

Incident Name	Operational Period	IAP COVER SHEET RF199
Pukaki Downs Fire	Date 30/08/20 – 31/08/20	
	Time 2000 - 0700	

INCIDENT ACTION PLAN

The items checked below are included in the incident Action Plan

- SITUATION REPORT
- INCIDENT OBJECTIVES
- 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
Name: Rob Hands		30/08/20 TIME



1. Incident Name Pukaki Downs Fire	2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700	SITUATION REPORT RF201
3. Location SH80, Pukaki	4. Vegetation Forest/Scrub/Grass/Slash	
6. Assessment Started 1125 in the vicinity of the Baikie Hut. Driven by strong Norwest winds through tussock and wilding tree plantations. Total area of incident ground approx. 2,500ha within a 23km perimeter. Patchy areas within fire zone remaining unburnt. A wide range of fuel types within the existing fire perimeter have been consumed. There are 8 significant residential properties affected on the East side of SH80. Unfortunately, we have lost one of those properties. Currently carrying out property protection on the remaining properties, to be continued by nightshift.		
7. Action taken <ul style="list-style-type: none"> • Aircraft – 2 fixed wing, 10 rotary with buckets, plus air platforms. • Heavy machinery working at 1900: one 20ton digger creating fire break. • Multiple ground crews operating # on structure protection and evacuating properties. Crews will be working throughout the night for property protection. • Command Unit onsite from Timaru. Will be unmanned overnight. • Set up welfare with the affected residents to reassure them we are doing everything possible to look after their properties. • Two evacuations out of Aoraki Mt Cook: Approx 140ppl (60 cars) and approx. 20 cars. 		
8. Factors <ul style="list-style-type: none"> • Extreme fire behaviour occurring. • Power Grid Control Gate 18 threatened. This has the potential to have a significant effect on supply of power to whole of South Island. • Weather (high NW winds) and topography. • SH80 – link to Aoraki Mt Cook closed, SH8 closed at Tekapo and Omarama. • Prime assets – lavender farm and structures. • DOC estate (point of ignition to be confirmed). • ? Stock in the area. • Significant areas within fire area remain unburnt. 		

9. Predicted Incident Development

Overnight patrols will be in place for property protection only.

Hope to establish containment around 60% of the perimeter 31/8/20.

Multi day mop up and containment using helicopters, heavy machinery and ground crews.

10. Prepared by: [REDACTED]

Date/Time 30/8/20 2010

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1. Incident Name Pukaki Downs Fire	2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700	INCIDENT OBJECTIVES RF202
3. Overall Incident Objectives <ol style="list-style-type: none"> 1. Protect life and property 2. Contain the fire spread 3. Protect environmental assets, including power grid Control Gate 18. 		
4. Objectives for specified Operational Period <ol style="list-style-type: none"> 1. Prevent any further damage to property. 		
5. Prepared by: ██████████	Date/Time 30/8/20 1940	

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1. Incident Name Pukaki Downs Fire	2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700	ORGANISATION ASSIGNMENT RF203		
3. Incident Control		Phone	Cell Phone	Radio Ch
Incident Controller	Rob Hands		[REDACTED]	
Deputy IC	[REDACTED]		[REDACTED]	
Information Officer				
Safety Officer				
Liaison Officer				
4. Agency Representative		Phone	Cell Phone	Radio Ch
Lead Agency				
Agency				
Agency				
Agency				
5. Planning/Intell Section		Phone	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		Phone	Cell Phone	Radio Ch
Logistics Manager				
Supply Unit				
Catering Unit				
Facilities Unit				
Finance Unit				
Communications Unit				
Medical Unit				

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7. Operations Section		Phone	Cell Phone	Radio Ch
Operations Manager	██████████		██████████	
Deputy Operations Manager				
Division One Commander				
Sector A Supervisor				
Air Division Commander				
Air Attack Supervisor				
Air Support Supervisor				
8. Prepared by: ██████████		Date/Time 30/8/20 1940		

