

IAP COVER SHEET

INCIDENT ACTION PLAN

The items checked below are included in the incident Action Plan

- SITUATION REPORT
- INCIDENT OBJECTIVES & STRATEGIES
- ORGANISATIONAL LIST
- SECTOR ASSIGNMENT
- DIVISIONAL ASSIGNMENT
- AIR OPERATIONS PLAN
- COMMUNICATION PLAN
- SAFETY PLAN
- MEDICAL PLAN
- FIRE MAP
- WEATHER FORECAST AND MAP
- FIRE BEHAVIOUR FORECAST
- FACILITIES LAYOUT PLAN

Approved by Incident Controller:	Signed	Date/Time

Released under the Official Information Act 1982

1. Incident Name	Awarua Bay	2. Operational Period	MONDAY 4 APRIL 2022
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Situation Report

RF201

3. Location Awarua Bay (Bluff)	4. Vegetation Scrub/Grass Other: Wetlands	5. NZ Topo50 Grid Ref.
6. Assessment		
<p>Fire has started in wetlands, under drought conditions. Currently dry / overcast, no rain forecast with stable westerly winds 20-30km/h gusting 50km/h. RH 60-75%</p> <p>Sector Alpha is the north flank, with farmland in surrounds. Sector Bravo NE active fire head with forestry block located in northern surrounds. Southern flank runs to sea, and Tiwai peninsula (Tiwai Smelter and lizards habitat).</p> <p>Currently 4 ground crews working Alpha (N) flank. 9 helicopters working Alpha (N) and Zulu (S) flanks + 1 heli platform.</p> <p>IC's intent is to contain the Alpha (N) edge protecting potential burn towards houses, and the Zulu (SE) most edge with a fire break to avoid potential burn down the peninsula in case of wind change.</p>		
7. Action taken		
Direct attack with heli crews working Alpha (N) flank and Zulu (SE) with support from ground crews working Alpha from W to E.		
8. Factors		
<p>Currently the wind is stable and westerly, however a forecasts change to easterly Monday evening.</p> <p>Change in wind direction tomorrow afternoon may threaten Tiwai peninsula (including Aluminium Smelter) and Alpha (N) Awarua wetlands.</p> <p>Ground crews working Alpha (N) flank have heavy wetlands underfoot with potential for ash pits whilst mopping up.</p>		
9. Predicted Incident Development		
<p>Predicted to continue to run on Bravo (NE) edge up to the estuary. Zulu (S) edge is slowly backburning, potentially run as a head fire late tomorrow afternoon. Alpha (NW) flank fire, which potentially run as a head fire late tomorrow afternoon during wind change W to E.</p>		

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Incident Objectives & Strategies

RF202

<p>3. Incident Objectives/Aim/Mission (SMART: Specific, Measurable, Achievable, Relevant, Time bound)</p> <p>Wetland fire, direct attack with helicopters x 9. Strong winds from westerly all day with forecast wind change W to E / NE 1700h.</p> <p>Objectives –</p> <ul style="list-style-type: none"> • Knock down / black out Alpha (N) flank with particular attention to E edge and surrounding forestry block (Awarua Wetlands). • Secure “pinch point” at southern end utilising a 6m fire break across the start of Tiwai peninsula, in anticipation of late afternoon wind change W to E. • Containment within existing fire flank edge Alpha (N) side and minimise backburning on Zulu (S) flank.
<p>4. Strategy/Strategies: (Plan of Action to meet Incident Objective)</p> <ul style="list-style-type: none"> • Direct attack with aircraft and ground crews in support. • Ground crews mop up Alpha (N) hotspots. • Bravo (E) allowing to run to estuary. • Monitoring Zulu (S) for asset protection as required.

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Organisation List

RF203

3. Incident Control		Cell Phone	Radio Ch
Incident Controller	██████████	██████████	
Deputy IC			
Information Officer	██████████	██████████	
Safety Officer	██████████	██████████	
Liaison Officer	██████████	██████████	
4. Agency Representative		Cell Phone	Radio Ch
Lead Agency			
Agency			
Agency			
Agency			
5. Planning/Intell Section		Cell Phone	Radio Ch
Planning/Intell Manager	██████████	██████████	
Situations Unit			
Resources Unit			
Management Support Unit			
Information Unit			
Advance Planning Unit			
Technical Specialists Unit			
6. Logistics Section		Cell Phone	Radio Ch
Logistics Manager	██████████	██████████	
Supply Unit			
Catering Unit			
Facilities Unit			
Finance Unit			
Communications Unit			
Medical Unit			
Ground Support Unit			

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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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7. Operations Section	Cell Phone	Radio Ch
Operations Manager	██████████	██████████
Deputy Operations Manager		
Division One Commander		
Sector A Supervisor		
Sector B Supervisor		
Sector C Supervisor		
Sector D Supervisor		
Division Two Commander		
Sector E Supervisor		
Sector F Supervisor		
Sector G Supervisor		
Sector H Supervisor		
Air Division Commander		
Air Attack Supervisor	██████████	██████████
Air Support Supervisor	██████████	██████████
	██████████	██████████

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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Sector Assignment

RF204

3. Sector Alpha	4. Description North Flank		5. Division Assigned		
6. Sector Supervisor [REDACTED]	Affiliation Hedgehope	Cellphone	Radio Ch VHF1		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Glenorchy	[REDACTED]	3	no		
Heslop					
Hedgehope	[REDACTED]	5			
DOC 1	[REDACTED]	3			
DOC 2					
DOC 3					
DOC 4					
Waikawa					
Drummond					
Hedgehope 2 (?)					
8. Sector Assignment / Special Instructions					
Blackout 50m inside of fire edge.					
9. Sector Communications			<i>Phone</i>	<i>Radio Ch</i>	
Division/Division Cmdr					
Air Attack Supervisor [REDACTED]				VHF4	
Safety Officer [REDACTED]				UHF2	

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Sector Assignment

RF204

3. Sector Bravo	4. Description North East Active Edge		5. Division Assigned		
6. Sector Supervisor	Affiliation	Cellphone	Radio Ch		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop- off Point/ time</i>	<i>Pickup Point/time</i>
Nil					
8. Sector Assignment / Special Instructions					
9. Sector Communications					
Division/Division Cmdr			<i>Phone</i>	<i>Radio Ch</i>	
Air Attack Supervisor	██████████			VHF4	
Safety Officer	██████████			UHF2	

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Sector Assignment

RF204

3. Sector Zulu	4. Description Southern Flank		5. Division Assigned		
6. Sector Supervisor	Affiliation	Cellphone	Radio Ch VHF1		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop- off Point/ time</i>	<i>Pickup Point/time</i>
Nil					
8. Sector Assignment / Special Instructions					
9. Sector Communications					
Division/Division Cmdr			<i>Phone</i>	<i>Radio Ch</i>	
Air Attack Supervisor	██████████			██████	
Safety Officer	██████████			██████	

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Sector Assignment

RF204

3. Sector Heavy Machinery (HM)	4. Description Southern Flank – Peninsula pinch point		5. Division Assigned		
6. Sector Supervisor [REDACTED]	Affiliation SouthRoads	Cellphone [REDACTED]	Radio Ch VHF 1		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Dozer (D7)	[REDACTED]				
Grader					
Dozer (D65)					
8. Sector Assignment / Special Instructions					
***Potentially completed overnight. Any additional clean up required for Dozer and Grader from SouthRoads, working on the fire break at pinch point on the Tiwai peninsula.					
9. Sector Communications			<i>Phone</i>	<i>Radio Ch</i>	
Division/Division Cmdr					
Air Attack Supervisor	[REDACTED]			VHF4	
Safety Officer	[REDACTED]			UHF2	

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Air Operations Plan

RF208

3. Personnel and Communications					
Position	Name	Affiliation	Phone	Radio Chan	
Air Div Commander					
Air Attack Supervisor	[REDACTED]			VHF4	
Air Support Supervisor	[REDACTED]			VHF4	
Lead Helicopter Pilot	[REDACTED]			VHF4	
Lead Fixed-Wing Pilot	N/A				
4. Air Resource Assignments					
Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
[REDACTED]	AS350B3	ZK-HVA	A	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	MD369D	AK-IMT	PLATFORM	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	AS350B3	ZK-HNU	Z	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	AS350B3	ZK-IMY	Z	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	AS350B3	ZK-ITY	A	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	BK117	ZK-IYY	A	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	AS350B3	ZK-IDE	A	VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	AS350B3	ZK-IRM		VHF4	Onboard: [REDACTED] Company: [REDACTED]
[REDACTED]	BK117	ZK-HJK		VHF4	Onboard: [REDACTED] Company: [REDACTED]
5. Location of Filling Points/Service Areas					
Name			Grid Reference		
6. Safety Notes / Hazards / Radio Coverage Limitations					
Air Traffic not required to be notified.					
7. Air Operations Special Equip or Service					

Prepared by:	Date:	Time:
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1. Incident Name	Awarua Bay	2. Operational Period	MONDAY 4 APRIL 2022
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Safety Plan

RF209

3. General Safety Points

Everyone is to be signed in and out of the fire ground through the Incident Control Point for both safety check and payment records.

Maintain regular situation reports (containing all relevant information) via line supervisors.

LACES	Fire Orders	Watchouts
<p>L - Lookout(s)</p> <p>A – Awareness</p> <p>– Anchor Point(s)</p> <p>C – Communication(s)</p> <p>E – Escape Route(s)</p> <p>S – Safety Zone(s)</p>	<ol style="list-style-type: none"> 1. conditions and forecasts 2. Know what your fire is doing at all times. 3. Base all actions on current and expected fire behaviour of the fire. 4. Identify escape routes and safety zones and make them known. 5. Post lookouts when there is possible danger. 6. Stay alert. Keep calm, Think clearly, act decisively. 7. Maintain prompt communication with your crew/s, your supervisor and adjoining crews. 8. Give clear instructions and ensure they are understood. 9. Maintain control of your crew/s at all times. 10. Fight fire aggressively having provided for safety first. 	<ol style="list-style-type: none"> 1. Fire size is unknown (no size up). 2. Unfamiliar territory 3. Safety zones and escape routes not identified. 4. Unfamiliar with weather and local factors influencing fire behaviour. 5. No communications link with crew members or supervisor. 6. Instructions and assignments not clear. 7. Weather is getting hotter , drier and relative humidity dropping 8. Wind increases and/or changes direction. 9. Getting frequent spot fires across the line 10. Working uphill or downwind of a fire 11. Working on a steep slope 12. Working in rugged terrain 13. Can't see main fire 14. In unburnt vegetation 15. Walking through hot ashes 16. Working alone 17. Getting tired 18. Working near power lines 19. Working near machinery 20. Working with aircraft 21. Working around trees or spars

4. Specific Safety Points

Fireground is wetlands with peat underfoot. Watch for ash pits and stay alert to exit routes through rough swamp.

Helicopters working overhead (9 machines)

Surrounding area: Farmland to NW, Forestry block NNE, Southern flank runs to sea, key risk to avoid burn on southern flank into the Tiwai peninsula.

Current forecast is stable Westerly winds, potential wind change forecast 5pm today (MON 4 APR), which could mean Alpha (N) flank and Zulu (SE) flank turn to head fire during the wind change W to E.

Knockoff no later than 1800 ahead of sunset.

Prepared by:	Date:	Time:
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1. Incident Name Awarua Bay	2. Operational Period MONDAY 4 APRIL 2022
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Medical Plan

RF206

3. First Aid Station		<i>Phone/Radio</i>	<i>Paramedics</i>			
<i>Name</i>	<i>Location</i>	<i>Channel</i>	<i>available at Station</i>			
Command Unit	Fwd control point	UHF1				
Invercargill Fire Station						
4. Transportation		<i>Phone/Radio</i>	<i>Paramedics</i>			
<i>Ambulance Service</i>	<i>Address</i>	<i>Channel</i>	<i>available with Ambulance</i>			
Invercargill						
5. Hospitals		<i>Phone</i>	<u><i>Travel Time</i></u>		<i>Burn</i>	<i>Heli</i>
<i>Hospital Name</i>	<i>Address</i>		<i>Road</i>	<i>Air</i>	<i>Unit</i>	<i>Pad</i>
Southland Hospital	Invercargill		30min			
6. Special Emergency Procedures						
One machine identified as medivac for personnel as required, in addition to platform machine.						
8. Reviewed by Safety Advisor: [REDACTED]					Date/Time: 1645 3/4/2022	

Prepared by:	Date:	Time:
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F3455010 – AWARUA BAY FIRE INCIDENT ACTION PLAN



Released under the Official Information Act 1982

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

INCIDENT ACTION PLAN

The items checked below are included in the incident Action Plan

- SITUATION REPORT
- INCIDENT OBJECTIVES & STRATEGIES
- ORGANISATIONAL LIST
- SECTOR ASSIGNMENT
- DIVISIONAL ASSIGNMENT
- AIR OPERATIONS PLAN
- COMMUNICATION PLAN
- SAFETY PLAN
- MEDICAL PLAN
- FIRE MAP
- WEATHER FORECAST AND MAP
- FIRE BEHAVIOUR FORECAST
- FACILITIES LAYOUT PLAN

Approved by Incident Controller:

[REDACTED]

Signed

[REDACTED]

Date/Time

4 April 2022/1730

Prepared by:

[REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay	2. Operational Period: Monday, 4 April 2022
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Situation Report

RF201

3. Location F3455010 Awarua Bay	4. Vegetation Scrub/Grass Other: Wetlands	5. NZ Topo50 Grid Ref.
6. Assessment		
<p>Fire has started in wetlands, under drought conditions.</p> <p>Currently dry / overcast, no rain forecast with stable westerly winds 20-30km/h gusting 50km/h. RH 60-75%</p> <p>Sector Alpha is the north flank, with farmland in surrounds. Sector Bravo NE active fire head with forestry block located in northern surrounds. Southern flank runs to sea, and Tiwai peninsula (Tiwai Smelter and lizards' habitat).</p> <p>Currently 6 ground crews working Alpha (N) flank; 3 ground crews and 1 heavy machinery crew working Zulu (SE). 9 helicopters working Alpha (N) and Zulu (S) flanks + 1 heli platform.</p> <p>IC's intent is to contain the Alpha (N) edge protecting potential burn towards houses and Awarua wetlands, and the Zulu (SE) most edge with a fire break to avoid potential burn down the peninsula and hit the Tiwai Aluminium Smelter.</p>		
7. Action taken		
<p>Direct attack with heli crews working Alpha (N) flank and Zulu (SE) with support from 6 ground crews working Alpha from W to E. 3 ground crews and 1 heavy machinery crew working Zulu (SE) and laid down retardant line to strengthen containment line.</p>		

Prepared by: [REDACTED]	Date: 04/04/2022	Time: 17:30
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Released under the Official Information Act 1982

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

8. Factors

Currently the wind is stable and westerly. Change in wind direction tomorrow afternoon may threaten Tiwai peninsula (including Aluminium Smelter) and Alpha (N) Awarua wetlands.

Ground crews working Alpha (N) flank have heavy wetlands underfoot with potential for ash pits whilst mopping up. Vegetation is dense with limited visibility and crews are briefed to be aware of exits.

MONDAY

Rainfall: A few light showers this evening. Total rainfall less than 5mm
Sustained winds: W winds turning E to NE around 7pm. Sustained near 25 km/h, gradually decreasing throughout the day and dropping to 5-10 km/h by evening.
Wind gusts: Gusts of up to 40 km/h gradually easing to around 20-25 km/h in the evening.
Temperature: Currently 16°C increasing to a high of 18°C.
Humidity: Currently near min for the day at 60%

TUESDAY

Rainfall: Showers in the early morning with steadier rain late afternoon. Total rainfall around 10mm.
Sustained winds: N to NE winds becoming W to NW in the afternoon. Sustained at 10-15 km/h in the morning, increasing in the afternoon and evening to 20 km/h.
Wind gusts: Gusts up to 30 km/h in the morning, increasing in the afternoon and evening to 40-45 km/h.
Temperature: Near 14°C at dawn increasing to a high of 22°C.
Humidity: A low of 55-60% in the afternoon.

9. Predicted Incident Development

Predicted to continue to run on Bravo (NE) edge up to the estuary. Zulu (S) edge is slowly backburning, potentially run as a head fire late tomorrow afternoon. Alpha (NW) flank fire, which potentially run as a head fire late tomorrow afternoon during wind change W to E.

Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Incident Objectives & Strategies

RF202

3. Incident Objectives/Aim/Mission

(SMART: Specific, Measurable, Achievable, Relevant, Time bound)

Wetland fire, direct attack with helicopters x 9. Strong winds from westerly all day with forecast.

Objectives – Remain the same: Protect assets (namely Tiwai smelter), also significant wetland area.

Intentions

- Night shift was put in place to protect the fire break (peninsula) lower SW corner of Zulu (S) edge.
- Alpha (N) – black out north edge and contain the fire within existing area
- Bravo (E) - allow to run to estuary
- Zulu (S) - Protect the peninsula “pinch point” fire break. Utilising additional ground crews anchored off the beach to support HM crew.

Slightly elevated ridge with dry edge runs all the way to fire break identified – needs to be added to FACTORS above

4. Strategy/Strategies: (Plan of Action to meet Incident Objective)

- Direct attack with aircraft and ground crews in support.
- Ground crews mop up Alpha (N) hotspots.
- Bravo (E) allowing to run to estuary.
- Monitoring Zulu (S) for asset protection as required. Heavy machinery is on standby with ground crews in support.
- Preparing for night flight air attack operation if necessary to protect containment line in Zulu (S).

Forecast swing southerly now E 7-8pm tonight, wind speed dropping off.

Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Organisation List

RF203

3. Incident Control		Cell Phone	Radio Ch
Incident Controller	[REDACTED]	[REDACTED]	
Deputy IC	TBA		
Information Officer	[REDACTED]	[REDACTED]	
Safety Officer	[REDACTED]	[REDACTED]	
Liaison Officer	[REDACTED]	[REDACTED]	
4. Agency Representative		Cell Phone	Radio Ch
Lead Agency	[REDACTED]	[REDACTED]	
Agency	[REDACTED]	[REDACTED]	
Agency	[REDACTED]		
Agency			
5. Planning/Intell Section		Cell Phone	Radio Ch
Planning/Intell Manager	[REDACTED]	[REDACTED]	
Situations Unit			
Resources Unit			
Management Support Unit	[REDACTED]	[REDACTED]	
Information Unit	[REDACTED]	[REDACTED]	
Advance Planning Unit			
Technical Specialists Unit			
6. Logistics Section		Cell Phone	Radio Ch
Logistics Manager	[REDACTED]	[REDACTED]	
Supply Unit			
Catering Unit	[REDACTED]	[REDACTED]	
Facilities Unit			
Finance Unit	[REDACTED]	[REDACTED]	
Communications Unit			
Medical Unit			
Ground Support Unit			

Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

7. Operations Section	Cell Phone	Radio
Operations Manager	[REDACTED]	[REDACTED]
Deputy Operations Manager	[REDACTED]	[REDACTED]
Division One Commander		
Sector A Supervisor	[REDACTED]	[REDACTED]
Sector B Supervisor		
Sector C Supervisor		
Sector Zulu Supervisor	[REDACTED]	[REDACTED]
Division Two Commander		
Sector E Supervisor		
Sector F Supervisor		
Sector G Supervisor		
Sector H Supervisor		
Air Division Commander		
Air Attack Supervisor	[REDACTED]	[REDACTED]
Air Support Supervisor	[REDACTED]	[REDACTED]
	[REDACTED]	[REDACTED]

Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Sector Assignment

RF204

3. Sector Night Shift	4. Description Southern Edge Zulu – Peninsula pinch point		5. Division Assigned Tiwai Pinch Point		
6. Night IC/Opps [REDACTED]	Affiliation DOC	Cellphone [REDACTED]	Radio Ch VHF 1		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
71 Unit	[REDACTED]	4			
Smokeychaser	[REDACTED]	2			
Tanker	[REDACTED]	2			
Air/Safety	[REDACTED]	1			
8. Sector Assignment / Special Instructions					
On standby. Dozer is parked in a 50 x 50 cleared safe zone. Monitor fire and provide initial suppression if the fire advances on the break if fire intensity allows safely.					
9. Sector Communications					
<i>Radio Ch</i>			<i>Phone</i>		
Division/Division Cmdr					
Air Attack Supervisor					
Safety Officer					

Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30

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1. Incident Name F3455010 - Awarua Bay	2. Operational Period: Monday, 4 April 2022
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Sector Assignment

RF204

3. Sector Alpha		4. Description North Flank		5. Division Assigned	
6. Sector Supervisor [REDACTED]		Affiliation Hedgehope	Cellphone	Radio Ch VHF1	
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Glenorchy	[REDACTED]	4	no		
Forestry	[REDACTED]				
Hedgehope	[REDACTED]	5			
DOC 1	[REDACTED]	4			
DOC 2	[REDACTED]				
DOC 3	[REDACTED]				
DOC 4					
Waikawa	[REDACTED]	3			
Drummond	[REDACTED]	3			
8. Sector Assignment / Special Instructions					
Blackout 50m inside of fire edge.					
9. Sector Communications				<i>Phone</i>	<i>Radio</i>
Division/Division Cmdr					
Air Attack Supervisor		[REDACTED]	[REDACTED]	VHF4	
Safety Officer		[REDACTED]		UHF2	

Prepared by: [REDACTED]	Date: 04/04/2022	Time: 17:30
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1. Incident Name F3455010 - Awarua Bay	2. Operational Period: Monday, 4 April 2022
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Sector Assignment

RF204

3. Sector Bravo	4. Description Northeast Active Edge		5. Division Assigned		
6. Sector Supervisor	Affiliation	Cellphone	Radio Ch		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Nil					
8. Sector Assignment / Special Instructions					
Helicopters bucketing as required. No ground crews in the area.					
9. Sector Communications					
			<i>Phone</i>	<i>Radio Ch</i>	
Division/Division Cmdr					
Air Attack Supervisor			██████████	VHF4	
Safety Officer			██████████	UHF2	

Prepared by: ██████████	Date: 04/04/2022	Time: 17:30
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Released under the Official Information Act 1982

1. Incident Name F3455010 - Awarua Bay	2. Operational Period: Monday, 4 April 2022
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Sector Assignment

RF204

3. Sector Zulu		4. Description Southern Flank		5. Division Assigned	
6. Sector Supervisor [REDACTED]		Affiliation Zulu	Cellphone	Radio Ch VHF1	
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Hedgehope					
Crew 2					
Crew 3					
8. Sector Assignment / Special Instructions					
OVERNIGHT PATROL to be relieved (1 ground crew at fire break) - Blackmount.					
Smoke chaser, tanker and portable dam deployed to fire break with ground crew (Hedgehope) 1 x dozer on standby (HM).					
Monitor fire edge and contain where possible to minimise a run towards the "pinch point" fire break at peninsula.					
Track in has been graded as exit route and 50 x 50 cleared safe area with dozer parked up.					
9. Sector Communications				Phone	Radio Ch
Division/Division Cmdr					
Air Attack Supervisor		[REDACTED]			VHF4
Safety Officer		[REDACTED]			UHF2

Prepared by: [REDACTED]	Date: 04/04/2022	Time: 17:30
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1. Incident Name F3455010 - Awarua Bay	2. Operational Period: Monday, 4 April 2022
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Sector Assignment

RF204

3. Sector Heavy Machinery (HM)	4. Description Southern Edge Zulu – Peninsula pinch point		5. Division Assigned		
6. Sector Supervisor [REDACTED]	Affiliation South Roads	Cellphone [REDACTED]	Radio Ch VHF 1		
7. Resources Assigned this period					
<i>Resource/Crew</i>	<i>Leader</i>	<i># Persons</i>	<i>Transport Required</i>	<i>Drop-off Point/time</i>	<i>Pickup Point/time</i>
Dozer (D65)					
8. Sector Assignment / Special Instructions					
On standby. Dozer is parked in a 50 x 50 cleared safe zone. Ground crews (Zulu) in support.					
9. Sector Communications			<i>Phone</i>	<i>Radio Ch</i>	
Division/Division Cmdr					
Air Attack Supervisor [REDACTED]				VHF4	
Safety Officer [REDACTED]				UHF2	

Prepared by: [REDACTED]	Date: 04/04/2022	Time: 17:30
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1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Air Operations Plan

RF208

3. Personnel and Communications

Position	Name	Affiliation	Phone	Radio Chan
Air Div Commander				
Air Attack Supervisor				VHF4
Air Support Supervisor				VHF4
Lead Helicopter Pilot				VHF4
Lead Fixed-Wing Pilot	N/A			

4. Air Resource Assignments

Pilot Name/ Company	Aircraft Type	Reg or Call sign	Assignment	Tactical Freq/Chan	Telephone Numbers
	AS350B3	ZK-HVA	A	VHF4	Onboard: Company:
	MD369D	AK-IMT	PLATFORM	VHF4	Onboard: Company:
	AS350B3	ZK-HNU	Z	VHF4	Onboard: Company:
	AS350B3	ZK-IMY	Z	VHF4	Onboard: Company:
	AS350B3	ZK-ITY	A	VHF4	Onboard: Company:
	BK117	ZK-IYY	A	VHF4	Onboard: Company:
	AS350B3	ZK-IDE	A	VHF4	Onboard: Company:
	AS350B3	ZK-IRM	B	VHF4	Onboard: Company:
	BK117	ZK-HJK	B	VHF4	Onboard: Company:
Belly Tank 1				VHF4	
Belly Tank 2				VHF4	

5. Location of Filling Points/Service Areas

Name	Grid Reference

6. Safety Notes / Hazards / Radio Coverage Limitations

Air Traffic not required to be notified.

7. Air Operations Special Equip or Service

ZK-IYY designated rescue medivac helicopter. Pilot is .

Prepared by:

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Safety Plan

3. General Safety Points

Everyone is to be signed in and out of the fire ground through the Incident Control Point for both safety check and payment records.

Maintain regular situation reports (containing all relevant information) via line supervisors.

LACES	Fire Orders	Watchouts
L - Lookout(s) A – Awareness – Anchor Point(s) C – Communication(s) E – Escape Route(s) S – Safety Zone(s)	<ol style="list-style-type: none">1. conditions and forecasts2. Know what your fire is doing at all times.3. Base all actions on current and expected fire behaviour of the fire.4. Identify escape routes and safety zones and make them known.5. Post lookouts when there is possible danger.6. Stay alert. Keep calm, Think clearly, act decisively.7. Maintain prompt communication with your crew/s, your supervisor and adjoining crews.8. Give clear instructions and ensure they are understood.9. Maintain control of your crew/s at all times.10. Fight fire aggressively having provided for safety first.	<ol style="list-style-type: none">1. Fire size is unknown (no size up).2. Unfamiliar territory3. Safety zones and escape routes not identified.4. Unfamiliar with weather and local factors influencing fire behaviour.5. No communications link with crew members or supervisor.6. Instructions and assignments not clear.7. Weather is getting hotter, drier and relative humidity dropping8. Wind increases and/or changes direction.9. Getting frequent spot fires across the line10. Working uphill or downwind of a fire11. Working on a steep slope12. Working in rugged terrain13. Can't see main fire14. In unburnt vegetation15. Walking through hot ashes16. Working alone17. Getting tired18. Working near power lines19. Working near machinery20. Working with aircraft21. Working around trees or spars

4. Specific Safety Points

All crews, IMT and personnel on the incident ground, must follow all COVID processes:

- Mask must be worn when working in confined spaces
- Hand sanitiser should be used as and when required
- Crews to work in small bubbles and maintain a 1-meter separation where possible
- Fireground is wetlands with peat underfoot. Watch for ash pits and stay alert to exit routes through tangled scrub with limited visibility and rough swamp.
- Beehives are located in far W of Alpha (N) sector.
- Helicopters working overhead (9 machines).
- Surrounding area: Farmland to NW, Forestry block NNE, Southern flank runs to sea, key risk to avoid burn on southern flank into the Tiwai peninsula.
- Knockoff no later than 1800 ahead of sunset.

Prepared by [REDACTED]

Date: 04/04/2022

Time: 17:30

1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

Medical Plan

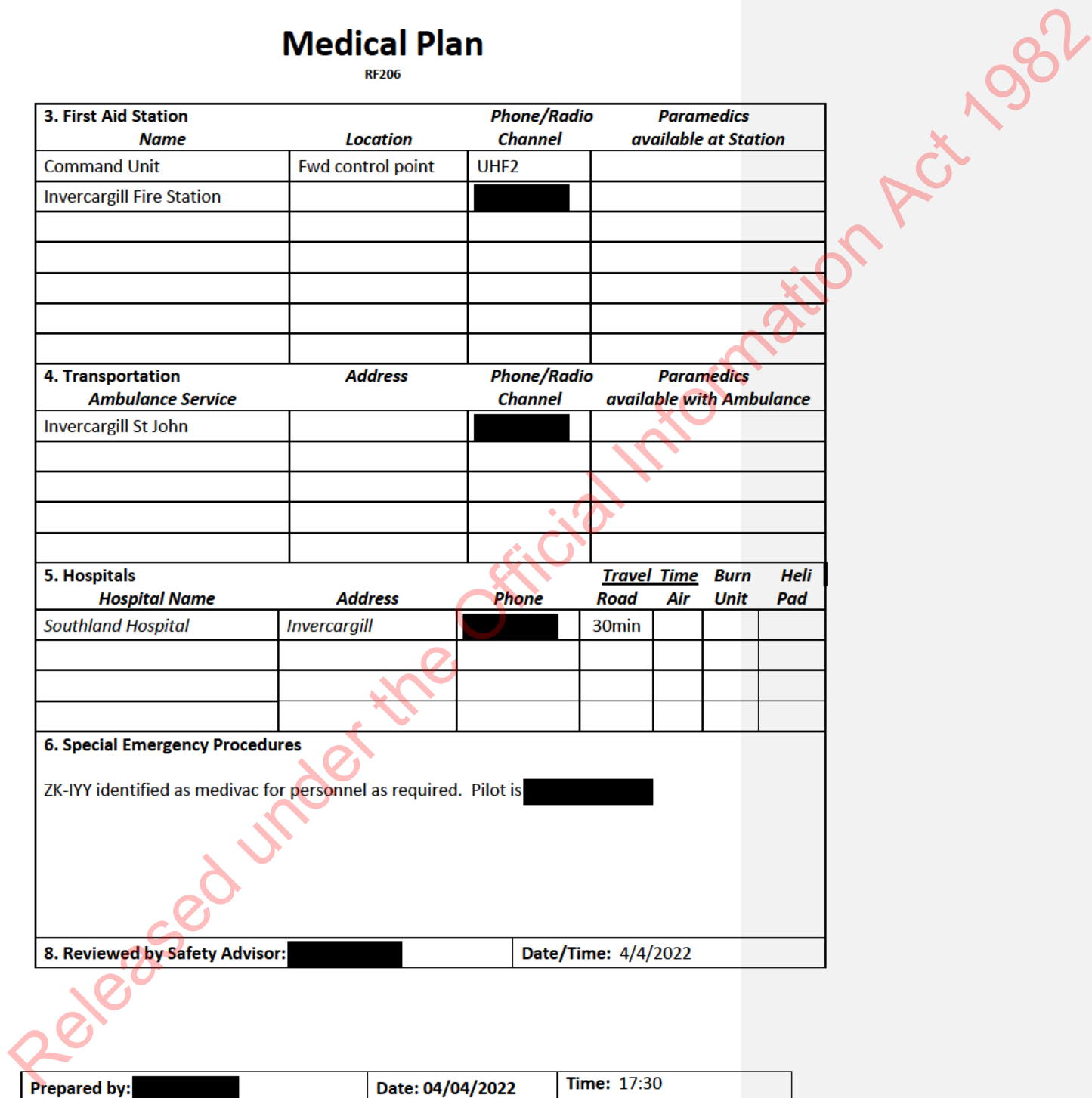
RF206

3. First Aid Station		Phone/Radio	Paramedics			
Name	Location	Channel	available at Station			
Command Unit	Fwd control point	UHF2				
Invercargill Fire Station						
4. Transportation		Phone/Radio	Paramedics			
Ambulance Service	Address	Channel	available with Ambulance			
Invercargill St John						
5. Hospitals		Phone	Travel Time		Burn	Heli
Hospital Name	Address		Road	Air	Unit	Pad
Southland Hospital	Invercargill		30min			
6. Special Emergency Procedures						
ZK-IYY identified as medivac for personnel as required. Pilot is [REDACTED]						
8. Reviewed by Safety Advisor: [REDACTED]					Date/Time: 4/4/2022	

Prepared by: [REDACTED]

