

Upper Hutt City Council Rural Fire Plan

READINESS AND RESPONSE
1 September 2011 – 31 August 2013

REDUCTION AND RECOVERY
1 September 2007 – 31 August 2012



1.	INTRODUCTION	5
1.1	Purpose.....	5
1.2	Plan Review & Approval	5
1.3	Legislation	5
1.4	Amendments	5
1.5	Distribution.....	5
1.6	Organisational Management	5
1.7	Acronyms	6
2.	REDUCTION	9
2.1	Purpose.....	9
2.2	Fire Hazard and Risk Management Strategies	9
2.3	Fire Prevention Planning	9
2.3.1	Fire Breaks	9
2.3.2	Reservoirs	9
2.3.3	Berm Cutting.....	9
2.3.4	Residential Property Hazard	9
2.4	Public Education Activities	9
2.5	Fire as a Land Management Tool	10
2.6	Declared Forests	10
2.7	Fire Control Bylaws.....	10
2.8	Fire Control Measures	10
2.8.1	National Policies	10
2.8.2	Regional Policies.....	10
2.8.3	Resource Management Act.....	10
2.8.4	Local Government Act.....	10
3.	READINESS.....	13
3.1	Chain of Command	13
3.1.1	Management Structure.....	13
3.1.2	Responsibilities	13
3.2	Principal Rural Fire Officer and Rural Fire Officers	15
3.2.1	Names	15
3.2.2	Training Arrangements.....	15
3.3	Agreements	16
3.3.1	Fire Service and Rural Fire Authority Agreement	16
3.3.2	Volunteer Rural Fire Force Agreement – Forest & Rural Fires Regulations 2005 – Section 36.....	16
3.3.3	Greater Wellington Regional Rural Fire Committee Constitution.....	16
3.3.4	Memorandum of Understanding – Forest & Rural Fires Act – Section 16.....	16
3.4	Specially Protected Areas	17
3.5	Fire Seasons.....	17
3.5.1	Open Fire Season	17
3.5.2	Restricted Fire Season	17
3.5.3	Prohibited Fire Season.....	17
3.5.4	Trigger points for declaring a Prohibited Fire Season.....	17
3.5.5	Advertising the Fire Seasons	18
3.6	Trigger Points for Restricted Access.....	18
3.7	Fire Danger Rating System.....	19
3.7.1	Fire Danger Classifications	19
3.7.2	Fire Weather Index.....	23

3.8	Fire Danger Signs	25
3.9	Fire Permits	25
3.10	Fire Danger Resource Response Level	26
3.11	Fire Protection Works	26
3.11.1	Fire Break Specifications.....	26
3.11.2	Access Requirements	26
3.11.3	Water Point Requirements	27
3.11.4	Aircraft Support Facility Standards and Specifications	27
3.11.5	Rural Numbering	27
3.12	Health & Safety.....	27
3.12.1	Regional Health & Safety Policy	27
3.12.2	Common Denominators of Behaviour in Fire Tragedies.....	27
3.12.3	Hazard Assessment for Fire Control	28
3.12.4	Rural Fire Hazards Register.....	28
3.12.5	Health & Safety Training	28
3.13	Map of Fire Authority	28
3.14	Agencies and Resources Available for Assistance.....	29
4.	RESPONSE.....	33
4.1	Receipt of Fire Calls.....	33
4.2	Initial Response.....	33
4.3	RFA Incident Controller Responsibilities	34
4.4	PRFO Responsibilities.....	35
4.5	Management at Large Fires	35
4.65	Organisation Structures for Fires	36
4.6.1	Organisation Chart for Small Fires.....	36
4.6.2	Organisation Chart for larger fires.....	37
4.7	Additional Resources	38
4.7.1	Regional Incident Management Team Callout.....	38
4.8	Instructions for Resources Attending	39
4.9	Communications	40
4.9.1	Fireground Communications	40
4.9.2	Additional Communications.....	41
4.9.3	Communications Plan	41
4.10	Record Personnel and Equipment.....	41
4.11	Logistics Support.....	42
4.12	Fire Behaviour Monitoring.....	42
4.13	Fire Log.....	43
4.14	Fire Incident Records.....	44
4.14.1	Incident Records	44
4.14.2	Fire Register	44
4.15	Health & Safety on the Fireground.....	45
5.	RECOVERY	53
5.1	Purpose.....	53
5.2	Health & Safety of Personnel	53
5.3	Critical Incident Stress Debrief	53
5.4	Fire Operational Reviews.....	53
5.5	Operational Debrief.....	53
5.6	Post Fire Investigation.....	54
5.7	Rehabilitation	54

5.8	Cost Recovery	54
5.9	Prosecution	54
Appendix A - Health & Safety Policy		57
Appendix B - Fire Service Fire Protection Agreement		59
Appendix C – RFA and UHVRFF Agreement.....		61
Appendix D – RRFC Constitution		63
Appendix E – RRFC Memorandum of Understanding.....		65
Appendix F – Fire Investigation Checklist		67
Appendix G – Fire Debrief Form		69
Appendix H – Interim Fire Debrief.....		71
Appendix I – Fire Incident Report Form		72

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

Signed Date

Designation

For Upper 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 and rural fires in Upper 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 Hutt Valley Emergency Management Office (HVEMO) and approved by the Upper Hutt City Council (UHCC) Principal Rural Fire Officer.

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.

1.4 Amendments

Amendments can be made to this plan within the two or five year approval period. Amendments will only be made by the HVEMO 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 (2)
- Upper Hutt Rural Fire Force Controller (1)
- Upper Hutt Rural Fire Officers/crewleaders (4)
- Upper Hutt Rural Fire Force Control Vehicle (1)
- National Rural Fire Authority (1)
- Trentham, Silverstream & Rimutaka Fire Stations (3)
- FireCom (1)
- Greater Wellington Regional Council, Manager Parks & Forests (1)
- UHCC webpage (excluding the information listings)

1.6 Organisational Management

On 1 February 2007 the UHCC and Hutt City Council (HCC) signed a contract whereby the HCC will administer and manage all aspects of rural fire on UHCCs behalf. The organisation now administering rural fire for UHCC is the HVEMO. The HVEMO reports to both Local Authorities via the Hutt Valley Services Committee.