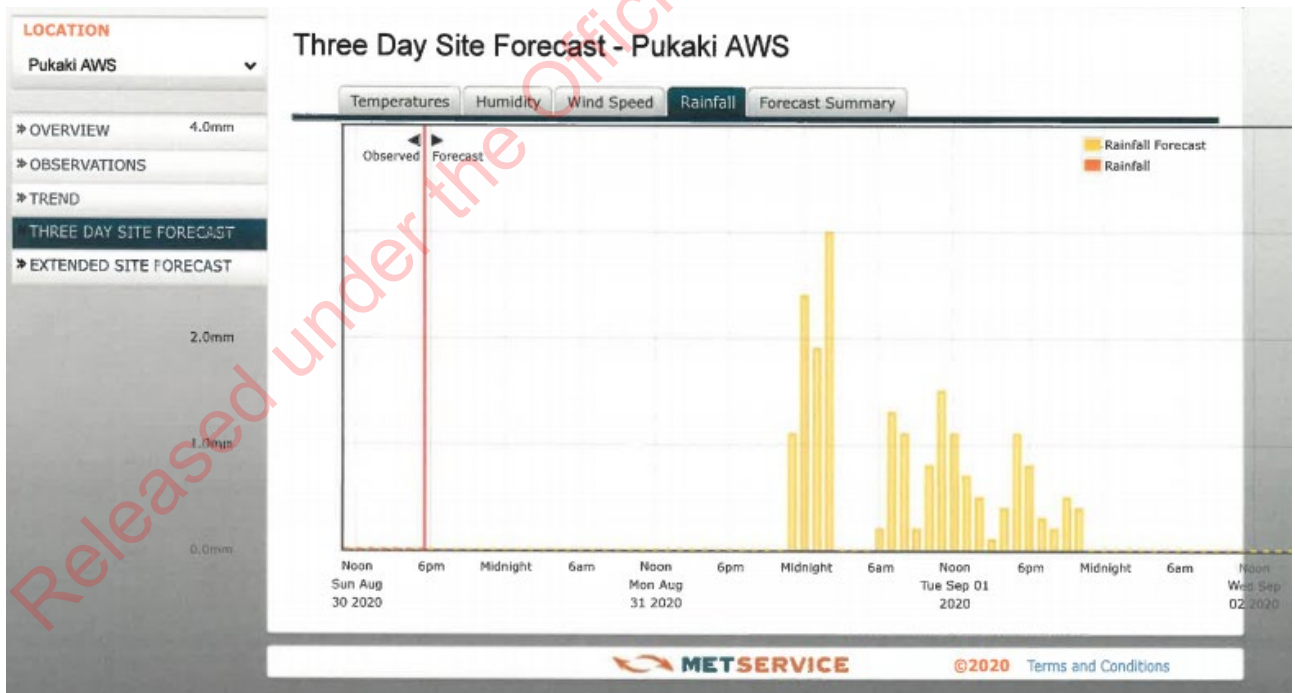
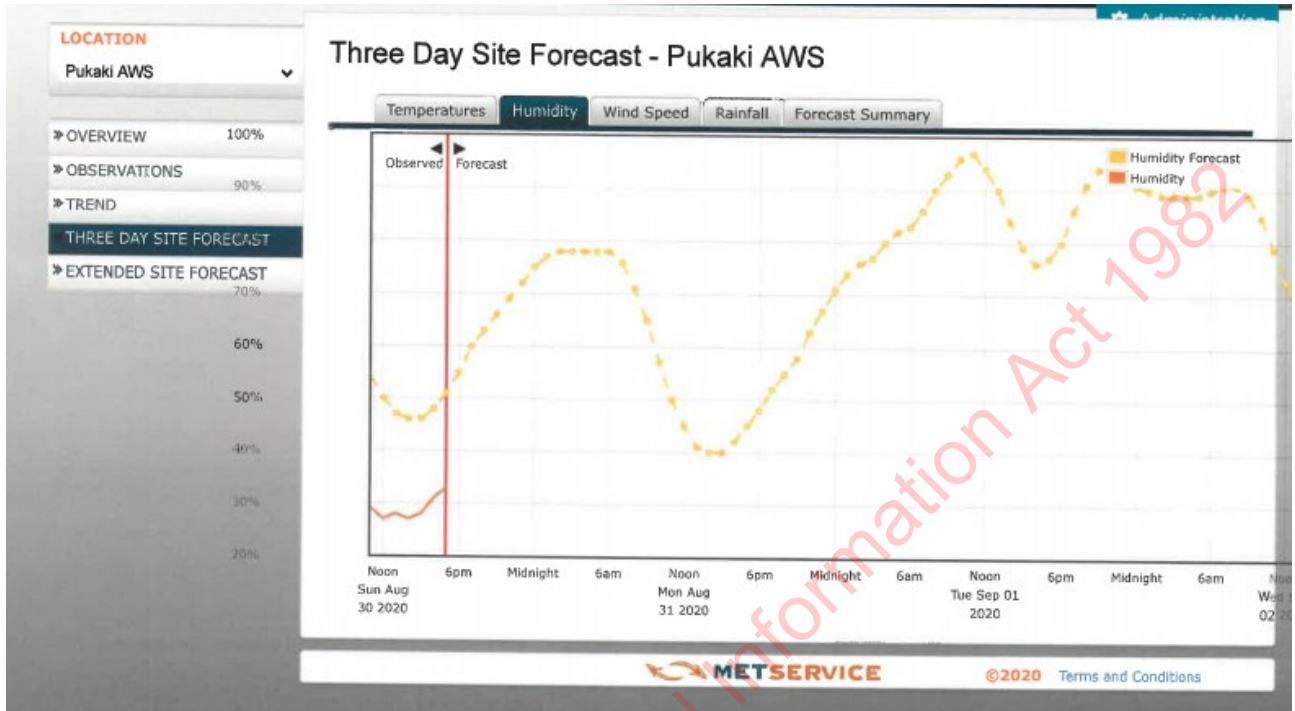
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1. Incident Name Pukaki Downs Fire		2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700		SECTOR ASSIGNMENT RF204	
3. Sector One	4. Description		5. Division Assigned		
6. Sector Supervisor		<i>Affiliation</i>	<i>Phone</i>	<i>Radio Ch</i>	
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>
Ashburton ASH621					
Temuka AREA2203					
Timaru TIMA802					
DOC					
8. Sector Assignment / Special Instructions					
Prevent any further damage to property.					
Use of thermal cameras to identify hotspots.					
Patrol road.					
Other Resources					
Medium appliance Twizel. Smoke chaser Twizel.					
9. Sector Communications				<i>Phone</i>	<i>Radio Ch</i>
Division/Division Cmdr					
Air Attack Supervisor					
Safety Officer					
10. Prepared By: [REDACTED]				Date/Time 30/8/20 1940	