Date: 04/04/2022

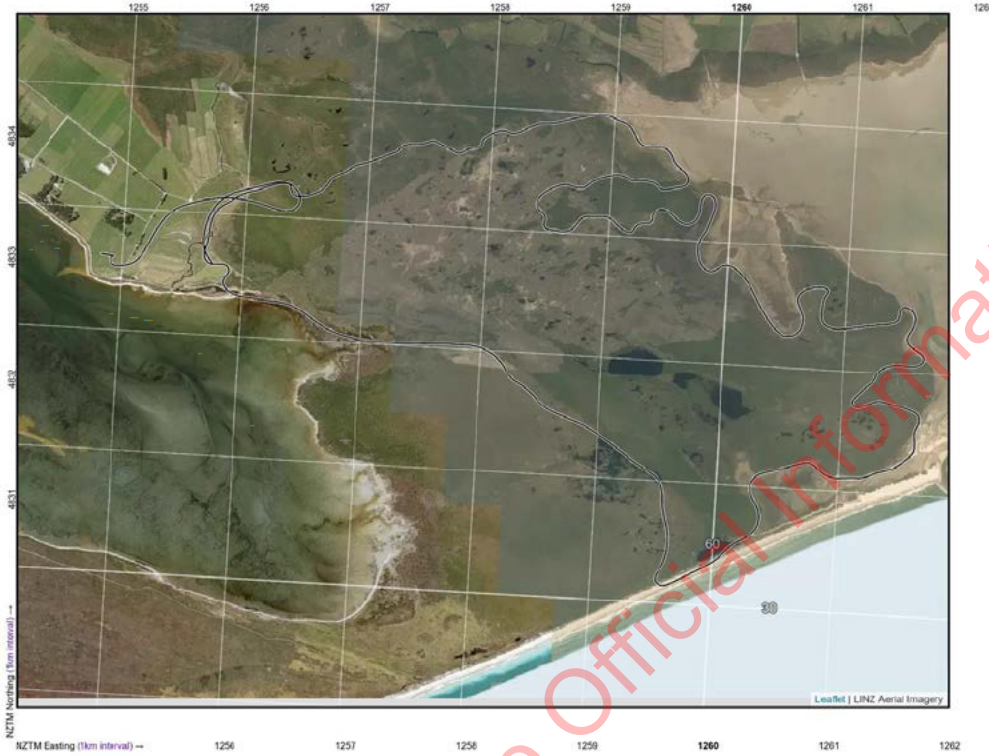
Time: 17:30



1. Incident Name F3455010 - Awarua Bay

2. Operational Period: Monday, 4 April 2022

AWARUA BAY FIRE – MAP



Prepared by: [REDACTED]

Date: 04/04/2022

Time: 17:30



INCIDENT ACTION PLAN

AWARUA BAY FIRE

Operational Period: 5

Fire Day: 5

Date/Time from: 0800 6/4/22

Date/Time to: 0800 7/4/22



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Logbook / Fireline Observations	20
Sector Supervisors Report	21

Approved by Incident Controller

Name: [Redacted]

Date: 5/4/22

Signed:

[Redacted Signature]

Insert QR Code Here

Present your phone camera to this code or use a QR code reader app and it will download the IAP for your smartphone. This code does not change, so scan this tomorrow and you get the new IAP.

Incident: AWARUA BAY FIRE

Operational Period: 24hrs
Fire Day: 5



Situation Report

Date/Time from: 0800 06/04/22
Date/Time to: 0800 07/04/22

1. Location	2. Incident Type	3. Report Date/Time	3. NZ Topo50 Grid Ref and Address
Awarua Bay	Vegetation Wildfire	2/4/22 17:48	N4832387 E1255989

4. Assessment – current fire situation

1. A large scrub (manuka/wetland scrub, grasslands) fire is currently burning estimated to be over 1369ha as at 1320 on 4/4/22 with a perimeter of 22km.
2. The fire is currently not under control.
3. Values at risk are property (Sheds, Mia Mias), wetlands, transmission lines providing power to Tiwai Point, and Tiwai Point smelter.
4. No buildings have been destroyed/damaged by fire as of 1230 5/4/22, with 6 being at immediate risk, of which all have been classified as undefendable due to heavy vegetation fuel around them.
5. The weather and conditions affected the current fire behaviour has been dominated by wind from the West and the Norwest and the fire progressing to the Easterly direction and into the water.

5. Actions Taken

1. The initial fire suppression over the last 24 hrs have focused on aerial monsoon helicopter monsoon buckets focused on the fire fronts in sectors Alpha and Bravo, with 8 helicopters currently operating. A helibase has been established at the intersection of Awarua and Buddle Rd.
2. Ground crews completed initial attack and structure protection around the fire origin. 7 ground crews have now been working in the Alpha sector blacking out.
3. Heavy equipment was deployed yesterday to start on control lines, with 1 bulldozer completing 1300m of line in Zule.
4. Machinery fire control lines now extend around 5% of the fire perimeter.
5. 1 water tankers have been providing water. Helicopters are operating out of water dams and pockets of water within the wetlands.
6. Drones are being prepared to fly thermal flights on Wednesday weather permitting.
7. Incident Management Team has been established at Tiwai Point
8. Public information is being released in 4 hourly intervals or as otherwise necessary.
9. Fire and Emergency NZ engaged positively with local iwi and tangata whenua today with no concerns.

6. Factors – what is affecting the way the fire is being fought or develops?

Weather	1. Rain and high winds are predicted
Fire Behaviour	2. Benign for Wednesday if predicted 10mm of rain has fallen overnight. Increasing Thurs and Friday.
Assets, Infrastructure	3. No assets or infrastructure are affecting firefighting activity's
Resource Status	4. Satisfactory
Resource Availability	5. Limited
Other	

7. Predicted Incident Development – next 12 / 24 / 48hrs

12hrs	1. Wednesday- Rain from overnight, no perimeter growth.
24hrs	2. Thursday. Limited perimeter growth
48hrs	3. Friday. Potential for limited growth as fuels dry out and wind increases.

FORM: RF201 Prepared by: Intelligence Unit Name: [REDACTED]	Date: 5/4/22	Time: 1500
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Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Objectives and Strategies

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Overall Incident Objectives (SMART – Specific, Measurable, Achievable, Relevant, Time Bound)

1. Safety of the responding personnel and public.
2. Minimise impact on property and critical infrastructure.
3. Minimise impact on cultural, environmental, historic and conservation values.
4. Working collaboratively with partner agencies, affected landowners, residents, stakeholders including local Iwi.
5. Contain fire to current area. Mop up to 50m in Alpha in preparation for high winds
6. Enable investigations into fire cause to be initiated and completed safely and in a timely manner.
7. Tracking financial costs, monitor finances and report daily.
8. Planning operations to be balanced with outcome and relief/recovery.
9. Undertake an after-action review.

2. Strategies (Plan of Action to Meet Incident Objective)

- A. Create a safety plan and safety briefing for all personnel (including contractors). Monitor and model fire behaviour.
- B. Use media, trusted community channels and stakeholders to establish comms and engagement through regular briefings and updates.
- C. Conduct asset (defendable and undefendable) and critical infrastructure identification through air surveillance and supporting spatial mapping datasets (powerlines, mobile towers, historic sites etc).
- D. Cultural, historical, environmental values identified on incident ground (actual and forecasted)
- E. Establish check in / check out, demobilisation resource tracking to enable financial reporting
- F. Create a recovery plan with community, stakeholders and partner agencies, all actions to consider impacts on the recovery plan.
- G. Secure adequate crews and supporting resources to meet objectives.
- H. Create a recovery plan with stakeholders and partner agencies. All actions to consider impacts on the recovery plan

FORM: RF202 Prepared by: IC > Error! Reference source not found.:

Date: 5/4/22

Time: 1500

Incident: AWARUA BAY FIRE

Organisational List

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

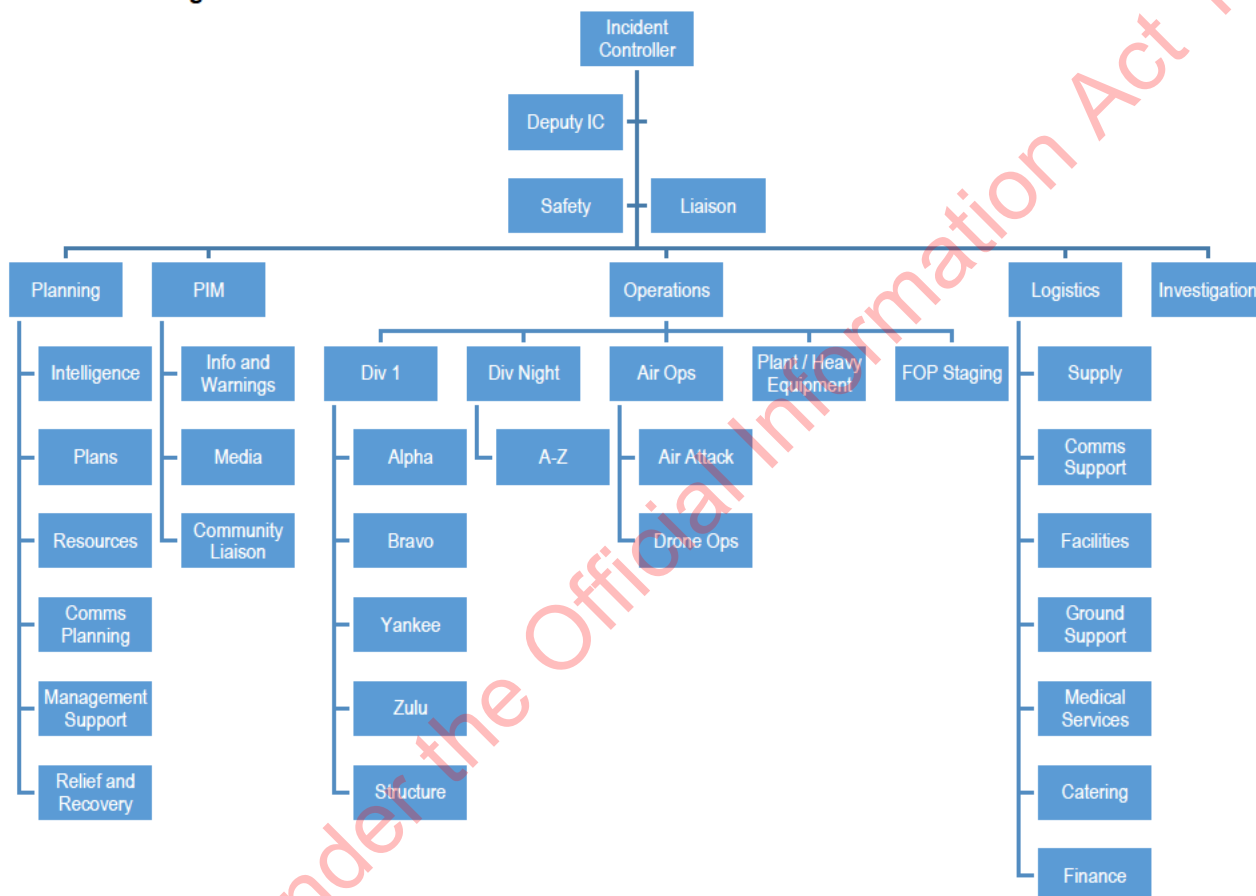
Date/Time to: 0800 07/04/22

1. Incident Control	Personnel	Mobile	Email Prefix	TIMEX
Incident Controller	██████████	██████████		
Deputy Incident Controller	██████████	██████████		
Safety Advisor	██████████	██████████		
Safety Officer (Field)	██████████			
Safety Officer (Field)				
Iwi Liaison Officer	██████████ ██████████			
Region / District Liaison Officer	██████████	██████████		
2. Agency Representative				
Police (@police.govt.nz)				
Civil Defence				
Agency Name				
Agency Name				
Agency Name				
3. Planning/Intelligence Section				
Planning Manager	██████████	██████████		
Intelligence Unit Leader	██████████	██████████		
Fire Behaviour Specialist	██████████	██████████		
Mapping Specialist				
Fire Observer/s				
Technical Advisor/s				
Plans Unit Leader	██████████	██████████		
Resource Unit Leader	██████████	██████████		
Management Support Unit Leader				
Communications Planning Leader				
4. Logistics Section	Personnel	Mobile	Email Prefix	TIMEX
Logistics Manager	██████████	██████████		
Finance Unit Leader				
Comms Support Unit Leader				
Supply Unit Leader	██████████	██████████		
Medical Unit Leader				
Catering Unit Leader				
Ground Support Unit Leader	██████████	██████████		
5. Operations Section	Personnel	Mobile	Email Prefix	TIMEX
Operations Manager (Field)	██████████	██████████		
Ops Manager Planning (Deputy)				
Air Division Commander	██████████	██████████		
Air Attack Supervisor				
Air Support Supervisor	██████████	██████████		
Dept Air Support Supervisor	██████████	██████████		
Plant / Heavy Machinery Supervisor				
Forward Operating Point				
Division ONE Commander				
Sector ALPHA Supervisor				
Sector BRAVO Supervisor				
Sector YANKEE Supervisor				
Sector ZULU Supervisor				
Division NIGHT Commander				
Sector A-Z Supervisor				
6. Public Information & Media				
PIM Manager	██████████	██████████		
Deputy PIM Manager	██████████	██████████		
Info and Warnings Unit				

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Media Unit				
Community Liaison Unit				
7. Relief and Recovery				
Relief Manager				
Recovery Manager	██████	██████		
8. Investigation				
Lead Investigator				
9. Regional Coordination Centres				
RCC				
Note: email suffix = @fireandemergency.nz TIMEEX = date scheduled exit rostered deployment)				
FORM: RF203 Prepared by: Resources Unit > [Name]			Date:	Time:

Active Incident Management Structure



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Incident: AWARUA BAY FIRE

Sector Assignment 1-A

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to 0800 07/04/22

1. Sector ALPHA	2. Sector Supervisor 	3. Division Assigned ONE
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4. Sector Description	North Flank of Fire
5. Anchor Point / Refuge	ICP

6. Resources Assigned this Period (including Plant / Heavy Equipment)						
Resource	Crew Leader	Mobile	Call Sign	Vehicle	#Persons	TIMEX
Hyslops	██████████	██████████			14	
Wakari (Dunedin)	██████████	██████████			5	

7. Sector Assignment / Special Instructions
1. Continue to black out to 50m

8. General Taskings
- A. Crews to travel in convoy to sector from staging area, all lights on, sirens generally not required.
 - B. Allocate a crew responsibility to provide hourly kestrel fire behaviour readings to FOP.
 - C. Confirm L.A.C.E.S, test and update throughout operational period.
 - D. S.Sup validate resources, contacts are current against IAP sector assignment, report errors.
 - E. Ensure that a least one person on each crew is monitoring Air to Ground Radio CH to allow for contact with air operations.
 - F. Roads requiring radio callups are posted at start of the road. (ref comms plan on requirements).
 - G. Crews identify & communicate needs for next operational period to s.sup to review & pass resource requests & expected progress by end of shift to FOP (include additional or surplus resources, hazardous situations, significant events, progress).
 - H. Crews and plant / machinery to sign out through staging area / FOP. All DTRs signed by supervisor and copy handed in to staging area (can email photo to FOP).

9. Reporting / Communication Instructions		
Time	From / To	Details
2hrs of Shift Start	Crew.L to S.Sup	Confirm L.A.C.E.S in place by each crew lead (incl plant and equipment)
2hrs of Shift Start	S.Sup to FOP	Confirm resources +/- compared to IAP, IAP errors, L.A.C.E.S in place
½ Shift – 0.5hr	Crew.L to S.Sup	Resources needed next ops period (Night or Day), expected to achieve this ops period
At ½ Shift	S.Sup to FOP	Resources needed next ops period (Night or Day), expected to achieve this ops period
Every 2hrs	S.Sup to FOP	C.A.N Report (important this includes detailed progress on actions)
Every 1hrs	Assigned Crew L to FOP	Fireline Observations (from at least one crew leader per sector)

10. Sector Communications	Personnel	Mobile	Call Sign	Vehicle	Radio CH
Sector Supervisor					
Division Commander					
Air Attack Supervisor	██████████				
Plant/Heavy Equip Supervisor					
Forward Operating Point					
Operations Manager	██████████				
Operations Manager - Planning					
Safety Officer	██████████				

Incident: AWARUA BAY FIRE

Sector Assignment 1-Z

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Sector ZULU	2. Sector Supervisor [Redacted]	3. Division Assigned ONE
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4. Sector Description

5. Anchor Point / Refuge Beach

6. Resources Assigned this Period (including Plant / Heavy Equipment)

Resource	Crew Leader / Driver	Mobile	Call Sign	Vehicle	#Persons	TIMEX
DOC Crew 1	[Redacted]		Doc 1		11	

7. Sector Assignment / Special Instructions

- Continue to black out to 50m

8. General Taskings

- Crews to travel in convoy to sector from staging area, all lights on, sirens generally not required.
- Allocate a crew responsibility to provide hourly kestrel fire behaviour readings to FOP.
- Confirm L.A.C.E.S, test and update throughout operational period.
- S.Sup validate resources, contacts are current against IAP sector assignment, report errors.
- Ensure that a least one person on each crew is monitoring Air to Ground Radio CH to allow for contact with air operations.
- Roads requiring radio callups are posted at start of the road. (ref comms plan on requirements).
- Crews identify & communicate needs for next operational period to s.sup to review & pass resource requests & expected progress by end of shift to FOP (include additional or surplus resources, hazardous situations, significant events, progress).
- Crews and plant / machinery to sign out through staging area / FOP. All DTRs signed by supervisor and copy handed in to staging area (can email photo to FOP).

