



# Nelson Tasman Fire and Emergency New Zealand

## PRESCRIBED BURN PLAN

File No: \_\_\_\_\_ Burn No. \_\_\_\_\_ Fire District: \_\_\_\_\_

Forest: \_\_\_\_\_ Forest Cpt / Block: \_\_\_\_\_

Burn Objectives: \_\_\_\_\_

Burn Location: \_\_\_\_\_

Grid Ref: \_\_\_\_\_ Area (ha's): \_\_\_\_\_ Fuel Type: \_\_\_\_\_

Preparation Method: \_\_\_\_\_

Topography: \_\_\_\_\_

Maps and/or aerial Photographs Prepared by: \_\_\_\_\_

Burn Plan Documentation Prepared by: \_\_\_\_\_

Date Plan Prepared: \_\_\_\_\_ Date Fire Permit Issued: \_\_\_\_\_

### **Burn Plan Includes (tick):**

- Communications Plan
- Command Structure/Personnel Plan
- Ignition/Light Up Plan

### **Map(s)/Appendix included (tick):**

- Burn Area (including/not including Ignition/Light Up Plan)
- Ignition/Light Up Plan
- Other (specify) \_\_\_\_\_

### **BURN PLAN APPROVALS**

Forest Operations Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Protection Manager: \_\_\_\_\_ Date: \_\_\_\_\_

Principal Rural Fire Officer: \_\_\_\_\_ Date: \_\_\_\_\_



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## BURN PRESCRIPTION

Planned Burn Date(s): \_\_\_\_\_ Planned Light-up Time: \_\_\_\_\_

## PREFERRED RANGE OF CONDITIONS:

Wind Direction:		Wind Speed:	<10 km/h
Temperature:	18°C – 25°C	Relative Humidity:	45 – 60 RH
FFMC:	85 - 90	BUI:	16 - 30
DMC:	10 - 30	ISI:	<7
DC:	101 - 175	Fire Danger Class:	<13

## SURROUNDING VEGETATION

North	South	East	West
_____	_____	_____	_____
_____	_____	_____	_____

## PERIMETER CONTROL LINES:

Date Formed:	North	South	East	West
Bulldozed	_____	_____	_____	_____
Hand Cut	_____	_____	_____	_____
Final Inspection By:	_____	_____	_____	_____
Date Inspected:	_____	_____	_____	_____

## NEAREST WATER POINTS TO BURN

Location:	Distance (km)	Capacity (litres):
_____	_____	_____
_____	_____	_____
_____	_____	_____

Ignition Method and lighting pattern: (Map required)

\_\_\_\_\_  
\_\_\_\_\_

Conditions that would preclude burning:

\_\_\_\_\_  
\_\_\_\_\_

Timing Constraints: \_\_\_\_\_

Escape Routes: (map required) \_\_\_\_\_



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Assembly Areas: (map required) \_\_\_\_\_

Potential Control Problems: \_\_\_\_\_

Weather Forecast Required by: \_\_\_\_\_ (Time) \_\_\_\_\_ (Date)

## Special Conditions:

Ecological/Catchment Protection Issues: \_\_\_\_\_

Other Assets/Values Requiring Protection: \_\_\_\_\_

Smoke Management Measures Required: \_\_\_\_\_

Roads to be Closed: (map required) \_\_\_\_\_

Alternative Routes: (map required) \_\_\_\_\_

Erect Burn/Smoke Signs at: (map required) \_\_\_\_\_

Neighbours to Advise: \_\_\_\_\_

Others to Advise: Neighbouring Fire and Emergency NZ Districts, Local Council, Neighbouring Forestry Companies: \_\_\_\_\_

**Fire Headquarters Located at: (map required)** \_\_\_\_\_

## RESOURCES REQUIRED

### Personnel Planned

Burn Controller: \_\_\_\_\_ Deputy Burn Controller: \_\_\_\_\_

Lighting Up Ops: \_\_\_\_\_ Suppression Ops: \_\_\_\_\_



# Nelson Tasman Fire and Emergency New Zealand

## Crew/Sector Supervisors

(map required with sector leader's names and Call signs this is to be distributed at a planning briefing before the day of the burn)