1.7 Acronyms

BUI	Build Up Index
CIMS	Coordinated Incident Management System
DOC	Department of Conservation
EMO	Emergency Management Office
FireCom	Fire Communications Centre
FWI	Fire Weather Index
GIS	Geographic Information System
GWRC	Greater Wellington Regional Council
GWRRFC	Greater Wellington Regional Rural Fire Committee
HVEMO	Hutt Valley Emergency Management Office
ICP	Incident Control Point
IC	Incident Controller
IMT	Incident Management Team
LMR	Land Mobile Radio
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
UHCC	Upper Hutt City Council
VRFF	Volunteer Rural Fire Force

RURAL FIRE PLAN

REDUCTION

Upper Hutt City Council
Rural Fire Authority

Valid: 1 September 07 – 31 August 12

2. REDUCTION

2.1 Purpose

This plan section is prepared pursuant to Section 39 & 41 of the Forest and Rural Fire Regulations 2005. This section details the “reduction” policies and procedures of the UHCC Rural Fire Authority (RFA).

The UHCC RFA will ensure that it has policies and procedures in place to reduce the likelihood and consequence of fires in the rural area.

2.2 Fire Hazard and Risk Management Strategies

A wild fire threat analysis project is ongoing for the fire authority. The risk and hazards pertinent to rural fire are examined and contingency action is developed to reduce the effects. As some of the hazards are variable such as forestry, development and weather the contingency actions are constantly reviewed and modified according to the prevailing dominant risk.

2.3 Fire Prevention Planning

2.3.1 Fire Breaks

There are no official council fire breaks.

There are a number of logging truck roads and hydro roads that work as unofficial firebreaks.

2.3.2 Reservoirs

The UHCC is currently identifying open water sources suitable for filling monsoon buckets.

2.3.3 Berm Cutting

Berms and banks are contracted to be cut and mowed once a year, and this activity is generally undertaken when there has been significant growth.

2.3.4 Residential Property Hazard

The UHCC Parks and Reserves division are required to assess the fire hazard of residential properties, and take action by liaising with property owners where a hazard is present.

2.4 Public Education Activities

The fire authority employs the following education strategies.

- Follows the National Rural Fire Authorities public education initiatives

- Follows regional initiatives

- Letter/brochure drops to rural and interface residents

- Half grapefruits (fire danger finger signs) by Silverstream and Trentham fire stations

Advertising the fire season through local newspapers in October each year.
Advertising the declaration and lifting of prohibited fire seasons
Ad-hoc informative articles in local media

2.5 Fire as a Land Management Tool

The fire authority accepts fire as a land management tool. All fires in the 'open' in the rural area require a fire permit as per the fire permit guidelines. However it promotes caution and safety in all aspects involved in the use of fire. For significant burns an approved fire plan is required before the burn may take place.

Guidelines and advice are available to people who wish to use fire as a land management tool. It is important that the person in charge of the operation is experienced and qualified to successfully complete the task.

2.6 Declared Forests

There are no Declared Forests in the fire authority's area.

2.7 Fire Control Bylaws

A prohibited fire season in the rural area overlaps to the urban area. As a consequence a total fire ban involves both urban and rural fire districts.

2.8 Fire Control Measures

2.8.1 National Policies

All national policies can be found in the NRFA Circular file or on www.nrfa.fire.org.nz under NRFA circulars.

2.8.2 Regional Policies

Health & Safety Policy attached as Appendix A.

2.8.3 Resource Management Act

Under section 31 of the Resource Management Act 1991, the RFA 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.

2.8.4 Local Government Act

Under section 183 of the Local Government Act 2002, the RFA 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

Upper Hutt City Council
Rural Fire Authority

Valid : 1 September 11 – 30 August 13

3. READINESS

This Section is prepared pursuant to Sections 39 & 42 of the Forest & Rural Fires Regulations 2005. It details the policies and procedures in place by the UHCC RFA to be ready for firefighting incidents in the rural area.

3.1 Chain of Command

3.1.1 Management Structure

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

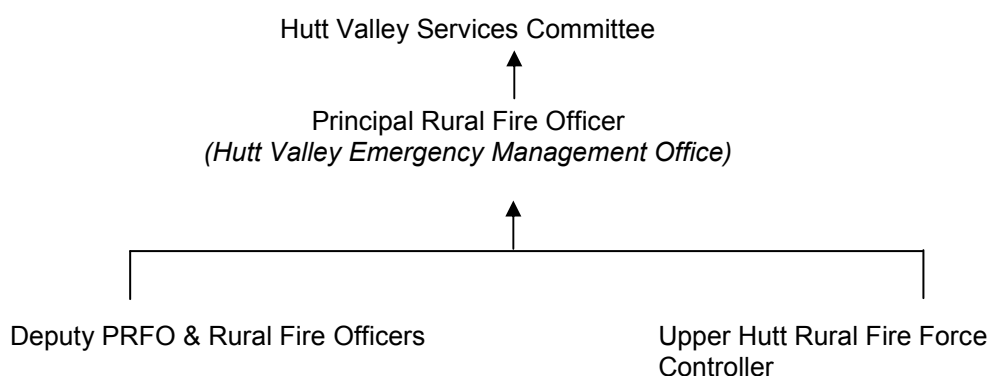
The RFA is responsible for that area of the Upper Hutt district defined by the relevant New Zealand Gazette notice as a rural fire district pursuant to Section 4 of the Forest and Rural Fires Act 1977.

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

UHCC 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 3 Deputy PRFOs 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 UHCC Chief Executive Officer. Written notification has been given by the UHCC 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/s

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

The DPRFOs have 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 UHCC. 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	Craig Cottrill
Deputy Principal Rural Fire Officer	Angie Rodger
Deputy Principal Rural Fire Officer	Dave Jack
Rural Fire Officer	Steve Phillips
Rural Fire Officer	Jason Sarich
Rural Fire Officer	Pat Lanigan
Rural Fire Officer	Peter Walker
Rural Fire Officer	Jock Darragh
Rural Fire Officer	Rachel Thorp

3.2.2 Training Arrangements

The PRFO, DPRFOs and RFOs are trained in unit standard 20399 Demonstrate Knowledge of Legislated Responsibilities of a RFO and a RFA, and must 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 Service and Rural Fire Authority Agreement

New Zealand Fire Service Commission - Upper Hutt City Council

NZ Fire Service and Upper Hutt City Council – Contract for Service – October 1999

(A copy is attached as Appendix B)

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

Upper Hutt Rural Fire Force - Upper Hutt City Council – June 2007

The agreement covers the terms and conditions under which the Upper Hutt Rural Fire Force (UHRFF) is under control and direction of the PRFO

A copy of the agreement is held by both the HVEMO and the Upper Hutt Rural Fire Force.