9. Reporting / Communication Instructions

Time	From / To	Details
2hrs of Shift Start	Crew.L to S.Sup	Confirm L.A.C.E.S in place by each crew lead (incl plant and equipment)
2hrs of Shift Start	S.Sup to FOP	Confirm resources +/- compared to IAP, IAP errors, L.A.C.E.S in place
½ Shift – 0.5hr	Crew.L to S.Sup	Resources needed next ops period (Night or Day), expected to achieve this ops period
At ½ Shift	S.Sup to FOP	Resources needed next ops period (Night or Day), expected to achieve this ops period
Every 2hrs	S.Sup to FOP	C.A.N Report (important this includes detailed progress on actions)
Every 1hrs	Assigned Crew.L to FOP	Fireline Observations (from at least one crew leader per sector)

10. Sector Communications	Personnel	Mobile	Call Sign	Vehicle	Radio CH
Sector Supervisor					
Division Commander					
Air Attack Supervisor	[Redacted]				Fire 4
Plant/Heavy Equip Supervisor					
Forward Operating Point					
Operations Manager	[Redacted]				Ops
Operations Manager - Planning					
Safety Officer	[Redacted]				Fire 2

FORM: RF204 Prepared by: Operations > Error! Reference source not found.: [Redacted] Date: 5/4/22 Time: 1500

Incident: AWARUA BAY FIRE

FOP / Staging Assignment

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Resource / Crew	2. Forward Operating Point (FOP) Location
---------------------------	--

[Hazmat Vehicle Name and Call Sign]

3. Assignment / Special Instructions

1.

4. General Taskings

1. Hazmat / ICU Unit provides shelter and working space for Ops Manager /Sector Supervisors/Safety
2. Operational decisions and resource ordering are to be made by members of the IMT.
 - a. Resource requests to go on through to IMT Resources Unit.
 - b. Operational decisions referred to Operations Manager or Operations Planning Manager (Deputy Ops).
3. Receive fire ground notices from Operations Manager or IMT Members and broadcast around sectors to fire ground.
4. Monitor quality of radios comms, request mobile repeaters or channel changes, ensuring all crews can be contacted. Manage / monitor schedule for battery changes on any mobile repeaters stationed in field.
5. Notify fire ground (Radio), Operations Manager (Radio/Phone) and Intel Unit (Phone/Email) if sudden change in observed weather.
6. Provide photocopy and printing capability for field staff.
7. Print and display key IMT information on internal and external display boards for operational staff reference.
8. Get weather and fire behaviour forecast from Intel as they become available and broadcast around sectors to fire ground.
9. Ensure a current fire map is displayed on external display for operations staff to reference. (FireMapper)
10. Update T-Cards as resources move between sectors within Microsoft Planner Resource Board. (not set up yet) Query by Radio / Ph operations, S.Sup & Crew.L for missing T-Card / IAP contact details, names, timex dates, to ensure information is maintained and current.
11. Take photos of white boards or paper operational plan, send to Intel.
12. Collect safety incident forms (Salmon Cards), scan and email to Safety Advisor, Operations, Intel.
13. Collect sector supervisor's reports at end of shift, scan and send to IMT.

4. Displaying Information

- A. Display T-Cards for Resources Microsoft Planner Board on large internal touch screen display.
- B. Display Latest Fire Map / Webmap on external large display, and on Internal Touch Screen as a tab in browser (with planner)
- C. Maintain printed copies of latest IAP, internal wall x2. External display x2.
- D. Maintain IMT structure white board with current incident control structure as per IAP.
- E. Display tower camera overview towards fire ground on rear internal display.
- F. Display COVID19 Incident QR Code

5. Incident CHECK-IN / CHECK-OUT

1. Act as fire ground CHECK-IN ensure all crews and resources sign-in and out through the FOP as per Logistics Plan > #7 and #8

6. Reporting / Communication Instructions

Time	From / To	Details
1hr of Shift Start	FOP to Resources	Confirm T-Cards updated with RF220, DTR signed in at Staging.
2hrs of Shift Start	FOP to Safety Advisor	Collate confirmation of L.A.C.E.S from Sector Supervisors (S.Sup). Confirm with Safety Advisor via teams fire channel chat. Prompt from S.Sup if not yet received.
Every 2hrs	FOP to Intel	Collect CAN Reports from S.Sup, write up and send to Intel Unit via teams fire channel chat.
Every 1hrs	FOP to Intel	Collate Fire Weather Observations from 1 crew leader per sector, collate and send viaemail to [REDACTED]
As required	FOP to Fire Ground	Broadcast sudden changes in observed weather or fire conditions.
As required	FOP to Fire Ground	Broadcast weather forecast as provide by Intel Unit.
As required	FOP to Resources	Pass on resource requests from fire ground S.Sup via teams fire channel chat.
At ½ Shift	FOP to Resources	Collate resources (number of crews, machinery, equipment, supplies, specialists eg.tree fellers) suggested for next ops period (next Night or Day shift) from S.Sup for each sector send via teams fire channel chat.
At ½ Shift	FOP to Operations / Intel	Collate from each S.Sup what is expected /forecasted to be achieved this ops period/shift. Send via teams fire channel chat.
As required	FOP to Fire Ground	Request clarifying information not yet detailed in IAP (gap filing > correct names, call signs, contact details, TIMEX dates (end of deployment date), vehicles registrations / type) from resources across the fireground. Enter in Planner T-Cards.
As required	FOP to Intel	Send photos of whiteboards, paper options analysis/plans as requested by email to Intel.
As required	FOP to Safety	Collect safety incident forms (Salmon Cards), scan and email to Safety Advisor

FORM: RF250 Prepared by: Operations > Error! Reference source not found. [REDACTED] Date:5/4/22 Time:1500

Incident: AWARUA BAY FIRE

Air Operations Plan

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Personnel and Communications

Position	Name	Email Prefix	Mobile	Radio CH
Air Div. Commander	[REDACTED]			Fire 4
Air Attack Supervisor				Fire 4
Air Ground Support Sup.	[REDACTED]		[REDACTED]	Fire 4
Drone Operations Supervisor				Fire 4
Lead Helicopter Pilot				
Lead Fixed-Wing Pilot				
Lead Drone Pilot				

2. Air Resource Assignments

Pilot Name/Company	Aircraft Type	Regis. or Call Sign	Assignment	Tactical Freq/CH	On-board Mobile
[REDACTED]	B3	ZK-HVA	Z	Fire 4	[REDACTED]
[REDACTED]	B3	ZK-ITY	B	Fire 4	[REDACTED]
[REDACTED]	B3	ZK-IDE	Ret	Fire 4	[REDACTED]
	B3	ZK-IRM	Ret	Fire 4	[REDACTED]

3. Location of Filling Points / Service Areas

Name	Details	Grid Reference (NZTM / Decimal LAT.LONG)
Heli base	Sea and pond with in wet lands	

4. Safety Notes / Hazards / Radio Coverage Limitations / Temporary Airspace Restrictions

- Any known hazards eg power-lines, high obstacles
- Record if any radio 'dead spots' are known or expected
- Drone operations will be operational from HHMM-HHMM in [sectors X], Drone pilots will be monitoring both air-air channels and air-ground, with temporary MBZ-10mins in place for drone operations occurring if manned aircraft are operational.

5. Air Operations Special Equipment or Service

- Air operators are to supply own fuel to meet their requirements.
- Make note of any special equipment or services required: eg High-volume pumps, or Police for crowd control, access to fuel, RPAS/Drone operations etc.

6. Special Instructions

RPAS / Drone Operations for Hot spotting

- Drone operations will be tasked in coordination with the Intelligence Unit Leader, and tasking appear within the sector assignments.
- Request a fly over, marking hotspots, rechecking existing FireMapper Hotspots from previous night, and any identified on FireMapper by ground crews using handheld TIC.
- Fly perimeter of fire and map new hotspots within +/-30m of perimeter.
- Upload to 30m perimeter hotspots to Fire Mapper by XXXhrs in prep for map available for 0XXXhr Ops Briefing.

RF208 Prepared by: Air Division Commander > **Error! Reference source not found.**

Date:

Time:

Incident: AWARUA BAY PLAN

Communications Plan

Operational Period: 24hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

Please communicate any radio coverage issues to Logistics > Communications Support Unit immediately

1. Radio Channels

Operations	Function	Radio Channel	Frequency (TX/RX)	UHF/VHF
Fire Operations	Command	OPS		UHF Simplex
	Ground Crews	FIRE 1		VHF Simplex
Air Operations	Ground to Air	FIRE 4		VHF Simplex
Structure Protection				
Call up roads				
Plant / Equipment	Ground Crews	FIRE 1		
Police				
Cordons				
Rescue Heli.	Ground to Air	Interagency Liaison (CH10)		VHF

2. Portal Radio Repeaters

Name	Location	Batteries / Charging Requirement	Managed By
			Command Unit

3. Document Management (document locations, online or offline systems)

System	Details	Comments
IMT Microsoft 365 Team	R5A Office 365	FENZ Microsoft SharePoint and Microsoft Teams > all incident documents, files, photos and chat
Incident Channel Name		
Situation Board URL		
Planner T-Cards		
Photos and Video Upload		

4. Internet Access

Access Point	SSID	Details
ICP	[eg.firecommand or FENZ_Case05 etc]	[eg.pwd available at ICP for IMT personnel only]
FOP / Staging	[eg.firecommand or FENZ_Case05 etc]	[eg.pwd available at FOP]

5. Weather Stations (email, sms, social media, chat group, weather station URL's, other than listed in organisational list)

Name	Details for Access	Location

6. Telephone / Satellite Phones or Messengers (other than listed in organisational list)

Name	Mobile / Channel	Type	Comments

7. Other (email, sms, social media, chat groups, other than listed in organisational list)

There is communication issues on site. Please liaise with Ops to check com plan.

RF205 Prepared by: Communication Support Unit > Error! Reference source not found.

Date:

Time:

1. General Safety and Wellbeing Points

ALWAYS REMEMBER YOUR L.A.C.E.S				
L	A	C	E	S
Lookout(s)	Awareness or Anchor Points	Communication	Escape Routes	Safety Zones

10 Standard Firefighting Orders

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing always.
3. Base all actions on current and expected fire behaviour of the fire.
4. Identify escape routes and safety zones and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.
7. Maintain prompt communication with your crew/s, your supervisor and adjoining crews.
8. Give clear instructions and ensure they are understood.
9. Maintain control of your crew/s always.
10. Fight fire aggressively, having provided for safety first.

Dangerous Situations to Watch Out For

1. Fire size is unknown (no size up).
2. Unfamiliar territory.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behaviour.
5. No communications link with crew members or supervisor.
6. Instructions and assignments not clear.
7. Weather is getting hotter, drier and relative humidity dropping.
8. Wind increases and/or changes direction.
9. Getting frequent spot fires across the line.
10. Working uphill or down wind of a fire.
11. Working on a steep slope.
12. Working in rugged terrain.
13. Cannot see main fire.
14. In unburnt vegetation.
15. Walking through hot ashes.
16. Working alone.
17. Getting tired.
18. Working near power lines.
19. Working near machinery.
20. Working with aircraft.
21. Working around trees or spars.

Confirm L.A.C.E.S with crew, and supervisor within 2hrs start of shift

Everyone is to be signed in and out of the fire ground through the FOP / Staging for both safety check and payment records

Maintain regular C.A.N (conditions, actions, needs) reports to line supervisors at agreed interval as per sector assignment.

Single resources not assigned to a division / sector will do C.A.N reports with FOP every 2 hours while on fire ground.

Provide corrections/updates to IAP: resources, contacts, communication, update maps to include safe zones, escape routes to ensure it is maintained for safety for following operational shifts

2. Specific Safety and Wellbeing Points

- All crews to have adequate food, water, PPE to manage fatigue and hydration.
- Work rest periods enforced. 9hr rest period before returning to fire ground. Crews travelled >3hrs must have 4hr stand down.
- Seek shade during rest period, be sun smart.
- All workers to ensure they are competent for the tasks and risks given.
- Air and ground crews to be isolated from risk areas during operations.
- Avoid skid sites where stability of surface cannot be assured.
- Eliminate / minimise working in smoke and or traveling in smoke.
- Ensure safe distance from all heavy machinery

4. Management of Dangerous Trees

- Big trees with root plates compromised in Sector
- Dangerous tree assessors – ensure competent and equipped for task (including PPE).

Incident: AWARUA BAY FIRE

Operational Period: 24 Hrs

Fire Day: 5



Incident Specific Hazard Board

Date/Time from: 0800 06/04/22

Date/Time to: 0800 07/04/22

HAZARD REGISTER

RISK ASSESSMENT

Haz#	Hazard	Location	Control Measure	Likelihood	Consequence	Risk	Adequate Control	IC Aware
1	Working with Aircraft	A, B & Z	Air attack and air support	4	1	High	Y	Y
2	Working around aircraft	Alpha	Working safely around aircraft	4	2	High	Y	Y
3	Peat and ashpits	Alpha	Crew leaders & firefighter aware	3	1	Low	Y	Y
4	Winds running fire	Fire Ground	Light winds – rain at 1500 – increasing winds 1800, 40-50kph	3	1	Low	Y	Y
5	Smoke	Fire Ground	Stay and work in clear air	1	2	Low	Y	Y
6	Comms Diminishing with distance	All Ground Crews	Fire 1, ground crews. Use Fire 4 via air ops as needed. VHF Repeater	3	1	Low-Medium	Y	Y
7	Driving on sand/beach	Fire Ground	Watch depending on ops strategies	2	1	Low	Y	Y
8	Escape Routes	Fire Ground	Plan ahead. Try and have more than one escape route	3	3		Y	Y
9	Working with Heavy Machinery	Zulu	Keep your distance and lookouts	2	3	Medium	Y	Y
10	Beehives	Alpha (W Edge)	Crews notified 1230 + all confirmed	1	1	Low	Y	
11	Covid	All	If any ground crew or air attack feel unwell, to attend Tiwai RAT testing station between 0730 and 1530. IMT temperature check on entry at Tiwai including visitors. Any	3	3			

Likelihood

SCORE	CHANCE OF SOMETHING HAPPENING
1	RARE May occur in exceptional circumstances <10%
2	UNLIKELY Could occur 10 to 30% chance
3	POSSIBLE Might occur 30 to 70% chance
4	LIKELY Will probably occur 70 to 90% chance
5	ALMOST CERTAIN Is expected to occur >90% chance

Consequence

SCORE	DESCRIPTOR	EXAMPLES
1	INSIGNIFICANT	Insignificant injury or damage/loss to equipment
2	MINOR	Minor injury; minor loss/damage to equipment
3	MODERATE	Serious injury (e.g. hospital, off work), moderate loss of equipment
4	MAJOR	Multiple serious injuries (e.g. permanent disability, major loss of operational capability)
5	CATASTROPHIC	Fatality (one or more) to staff, catastrophic loss of operational capability

Risk Matrix

CONSEQUENCE	1	2	3	4	5
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
5 ALMOST CERTAIN	Medium	High	Very High	Very High	Very High
4 LIKELY	Medium	High	High	Very High	Very High
3 POSSIBLE	Low	Medium	High	Very High	Very High
2 UNLIKELY	Low	Low	Medium	High	Very High
1 RARE	Low	Low	Medium	High	High

Risk Mitigation

Low	Monitor, PPE should be adequate
Medium	Ensure control measures are adhered to and review periodically
Where the Risk Rating is HIGH or VERY HIGH, the Incident Controller MUST be informed immediately	
High	Control measures to be reassessed and personnel are to be suitably trained and monitored.
Very High	Tactics and control measures to be reassessed. Personnel to be suitably trained and closely monitored.