1 \_\_\_\_\_ 2 \_\_\_\_\_

3 \_\_\_\_\_ 4 \_\_\_\_\_

Other Staff at burn: \_\_\_\_\_

\_\_\_\_\_

Contractors at burn: \_\_\_\_\_

\_\_\_\_\_

## Equipment Required (numbers and Sector assignment)

Helicopters: \_\_\_\_\_

Bulldozers 1 \_\_\_\_\_ 2 \_\_\_\_\_

Excavators 1 \_\_\_\_\_ 2 \_\_\_\_\_

Fire Engines: \_\_\_\_\_ Water Carriers: \_\_\_\_\_ Portable Dams: \_\_\_\_\_

Volume Pumps: \_\_\_\_\_ Wajax Pumps: \_\_\_\_\_ Heli Buckets: \_\_\_\_\_

Hose 25mm: \_\_\_\_\_ Hose 41mm: \_\_\_\_\_ Hose 70mm: \_\_\_\_\_

Firetrol: \_\_\_\_\_ Pump Fuel: \_\_\_\_\_ Alumagel: \_\_\_\_\_

Mobile Burners: \_\_\_\_\_ Aerial Burners: \_\_\_\_\_ Hand Burners: \_\_\_\_\_

## Reserve Resources (Number and Locations)

Heli. Type and availability: \_\_\_\_\_

Heli Type and availability: \_\_\_\_\_

Monsoon Bkts capacity: \_\_\_\_\_

Bulldozers: \_\_\_\_\_ Excavators: \_\_\_\_\_

Crews: \_\_\_\_\_ Fire Engines: \_\_\_\_\_

Tankers: \_\_\_\_\_

Fire Trol: \_\_\_\_\_

Class A Foam: \_\_\_\_\_



# Nelson Tasman Fire and Emergency New Zealand

Incident Name	Operational Period		COMMUNICATIONS	
	Date		PLAN	
	Time			
Radio Channels				
<i>Assigned To</i>	<i>Function</i>	<i>Channel</i>	<i>Frequency</i>	<i>System</i>
Telephone				
<i>Assigned To</i>	<i>Landline</i>	<i>Cell phone</i>	<i>Fax</i>	<i>Comments</i>
Other (e.g. email, Satphone, etc.)				
Prepared by:	Date/Time			