(Copy attached as 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. It is reviewed annually.

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 UHCC has no specially protected areas in its district. However, the Rimutaka Incline and Tunnel Gulley, both within the Greater Wellington Estates have a special historic interest.

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 UHCC RFA does not operate an open fire season.

3.5.2 Restricted Fire Season

The UHCC 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 fire permits will not 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

Wherever possible, a prohibited season will be implemented on a region-wide basis. The prohibited fire season will be discussed by PRFO's in the Wellington region, before a single RFA puts a fire ban in place.

When a prohibited fire season is declared by the RFA for rural areas, the UHCC will also put a prohibition in place in the urban gazetted area.

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

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 rural 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

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

3.7 Fire Danger Rating System

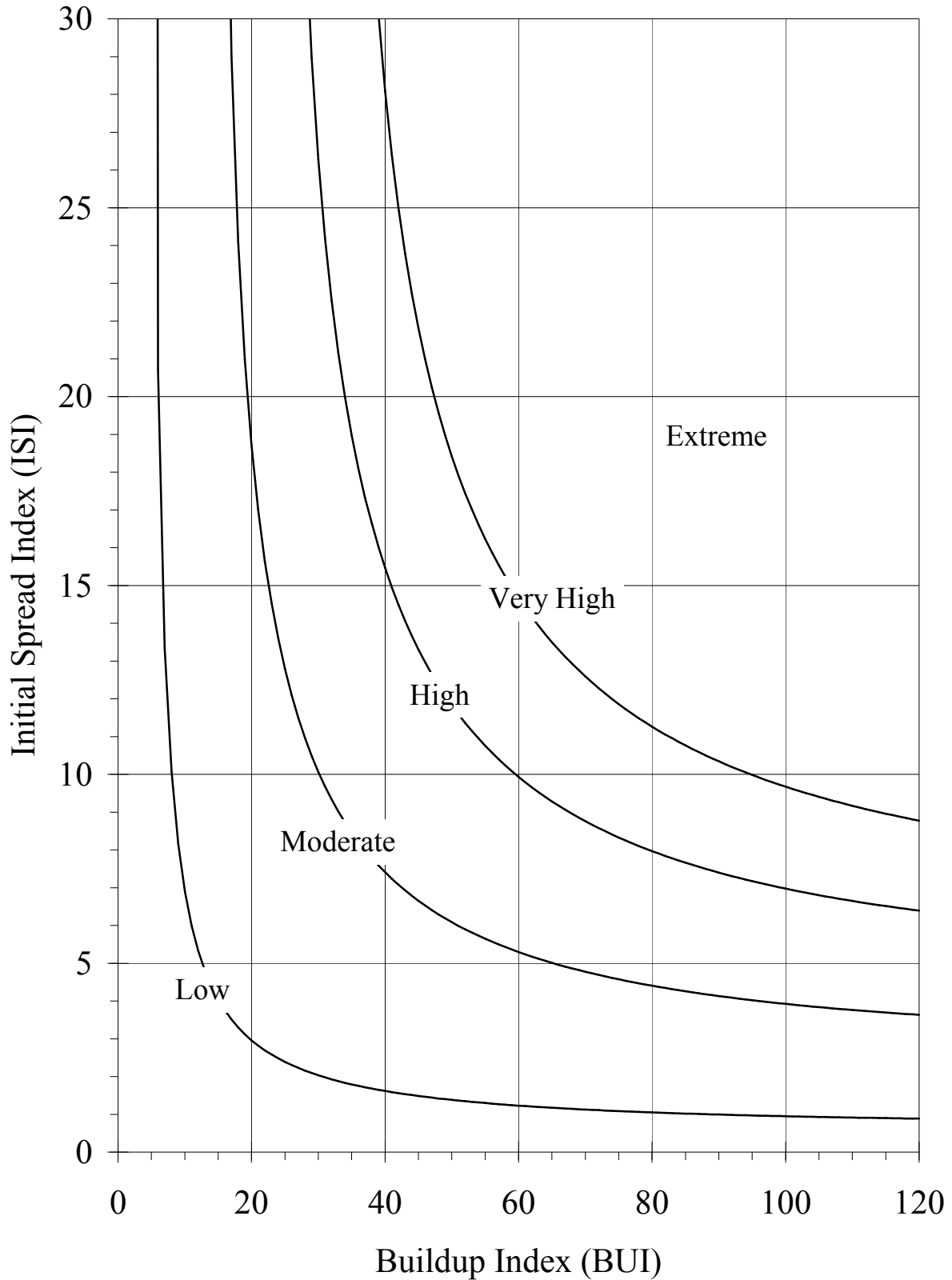
3.7.1 Fire Danger Classifications

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
Low	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
Moderate	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
High	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
Very High	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
Extreme	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