ALL HAZARDS TO BE REVIEWED PERIODICALLY (HRLY, DAILY)

			new crew to be separated during briefing and operationally where practicable.						
12	Wind Gusts up to 90kph	All	Weather forecast 50kph sustained, gusting 90kph midday. Early decision by ops for extraction of crews by heli.	4		High			
FES262 Prepared by: Safety Advisor > Error! Reference source not found.								Date:	Time:

Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Medical Plan

Operational Period: 24 Hrs

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. First Aid Resources / Stations (each crew must have available one first aid level 1 certified)

Name	Location	Mobile / Radio CH	Paramedics avail.
Defibrillator/s	Command Unit	Fire 2	0
Co-response First-aid Kits	Command Unit	Fire 2	0

2. Transportation

Ambulance Service	Address	Mobile / Radio CH	Paramedics avail.
St Johns		111	
Rescue Helicopter		111 / Interagency Liaison (CH10)	

3. Hospitals

Hospital Name	Address	Phone	Travel Time (min)		Burn Unit	Heli Pad
			Road	Air		
Southland Hospital		03 218 1949			[Y/N]	[Y/N]
					[Y/N]	[Y/N]

4. Special Emergency Procedures

All injuries are to be reported to the sector supervisor (or FOP as backup) immediately. Emergency, Safety Advisor and IMT will be notified by supervisor ASAP (or FOP).

- All crews should have first aid kits.
- Crew first aid attendant will assess injury and treat.
- Request for transport will be made through sector supervisor (or FOP as backup). In most cases requiring transport to medical centre, ground transport on unpaved roads is advised against and heli should be requested.
- Sector supervisor will ensure necessary incident reporting (Salmon card) completed & provided to Safety Advisor.
- Safety advisor will record all incident in Safe@Work

RF206 Prepared by: Logistics Unit > [Name]

Date:

Time:

Incident: AWARUA BAY FIRE

Operational Period: 24hrs

Fire Day: 5

Logistics Plan

Date/Time from: 0800 06/04/22

Date/Time to: 0800 07/04/22

1. Facilities

Incident Control Point	Tiwai Point Smelter, Office
Check in / Assembly Area	Command Unit
Staging Area	Corner of Awarua Bay Rd and Buddle Rd
Forward Operating Point	
Heli/Airbase	At Staging Area
Toilets	At Staging Area

2. Accommodation (email Logistics Unit or call Facilities Unit Leader for any queries related to accommodation)

Accommodation	Address	Allocated Resources
Various	Various Invercargill Locations	Various

3. Flights, Transportation, Parking, Vehicle Maintenance and Refuelling

Transport Flights	
Airport to Check in	
Accommodation to Staging	
Rental Vehicles	One rental vehicle (retardant crew) returning home
Maintenance of Appliances	Safety using Salmon Cards
Refuelling	All appliances are to be filled using FENZ fuel cards
Parking	All vehicles parked at dedicated parking areas

4. Catering

Dinner	No specific arrangements have been made
Lunches	Lunches provided by Rapid Response Team (RRT) dropped at ICU (packed lunch)
Breakfast	No specific breakfast arrangements

5. Supplies

Pump Fuel / 2-Stroke	██████████ is keeping/providings stocks
Drinking Water/ Hydration Pwdr	Water at ICP and at staging area
Class A Foam / Soap Caps.	Additional request of 140 20L containers plus 2 extra pallet
Radios	
Uniform and Laundry	

7. Instructions for Mobilisation of New Incoming Resources

Check In	All new incoming resources are to report to Check in / Assembly Area for check in. Will be allocated resources, accommodation and supplies as needed.
----------	---

8. Demobilisation of Outgoing Resources

Check Out	<ol style="list-style-type: none"> All resources which are ending their deployment on the fire ground must complete relevant paperwork. This will be done at Check in / Assembly Area by the Resources Unit. A check of your DTR's must be completed by the Finance Unit, ensuring all are complete and signed by supervisor. Ensure all injury or equipment claims are well documented and complete. At any time during the demobilisation process if there is any concern, contact the Resources Unit Leader.
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RF249 Prepared by: Logistics Unit > [Name]

Date:

Time:

Incident: AWARUA BAY FIRE

Operational Period: 24 Hours

Fire Day: 5

Public Information Plan

Date/Time from: 0800 6/4/22

Date/Time to: 0800 7/4/22

1. Overview of PIM Response

Key messages are that Southland is very dry and a reminder not to light fires. Objective is to contain the fire. No houses or property is threatened. 1350 hectares/26km perimeter. Key stakeholders Environment Southland, Iwi, Department of Conservation, Rio Tinto, Invercargill City Council (tuatara), Southland District Council and the farming community. Updates provided the Fire and Emergency - Southland Facebook page. Taking water from tarns in the wetlands and the sea. Tarn water is being applied to the same catchment surrounding land. Important to prevent further damage to the internationally significant wetlands. Currently investigating the cause of the

fire. Wildlife response, how to respond to wildlife encountered by ground crew, opportunity for DOC personnel to support via Forward Control Centre.

2. Personnel and Communications

Position	Name	Phone	Email Prefix	Affiliation
Public Information Manager	[REDACTED]	[REDACTED]	[REDACTED]	FENZ
Deputy PIM Manager	[REDACTED]	[REDACTED]	[REDACTED]	FENZ
Information and Warnings Unit				
Media Unit				
Community Liaison Unit				
Spokesperson – [Topic]	[REDACTED]	[REDACTED]	[REDACTED]	FENZ
Spokesperson – [Topic]				

3. Public Meetings

Meeting Purpose	Location	Time	Contact Person	Phone
Face to Face Community Meeting	Tiwai Smelter Iwi	Ongoing Conversation	[REDACTED]	via email
Broadcast Community Meeting	Email Community Groups	Ongoing	[REDACTED] (Environment Southland)	
On-air Radio Meeting				

5. Public Information Sources (details of the specific sites or types)

Websites	
Social Media	Fire and Emergency – Southland, [REDACTED], updates on the fire.
Helpline	
Information Points	
Community contacts/meetings	
Other – Posters / Handouts / SMS	

5. Media Message Distribution (specific stations or publications)

Radio	
TV	
Newspaper	

6. Media (schedule)

Media Briefing/Conferences	
Media Site Visits	
Interviews	

7. Message Monitoring

8. Personal Social Media Warning (Treat as Public Information and Do Not Post)

Anything published on social media is considered publicly available and can be republished by friends, other people and media. You should assume that all information posted is public and treat it like making a public statement. Even if you're communicating through private messaging or just to your 'friends', you can't control how others may share the information.

RF247 Prepared by: PIM Manager > [REDACTED]

Date: 06/04/22

Time: 0800

Incident: AWARUA BAY FIRE

Fire Behaviour and Weather

Operational Period: 24 Hours

Date/Time from: **Error! Reference source not found.**

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Weather Forecast

Situation	Long spell of dry weather. Potential for showers over the next 2 days coupled with a very strong SW wind.
This Shift: Wednesday.	Probability of a few showers throughout the day, less than 5mm. Wind W turning SW in the morning at 40 to 50km/hr sustained, Gusting 80 to 90km/hr. (Possibility of stronger wind around mid-day) Wind to drop late afternoon to 30km/hr, gusting 60 km/hr. High of 11 degrees, RH 65%.
Looking Ahead:	Thursday, chance of a possible light shower, SW going W around mid-day, 15 to 20km/hr, increasing 25 to 30km/hr in the evening. Gusting 40 to 45 km/hr. High of 13 degrees, low RH of 55%. Outlook- Friday possible chance of a shower, W 35 to 45 km/hr gusting 80km/hr. 15 degrees. Rh low of 55%

2. Fire Behaviour Forecast (1200 NZST)

STATION	TEMP	RH	WD	WS	PRECIP	FFMC	DMC	DC	ISI	BUI	FWI
Tisbury											
5/04/22 Actual 1200hrs	19	71	352	9	0	81.6	27	468	2	47	6
6/04/22 Forecast	11	65	250	50	10	59	14	429	4	26	7
7/04/22 Forecast	13	55	250	20	0	76	15	432	2	27	5
Other RAWs											
5/04/22 Actual 1200hrs (Southland portable)	19	63	WSW	11	0						

3. General Fire Behaviour

Fire behaviour today should be reasonably benign if the predicted 10mm of rain was received last night. We have a very strong chance of achieving the 10mm of rain.

Fire behaviour is likely to be restricted so a low level of surface burning only, some limited candling and no crown runs. No fire perimeter growth is expected.

The wind direction is pushing the fire out towards the Bravo edge and the water.

The big concern would be any runs from the SE which could jump the Alpha break and move north. This is very unlikely if we have received the 10mm of rain overnight. Without rain, the fire behaviour will be extreme with a FROS more than 3km/hr and HFI greater than 40,000 Kw.

Any runs in this direction without rain would be unstoppable.

Given the DMC and DC this fire is likely to be deep seated and mop could be extensive. It appears that the fire is not that deep into the peat layers

4. Specific Fire Behaviour (assumed no suppression)

FUEL TYPE	ROS / HEAD FIRE INT. / FLAME LTH	PEAK ROS / HEAD FIRE INT. / FLAME LTH
Manuka/Kanuka	900m/hr. 12,000Kw/m, 6m flame length.	ROS if no rain 3km/hr, 40,000 Kw.

5. Specific Activities

[eg.

6. FIRE BEHAVIOUR SAFETY ADVISORY

NO safety advisory for fire behaviour unless we do not receive rain.

RF248 Prepared by: Jamie Cowan

Date: 5/04/22

Time: 15:30

FIRE RISK MATRIX	FFMC	DMC	DC	ISI	BUI	FWI
	Ignition Potential	Mop Up Difficulty	Rate of Spread	Fuel Availability	Fire Intensity	
LOW	0+	0+	0+	0+	0+	0+
MODERATE	75+	21+	101+	5+	16+	4+
HIGH	85+	31+	176+	9+	31+	14+
VERY HIGH	88+	41+	251+	13+	46+	24+
EXTREME	92+	46+	326+	16+	61+	29+

Incident: AWARUA BAY FIRE

Weather Map

Operational Period: **Error! Reference source not found.**
Fire Day: 5

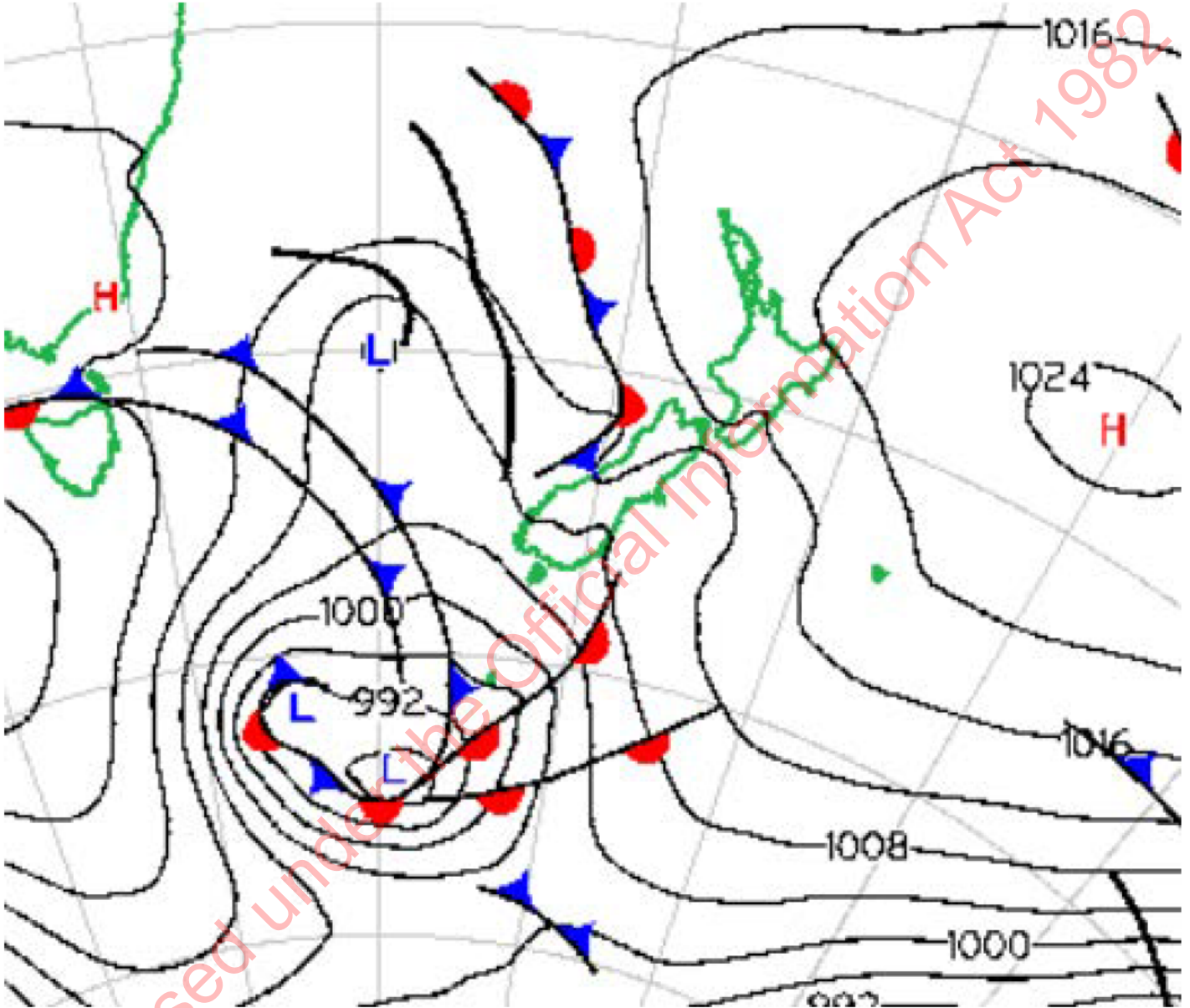
Date/Time from: 0800 06/04/22
Date/Time to: 0800 07/04/22

1. Forecast Weather Maps

RF248 Prepared by: [REDACTED]

Date: 05/04/22

Time: 1530



Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Fire Maps and QR Codes

Operational Period: **Error! Reference source not found.**

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 0800 07/04/22

1. Using QR Codes for Avenza Maps

- Download **Avenza Maps** app on IOS and Android.
- Scan the following codes to access digital maps you can navigate with.
- These codes generally do not change, therefore to get tomorrow's map you can scan the old map coded.
- Present a smartphone camera to see these codes or scan using QR code app.

2. Using QR Codes for FireMapper (Live / Offline Map)

Download **FireMapper for Enterprise** app on iOS and Android.
If you do not have a license Scan the *Temporary License Code* or *Enter Code* directly into FireMapper User Profile (and update your details). Shared Maps should be available for the incident.

TEMPORARY FIREMAPPER LICENSE

CODE:

URL:

QRCODE:

WEBMAP:

3. Fire Maps (overview and QR codes)

4. Evacuations Maps (overview)

4. QR Codes for Other Information (weather stations)

5. QR Codes for COVID19

Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Sector Supervisors Report

Operational Period: **Error! Reference source not found.**

Date/Time from: 0800 06/04/22

Fire Day: 5

Date/Time to: 07/04/22

Sector supervisors to complete form & provide to division commander, end of shift. Attach map marked with progress of work completed during the shift (can be emailed to intelligence unit or completed in FireMapper), additional hazards or features including safe zones, escape routes, or mapping errors should be added. Tick that DTRs DVRs have been signed. Add extra pages as needed.

1. Division	2. Sector	3. Sector Supervisors Name	4. Map Attached / Updated	5. Extra Notes Attached	6. Incident Reports
			Y / N	Y / N	

7. Crews on Sector (including resources (tree fellers etc), attach paper map or email map to Mapping Specialist with action progress)

Call Sign	Crew Leader	#Persons	Comments on Actions Completed	Needs	DTRs
					Y/N
					Y/N
					Y/N
					Y/N
					Y/N

8. Appliances / Vehicles Used on Sector

Registration	Type	Driver Name	Crew	Comments / Maintenance	DVRs
					Y/N
					Y/N
					Y/N
					Y/N
					Y/N

9. Plant / Heavy Machinery Used on Site (attach paper map or email map to Mapping Specialist with action progress)

Registration	Type	Drivers Name	Hours	Comment on Work Completed / Any Needs	DTRs
					Y/N
					Y/N
					Y/N

10. Progress Against Tasking (reference task #'s in IAP, raise any concerns for next shift, was tasking realistic / achievable)

11. Comments for Next Shift / Next IAP - IAP or map errors, contact detail updates for IAP, check missing resource TIMEX updates (end date of current deployment period for resource), resource needs notified at 1/2 shift (use prompt table below), notes on improving tasking descriptions, map additions, crews work recommendations / comments – continue on reverse of this page as needed.