1. Incident Name Pukaki Downs Fire	2. Operational Period Date 30/08/20 – 31/08/20 Time 2000 - 0700	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.		
<p style="text-align: center;">LACES</p> L - Lookout(s) A – Awareness – Anchor Point(s) C – Communication(s) E – Escape Route(s) S – Safety Zone(s)	<p style="text-align: center;">Fire Orders</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. 	<p style="text-align: center;">Watchouts</p> <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 down wind 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 Smokey conditions. Dangerous trees – potentially unstable. Uneven ground, variable topography. Lavender oil stocks at Lavender Farm. Confirm escape routes.		
5. Prepared By: [REDACTED]	Date/Time 30/8/20 1945	

1. Incident Name Pukaki Downs Fire		2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700		MEDICAL PLAN RF206						
3. First Aid Station <i>Name</i>		<i>Location</i>		<i>Phone/Radio Channel</i>		<i>Paramedics available at Station</i>				
FCP		Lavender Farm, SH80				None				
4. Transportation <i>Ambulance Service</i>		<i>Address</i>		<i>Phone/Radio Channel</i>		<i>Paramedics available with Ambulance</i>				
Twizel Ambulance		Mackenzie Drive				First Response only				
Aoraki Mt Cook Ambulance						First Response only				
5. Hospitals <i>Hospital Name</i>		<i>Address</i>		<i>Phone</i>		<u><i>Travel Time</i></u> <i>Road</i>		<i>Burn Unit</i>	<i>Heli Pad</i>	
Timaru Hospital		Queen Street, Timaru		036872100		2hrs		40m	No	Yes
6. Special Emergency Procedures										
Any significant event, call 111 and ensure the Operations Manager and Deputy are informed										
7. Prepared By: [REDACTED]					Date/Time 30/8/20 1945					
8. Reviewed by Safety Advisor:					Date/Time					