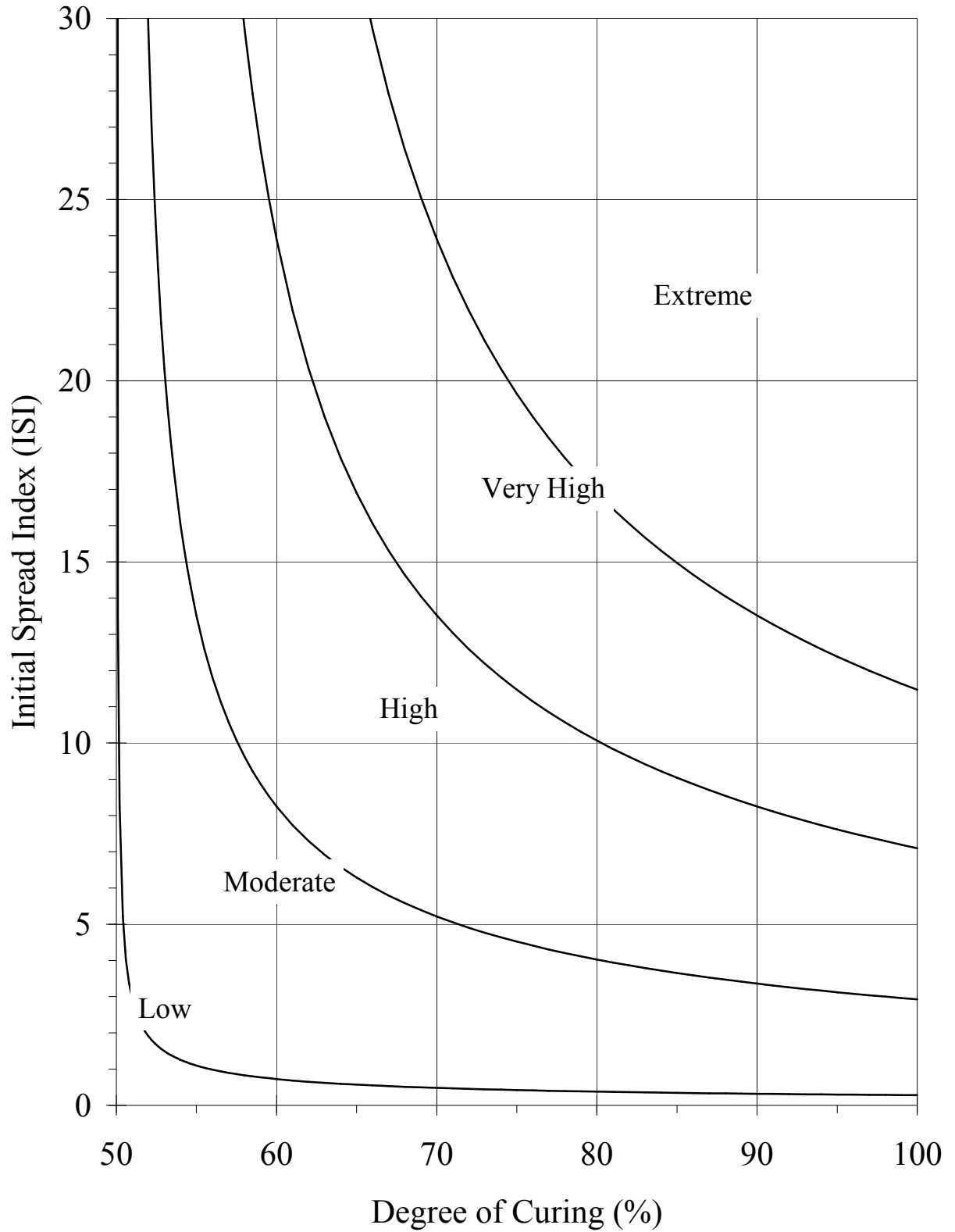
3.7.1.2 Fire danger class criteria – Forest

Forest Fire Danger Class Graph



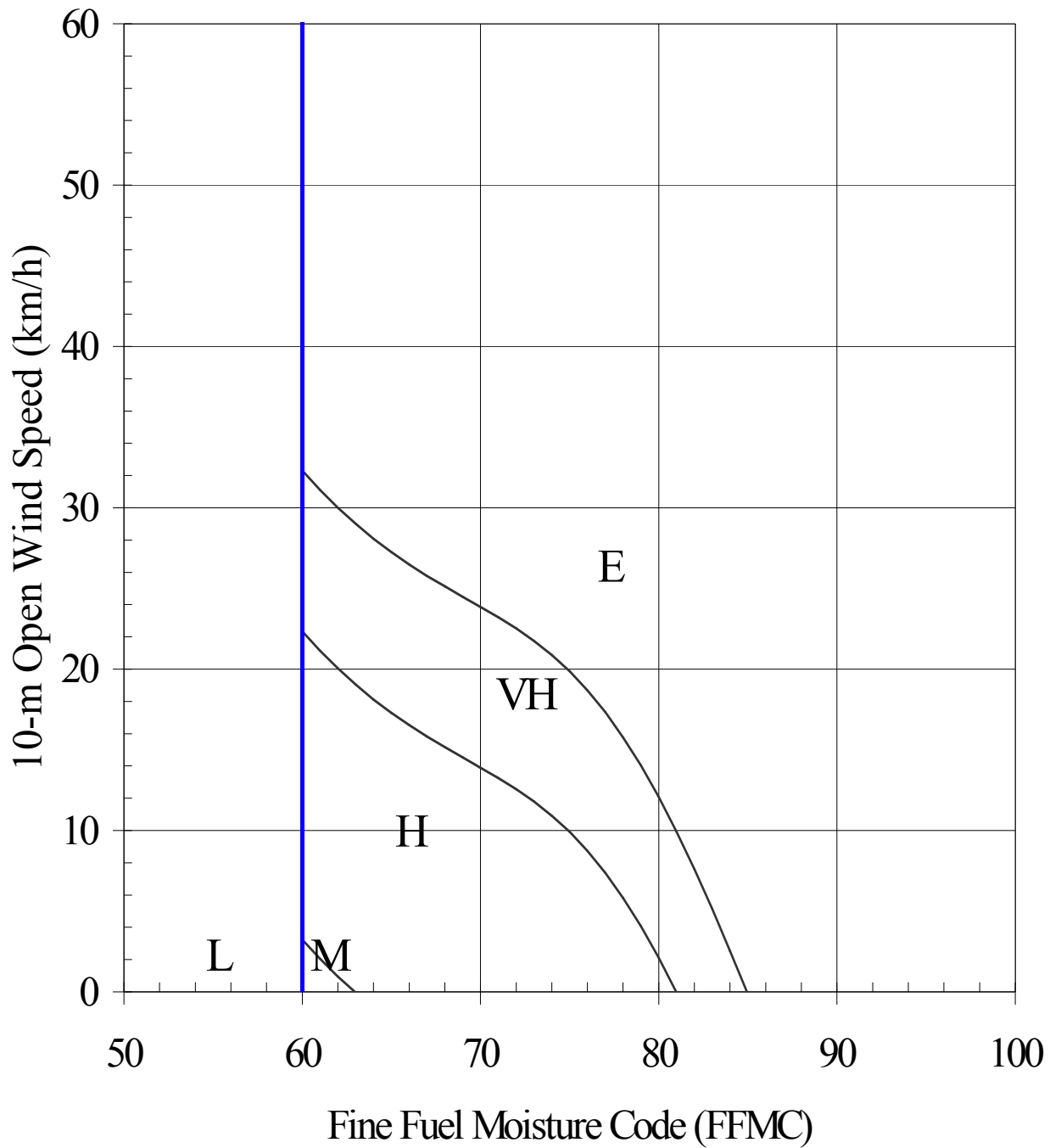
3.7.1.3 Fire danger class criteria – Grassland

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 RFF 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.