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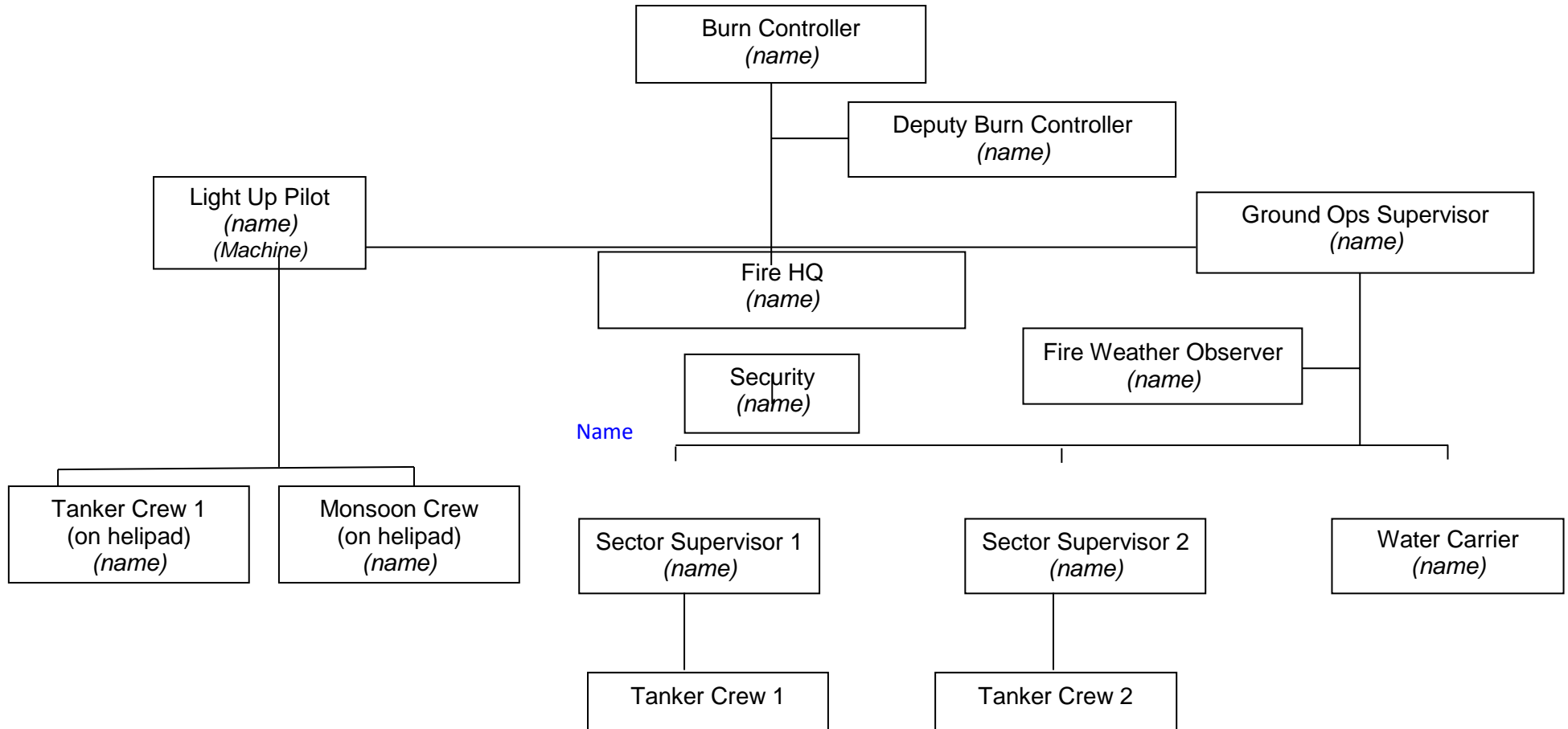
## Controlled Burn Cost Analysis

RESOURCE	NUMBER	ESTIMATE	ACTUAL
Preparation			
Mechanical			
Aerial			
Manual			
Fire Breaks			
Staff			
Crews			
Helicopters			
Bulldozers			
Excavators			
Fire Engines			
Tankers			
PPE			
Fire Trol			
Foam			
Food			
Other			



# Nelson Tasman Fire and Emergency New Zealand

Burn Command Structure/Personnel Plan (example)





# Nelson Tasman Fire and Emergency New Zealand

## Guidelines for Preparing Prescribed Burn Plans

### Keep the Prescribed Burn Plan simple:

- One map (aerial photo preferable) showing:
  - i. Grid north
  - ii. Road names
  - iii. Reference points (must be visible on ground as well).
  - iv. Assembly area
  - v. Fire HQ
  - vi. Burn perimeter including sectors (if applicable)
  - vii. Water supplies
  - viii. Helipad
- Complete the required sections of the template.
- In addition to completing the Nelson Tasman Fire and Emergency NZ standard template you should also consider including:
  - i. One page showing the Command Structure
  - ii. One page detailing all resources and where they fit into the scheme of things
  - iii. Communications Plan including call signs
  - iv. Map showing proposed light up pattern.

### References:

- Historical Prescribed Burn files
- *Forest Company Specific Guidelines (or NZFOA Operational Guidelines for Fire Management [sec 8])*
- *Fire for Land Clearing – NZ Forest Service*
- *Prescribed Burning Learning Manual 3.17 and 4.25 – Australian Fire Authorities Council.*
- Read and take note of requirements laid out in section 1.4.6 & 1.4.7 Broadcast Land Clearing Burns of the Fire Plan for Nelson Tasman Fire and Emergency

### Fire Breaks:

- Wherever possible, firebreaks should be constructed so that they are drivable by a fully laden 4 x4 Class 2 fire appliance.