	Active/Used	Next Shift
Crews 5PK		
Tree Fellers		
41mm Hose		
70mm Hose		
Dozer		
Mech.Feller		
Digger		
Dam		
Radios		
Foam 20L		
Soap Cap		
Wajax		
Med Pump		
Tanker		
4WD Ute		
LUV/ATV		
Appliance		

RF249 Checked by:

Check Date/Time:

Actioned by:

Released under the Official Information Act 1982



INCIDENT ACTION PLAN

AWARUA BAY FIRE

Operational Period: 6

Fire Day: 6

Date/Time from: 0800 7/4/22

Date/Time to: 0800 8/4/22



Contents	
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Logbook / Fireline Observations	20
Sector Supervisors Report	21

Approved by Incident Controller

Name: [Redacted]

Date: 6/4/22

Signed:



Fire

Mapper QR Code
See attached sheet 18 for more detail's

Incident: AWARUA BAY FIRE

Operational Period: 24hrs

Fire Day: 6



Situation Report

Date/Time from: 0800 07/04/22

Date/Time to: 0800 08/04/22

1. Location	2. Incident Type	3. Report Date/Time	3. NZ Topo50 Grid Ref and Address
Awarua Bay Fire	Vegetation Wildfire	6/4/22- 1230	N4832387 E1255989

4. Assessment – current fire situation

1. A large scrub (manuka/wetland scrub, grasslands) fire started on Saturday the 2nd and is currently burning around 1369ha as at 1200 on 6/4/22 with a perimeter of 22km.
2. The fire is currently controlled to 20% to 10m and 5% to 30 m. The fire is 0% Contained
3. Values at risk are property (Sheds, Mia Mias), wetlands, transmission lines providing power to Tiwai Point, and Tiwai Point smelter.
4. No buildings have been destroyed/damaged by fire as of 1230 5/4/22, with 6 being at immediate risk, of which all have been classified as undefendable due to heavy vegetation fuel around them.
5. The fire ground had 30mm of rain overnight. (Tue/Wed)
6. It is unlikely that the perimeter will increase today, however given the scrub fuels this is not a given.

5. Actions Taken

1. The initial fire suppression focused on aerial monsoon buckets focused on the fire fronts in sectors Alpha and Bravo. No helicopters operated yesterday due to high winds.
2. Ground crews completed initial attack and protection around the fire origin. 31 Fire fighters started yesterday morning but pulled out by lunch time due to adverse weather. Focus has been on Alpha sector blacking out to 50m.
3. Heavy equipment has constructed a control line, 1300m of line has been made to stop possible spread towards Tiwai Point
4. Helicopters are operating out of water dams and pockets of water within the wetlands.
5. Drones are being prepared to fly thermal flights on Monday 11th April weather unlikely to be favourable till then.
6. Incident Management Team has been established at Tiwai Point
7. Public information is being released in 4 hourly intervals or as otherwise necessary.
8. Fire and Emergency NZ have been engaging with local iwi and tangata whenua today with no concerns.

6. Factors – what is affecting the way the fire is being fought or develops?

Weather	1. High winds are predicted on and off for the next 3 days with little rain.
Fire Behaviour	2. Increasing Thurs and Friday.
Assets, Infrastructure	3. None lost, several threatened.
Resource Status	4. Satisfactory
Resource Availability	5. Limited
Other	

7. Predicted Incident Development – next 12 / 24 / 48hrs

12hrs	1. Thursday. Limited perimeter growth expected
24hrs	2. Friday, potential for limited perimeter growth. Some high winds expected.
48hrs	3. Saturday. Potential for limited growth.

FORM: RF201 Prepared by: Intelligence Unit Name: [REDACTED] Date: 6/4/22 Time: 1500

Incident: AWARUA BAY FIRE

Objectives and Strategies

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. Overall Incident Objectives (SMART – Specific, Measurable, Achievable, Relevant, Time Bound)

1. Safety of the responding personnel and public.
2. Minimise impact on property and critical infrastructure.
3. Minimise impact on cultural, environmental, historic and conservation values.
4. Working collaboratively with partner agencies, affected landowners, residents, stakeholders including local Iwi.
5. Contain fire to current area. Mop up to 50m in Alpha in preparation for high winds
6. Enable investigations into fire cause to be initiated and completed safely and in a timely manner.
7. Tracking financial costs, monitor finances and report daily.
8. Planning operations to be balanced with outcome and relief/recovery.
9. Undertake an after-action review.

2. Strategies (Plan of Action to Meet Incident Objective)

- A. Create a safety plan and safety briefing for all personnel (including contractors). Monitor and model fire behaviour.
- B. Use media, trusted community channels and stakeholders to establish comms and engagement through regular briefings and updates.
- C. Conduct asset (defendable and undefendable) and critical infrastructure identification through air surveillance and supporting spatial mapping datasets (powerlines, mobile towers, historic sites etc).
- D. Cultural, historical, environmental values identified on incident ground (actual and forecasted)
- E. Establish check in / check out, demobilisation resource tracking to enable financial reporting
- F. Create a recovery plan with community, stakeholders and partner agencies, all actions to consider impacts on the recovery plan.
- G. Secure adequate crews and supporting resources to meet objectives.

FORM: RF202 Prepared by: IC > Error! Reference source not found.:

Date: 6/4/22

Time: 1600

Incident: AWARUA BAY FIRE

Organisational List

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

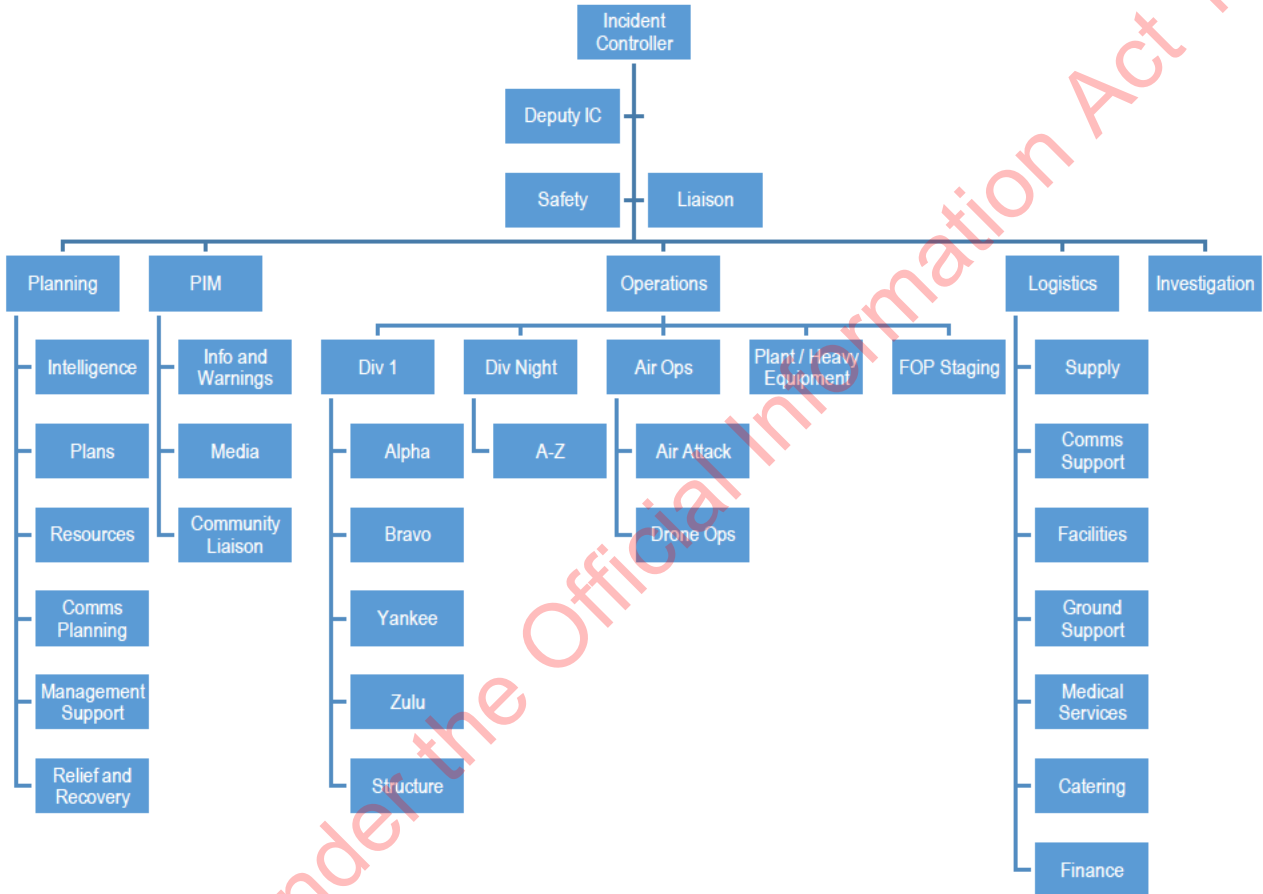
Date/Time to: 0800 08/04/22

1. Incident Control	Personnel	Mobile	Email Prefix	TIMEX
Incident Controller	██████████	██████████		
Deputy Incident Controller	██████████	██████████		
Safety Advisor	██████████	██████████		
Safety Officer (Field)	██████████			
Safety Officer (Field)				
Iwi Liaison Officer	██████████ ██████████			
Region / District Liaison Officer	██████████	██████████		
2. Agency Representative				
Police (@police.govt.nz)				
Civil Defence				
Agency Name				
Agency Name				
Agency Name				
3. Planning/Intelligence Section				
Planning Manager	██████████	██████████		
Intelligence Unit Leader	██████████	██████████		
Fire Behaviour Specialist	██████████	██████████		
Mapping Specialist				
Fire Observer/s				
Technical Advisor/s				
Plans Unit Leader	██████████	██████████		
Resource Unit Leader	██████████	██████████		
Management Support Unit Leader	██████████	██████████		
Communications Planning Leader				
4. Logistics Section	Personnel	Mobile	Email Prefix	TIMEX
Logistics Manager	██████████	██████████		
Finance Unit Leader				
Comms Support Unit Leader				
Supply Unit Leader	██████████	██████████		
Medical Unit Leader				
Catering Unit Leader				
Ground Support Unit Leader				
5. Operations Section	Personnel	Mobile	Email Prefix	TIMEX
Operations Manager (Field)	██████████	██████████		
Ops Manager Planning (Deputy)	██████████	██████████		
Air Division Commander	██████████	██████████		
Air Attack Supervisor				
Air Support Supervisor	██████████	██████████		
Dept Air Support Supervisor	██████████	██████████		
Plant / Heavy Machinery Supervisor				
Forward Operating Point				
Division ONE Commander				
Sector ALPHA Supervisor				
Sector BRAVO Supervisor				
Sector YANKEE Supervisor				
Sector ZULU Supervisor				
Division NIGHT Commander				
Sector A-Z Supervisor				
6. Public Information & Media				
PIM Manager	██████████	██████████		
Deputy PIM Manager				
Info and Warnings Unit				

Released under the Official Information Act 1982

Media Unit				
Community Liaison Unit				
7. Relief and Recovery				
Relief Manager				
Recovery Manager	██████	██████		
8. Investigation				
Lead Investigator				
9. Regional Coordination Centres				
RCC				
Note: email suffix = @fireandemergency.nz TIMEEX = date scheduled exit rostered deployment)				
FORM: RF203 Prepared by:	██████	Date: 6/4/22	Time: 1235	

Active Incident Management Structure



Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Sector Assignment 1-A

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to 0800 08/04/22

1. Sector ALPHA	2. Sector Supervisor [Redacted]	3. Division Assigned ONE
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4. Sector Description	North Flank of Fire
5. Anchor Point / Refuge	ICP

6. Resources Assigned this Period (including Plant / Heavy Equipment)

Resource	Crew Leader	Mobile	Call Sign	Vehicle	#Persons	TIMEX
Hyslops	[Redacted]	[Redacted]			13	
Wakari (Dunedin)	[Redacted]	[Redacted]			8	
DOC	[Redacted]				10	

7. Sector Assignment / Special Instructions

- Continue to black out to 50m
- Monitor for dead and injured wildlife. Please report back with locations and details
- Set up sprinklers to the Western corner near the FCP

8. General Taskings

- Crews to travel in convoy to sector from staging area, all lights on, sirens generally not required.
- Allocate a crew responsibility to provide hourly kestrel fire behaviour readings to FOP.
- Confirm L.A.C.E.S, test and update throughout operational period.
- S.Sup validate resources, contacts are current against IAP sector assignment, report errors.
- Ensure that a least one person on each crew is monitoring Air to Ground Radio CH to allow for contact with air operations.
- Roads requiring radio callups are posted at start of the road. (ref comms plan on requirements).
- Crews identify & communicate needs for next operational period to s.sup to review & pass resource requests & expected progress by end of shift to FOP (include additional or surplus resources, hazardous situations, significant events, progress).
- Crews and plant / machinery to sign out through staging area / FOP. All DTRs signed by supervisor and copy handed in to staging area (can email photo to FOP).

9. Reporting / Communication Instructions

Time	From / To	Details
2hrs of Shift Start	Crew.L to S.Sup	Confirm L.A.C.E.S in place by each crew lead (incl plant and equipment)
2hrs of Shift Start	S.Sup to FOP	Confirm resources +/- compared to IAP, IAP errors, L.A.C.E.S in place
½ Shift – 0.5hr	Crew.L to S.Sup	Resources needed next ops period (Night or Day), expected to achieve this ops period
At ½ Shift	S.Sup to FOP	Resources needed next ops period (Night or Day), expected to achieve this ops period
Every 2hrs	S.Sup to FOP	C.A.N Report (important this includes detailed progress on actions)
Every 1hrs	Assigned Crew.L to FOP	Fireline Observations (from at least one crew leader per sector)

10. Sector Communications	Personnel	Mobile	Call Sign	Vehicle	Radio CH
Sector Supervisor					
Division Commander					
Air Attack Supervisor	[Redacted]	[Redacted]			
Plant/Heavy Equip Supervisor					
Forward Operating Point					
Operations Manager	[Redacted]	[Redacted]			
Operations Manager - Planning					
Safety Officer	[Redacted]	[Redacted]			

FORM: RF204 Prepared by: Operations > Error! Reference source not found.:- [Redacted] Date: 5/4/22 Time: 1500

Incident: AWARUA BAY FIRE

Sector Assignment 1-Z

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. Sector ZULU	2. Sector Supervisor	3. Division Assigned ONE
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4. Sector Description

5. Anchor Point / Refuge Beach

6. Resources Assigned this Period (including Plant / Heavy Equipment)

Resource	Crew Leader / Driver	Mobile	Call Sign	Vehicle	#Persons	TIMEX

7. Sector Assignment / Special Instructions

- Continue to black out to 50m
- Monitor for dead and injured wildlife. Please report back with locations and details

8. General Taskings

- Crews to travel in convoy to sector from staging area, all lights on, sirens generally not required.
- Allocate a crew responsibility to provide hourly kestrel fire behaviour readings to FOP.
- Confirm L.A.C.E.S, test and update throughout operational period.
- S.Sup validate resources, contacts are current against IAP sector assignment, report errors.
- Ensure that a least one person on each crew is monitoring Air to Ground Radio CH to allow for contact with air operations.
- Roads requiring radio callups are posted at start of the road. (ref comms plan on requirements).
- Crews identify & communicate needs for next operational period to s.sup to review & pass resource requests & expected progress by end of shift to FOP (include additional or surplus resources, hazardous situations, significant events, progress).
- Crews and plant / machinery to sign out through staging area / FOP. All DTRs signed by supervisor and copy handed in to staging area (can email photo to FOP).