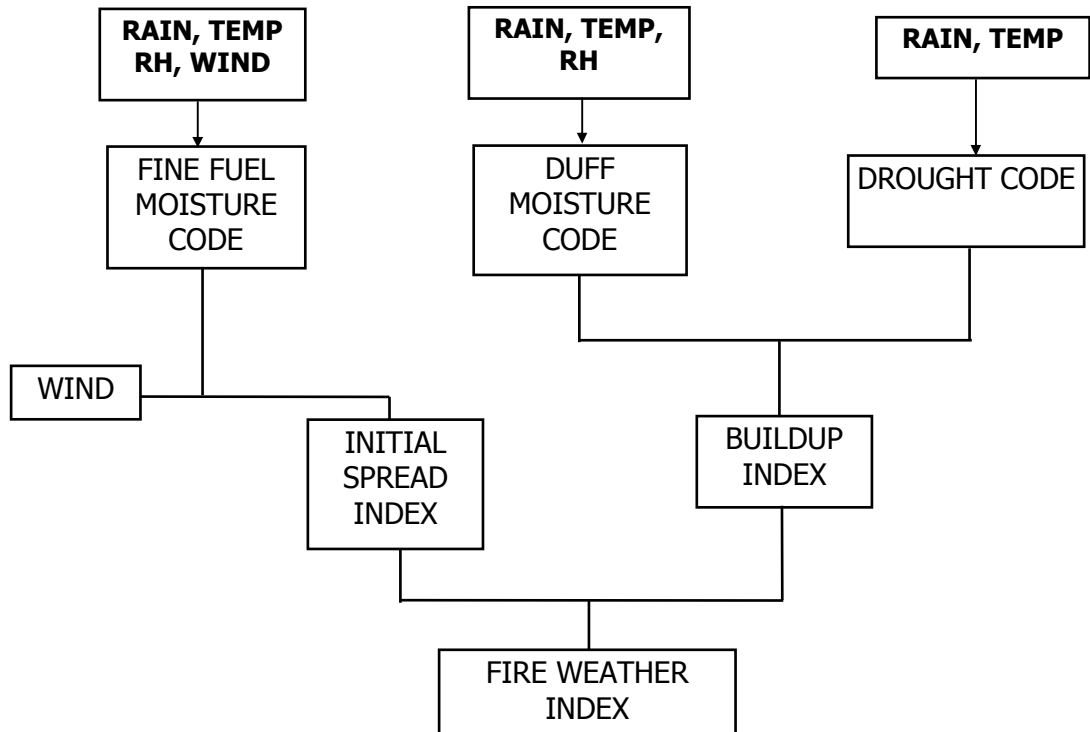
Range from 0 to over 200 / **60 = cut off point for controlled burning**

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. They are also placed in entrances into Upper 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 RFA replaces the existing 'Fire by Permit Only' signs with the triangular red and white "TOTAL FIRE BAN" signs.

Specifically, these are located at:

Blue Mountains Road – just past Hobbit Lane

Wallaceville Hill Road – town end

Mangaroa Hill Road – just past Hillside Drive

Maymorn Road around 1071

State Highway Two – around 720 Main Road North

State Highway Two – some where at the foot of the Rimutaka Hill Road

Akatarawa Road – just past Cemetery

Akatarawa Road – inside city boundary – by Macrocarpa Sign

Moonshine Hill Road just past Riverstone Terraces

Moonshine Road – 790 Moonshine Road

The half grapefruit fire danger signs are located at the Silverstream and Trentham Fire Stations, and the Upper Hutt Volunteer Rural Fire Force (UHVRFF) depot. During a prohibited fire season, the Total Fire Ban boards are put up on the half grapefruits at the three locations.

The UHVRFF have agreed to change all the signs when a prohibited season is declared.

The owners of parks and forests that allow public access and have fire restrictions in place have these advertised at the park entrances.

3.9 Fire Permits

Fire permits are issued by the RFA in the form prescribed by the regulations, and are issued by warranted RFOs. Fires that involve land clearing burns require a burn plan to be submitted to the RFO for approval. The requirement of a burn plan is determined by the RFO issuing the permit, and are generally for standing vegetation.

The duration of a permit is dependant on the prevailing risks. For winter when the risks are low the duration is longer than for spring when the risks are higher.

Provision exists for special fire permits that can be issued during a prohibited season. These permits are issued pursuant to the form and process in the regulations and are normally issued for health reasons such as burning infected dead stock that can not be dumped. Only the PRFO can authorise the issue of a special permit.

Detailed information on the fire permit process is contained in the Hutt Valley Fire Permit Guidelines and Information document.

3.10 Fire Danger Resource Response Level

<i>Fire Weather Index</i>	<i>Activity</i>
Low to Moderate	Normal Activation Levels Equipment tested and operating normally All response personnel carry pagers FWI monitored weekly by PRFO and RFOs
High	Normal Activation Levels All equipment tested and operating normally All response personnel carry pagers FWI monitored daily by PRFO and RFOs Response crews kept informed and in heightened readiness
Very High / Extreme	Heightened Activation Levels All equipment tested and operating normally Equipment checked and maintained after fires All response personnel carry pagers Response crews kept informed in heightened readiness RFF members to notify Controller of location over this period to ensure adequate turnout Patrols initiated in rural areas to determine risk factors Rural water catchment levels observed FWI monitored daily by PRFO and RFOs – situation advised to response crews Long term weather report analysed in detail Close links with other RFAs are maintained and information sharing on personnel and equipment is undertaken

3.11 Fire Protection Works

3.11.1 Fire Break Specifications

There are no official council fire breaks.

There are a number of logging truck roads and hydro roads that work as unofficial firebreaks.

3.11.2 Access Requirements

The UHCC Parks and Reserves division holds the keys to all gates providing access to their properties. A key for all Regional Park gates are provided to the Rural Fire Force Controller and the NZFS.

3.11.3 Water Point Requirements

Within Upper Hutt Rural area there is a number of water filling options including the Hutt River.

There are two 40,000 litre portable dams that are readily available for quick transportation and set up at a fire. The UHRFF has a 9,000 litre water tanker.

It is a recommendation, but not a requirement, that all new properties built in the rural area have a water tank with a fitting on them for firefighting purposes.

3.11.4 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.

3.11.5 Rural Numbering

The fire authority operates the "RAPID" rural numbering system, administered by the UHCC Planning Department.

