a responsibility to monitor the fire behaviour, and any influencing factors and report back to the IC and control vehicle.

The control vehicle has a Kestrel 3500 weather meter which will be used by personnel to obtain regular weather information. Any significant or hazardous readings will be provided to the IC, Safety Officer and Crew Leaders.

The fire behaviour information must be entered into the incident log.

Where possible a fire behaviour specialist should be used to monitor the situation and obtain accurate readings – particularly when the fire danger is getting high, the fire has become moderate to large in size, or where a RIMT has been activated. The weather readings are used to :

- Establish current situation and risks
- Predict the fire behaviour, situation and risks

Refer to section 6 of the Rural Fire Management Handbook for fire behaviour and control information.

## 4.12 Fire Log

A fire log is to be maintained at all times during a fire as a chronological log of time and events. The IC will initiate the fire log and delegates the log maintenance to the Operational Support Officer. The time of all entries will be included alongside each entry. Information in the log will record:

- Confirmed location of the fire
- Set up Incident Control Point (ICP)
- Resource requests
- Resource dispatch
- Resource arrival
- Resource use (personnel and large equipment)
- Equipment use (hose, pumps, dams)
- Personnel at incident
- Crew formation
- Personnel on fireground
- Crew tasking
- Establishment of a Communication Plan
- Notification of other parties
- Situation updates from the fireground
- Events on fireground
- Reports of changes to fire behaviour
- Health & Safety / medical issues
- Establishment of Incident Management Team (Personnel/Roles)
- Standing down of resources
- Disbanding of crews
- Time fire out

Where CIMS is implemented IMT personnel must record as much information on individual logs as appropriate.

## 4.13 Fire Incident Records

### 4.13.1 Incident Records

The RFF will provide incident related records to the RFA within five days after a fire. These include:

- Fire Report
- Schedule of costs
- RFF Fire Log
- Personnel logs
- Fire Service Log
- Debrief form
- Vehicle Response Forms or Daily Time Records
- Photos of the fire, point of origin area
- H&S Accident Report (if an accident occurred)
- Narrative of the fire (only if requested by the RFA when a claim is to go to the NRFA)

Records the RFA will collate:

- Aircraft logs
- Air Operations Team report
- Fire Investigation Report
- FWI
- Map of area of the fire

#### **4.13.2 Fire Register**

The HCC RFA maintains a fire call register and documentation system in which the details of each rural fire call is recorded after the fire. The information is taken from the fire reports provided by the BFF. The register includes:

- Fire date, alert time, dismiss time
- Ownership of fire
- Type of incident
- Location of the fire: property name, road address, rapid number
- Grid Reference (Topo50 series map reference)
- Fuel involved
- Cause of fire (as per the NRFA classification cause type)
- Date & time at which the fire was declared to be out
- Date, time and details of any debrief held
- Claim on RFFF y/n

## 4.14 Health & Safety on the Fireground

*NOTE: H&S preparedness information is contained in the Readiness Section.*

The Incident Controller is responsible for all health and safety issues on the fireground.

The following apply at incidents:

- A Safety Officer will be appointed for every fire and will ensure that the safety measures below are carried out.
- All persons on the fireground will have passed unit standard 3285 “Protect Personal Safety at Vegetation Fires”
- All persons entering the fireground will wear appropriate personal protection equipment (PPE).
- All persons carrying out specific tasks will wear the appropriate PPE – such as earmuff, chaps etc. People who do not have the appropriate PPE for whatever they are tasked to perform will not be permitted to carry out that task.
- All fire crews or anyone entering the fireground (including aircraft) must receive a comprehensive briefing before entering the fireground. It should include, but is not limited to:
  - Command structure
  - Communication system (crews involved, call signs, radio channels)
  - Fuel type
  - Methods of suppression
  - Threats and known hazards
  - Weather forecast
  - Available fire behaviour information
  - Escape routes
  - Terrain
- All persons involved in firefighting operations will take appropriate rest periods and have sufficient nutrition and fluids for the tasks they are carrying out.
- All accidents, incidents and near misses will be reported to the Incident Control Point, recorded and reported to the PRFO.
- All management, crew leaders & senior firefighters on the fireground will be trained in first aid and have a first aid kit available.
- All OSH and safety best practice models will be followed.