9. Reporting / Communication Instructions

Time	From / To	Details
2hrs of Shift Start	Crew.L to S.Sup	Confirm L.A.C.E.S in place by each crew lead (incl plant and equipment)
2hrs of Shift Start	S.Sup to FOP	Confirm resources +/- compared to IAP, IAP errors, L.A.C.E.S in place
½ Shift – 0.5hr	Crew.L to S.Sup	Resources needed next ops period (Night or Day), expected to achieve this ops period
At ½ Shift	S.Sup to FOP	Resources needed next ops period (Night or Day), expected to achieve this ops period
Every 2hrs	S.Sup to FOP	C.A.N Report (important this includes detailed progress on actions)
Every 1hrs	Assigned Crew.L to FOP	Fireline Observations (from at least one crew leader per sector)

10. Sector Communications	Personnel	Mobile	Call Sign	Vehicle	Radio CH
Sector Supervisor					
Division Commander					
Air Attack Supervisor					Fire 4
Plant/Heavy Equip Supervisor					
Forward Operating Point					
Operations Manager					Ops
Operations Manager - Planning					
Safety Officer					Fire 2

FORM: RF204 Prepared by: Operations > Error! Reference source not found.: Date: 5/4/22 Time: 1500

Incident: AWARUA BAY FIRE

FOP / Staging Assignment

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. Resource / Crew	2. Forward Operating Point (FOP) Location
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[Hazmat Vehicle Name and Call Sign]

3. Assignment / Special Instructions

1.

4. General Taskings

1. Hazmat / ICU Unit provides shelter and working space for Ops Manager /Sector Supervisors/Safety
2. Operational decisions and resource ordering are to be made by members of the IMT.
 - a. Resource requests to go on through to IMT Resources Unit.
 - b. Operational decisions referred to Operations Manager or Operations Planning Manager (Deputy Ops).
3. Receive fire ground notices from Operations Manager or IMT Members and broadcast around sectors to fire ground.
4. Monitor quality of radios comms, request mobile repeaters or channel changes, ensuring all crews can be contacted. Manage / monitor schedule for battery changes on any mobile repeaters stationed in field.
5. Notify fire ground (Radio), Operations Manager (Radio/Phone) and Intel Unit (Phone/Email) if sudden change in observed weather.
6. Provide photocopy and printing capability for field staff.
7. Print and display key IMT information on internal and external display boards for operational staff reference.
8. Get weather and fire behaviour forecast from Intel as they become available and broadcast around sectors to fire ground.
9. Ensure a current fire map is displayed on external display for operations staff to reference. (Fire Mapper)
10. Update T-Cards as resources move between sectors within Microsoft Planner Resource Board. (not set up yet) Query by Radio / Ph operations, S.Sup & Crew.L for missing T-Card / IAP contact details, names, timex dates, to ensure information is maintained and current.
11. Take photos of white boards or paper operational plan, send to Intel.
12. Collect safety incident forms (Salmon Cards), scan and email to Safety Advisor, Operations, Intel.
13. Collect sector supervisor's reports at end of shift, scan and send to IMT.

4. Displaying Information

- A. Display T-Cards for Resources Microsoft Planner Board on large internal touch screen display.
- B. Display Latest Fire Map / Webmap on external large display, and on Internal Touch Screen as a tab in browser (with planner)
- C. Maintain printed copies of latest IAP, internal wall x2. External display x2.
- D. Maintain IMT structure white board with current incident control structure as per IAP.
- E. Display tower camera overview towards fire ground on rear internal display.
- F. Display COVID19 Incident QR Code

5. Incident CHECK-IN / CHECK-OUT

1. Act as fire ground CHECK-IN ensure all crews and resources sign-in and out through the FOP as per Logistics Plan > #7 and #8

6. Reporting / Communication Instructions

Time	From / To	Details
1hr of Shift Start	FOP to Resources	Confirm T-Cards updated with RF220, DTR signed in at Staging.
2hrs of Shift Start	FOP to Safety Advisor	Collate confirmation of L.A.C.E.S from Sector Supervisors (S.Sup). Confirm with Safety Advisor via teams fire channel chat. Prompt from S.Sup if not yet received.
Every 2hrs	FOP to Intel	Collect CAN Reports from S.Sup, write up and send to Intel Unit via teams fire channel chat.
Every 1hrs	FOP to Intel	Collate Fire Weather Observations from 1 crew leader per sector, collate and send via email to [REDACTED]
As required	FOP to Fire Ground	Broadcast sudden changes in observed weather or fire conditions.
As required	FOP to Fire Ground	Broadcast weather forecast as provide by Intel Unit.
As required	FOP to Resources	Pass on resource requests from fire ground S.Sup via teams fire channel chat.
At ½ Shift	FOP to Resources	Collate resources (number of crews, machinery, equipment, supplies, specialists eg tree fellers) suggested for next ops period (next Night or Day shift) from S.Sup for each sector send via teams fire channel chat.
At ½ Shift	FOP to Operations / Intel	Collate from each S.Sup what is expected /forecasted to be achieved this ops period/shift. Send via teams fire channel chat.
As required	FOP to Fire Ground	Request clarifying information not yet detailed in IAP (gap filing > correct names, call signs, contact details, TIMEX dates (end of deployment date), vehicles registrations / type) from resources across the fireground. Enter in Planner T-Cards.
As required	FOP to Intel	Send photos of whiteboards, paper options analysis/plans as requested by email to Intel.
As required	FOP to Safety	Collect safety incident forms (Salmon Cards), scan and email to Safety Advisor

FORM: RF250 Prepared by: Operations > Error! Reference source not found.- [REDACTED]

Date:6/4/22

Time:1600

Incident: AWARUA BAY FIRE

Air Operations Plan

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. Personnel and Communications

Position	Name	Email Prefix	Mobile	Radio CH
Air Div. Commander	██████████		██████████	Fire 4
Air Attack Supervisor				
Air Ground Support Sup.	██████████		██████████	Fire 4
Drone Operations Supervisor				
Lead Helicopter Pilot				
Lead Fixed-Wing Pilot				
Lead Drone Pilot				

2. Air Resource Assignments

Pilot Name/Company	Aircraft Type	Regis. or Call Sign	Assignment	Tactical Freq/CH	On-board Mobile
Heli 1			Platform		
Heli 2			Support ground crews		
Heli 3			Support ground crews		
Heli 4			Support ground crews		
Heli 5			Support ground crews		
Heli 6			Support ground crews		

3. Location of Filling Points / Service Areas

Name	Details	Grid Reference (NZTM / Decimal LAT.LONG)
Heli base	Sea and pond with in wet lands	

4. Safety Notes / Hazards / Radio Coverage Limitations / Temporary Airspace Restrictions

- Any known hazards eg power-lines, high obstacles
- Record if any radio 'dead spots' are known or expected
- Drone operations will be operational from HHMM-HHMM in [sectors X], Drone pilots will be monitoring both air-air channels and air-ground, with temporary MBZ-10mins in place for drone operations occurring if manned aircraft are operational.

5. Air Operations Special Equipment or Service

- Air operators are to supply own fuel to meet their requirements.
- Make note of any special equipment or services required: eg High-volume pumps, or Police for crowd control, access to fuel, RPAS/Drone operations etc.

6. Special Instructions

RPAS / Drone Operations for Hot spotting

- Drone operations will be tasked in coordination with the Intelligence Unit Leader, and tasking appear within the sector assignments.
- Request a fly over, marking hotspots, rechecking existing Fire Mapper Hotspots from previous night, and any identified on Firemapper by ground crews using handheld TIC.
- Fly perimeter of fire and map new hotspots within +/-30m of perimeter.
- Upload to 30m perimeter hotspots to Fire Mapper in prep for map available for Ops Briefing.
- Locate existing structures with GPS and photo of condition

RF208 Prepared by: ██████████

Date:6/4/22

Time: 0100

Incident: AWARUA BAY PLAN

Communications Plan

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

Please communicate any radio coverage issues to Logistics > Communications Support Unit immediately

1. Radio Channels

Operations	Function	Radio Channel	Frequency (TX/RX)	UHF/VHF
Fire Operations	Command	OPS		UHF Simplex
	Ground Crews	FIRE 1		VHF Simplex
Air Operations	Ground to Air	FIRE 4		VHF Simplex
Structure Protection				
Call up roads				
Plant / Equipment	Ground Crews	FIRE 1		
Police				
Cordons				
Rescue Heli.	Ground to Air	Interagency Liaison (CH10)		VHF

2. Portal Radio Repeaters

Name	Location	Batteries / Charging Requirement	Managed By
	TBC		Command Unit

3. Document Management (document locations, online or offline systems)

System	Details	Comments
IMT Microsoft 365 Team	R5A Office 365	FENZ Microsoft SharePoint and Microsoft Teams > all incident documents, files, photos and chat
Incident Channel Name		
Situation Board URL		
Planner T-Cards		
Photos and Video Upload		

4. Internet Access

Access Point	SSID	Details
ICP	[eg.firecommand or FENZ_Case05 etc]	[eg.pwd available at ICP for IMT personnel only]
FOP / Staging	[eg.firecommand or FENZ_Case05 etc]	[eg.pwd available at FOP]

5. Weather Stations (email, sms, social media, chat group, weather station URL's, other than listed in organisational list)

Name	Details for Access	Location

6. Telephone / Satellite Phones or Messengers (other than listed in organisational list)

Name	Mobile / Channel	Type	Comments

7. Other (email, sms, social media, chat groups, other than listed in organisational list)

There is communication issues on site. Please liaise with Ops to check com plan.

RF205 Prepared by: Communication Support Unit > Error! Reference source not found.	Date:	Time:
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Incident: AWARUA BAY FIRE

Safety and Wellbeing Plan

Operational Period: 24 Hours

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. General Safety and Wellbeing Points

ALWAYS REMEMBER YOUR L.A.C.E.S				
L	A	C	E	S
Lookout(s)	Awareness or Anchor Points	Communication	Escape Routes	Safety Zones

10 Standard Firefighting Orders

1. Keep informed on fire weather conditions and forecasts.
2. Know what your fire is doing always.
3. Base all actions on current and expected fire behaviour of the fire.
4. Identify escape routes and safety zones and make them known.
5. Post lookouts when there is possible danger.
6. Be alert. Keep calm. Think clearly. Act decisively.
7. Maintain prompt communication with your crew/s, your supervisor and adjoining crews.
8. Give clear instructions and ensure they are understood.
9. Maintain control of your crew/s always.
10. Fight fire aggressively, having provided for safety first.

Dangerous Situations to Watch Out For

1. Fire size is unknown (no size up).
2. Unfamiliar territory.
3. Safety zones and escape routes not identified.
4. Unfamiliar with weather and local factors influencing fire behaviour.
5. No communications link with crew members or supervisor.
6. Instructions and assignments not clear.
7. Weather is getting hotter, drier and relative humidity dropping.
8. Wind increases and/or changes direction.
9. Getting frequent spot fires across the line.
10. Working uphill or down wind of a fire.
11. Working on a steep slope.
12. Working in rugged terrain.
13. Cannot see main fire.
14. In unburnt vegetation.
15. Walking through hot ashes.
16. Working alone.
17. Getting tired.
18. Working near power lines.
19. Working near machinery.
20. Working with aircraft.
21. Working around trees or spars.

Confirm L.A.C.E.S with crew, and supervisor within 2hrs start of shift

Everyone is to be signed in and out of the fire ground through the FOP / Staging for both safety check and payment records

Maintain regular C.A.N (conditions, actions, needs) reports to line supervisors at agreed interval as per sector assignment.

Single resources not assigned to a division / sector will do C.A.N reports with FOP every 2 hours while on fire ground.

Provide corrections/updates to IAP: resources, contacts, communication, update maps to include safe zones, escape routes to ensure it is maintained for safety for following operational shifts

2. Specific Safety and Wellbeing Points

- All crews to have adequate food, water, PPE to manage fatigue and hydration.
- Work rest periods enforced. 9hr rest period before returning to fire ground. Crews travelled >3hrs must have 4hr stand down.
- Seek shade during rest period, be sun smart.
- All workers to ensure they are competent for the tasks and risks given.
- Air and ground crews to be isolated from risk areas during operations.
- Avoid skid sites where stability of surface cannot be assured.
- Eliminate / minimise working in smoke and or traveling in smoke.
- Ensure safe distance from all heavy machinery

4. Management of Dangerous Trees

- Big trees with root plates compromised in Sector
- Dangerous tree assessors – ensure competent and equipped for task (including PPE).

RF209 Prepared by: Safety Advisor > Error! Reference source not found.

Date:

Time:

Incident: AWARUA BAY FIRE

Operational Period: 24 Hrs
Fire Day: 6



Incident Specific Hazard Board

Date/Time from: 0800 07/04/22
Date/Time to: 0800 08/04/22

HAZARD REGISTER RISK ASSESSMENT

Haz#	Hazard	Location	Control Measure	Likelihood	Consequence	Risk	Adequate Control	IC Aware
1	Working with Aircraft	A, B & Z	Air attack and air support	4	1	High	Y	Y
2	Working around aircraft	Alpha	Working safely around aircraft	4	2	High	Y	Y
3	Peat and ashpits	Alpha	Crew leaders & firefighter aware	3	1	Low	Y	Y
4	Winds running fire	Fire Ground	Light winds – rain at 1500 – increasing winds 1800, 40-50kph	3	1	Low	Y	Y
5	Smoke	Fire Ground	Stay and work in clear air	1	2	Low	Y	Y
6	Comms Diminishing with distance	All Ground Crews	Fire 1, ground crews. Use Fire 4 via air ops as needed. VHF Repeater	3	1	Low-Medium	Y	Y
7	Driving on sand/beach	Fire Ground	Watch depending on ops strategies	2	1	Low	Y	Y
8	Escape Routes	Fire Ground	Plan ahead. Try and have more than one escape route	3	3		Y	Y
9	Working with Heavy Machinery	Zulu	Keep your distance and lookouts	2	3	Medium	Y	Y
10	Beehives	Alpha (W Edge)	Crews notified 1230 + all confirmed	1	1	Low	Y	
11	Covid	All	If any ground crew or air attack feel unwell, to attend Tiwai RAT testing station between 0730 and 1530. IMT temperature check on entry at Tiwai including visitors. Any	3	3	High	Y	Y

Likelihood

SCORE	CHANCE OF SOMETHING HAPPENING
1	RARE May occur in exceptional circumstances <10%
2	UNLIKELY Could occur 10 to 30% chance
3	POSSIBLE Might occur 30 to 70% chance
4	LIKELY Will probably occur 70 to 90% chance
5	ALMOST CERTAIN Is expected to occur >90% chance

Consequence

SCORE	DESCRIPTOR	EXAMPLES
1	INSIGNIFICANT	Insignificant injury or damage/loss to equipment
2	MINOR	Minor injury; minor loss/damage to equipment
3	MODERATE	Serious injury (e.g. hospital, off work), moderate loss of equipment
4	MAJOR	Multiple serious injuries (e.g. permanent disability, major loss of operational capability)
5	CATASTROPHIC	Fatality (one or more) to staff; catastrophic loss of operational capability

Risk Matrix

LIKELIHOOD	CONSEQUENCE				
	1	2	3	4	5
5 ALMOST CERTAIN	Medium	High	Very High	Very High	Very High
4 LIKELY	Medium	High	High	Very High	Very High
3 POSSIBLE	Low	Medium	High	Very High	Very High
2 UNLIKELY	Low	Low	Medium	High	Very High
1 RARE	Low	Low	Medium	High	High

Risk Mitigation

Low	Monitor, PPE should be adequate
Medium	Ensure control measures are adhered to and review periodically
Where the Risk Rating is HIGH or VERY HIGH, the Incident Controller MUST be informed immediately	
High	Control measures to be reassessed and personnel are to be suitably trained and monitored.
Very High	Tactics and control measures to be reassessed. Personnel to be suitably trained and closely monitored.

ALL HAZARDS TO BE REVIEWED PERIODICALLY (HRLY, DAILY)

			new crew to be separated during briefing and operationally where practicable.						
12	Wind Gusts up to 90kph	All	Weather forecast 50kph sustained, gusting 90kph midday. Early decision by ops for extraction of crews by heli.	4	2	High	Y	Y	
13	Cold Windy working conditions	All	Corrent PPE and personal awareness. Crews to monitor for possible signs of hyperthermia	4	2	Hign	Y	Y	
FES262 Prepared by: Safety Advisor > Error! Reference source not found.:- [REDACTED]								Date: 6/4/22	Time:0100

Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Medical Plan

Operational Period: 24 Hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. First Aid Resources / Stations (each crew must have available one first aid level 1 certified)

Name	Location	Mobile / Radio CH	Paramedics avail.
Defibrillator/s	Command Unit	Fire 2	0
Co-response First-aid Kits	Command Unit	Fire 2	0

2. Transportation

Ambulance Service	Address	Mobile / Radio CH	Paramedics avail.
St Johns		111	
Rescue Helicopter		111 / Interagency Liaison (CH10)	

3. Hospitals

Hospital Name	Address	Phone	Travel Time (min)		Burn Unit	Heli Pad
			Road	Air		
Southland Hospital		03 218 1949			N	Y

4. Special Emergency Procedures

All injuries are to be reported to the sector supervisor (or FOP as backup) immediately. Emergency, Safety Advisor and IMT will be notified by supervisor ASAP (or FOP).