3.12 Health & Safety

3.12.1 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.

3.12.2 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.

3.12.3 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.

3.12.4 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.

3.12.5 Health & Safety Training

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

The RFA is to ensure that the Rural Fire 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

3.13 Map of Fire Authority

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

3.14 Agencies and Resources Available for Assistance

RURAL FIRE PLAN

RESPONSE

Upper Hutt City Council
Rural Fire Authority

Valid : 1 September 11 – 30 August 13

4. RESPONSE

This Section is prepared pursuant to Sections 39 & 43 of the Forest & Rural Fires Regulations 2005. It details the policies and procedures in place by the UHCC RFA to effectively respond to, and manage, all incidents in the rural area.

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 UHCC RFA district on a continuous 24-hour, year round basis.

The UHCC 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.

RFF 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 UHCC 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. RFF) via FireCom. This will occur:
 - Where the responding NZFS unit assesses that they cannot suppress the fire within 30 minutes
 - When there are significant exposures or values, or
 - An immediate request for the RFF 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 RFF 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 RFF control vehicle is set up as the Incident Control Point in a suitable location with appropriate Incident Control Point (ICP) signage visible.
4. If not already in place, set up an incident management system.
5. Ensure origin of fire is protected
6. Ensure that all incoming and outgoing personnel and equipment are recorded.
7. Decide whether NZFS help is needed once RFF are operational, and relieve them if no longer required.
8. Commence using the RF200 CIMS Incident Management Organiser
9. Set up a communications system and develop a communications plan (refer to communication details in Section 6).
10. Ensure a fire log is commenced (refer to Fire Log details in Section 5).
11. Notify and brief the PRFO of the incident (or a HVEMO RFO, in the absence of the PRFO)
12. 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.
13. Warn any persons, landowners or authorities likely to be affected by the fire.
14. *Within 2 hours of commencement of fire provide a verbal situation report to Firecom

RFA name

IC name

Incident name

Suspected or known cause of fire

Fire size

Vegetation type/s of affected and surrounding areas

Values at risk

15. Initiate recording of fire behaviour.
16. Arrange logistical support. (Refer to logistics section 4.10).
17. Ensure photos are taken of the fire including the area around the suspected point of origin, and any possible evidence or source of ignition.
18. 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.
19. 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)

20. 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.

21. Complete a hot debrief with Crew Leaders and Safety Officer (on appropriate debrief form).

22. Check that fire statistics and all records are completed and retained.

23. Consider the needs of the fire investigation including protecting the fire origin (Copy of fire investigation report attached as Appendix F).

24. NOTE: where serious personal harm or fatality occurs the IC must immediately notify the PRFO (or DPRFO; or NRFA in the PRFO/DPRFO absence).

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

Implement CIMS for larger or more prolonged fires

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

*For large fires (type 2 and 3 fires) provide the NRFA Situation Report (RF201) and the NRFA Incident Status Summary (RF224) to the Manager Rural Fire 12 hourly (if practical).

Notify the NRFA of a serious harm or fatality as soon as practicable with 2 hours.

4.5 Management at Large Fires

The PRFO (or Deputy PRFO in the PRFOs absence) will implement CIMS for a type 3 fire, and in some cases may determine this appropriate for a type 2 fire.

The CIMS management structure will be put in place and trained staff will fill the required CIMS roles within Incident Control, Operations, Planning & Intel, Logistics, and will include the Public Information, Safety and Liaison roles. A Welfare section may be established in the event the community is affected.

RIMT staff from around the region may be called in to undertake various IMT positions. The Wellington Region RIMT Operational Guidelines will be followed.

A suitable ICP with adequate resources and facilities will be established, as will a staging area. The HVEMO RIMT kit will be deployed and used. Further resources for facilities are identified in the Information Listings section of this plan.

CIMS processes and forms for all IMT sections will be used, as will SOPs developed by HVEMO. Furthermore appropriate planning, IMT and tactical , meetings and briefings will be conducted. Forms and documents are available in the control vehicles and the HVEMO RIMT kit. The NRFA CIMS forms will be used.

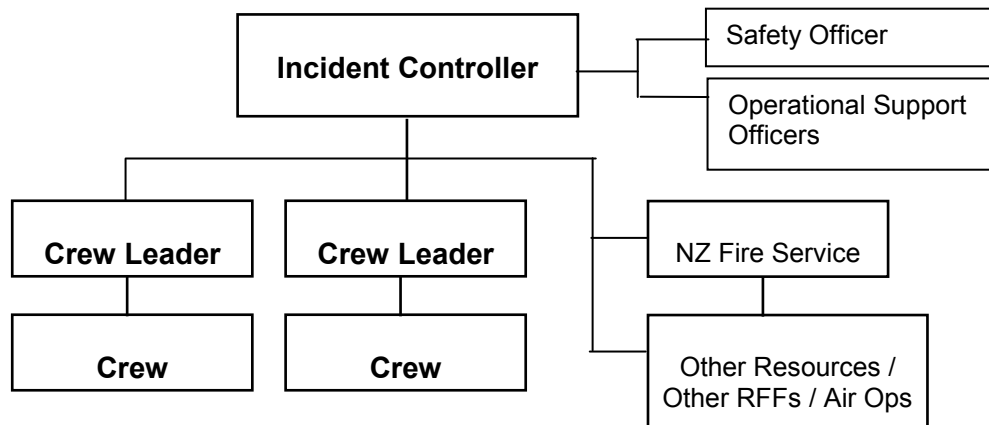
An Incident Action Plan will be developed and implemented.

Job description/checklists for the CIMS positions (managers and units) have been developed in line with the green Rural Fire Management Handbook. Copies of the handbook are in the control vehicle. Each member of the RIMT has copies of the handbook and the job description/checklists, and as well they are kept in the HVEMO RIMT kit.