Every Crew Leader is responsible for their crew and must know and understand:

- LACES (lookouts, awareness or anchor points, communications, escape routes, safety zones)
- 10 Fire Orders
- 20 Watchout situations

The hazards associated with rural firefighting are listed in the HCC Rural Fire Hazards Register (on the next page). These are reviewed annually, in consultation with the BFF Controllers.

## RURAL FIRE & RESPONSE TEAM HAZARDS REGISTER

Name & Division	Hazard ID	Date Reviewed	Action	Actioned by
EMO	Hypothermia	1 October 2008	Minimised by ensuring personnel have sufficient warm, dry clothing. Training	VRFF Controller RT H&S Officer
EMO	Burns from heat source or exposure to radiant heat	1 October 2008	Minimised by wearing personal protective equipment and training. Training	VRFF Controller
EMO	Eye damage due to hot sparks or ash or by sharp vegetation	1 October 2008	Minimised by ensuring crews have helmets fitted with face shields or are equipped with goggles. Training	VRFF Controller
EMO	Hearing damage due to pumps, other motorised equipment and power tools	1 October 2008	Isolated by ensuring minimal people near pump, and that pump operators wear ear muffs grade 4 or above. Training	VRFF Controller RT H&S Officer
EMO	Smoke inhalation	1 October 2008	Personnel should be isolated from smokey areas. If working near smoke fresh air can be found at ground level. Face masks are available to all firefighters. Training	VRFF Controller
EMO	Body fluid loss – strenuous work and dehydration can occur after one or two hours work	1 October 2008	Minimised by ensuring personnel have water and drink plenty. Training	VRFF Controller RT H&S Officer
EMO	Metabolic heat – generated by muscular work or heat absorbed by the environment can lead to heat stress	1 October 2008	Minimised by ensuring personnel have the correct personal protective clothing. Training	VRFF Controller RT H& S Officer
EMO	Heat illness – occurs when the body cannot regulate its temperature effectively. It has three stages; heat stress, heat exhaustion and heat stroke	1 October 2008	Minimised by ensuring the correct protective clothing is worn and personnel engaged to do the most strenuous tasks are physically fit. Training	VRFF Controller RT H&S Officer
EMO	Super heated air – can cause damage to lungs if inhaled	1 October 2008	Superheated air is found downwind or ahead of a fire. Personnel must be sheltered from these areas. Training	VRFF Controller
EMO	Spot fires	1 October 2008	Safety person keeps watch for spot fires. Personnel isolated from spot fires by keeping away from areas which are down wind or up the hill from the fire. Training	VRFF Controller