- All crews should have first aid kits.
- Crew first aid attendant will assess injury and treat.
- Request for transport will be made through sector supervisor (or FOP as backup). In most cases requiring transport to medical centre, ground transport on unpaved roads is advised against and heli should be requested.
- Sector supervisor will ensure necessary incident reporting (Salmon card) completed & provided to Safety Advisor.
- Safety advisor will record all incident in Safe@Work

RF206 Prepared by: Logistics Unit >

Date: 6/4/22

Time: 0100

Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Operational Period: 24hrs

Fire Day: 6

Logistics Plan

Date/Time from: 0800 07/04/22

Date/Time to: 0800 08/04/22

1. Facilities

Incident Control Point	Tiwai Point Smelter, Office
Check in / Assembly Area	Command Unit
Staging Area	Corner of Awarua Bay Rd and Buddle Rd
Forward Operating Point	
Heli/Airbase	At Staging Area
Toilets	At Staging Area

2. Accommodation (email Logistics Unit or call Facilities Unit Leader for any queries related to accommodation)

Accommodation	Address	Allocated Resources
Various	Various Invercargill Locations	Various

3. Flights, Transportation, Parking, Vehicle Maintenance and Refuelling

Transport Flights	
Airport to Check in	
Accommodation to Staging	
Rental Vehicles	One rental vehicle (retardant crew) returning home
Maintenance of Appliances	Safety using Salmon Cards
Refuelling	All appliances are to be filled using FENZ fuel cards
Parking	All vehicles parked at dedicated parking areas

4. Catering

Dinner	No specific arrangements have been made
Lunches	Lunches provided by Rapid Response Team (RRT) dropped at ICU (packed lunch)
Breakfast	No specific breakfast arrangements

5. Supplies

Pump Fuel / 2-Stroke	██████████ is keeping/providings stocks
Drinking Water/ Hydration Pwdr	Water at ICP and at staging area
Class A Foam / Soap Caps.	Additional request of 140 20L containers plus 2 extra pallets
Radios	
Uniform and Laundry	

7. Instructions for Mobilisation of New Incoming Resources

Check In	All new incoming resources are to report to Check in / Assembly Area for check in. Will be allocated resources, accommodation and supplies as needed.
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8. Demobilisation of Outgoing Resources

Check Out	<ol style="list-style-type: none"> All resources which are ending their deployment on the fire ground must complete relevant paperwork. This will be done at Check in / Assembly Area by the Resources Unit. A check of your DTR's must be completed by the Finance Unit, ensuring all are complete and signed by supervisor. Ensure all injury or equipment claims are well documented and complete. At any time during the demobilisation process if there is any concern, contact the Resources Unit Leader.
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RF249 Prepared by: Logistics Unit > Sue Paterson

Date:6/4/22

Time: 0100

Incident: AWARUA BAY FIRE

Operational Period: 24 Hours

Fire Day: 6

Public Information Plan

Date/Time from: 0800 7/4/22

Date/Time to: 0800 8/4/22

1. Overview of PIM Response

Key messages are that Southland is very dry and a reminder not to light fires. Objective is to contain the fire. No houses or property is threatened. 1350 hectares/26km perimeter. Key stakeholders Environment Southland, Iwi, Department of Conservation, Rio Tinto, Invercargill City Council (tuatara), Southland District Council and the farming community. Updates provided the Fire and Emergency - Southland Facebook page. Taking water from tarns in the wetlands and the sea. Tarn water is being applied to the same catchment surrounding land. Important to prevent further damage to the internationally significant wetlands. Currently investigating the cause of the fire. Wildlife response, how to respond to wildlife encountered by ground crew, opportunity for DOC personnel to support via Forward Control Centre.

2. Personnel and Communications				
Position	Name	Phone	Email Prefix	Affiliation
Public Information Manager	[REDACTED]	[REDACTED]	[REDACTED]	FENZ
Deputy PIM Manager				
Information and Warnings Unit				
Media Unit				
Community Liaison Unit				
Spokesperson – [Topic]	[REDACTED]	[REDACTED]	[REDACTED]	FENZ
Spokesperson – [Topic]				
3. Public Meetings				
Meeting Purpose	Location	Time	Contact Person	Phone
Face to Face Community Meeting	Tiwai Smelter Iwi	Ongoing Conversation	[REDACTED]	via email
Broadcast Community Meeting	Email Community Groups	Ongoing	[REDACTED] (Environment Southland)	
On-air Radio Meeting				
5. Public Information Sources (details of the specific sites or types)				
Websites				
Social Media	Fire and Emergency – Otago	[REDACTED]	updates on the fire.	
Helpline				
Information Points				
Community contacts/meetings				
Other – Posters / Handouts / SMS				
5. Media Message Distribution (specific stations or publications)				
Radio				
TV				
Newspaper				
6. Media (schedule)				
Media Briefing/Conferences				
Media Site Visits				
Interviews				
7. Message Monitoring				
8. Personal Social Media Warning (Treat as Public Information and Do Not Post)				
Anything published on social media is considered publicly available and can be republished by friends, other people and media. You should assume that all information posted is public and treat it like making a public statement. Even if you're communicating through private messaging or just to your 'friends', you can't control how others may share the information.				
RF247 Prepared by: PIM Manager [REDACTED]		Date: 06/04/22	Time: 0100	

Incident: AWARUA BAY FIRE	Fire Behaviour and Weather
Operational Period: 24 Hours	Date/Time from:
Fire Day: 6	Date/Time to: 0800 07/04/22

1. Weather Forecast											
Situation	Long spell of dry weather, broken by 30mm of rain on 5 th and 6 th . Low potential for showers over the next 2 days coupled with a very strong SW to W wind.										
This Shift: Thursday.	Thursday, chance of a possible light shower, SW going W around mid-day, 15 to 20km/hr, increasing 30 to 35km/hr in the evening. Gusting 40 to 60km/hr by late afternoon. High of 13 degrees, low RH of 55%.										
Looking Ahead:	Friday, Low chance of a lite shower, W to SW for the day, 35 to 45km/hr. Gusting 80 km/hr, easing in the evening to 50km/hr. High of 15 degrees, low RH of 60%. Outlook- Saturday, W 30 to 35 km/hr gusting 60km/hr. 16 degrees. Rh low of 65%										
2. Fire Behaviour Forecast (1200 NZST)											
STATION	TEMP	RH	WD	WS	PRECIP	FFMC	DMC	DC	ISI	BUI	FWI
Tisbury											
6/04/22 Actual 1200hrs	13	65	270	35	28.6	52	10	349	1	19	1
7/04/22 Forecast	13	55	250	20	0	74	11	352	2	21	3
8/04/22 Forecast	15	60	250	40	0	82	12	356	11	23	16
Other RAWs											
6/04/22 Actual 1200hrs Southland portable)	13	63	WSW	40	0						
3. General Fire Behaviour											
<p>Fire behaviour today should be reasonably benign until after lunch. In the afternoon the fire behaviour has the potential for sustained crown runs within scrub fuels with a scrub danger level of Very High. (In the absence of more rain)</p> <p>Fire behaviour in the morning is likely to be restricted to a low level of surface burning only and limited candling. No fire perimeter growth is expected but is possible.</p> <p>The wind direction is pushing the fire out towards the Bravo edge and the water.</p> <p>The big concern would be any runs from the SE which could jump the Alpha break and move north. This is possible if a patch of unburnt fuel within the perimeter ignites, and spot fires jump the Alpha edge. If a run occurs, the fire behaviour will be Moderate with a FROS around 400m/hr and HFI around 5,000 Kw. This is likely to be within control parameters by aircraft.</p> <p>Given the DMC and DC this fire is likely to be deep seated and mop could be extensive. It appears that the fire is burning in peat layers in some limited locations on high spots.</p>											
4. Specific Fire Behaviour (assumed no suppression)											
FUEL TYPE	ROS / HEAD FIRE INT. / FLAME LTH						PEAK ROS / HEAD FIRE INT. / FLAME LTH				
Manuka/Kanuka	400m/hr. 5,000Kw/m, 3.8m flame length.										
5. Specific Activities											
Beware of ash pits.											
6. FIRE BEHAVIOUR SAFETY ADVISORY											
NO safety advisory for fire behaviour.											
RF248 Prepared by: Jamie Cowan						Date: 6/04/22			Time: 15:30		

FIRE RISK MATRIX	FFMC	DMC	DC	ISI	BUI	FWI
	Ignition Potential	Mop Up Difficulty	Rate of Spread	Fuel Availability	Fire Intensity	
LOW	0+	0+	0+	0+	0+	0+
MODERATE	75+	21+	101+	5+	16+	4+
HIGH	85+	31+	176+	9+	31+	14+
VERY HIGH	88+	41+	251+	13+	46+	24+
EXTREME	92+	46+	326+	16+	61+	29+

Incident: AWARUA BAY FIRE

Weather Map

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

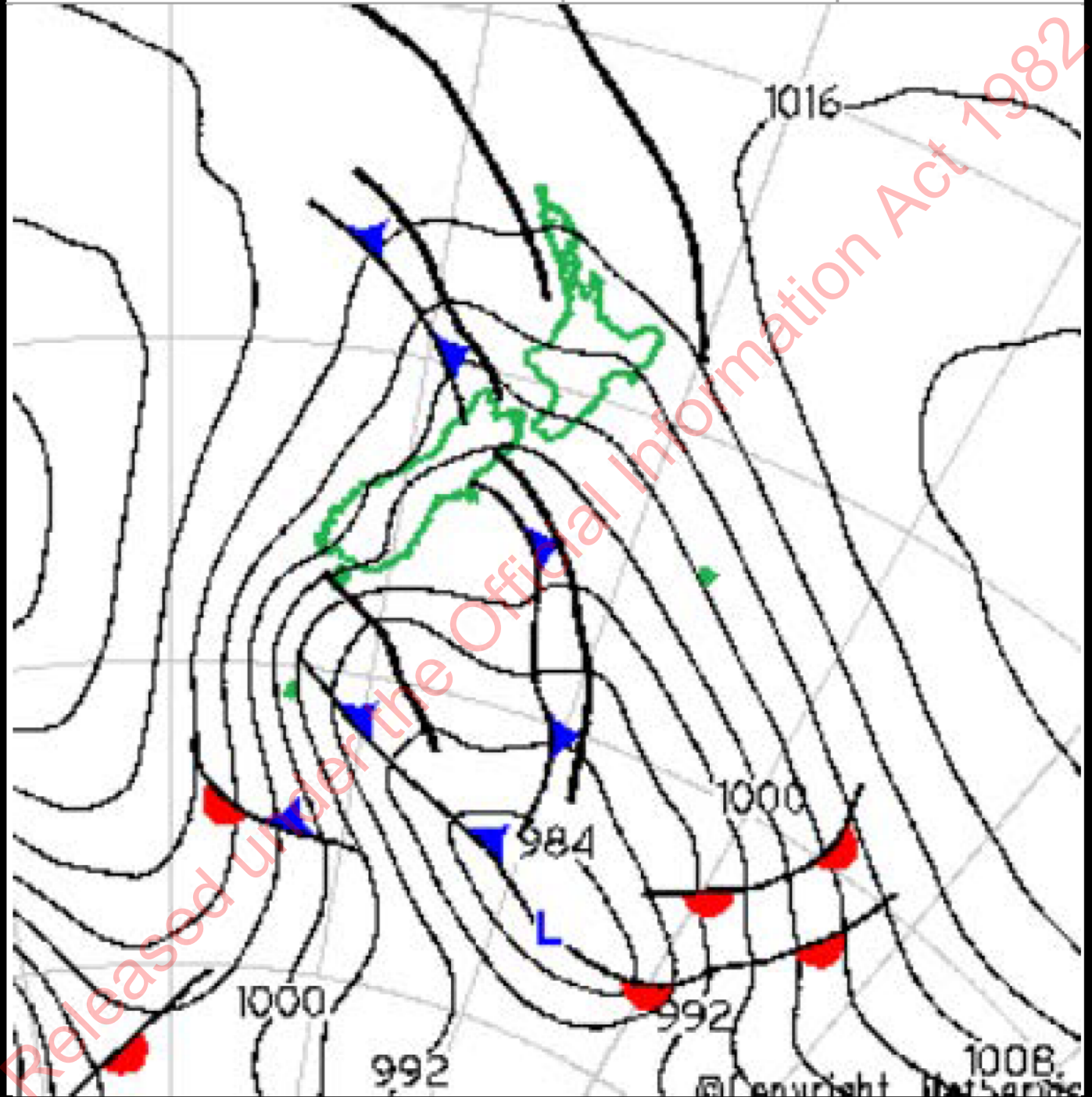
Date/Time to: 0800 08/04/22

1. Forecast Weather Maps

RF248 Prepared by: [REDACTED]

Date: 06/04/22

Time: 1530



Incident: AWARUA BAY FIRE

Fire Maps and QR Codes

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

1. Using QR Codes for FireMapper (Live / Offline Map)

Download **FireMapper for Enterprise** app on iOS and Android.

If you do not have a license Scan the *Temporary License Code* or *Enter Code* directly into FireMapper User Profile (and update your details). Shared Maps should be available for the incident.

- Adroid FireMapper Cannot Scan the QR Code below, please enter the code manually or Scan the QRCODE using your Google Chrome Search function

TEMPORARY FIREMAPPER LICENSE

CODE: **NZNVLCQXM7RXDYJVQTL24I3QIIHAYS2Z**



QRCODE

3. Fire Maps (overview and QR codes)

4. Evacuations Maps (overview)

4. QR Codes for Other Information (weather stations)

5. QR Codes for COVID19

Released under the Official Information Act 1982

Incident: AWARUA BAY FIRE

Sector Supervisors Report

Operational Period: 24hrs

Date/Time from: 0800 07/04/22

Fire Day: 6

Date/Time to: 0800 08/04/22

Sector supervisors to complete form & provide to division commander, end of shift. Attach map marked with progress of work completed during the shift (can be emailed to intelligence unit or completed in FireMapper), additional hazards or features including safe zones, escape routes, or mapping errors should be added. Tick that DTRs DVRs have been signed. Add extra pages as needed.

1. Division	2. Sector	3. Sector Supervisors Name	4. Map Attached / Updated	5. Extra Notes Attached	6. Incident Reports
			Y / N	Y / N	

7. Crews on Sector (including resources (tree fellers etc), attach paper map or email map to Mapping Specialist with action progress)

Call Sign	Crew Leader	#Persons	Comments on Actions Completed	Needs	DTRs
					Y/N
					Y/N
					Y/N
					Y/N
					Y/N

8. Appliances / Vehicles Used on Sector

Registration	Type	Driver Name	Crew	Comments / Maintenance	DVRs
					Y/N
					Y/N
					Y/N
					Y/N
					Y/N

9. Plant / Heavy Machinery Used on Site (attach paper map or email map to Mapping Specialist with action progress)

Registration	Type	Drivers Name	Hours	Comment on Work Completed / Any Needs	DTRs
					Y/N
					Y/N
					Y/N

10. Progress Against Tasking (reference task #'s in IAP, raise any concerns for next shift, was tasking realistic / achievable)

11. Comments for Next Shift / Next IAP - IAP or map errors, contact detail updates for IAP, check missing resource TIMEX updates (end date of current deployment period for resource), resource needs notified at ½ shift (use prompt table below), notes on improving tasking descriptions, map additions, crews work recommendations / comments – continue on reverse of this page as needed.

	Active/Used	Next Shift
Crews 5PK		
Tree Fellers		
41mm Hose		
70mm Hose		
Dozer		
Mech.Feller		
Digger		
Dam		
Radios		
Foam 20L		
Soap Cap		
Wajax		
Med Pump		
Tanker		
4WD Ute		
LUV/ATV		
Appliance		

RF249 Checked by:

Check Date/Time:

Actioned by:

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