4.65 Organisation Structures for Fires

4.6.1 Organisation Chart for Small Fires

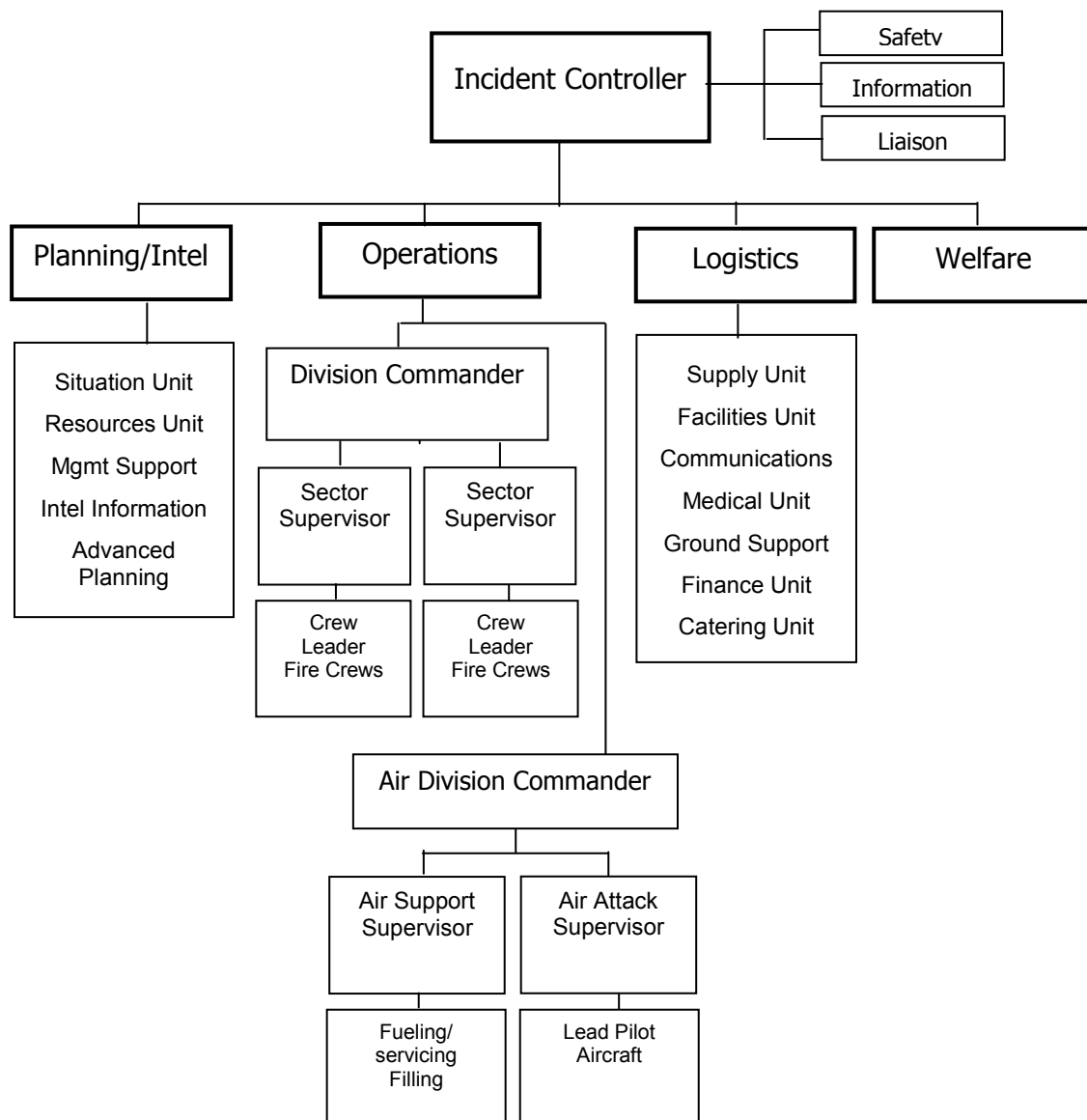
Most rural fires in Upper Hutt fall into this category, and supervision is “direct line” from IC to Crew Leader to the firefighters. The Safety Officer, Operational Support Officer and NZFS (if still in attendance) also report directly to the IC.



4.6.2 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 UHCC 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.



4.7 Additional Resources

Any RFO warranted by the UHCC RFA, or NZFS OIC, acting as the Incident Controller, 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 Fire Service/UH RFA Contract.

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.

4.7.1 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 PRFO will contact the Chairperson of the GWRRFC, 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.

4.8 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)
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

4.9 Communications

A variety of communication systems are in use.

4.9.1 Fireground Communications

Efficient and effective fireground communications are essential for the management of the fire and the safety of all involved.

The UHRFF has a control vehicle that is equipped to coordinate communications.

FireComs to NZFS Units

- a) LMR
- b) Cellphone

FireComs to Control Vehicle

- a) LMR
- b) Cellphone (027 2322575)

Control Vehicle to NZFS Units

- a) Fireground Radio – Fire 1 will be used in the first instance
- b) LMR
- c) Cellphone
- d) Courier

Control Vehicle to Ground Crews

- a) Fireground radio (VRFF operational channel 4)
- b) Fireground radio (NZFS channel)
- c) Messenger

Control Vehicle to Air Ops

- a) Fireground radio (Air Ops channel – Fire 4)
- b) Cellphone
- c) Courier

Air Ops to Aircraft

- a) Ground to air radio fire 4
- b) Cellphone

Control Vehicle to Ground Support

- a) Fireground radio (channel to be allocated) (VRFF operational channel 4)
- b) Cellphone
- c) Courier

Control Vehicle to Welfare Support

- a) Cellphone
- b) Radio (to be allocated)
- c) Courier

Control Vehicle to Other Links

- a) Organisation's radio system (if available)
- b) Cellphone

ICP/EOC to Other Agencies

The preferred communications are:

- c) ESB Liaison Simplex (ESX39)
- d) ESB Liaison Duplex (ES164)
- e) Cellphone

Key Channel Frequencies

Fire One	CX30	455.1375 MHz	
Fire Two	FNX512	482.13125 MHz	
Fire Three	FNX835	489.66875 MHz	
Fire Four	FNX555	482.66875 MHz	
ESB "Liaison" Simplex	ESX39	140.9875 MHz	
ESB "Liaison" Duplex	ES64	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)
CD Mt Climie Repeater	ES150	139.8750 MHz (Tx)	142.8750 MHz (Tx)

4.9.2 Additional Communications

HVEMO has two mobile IP Star systems. 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.

4.9.3 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 control vehicle.

4.10 Record Personnel and Equipment

All responding units are to maintain full and accurate personnel and equipment records.

The responding units are to present these records to the IC/control vehicle prior to deployment into the fireground.

Responding units will "check out" with the control vehicle when they leave the fireground and any discrepancies with earlier records are to be accounted for.

Wherever possible, the T-Card system will be used and the cards will be retained.