EMO	Bulldozers / heavy equipment – drivers can have difficulty seeing through dust/smoke. Trees pushed over by a bulldozer.	1 October 2008	Hazard isolated by ensuring personnel are not working near or down hill from bulldozer. Appropriate training if working around heavy equipment.	VRFF Controller
EMO	Partially burned vegetation – may reignite during hot or windy afternoons	1 October 2008	Monitoring weather and FWI conditions during the day and remaining vigilant of fire hot spots. Ensuring escape routes are established and known. Training.	VRFF Controller
EMO	Falling trees and branches	1 October 2008	Personnel can be isolated by avoiding the areas, some protection by wearing helmets. Training	VRFF Controller
EMO	Dislodged rocks	1 October 2008	Personnel can be isolated by avoiding danger areas. Some protection from wearing helmets. When working in danger areas post a lookout. Training	VRFF Controller
EMO	Underground hotspots	1 October 2008	Extreme vigilance in these areas. Crew briefings. Safety footwear. Training	VRFF Controller
EMO	Powerlines: arcing	1 October 2008	Isolated by keeping personnel away from working under powerlines until it is confirmed that they have been turned off. Training	VRFF Controller
EMO	Powerlines: burning through poles	8 July 2009	Isolated by keeping personnel away from working under powerlines until it is confirmed that they have been turned off. Report any burning powerlines. Training	VRFF Controller
EMO	Powerlines: water jets	8 July 2009	All personnel to keep waterjets low when working in the vicinity of any powerlines. Training	VRFF Controller
EMO	Driving vehicles through smoke	1 October 2008	Reducing speed, using headlights, proceed cautiously, driver training. Training	VRFF Controller
EMO	Retardants and foam	1 October 2008	Minimise by use gloves and wear protective clothing, training, wash hands thoroughly after use. Stored appropriately.	VRFF Controller

EMO	Flammable liquids	1 October 2008	Minimised by training and correct storage and use. Training	VRFF Controller RT H&S Officer
EMO	Hand tools	1 October 2008	Minimise by training	VRFF Controller RT H&S Officer
EMO	Waterways	1 October 2008	Minimise by training	VRFF Controller RT H&S Officer
EMO	Motor vehicle accident	1 October 2008	Minimise by using only trained drivers (to unit standards and practical training). Use of seatbelts.	VRFF Controller RT H&S Officer
EMO	High pressure water	1 October 2008	Minimise by training	VRFF Controller RT H&S Officer
EMO	Slippery surfaces	1 October 2008	Minimise by training, protective clothing	VRFF Controller RT H&S Officer
EMO	Hygiene	1 October 2008	Minimise by wearing personal protective equipment. Washing hands after exiting site and prior to eating	RT H&S Officer
EMO	Steep terrain	1 October 2008	Minimise by training, briefing	VRFF Controller
EMO	Working near aircraft	1 October 2008	Minimise by training, air safety briefing	VRFF Controller
EMO	Structural elements within buildings	1 October 2008	Minimise by wearing PPE. Correct search procedures and training	RT H&S Officer
EMO	Steep Stairways	1 October 2008	Minimise by training, briefing. Face inwards when ascending and descending the stairs	RT H&S Officer
EMO	Wet Floors	1 October 2008	Minimise by training and briefing. Walk at all times	RT H&S Officer
EMO	Uneven surfaces	1 October 2008	Minimise by training and briefing. Use of search techniques. Use alternative route	RT H&S Officer
EMO	Falling objects	1 October 2008	Minimise by wearing personal protective equipment and training. Use of lookout	RT H&S Officer
EMO	Electrical hazards	1 October 2008	Minimise by training, use of correct search techniques	RT H&S Officer
EMO	Roofs, balconies and parapets	1 October 2008	Minimise by training, use of personal protective equipment	RT H&S Officer
EMO	Lifting heavy objects / stretchers	1 October 2008	Minimise by training and use of mechanical means as appropriate	RT H&S Officer
EMO	Bulldozer / heavy equipment – drivers	1 October 2008	Hazard isolated by ensuring personnel are not	RT H&S Officer

EMO	can have difficulty seeing Fire - buildings	1 October 2008	working near machinery. Use of Lookout Minimise by training, Identify potential sources of ignition during reconnaissance	RT H&S Officer
EMO	Separation from team members	1 October 2008	Minimise by buddy system and knowing where each team is sent. Use of handheld radios.	RT H&S Officer
EMO	Equipment protruding from trailers vehicles	1 October 2008	Minimise by placing safety flags on equipment that protrudes beyond the roof of a vehicle or beyond the tailgate of a trailer	RT H&S Officer
EMO	Working in poor visibility areas	1 October 2008	Minimise by ensuring lamps on helmets are operational and each person has a spare operational torch on their person.	RT H&S Officer
EMO	Unsecured loads/equipment movements	1 October 2008	Minimise by checking all knots and adequate amount of rope used to secure load.	RT H&S Officer

# RURAL FIRE PLAN

## RECOVERY

Hutt City Council  
Rural Fire Authority

Valid September 2007 – September 2012



## 5. RECOVERY

It is the policy of the HCC RFA to have effective recovery activities in place following a fire.