1. Incident Name Pukaki Downs Fire	2. Operational Period Date 30/08/20 – 31/8/20 Time 2000 - 0700	WEATHER FORECAST
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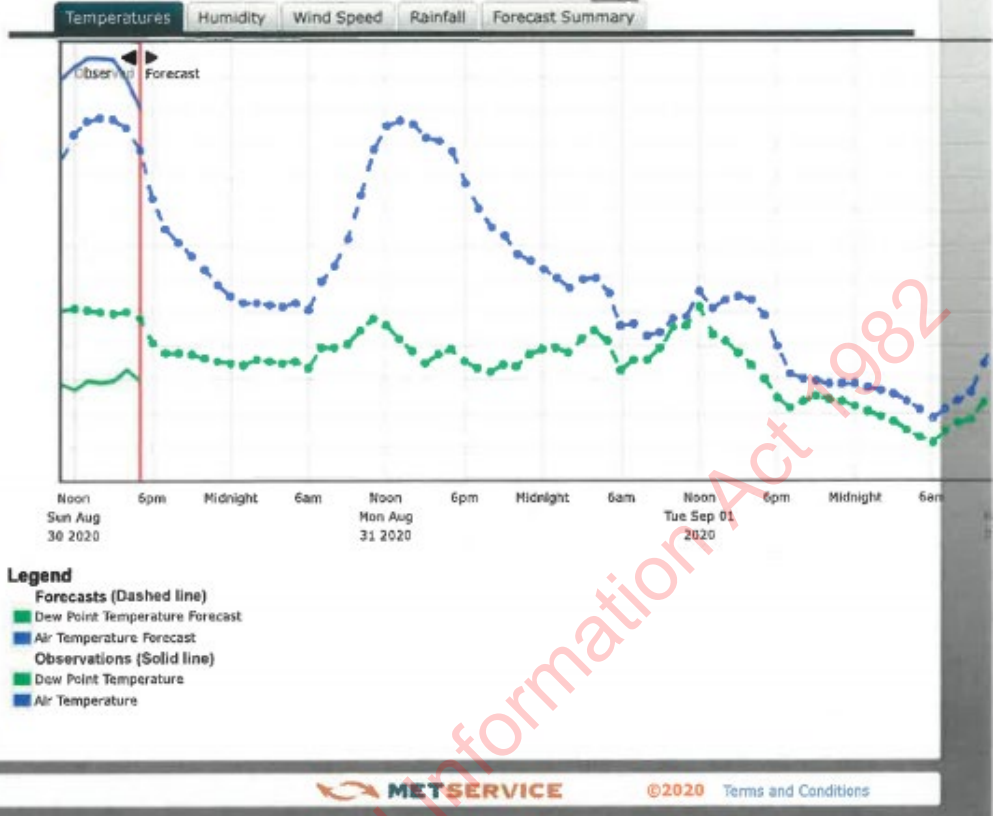