A Daily Time Record or Vehicle Sheet must be completed by each Crew Leader in each vehicle, with vehicle and crew details.

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

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

4.11 Logistics Support

At small to moderate fires the Operational Support Officer(s) will organise the necessary logistical arrangements. This will include:

- 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 Operational Support Officer tasks 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. RFF Operational Support Officers will form part of the Logistics Section. Logistics units include:

- Communications

- Medical

- Supply

- Catering

- Ground Support

- Facilities

- Finance

4.12 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.

Fire Weather information can also be obtained from MetConnect, NRFA website or phoning met service.

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.

4.13 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 delegate the log reporting 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 assigned/used (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
- Time of sitreps to firecom or PRFO
- Events on fireground
- Weather
- Reports of changes to fire behaviour
- FWI if obtainable
- 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.

4.14 Fire Incident Records

4.14.1 Incident Records

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

- Fire Report (Appendix G)
- Schedule of costs
- RFF Fire Log
- Personnel logs
- Fire Service Log
- CIMS Incident Management Organiser RF200
- Other CIMS forms used
- Debrief form (Appendix H full debrief, Appendix I hot debrief)
- Vehicle Response Forms or Daily Time Records
- Photos of the fire, point of origin area
- Photo of map on whiteboard
- 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
- Other RFA or RFF logs

4.14.2 Fire Register

The UHCC 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 Incident Reports provided by the RFF, and information collected by the RFF Liaison RFO. The register maintains all information as listed in the RFA Key Performance Indicators and Annual Returns of Fires. 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

4.15 Health & Safety on the Fireground

Accidents/Near misses

All accidents and near misses, will be reported to the Control vehicle, and details entered into the firelog

An ambulance is to be called for a serious incident

First aid applied for a minor injury,

An Accident Form is to be completed

The PRFO must be notified of any serious harm or fatality immediately

The next of kin should be notified immediately (list kept in the control vehicle)

The Rural Fire Force or RFA will follow up on the welfare of the person injured, and provide support where necessary (as deemed appropriate)

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”, or will be accompanied by someone with 3285.

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 IC and 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/anchor points, Communications, Escape routes, Safety zones)

10 Fire Orders

20 Watchout situations

The hazards associated with rural firefighting are listed in the UHCC Rural Fire Hazards Register (on the next page). These are reviewed annually, in consultation with the RFF 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 can have difficulty seeing	1 October 2008	Hazard isolated by ensuring personnel are not working near machinery. Use of Lookout	RT H&S Officer
EMO	Fire - buildings	1 October 2008	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

Upper Hutt City Council
Rural Fire Authority

Valid: 1 September 07 – 31 August 12

5. RECOVERY

5.1 Purpose

The purpose of this section of the plan is to outline recovery aspects of rural fires as appropriate to the UHCC RFA.

5.2 Health & Safety of Personnel

A debrief will be held for all personnel following a fire. As part of the debrief health and safety issues will be examined and any issues raised will be acted upon by the PRFO.

The Incident Controller will highlight any health and safety issues to the PRFO.

The PRFO is responsible for identifying any ongoing support needs for personnel arising from the event.

The GWRRFC has produced a comprehensive Health & Safety Plan that outlines the obligations and responsibilities of the RFA in relation to fire and staff management, safety and welfare. This is included as Appendix A

5.3 Critical Incident Stress Debrief

Following any fire where serious injury or personal trauma has occurred, personnel will be offered access to formal critical incident stress debriefing and any necessary follow up.

Council has available an “employee assistance programme” for its staff. This includes the Volunteer Rural Fire Force.

5.4 Fire Operational Reviews

A fire operational review will be held after every significant fire to identify what has happened at the fires and what can be learnt from them. To maintain an unbiased overview, the operational review will be carried out by a person/agency that was not directly involved in firefighting operations.

A register of operational reviewers and the procedures to be followed can be located on the NRFA website.

5.5 Operational Debrief

An operational debrief will be held after every fire that is significant to where “lessons can be learned”. The format will vary according to the incident, however a standard debrief template is attached as Appendix H. In most cases, the NRFA template for debriefs will be used. The PRFO will run debriefs except in the case of significant fires where an “independent person” will run the debrief.

5.6 Post Fire Investigation

Where arson is suspected, allocation of blame is involved, or cost recovery of a significant amount is involved, a suitably qualified person will investigate the fire and prepare a document that can be used as evidence in court or arbitration.

A Fire Investigation Checklist is attached as Appendix F.

5.7 Rehabilitation

There is no provision for rehabilitation of burned out areas in the Upper Hutt District Plan. This is considered to be a matter for the land owner. However, some aspects of the Resource Management Act may apply if slips, pollution or environment degradation occurs.

There is 850ha of council reserve land. The council allows the burnt area to regenerate naturally.

5.8 Cost Recovery

Wherever possible, firefighting costs will be recovered from the person deemed responsible for a fire, especially in cases of fire in plantation forests.

Application for a grant from the NRFA Rural Fire Fighting Fund will be made in conjunction with cost recovery efforts against the person responsible.

The Fire Authority has backup insurance to the value of \$250,000 to cover the cost of firefighting should cost recovery or a claim application fail. This level is reviewed annually. All fire permittees are encouraged to have insurance cover to cover the cost of any suppression activities.

5.9 Prosecution

In the event of an illegal burn or failure to comply with the conditions of a fire permit, prosecution will be considered in accordance with Council's policy on prosecution.

In the event of a malicious fire or a fire that causes damage to a third party, prosecution will take place.

RURAL FIRE PLAN

APPENDICES

Appendix A - Health & Safety Policy

Appendix B - Fire Service Fire Protection Agreement

Appendix C – RFA and UHVRFF Agreement

Appendix D – RRFC Constitution

Appendix E – RRFC Memorandum of Understanding

Appendix F – 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 G – Fire Debrief Form

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

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

Debrief Facilitator: _____ **Date (/ /)** _____

Appendix H – Interim Fire Debrief

Interim Fire Debrief

(To be held with the Crew Leaders immediately after a fire)

Date: _____ Location: _____

1. Safety

Safety Officer Appointed:

Initial Briefing Held

2. Fireground Issues:

3. Personnel:

PPE:

Health / Safety:

4. Equipment Issues:

5. Areas Identified for Training:

6. Other Issues:

(Fire Service / Air Ops)

7. Formal Debrief Required: Yes / No

(Signed: Fire Force Controller)

Appendix I – Fire Incident Report Form