### 5.1 Health & Safety

The GWRRFC has produced a comprehensive health and safety plan that outlines the obligations and responsibilities of the RFA in relation to fire and staff management, safety and welfare.

Each rural fire officer must be familiar with the contents of the health and safety plan and incorporate the contents of OSH plan into any fire management strategy that they develop.

The health and safety plan is included as Appendix A.

### 5.2 Operational Reviews

The purpose of the operation review is to identify what has happened at fires, and how we can learn from that better ways of doing things, including use of equipment, personnel, and safety.

A register of operational reviewers and the procedures for review can be located on: [www.nrfa.fire.org.nz](http://www.nrfa.fire.org.nz), and a hard copy kept of the rural fire file.

### 5.3 Operational Debriefs

- The PRFO may call a fire debrief when:
  - There is significant property damage.
  - The cost incurred in fighting the fire exceeds \$10,000.
  - Personnel safety is compromised or serious injury or death is involved.
  - Some other good reason exists i.e. equipment problems, operational delays etc
  
- Persons invited should include:
  - Deputy PRFO.
  - NZFS
  - Representatives of the Volunteer Bush or Rural Fire Forces involved in fighting the fire.
  - Representative of the aerial contractor where applicable.
  - Police.
  - Owner of the property on which the fire occurred where this is considered appropriate.
  
- Where practical debriefs shall be held within ten working from the date of completion of a fire incident operation.
  
- Each debrief shall be documented. This shall record:
  - The date, time and location where the debrief was held.
  - The names of those persons attending the meeting and the organisations, groups or person/s they represent.
  - Fire details – i.e. date, time, location, description and consequences of the fire in question.
  - Submissions presented and details of their submitters.
  - Resolutions passed at the meeting.
  - The time the meeting closed.

- Minutes of the “debrief” shall be recorded and distributed to all parties for comment and confirmation.
- A copy of the minutes and covering report on the “debrief” are to be distributed to:
  - The Fire Register.
  - Persons attending the debrief.
  - The NRFA where appropriate.
- Prompt action is to be taken to resolve any matters arising from the debrief.
- The outcome of the follow-up action is to be documented and distributed to the interested parties and a copy placed in the Fire Register.
- A copy of the fire debrief form is attached as Appendix H.

## 5.4 Post-fire Investigation

After a fire incident, the OIC will arrange for the investigation of that fire including:

- Cause
- Methods of operations
- Lessons learnt

In the event the fire cause is not determined the PRFO will contact a fire investigator to undertake the investigation.

(A fire investigation report form is attached as Appendix G)

## 5.5 Rehabilitation

If a burned area is to be revegetated, HCC selects and supplies native species that are recognised for their low flammability properties. These are made available if there is sufficient community support and volunteer labour to complete the work. Although Council does not have the resources to conduct extensive revegetation of burned areas, it is hopeful to bring on an additional staff position to enable more proactive revegetation of these areas. Presently, most sites go through the usual cycle (gorse, scrub, bush then forest). It takes about 15 years for bush to take over from gorse

The Parks Services Division of HCC operates a gorse boundary control programme, where Council responds to requests from neighbours of reserve properties. Gorse and blackberry are removed from the reserves boundary to create a cleared setback zone of 5 to 10m. Once removed (normally after 2 spray applications) council provide neighbours with a supply of native seedlings for them to replant the area.

Property owners are responsible for the restoration of their land after a fire. There is a programme in place to encourage property owners to replant with native/more fire resistant plants.