LOCATION
Pukaki AWS

OVERVIEW 20.0°C
OBSERVATIONS 18.0°C
TREND 16.0°C

THREE DAY SITE FORECAST
17.0°C
EXTENDED SITE FORECAST
10.0°C
8.0°C
6.0°C
4.0°C
2.0°C
0.0°C
-2.0°C
-4.0°C
-6.0°C

Three Day Site Forecast - Pukaki AWS

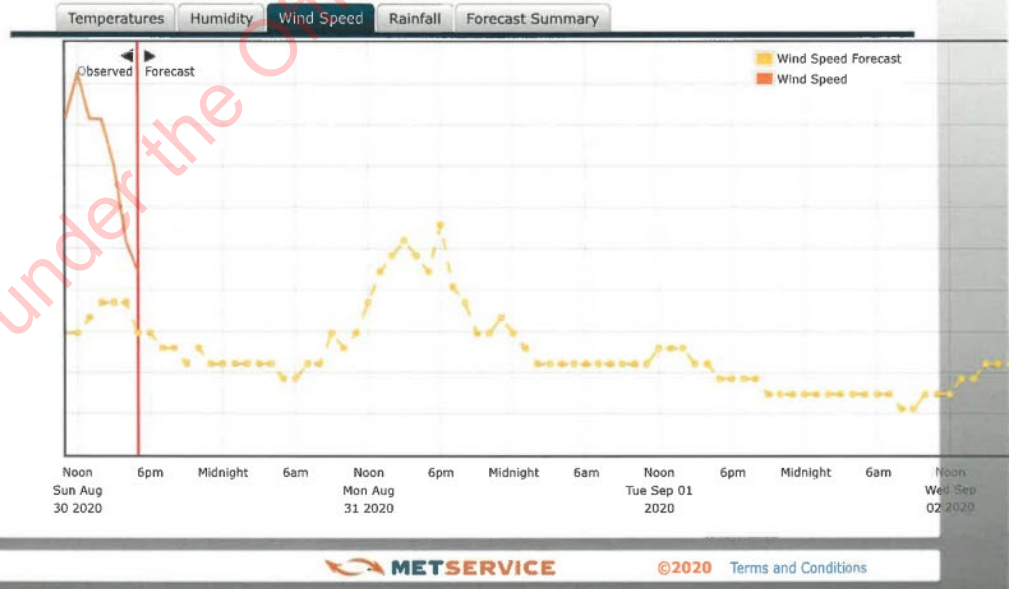