### MAP/s

#### ***A detailed map or maps are to be prepared in colour for distribution to:***

Sector leaders	The Management team
Rural Fire HQ	Fire Engines
Helicopters	Others as necessary

#### **Map Content to include:**

Area to be burnt	Fire Breaks
Sectors, sector call signs.	Escape routes
Assembly areas	Water Points.
Heli Pads.	Light up pattern
Preferred Wind Direction	Topography





# Nelson Tasman Fire and Emergency New Zealand

**Guidelines for Carrying out Briefings for Prescribed Burning Operations** Briefings are a mandatory requirement for the effective and safe management of any incident. With regard to prescribed burning operations, it is recommended that the following briefings are carried out:

## 1. Planning Briefing

A Planning briefing is to be held for the Management Team including Sector Supervisors at least one day before the burn to allow for individual preparation.

### Agenda

**Safety Briefing:** (additional safety briefing to be held on day of burn, on site, two hours before light up to allow perimeter inspection etc.)

**Safety:** (Maps distribution, Assembly areas, escape routes, PPE, drinking water, food etc.)

**The Prescribed Burn Plan:** (location, purpose, areas at risk etc.)

**Light up Patterns** (strategies)

**Command Structure**

**Communications Plan:** (Channels, switch position for portables)

**Sector responsibilities:** (names and call signs to be allocated before this meeting)

**Resource allocation** (by sector)

## 2. Safety Briefing *(at burn site on day of burn about 2 hrs. before light up)*

This final briefing should be to everyone directly involved with the prescribed burn (including crew members) and should be carried out at the burn Assembly Area and only when everyone is present. Subsequent to the Burn Controller giving a final briefing, other overhead and crew leaders should carry out their own briefings to their personnel.

### Burn Controller Briefing Guidelines:

#### **Identify Self:**

- Who you are
- What is your role/responsibility?

#### **Burn Plan:**

- Explain objectives and strategy of burn (why are we doing it?)
- Define area of burn, control lines, access routes (map or equivalent means of illustrating the layout of the burn area)
- Explain light up method (aerial/hand/both) and light up pattern
- Identify HQ (logging in/out of burn), assembly area, helipad, monsoon bucket filling points, tanker and fire appliance refilling points.
- Define organisation/command structure and communication (roles, who your responsible to and for)
- Communications (channels)
- Identify areas of greatest risk & value
- Weather forecast

#### **Contingency Plans:**

- What if things don't go according to Plan (jumps, spotting etc.)?
- What areas are of greatest concern?

#### **Personal Safety:**

- Safety is Number 1 – no exceptions!
- Responsible for own safety & safety of our work mates



# Nelson Tasman Fire and Emergency New Zealand

- Is everyone “fit for purpose” – no injuries?
- PPE (to Fire and Emergency New Zealand standard)
- Hydration
- Hazards:
  - Smoke inhalation
  - Radiant heat
  - Entrapment – what to do?
  - Carcinogens from burning material
- L.A.C.E.S
- Use of vehicles (e.g. Lights on)
- Use of machinery (keep well away, don’t stand directly downhill and don’t turn back on machine)
- Helicopters (qualified AAS in charge; follow pilots safety instructions)
- Safety Briefing delivered by person supervising assignment
  - L.A.C.E.S
  - Fire Orders
  - Watch outs
  - Hazards

## Allocate assignments:

- Explain who goes where.
- Explain location of water points



# Nelson Tasman Fire and Emergency New Zealand

## Burn Controller Check List

### Prior to Briefing:

- Burn Plan - sufficient copies for Crew Leader up
- Briefing check list
- LACES cards (pink cards)
- On-site weather recorder with Kestrel and record sheets
- Communications Plan/Portable repeater set up
- Check points/traffic control (is entry onto fire ground adequately controlled?)
- Traffic Management Plan
- HQ Caravan /Trailer with sign-in and sign-out sheets
- First Aid/ Medical Plan
- Updated weather forecast (Met Service/Met Connect forecast)
- Consider what can go wrong and have a contingency plan.

### At conclusion of Briefing:

- Laces covered and pink cards issued?
- Logging in/out procedures covered?
- Water points (firefighting) covered?
- Command Structure covered?
- Have all the "What if?" scenarios been covered?
- Does each individual know what to do?
- Each unit leader to carry out a radio check

.... Remember, the average fire fighter just wants to know:

- *Where do I go?*
- *What do I do?*
- *What's expected of me?*