## 5.6 Cost Recovery

The HCC will take action to recover costs for fire suppression of all vegetation fires where legally feasible. This may be done through:

- filing a claim for reimbursement with the NRFA on the Rural Fire Fighting Fund (see work instruction EM-WI-002 for full procedures and policy);
- invoicing the owner of the land in which the fire started; or
- invoicing the person responsible for any fire that has become out of control, be it accidentally or deliberately lit.

## **5.7 Prosecution**

Advice should be sought from the NRFA. The HCC and NRFA should work together on seeking cost recovery and taking legal action.

The Police must be notified in all cases where there is evidence a fire has been either deliberately lit or has resulted from some other criminal activity.



# RURAL FIRE PLAN

## APPENDICES



## **Appendix A - Health & Safety Policy**



## **Appendix B – New Zealand Fire Service Agreement – Section 15**



## **Appendix C – Wainuiomata BFF Agreement**



## **Appendix D – GWRRFC Constitution**



## **Appendix E – GWRRFC Memorandum of Understanding**



## Appendix G – Fire Investigation Checklist

### On Arrival :

- Note any details of vehicles or people at (or leaving) the scene of the fire
- Note the fire conditions on arrival to the fire
- Note the rate and direction of fire spread
- Note any unusual fire conditions
- Establish likely point of origin (given area burned and rate and direction of fire)
- Make all efforts to preserve evidence around the point of origin including instructing fireground personnel to avoid trampling any evidence. [*Unfortunately, the easiest way in through to the fire is often through the point of origin.*]
- **When Practicably Possible** - Request the assistance of a rural fire investigator as soon as practicably possible. Rural Fire Investigators are listed under Specialist Personnel in the Information Listings section of this Plan.



## Appendix H – Fire Debrief Form

<u>Debrief Held</u>	YES	NO
<b>Complete &amp; Attach Forms (see Footnotes)</b>		

### FIRE DEBRIEF

Fire Name: \_\_\_\_\_

#### CIRCUMSTANCES

Fire Dates: _____					
Time Reported: _____	Suppression	Patrol/Mop-up			
Notification of RFA: _____	In _____	_____			
	Out _____	_____			
Location: NZMS:260 _____			or RAPID # _____		
Weather:	On site: _____	Nearest Weather Station: _____			
	Temp: _____	RH: _____	Wind: _____	Rain: _____	FFMC: _____
	DMC: _____	DC: _____	ISI: _____	BUI: _____	FWI: _____
Fire Reported By: _____					
Fire Reported To: _____					
Fire Authority Called: _____					
Other Authorities Involved: _____					
Properties Threatened: _____					
Fire Resources Deployed: _____					
Supporting Agencies: _____					

## DEBRIEF - OPERATIONAL (Identify Personnel Positions)

Inc. Controller:	Plan/Intel: _____.
Safety Officer:	Logistics: _____.
Operations Ground:	Aerial: _____.
Crew Boss and Fire Crew Designation:	
Crew Boss ( ) _____ ( ) _____.	
( ) _____ ( ) _____ ( ) _____.	
( ) _____ ( ) _____ ( ) _____.	
Other Agency Representatives:	
_____	for _____.
_____	for _____.

### DEBRIEF AGENDA

Notification  
 Turnout  
 Equipment  
 Communications:  
 Personnel  
 Additional Resources  
 Inter-agency Cooperation  
 Preparedness  
 Suppression Strategy  
 Suppression Execution  
 Patrol & Mop-up  
 Fire Plan  
 Other

### DEBRIEF RECOMMENDATIONS

Include:  
 Recommendation  
 Action Required  
 Persons to Act  
 Completion Date  
 Follow Up Date by Facilitator

Attach - Fire Incident Report & Fire Log

(If Debrief Held Also Attach: Minutes, Recommendations & Attendance List)

Debrief Facilitator: \_\_\_\_\_ Date ( / / )