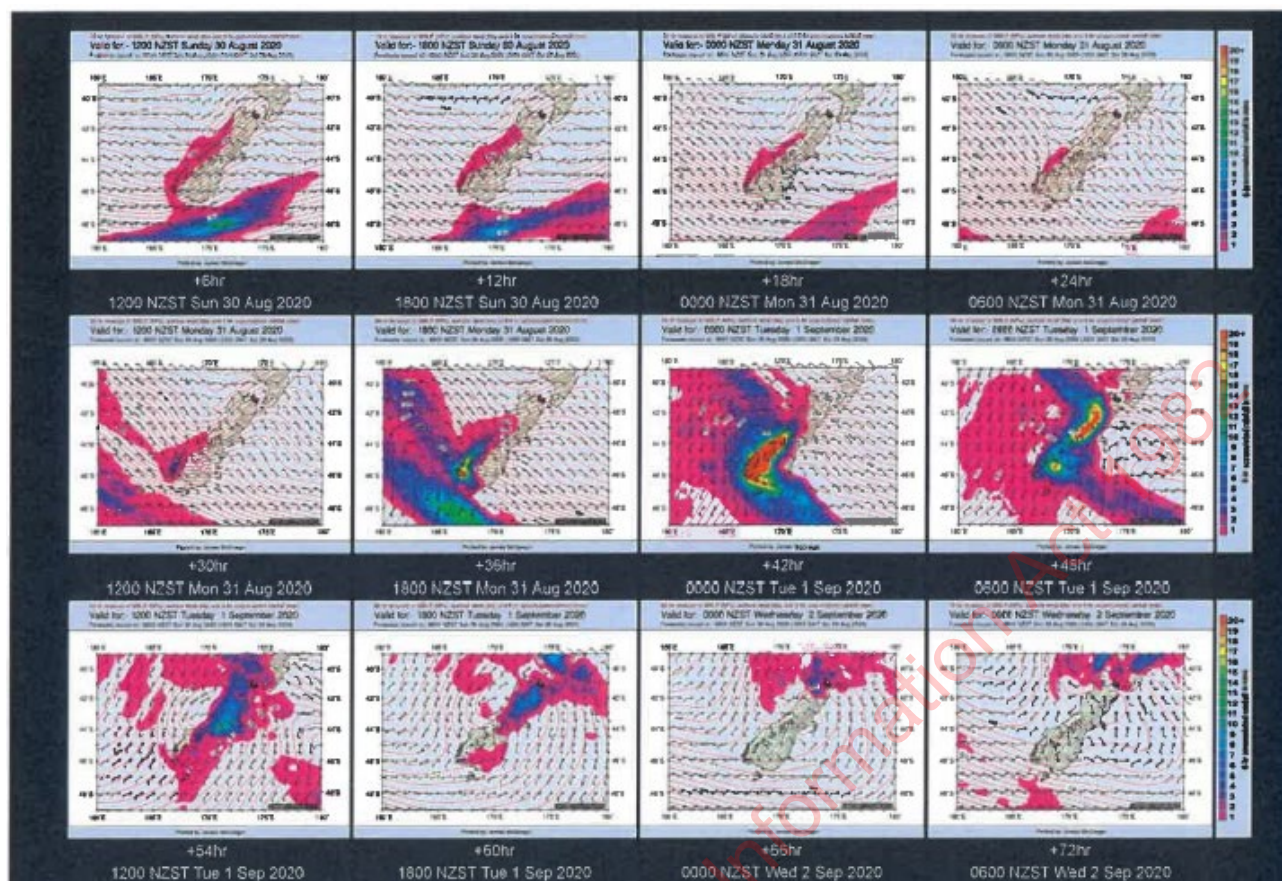
LOCATION
Pukaki AWS

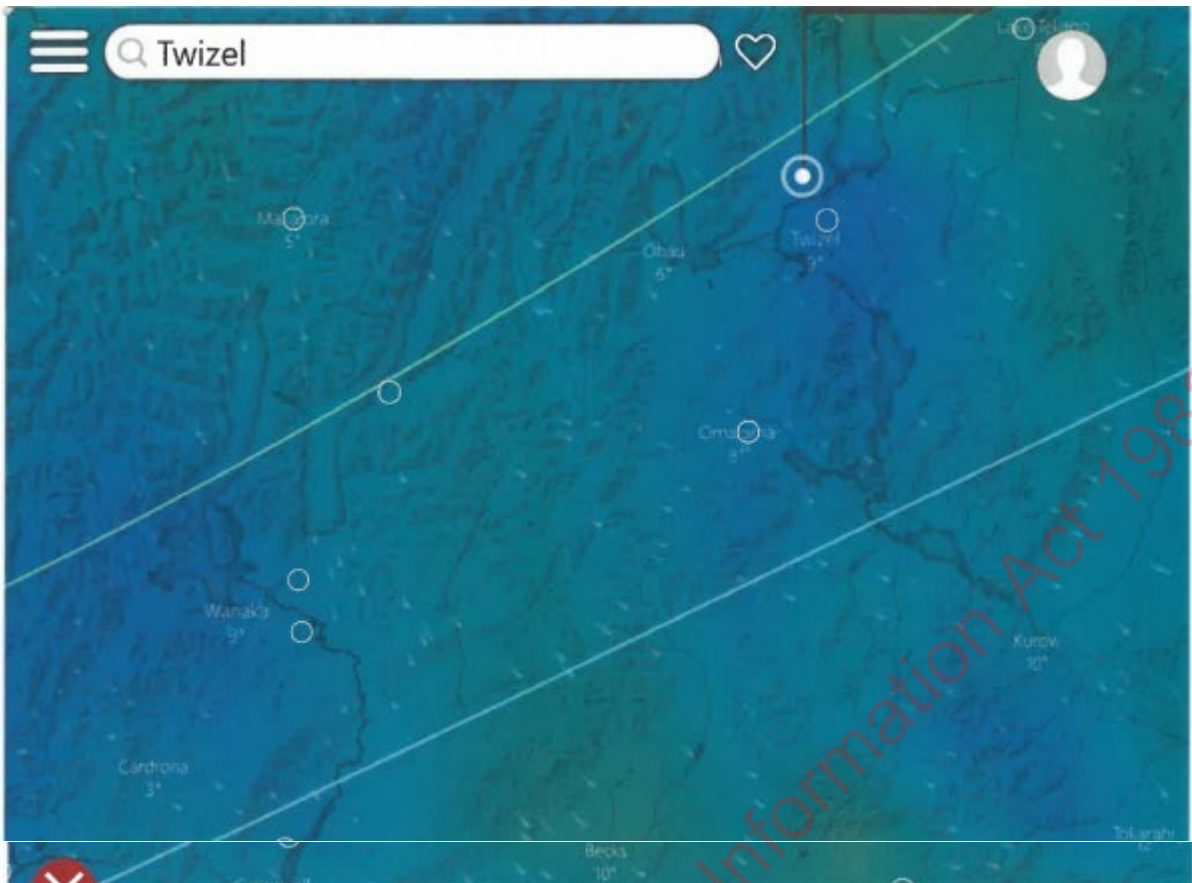
OVERVIEW 50km/h
OBSERVATIONS 45km/h
TREND 40km/h

THREE DAY SITE FORECAST
35km/h
EXTENDED SITE FORECAST
30km/h
25km/h
20km/h
15km/h
10km/h
5km/h
0km/h

Three Day Site Forecast - Pukaki AWS







GFS 22km

	Monday 31									Tuesday 1									
Hours	3AM	6AM	9AM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM
Temperature °C	7°	4°	3°	2°	2°	2°	5°	7°	7°	5°	5°	4°	4°	1°	0°	0°	1°	-1°	-3°
Wind km/h	13	13	13	13	13	13	13	13	13	13	13	10	4	14	12	6	3	1	
Wind dir	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘
Rain mm												1.1	11	12	2CM	3CM	2CM	0.9CM	0.6CM

ECMWF 9km

	Monday 31									Tuesday 1										
Hours	3AM	6AM	9AM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM	
Temperature °C	10°	8°	7°	6°	6°	5°	7°	10°	10°	8°	7°	6°	4°	3°	1°	1°	1°	0°	-1°	
Wind km/h	8	5	2	3	2	2	2	7	0	12	5	5	5	4	7	4	1	4	6	
Wind dir	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	
Rain mm												0.2	4.9	21	2.8	6CM	5CM	5CM	0.9CM	0.4CM

METEOBLUE

	Monday 31									Tuesday 1									
Hours	3AM	6AM	9AM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM	0AM	3AM	6AM	9AM	12PM	3PM	6PM	9PM
Temperature °C	12°	9°	7°	5°	5°	5°	8°	11°	11°	9°	8°	8°	6°	4°	2°	3°	4°	2°	0°
Wind km/h								30	37			12	5	11	11	9	9	6	
Wind dir	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘	↘
Rain mm												7	4.1	5CM	4.3	4.4			

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FIRE WEATHER FORECAST for Mount Cook Fire Service

For location: Lake Pukaki near intersection SH80

Issued by MetService at 17:28 30-Aug-2020 NZST

Valid from 18:00 30-Aug-2020 NZST to 18:00 02-Sep-2020 NZST

Wind:

Northwest 20 to 30km/h rising to 50 to 60km/h gusting 110km/h Monday afternoon. Southerly change 5 to 10km/h early Tuesday morning. Winds dying out Wednesday.

Precipitation:

Rain is expected to develop Monday night, turning to sleet then possible snow Tuesday morning. Clearing Tuesday evening. Fine on Wednesday.

Temperature:

Temperatures in the high teens on Monday, but cooling to single digits on Tuesday. Cooling below zero early Wednesday morning, but warming to about 6 to 8 degrees Wednesday afternoon.

Humidity:

Below 50% humidity until Monday night, then rising to above 90% Tuesday morning. Remaining above 50% for the remainder of the period.

Remark:

A wind warning is likely to be may be issued for Monday:

Outlook:

Fine Thursday. Northwesterlies returning.

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Three Day Site Forecast - Pukaki AWS

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	Air (°C) ¹	Dew Point (°C) ¹	Humidity (%) ¹	Wind Dir ²	Wind Speed (km/h) ¹	Rainfall Acc (mm) ²
30						
Aug 4.0	-1.8	66	NNW	11	-	
0600						
0700 5.2	-0.4	67	N	11	0.0	
0800 7.3	1.6	67	NNE	15	0.0	
0900 9.1	2.6	64	calm	13	0.0	
1000 11.2	3.6	59	NNW	15	0.0	
1100 13.1	4.1	54	NW	15	0.0	
1200 14.5	4.2	50	WNW	15	0.0	
1300 15.3	4.0	47	W	17	0.0	
1400 15.5	3.9	46	WNW	19	0.0	
1500 15.4	3.8	46	NW	19	0.0	
1600 14.9	3.9	48	WNW	19	0.0	
1700 13.6	3.6	51	WNW	15	0.0	
1800 10.7	2.1	55	WNW	15	0.0	
1900 8.9	1.5	60	NW	13	0.0	
2000 8.1	1.5	63	NW	13	0.0	
2100 7.3	1.4	66	NW	11	0.0	
2200 6.5	1.2	69	NW	13	0.0	

¹ - the one minute average value

² - the accumulated value for the preceding hour

Released under the Official Information Act 1982

	Air (°C) ¹	Dew Point (°C) ¹	Humidity (%) ¹	Wind Dir ²	Wind Speed (km/h) ¹	Rainfall Acc (mm) ²
2300	5.6	1.0	72	NW	11	0.0
31						
Aug	4.9	0.9	75	NW	11	0.0
0000						
0100	4.5	0.8	77	NW	11	0.0
0200	4.5	1.1	78	NNW	11	0.0
0300	4.4	1.0	78	NW	11	0.0
0400	4.3	0.9	78	NW	11	0.0
0500	4.5	1.0	78	NNW	9	0.0
0600	4.1	0.6	78	NNW	9	0.0
0700	5.8	1.8	76	N	11	0.0
0800	6.7	1.8	71	NE	11	0.0
0900	8.3	2.0	65	NNE	15	0.0
1000	10.9	2.8	57	N	13	0.0
1100	13.6	3.5	50	NNW	15	0.0
1200	15.0	3.1	45	NW	19	0.0
1300	15.3	2.3	41	NNW	22	0.0
1400	15.1	1.6	40	NNW	24	0.0
1500	14.3	0.9	40	NNW	26	0.0
1600	14.1	1.4	42	NNW	24	0.0
1700	13.5	1.7	45	NW	22	0.0
1800	11.6	1.0	48	NW	28	0.0
1900	10.1	0.6	52	NW	20	0.0
2000	9.0	0.4	55	NW	19	0.0
2100	8.5	0.8	58	NW	15	0.0
2200	7.4	0.7	63	NW	15	0.0
2300	7.0	1.4	67	NW	17	1.1
1						
Sep	6.5	1.7	71	NW	15	2.4
0000						
0100	6.0	1.8	74	NW	13	1.9
0200	5.4	1.5	76	WNW	11	3.0
0300	5.9	2.3	77	WNW	11	0.0

¹ - the one minute average value

² - the accumulated value for the preceding hour

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	Air (°C) ¹	Dew Point (°C) ¹	Humidity (%) ¹	Wind Dir ²	Wind Speed (km/h) ¹	Rainfall Acc (mm) ²
0400	6.0	2.8	80	WNW	11	0.0
0500	5.1	2.2	82	WNW	11	0.0
0600	3.1	0.5	83	W	11	0.2
0700	3.2	1.1	86	WNW	11	1.3
0800	2.5	1.1	90	W	11	1.1
0900	2.7	1.8	93	SSW	11	0.2
1000	3.5	3.0	96	SSW	11	0.8
1100	3.6	3.1	97	S	11	1.5
1200	5.1	4.2	94	S	13	1.1
1300	4.1	2.6	90	SSE	13	0.7
1400	4.6	2.2	84	SSE	13	0.5
1500	4.8	1.5	79	S	11	0.1
1600	4.6	0.8	76	SE	11	0.4
1700	3.7	0.0	77	ENE	9	1.1
1800	1.9	-1.1	80	NE	9	0.8
1900	0.3	-1.7	86	NNE	9	0.3
2000	0.0	-1.3	91	N	9	0.2
2100	-0.1	-1.0	94	N	7	0.5
2200	-0.3	-1.2	94	NNW	7	0.4
2300	-0.3	-1.3	93	NNW	7	0.0
2						
Sep 0000	-0.3	-1.6	91	NW	7	0.0
0100	-0.5	-1.9	90	NW	7	0.0
0200	-0.7	-2.2	89	NW	7	0.0
0300	-0.9	-2.5	89	WNW	7	0.0
0400	-1.3	-3.0	89	WNW	7	0.0
0500	-1.8	-3.4	89	WNW	7	0.0
0600	-2.3	-3.7	90	WNW	7	0.0
0700	-1.8	-3.1	91	WNW	7	0.0
0800	-1.3	-2.6	91	W	6	0.0
0900	-0.8	-2.4	89	WSW	6	0.0

¹ - the one minute average value

² - the accumulated value for the preceding hour

	Air (°C) ¹	Dew Point (°C) ¹	Humidity (%) ¹	Wind Dir ²	Wind Speed (km/h) ¹	Rainfall Acc (mm) ²
1000	0.9	-1.4	85	WSW	7	0.0
1100	2.6	-0.7	79	WSW	7	0.0
1200	4.3	-0.1	73	WSW	7	0.0
1300	5.0	-0.8	66	WNW	9	0.0
1400	5.6	-1.2	61	NW	9	0.0
1500	6.3	-1.3	58	NW	11	0.0
1600	5.2	-2.4	58	NNW	11	0.0
1700	4.2	-3.0	60	N	11	0.0

¹ - the one minute average value

² - the accumulated value for the preceding hour