

# FS WILDFIRE INCIDENT ASSESSMENT REPORTING GUIDE

- This Guide is an operational analysis tool that assists with effective fire typing in the Free State Wildfire matrix.
- The tool provides a uniform guide to FPA, Fire Brigade and DMC Personnel for Wildfire Incident Typing.
- A combination of variables and circumstances will create a unique operational environment that must be taken into consideration in the assessment, planning and implementation of a response plan.
- The Initial Attack IC must provide an Incident Evaluation with a recommendation for fire typing to assist with initiating an appropriately scaled response.

<b>Facts that the situation presents</b>	<b>1.</b>	<b>Date of incident</b>												
		<b>Time of incident</b>												
	<b>2.</b>	<b>Location of incident</b>												
	<b>3.</b>	<b>Nature of incident</b>												
	<b>4.</b>	<b>Risk to personnel</b>												
		<b>Risk to occupants</b>												
	<b>5.</b>	<b>Values at Risk</b>												
	<b>6.</b>	<b>Threats to the environment</b>												
	<b>7.</b>	<b>Distance from values at risk</b>	0 -300 m	300 - 500 m	500-800 m	800-1200 m	>1200 m							
	<b>8.</b>	<b>Character of fire</b>	Smouldering			Creeping			Running					
			Crowning			Spotting			Erratic					
	<b>9.</b>	<b>Spread Potential</b>	Low			Moderate			High			Extreme		
	<b>10.</b>	<b>Estimated Wind (Km\h)</b>	2 – 5km/h	5 – 10km/h	12-19km/h	20-28km/h	29-38km/h							
			1 Beaufort	2 Beaufort	3 Beaufort	4 Beaufort	5 Beaufort							
			39-49km/h	50-61km/h	62-74km/h	75-88km/h	89-102km/h							
			6 Beaufort	7 Beaufort	8 Beaufort	9 Beaufort	10 Beaufort							
	<b>11.</b>	<b>Wind direction</b>	Down Canyon			Up Canyon			Downslope			Upslope		
			North			North East			North West			East		
			South			South East			South West			West		
	<b>12.</b>	<b>Weather</b>	Clear & Sunny			Hazy		Partly Cloudy			Thunderstorm Activity			
<b>13.</b>	<b>Fuel type</b>	Grass			Brush			Grass & Trees			Planted Crops			
<b>14.</b>	<b>Adjacent fuel</b>	Grass			Brush			Grass & Trees			Planted Crops			
<b>15.</b>	<b>Fuel Curing Index</b>	0-20%			21-40%		41-60%		61-80%		81-100%			
		INSIGNIFICANT			LOW		MEDIUM		HIGH		EXTREME			
<b>16.</b>	<b>Topography</b>	Flat	Rolling	Sporadic Koppies			Hilly Ranges			Mountainous				
<b>17.</b>	<b>Slope (%)</b>	Flat			0 - 20 %			20 - 40 %			40+ %			
<b>18.</b>	<b>Aspect</b>	North			South			East			West			
<b>19.</b>	<b>Estimated size of fire</b>	<b>Small</b> Less Than 10 Hectares			<b>Medium</b> 10- 100 Hectares			<b>Large</b> 100-500 Hectares			<b>Extensive</b> 500- 1000 Hectares			
<b>20.</b>	<b>Fire Barriers (i.e. Natural / Man-made / old burns)</b>	<b>None - Few</b>			<b>Moderate</b>			<b>Numerous</b>						

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21.	Predictions based on the existing situation	<b>Potential size of fire</b>		<b>Small</b> Less than 1000 hectares	<b>Medium</b> 1000 – 3000 hectares	<b>Large</b> 3000 – 10000 hectares	<b>Extensive</b> Above 10000 hectares	
22.		<b>Potential Duration (Hours)</b>		0 - 2	2 - 4	4 - 8	8 - 12 12+	
23.		<b>Type 5 Fire</b>	Fire Intensity kJ/s/m	1000 -1500	<ul style="list-style-type: none"> <li>• 2-4 SBU's or a WoF Strike Team with a SU or an unsupported WoF hand crew should be able to suppress the fire.</li> <li>• No logistical support needed</li> <li>• Nominal control lines (1.5 x fuel height) will assist in containing fire spread.</li> </ul>			
Flame Length			Low: 0.5-1.00m					
Kill Zone			1.5-3m					
Forward ROS			<800m/h					
Fire Intensity kJ/s/m			1000 -1500					
24.	<b>Type 4 Fire</b>	Fire Intensity kJ/s/m	1500 - 2000	<ul style="list-style-type: none"> <li>• 6-10 SBU's or a WoF Strike Team with a SU and coordinating with 2-4 SBU's or a full Wof Hand Crew coordinating with 4-6 SBU's should be able to suppress the fire.</li> <li>• Basic logistical support from 2 small or 1 medium water tanker/s is needed if the distance to a reliable water source exceeds 1km.</li> <li>• Standard control lines (3 x fuel height) will assist in containing fire spread.</li> </ul>				
Flame Lengths		Moderate: 1-2m						
Kill Zone		3-6m						
Forward ROS		800-1000m/h						
Fire Intensity kJ/s/m		1500 - 2000						
25.	<b>Type 3 Fire</b>	Fire Intensity kJ/s/m	2001 - 2800	<ul style="list-style-type: none"> <li>• 18-20 SBU's or 12-16 SBU's with support of a WoF Strike Team with a SU should be able to contain and suppress the fire. Wof Hand Crews cannot be deployed in a direct attack role over even ground and must provide support for mop-up or direct attack in steep, low fuel environments.</li> <li>• Basic logistical support of 2-4 medium or 3 large water tankers is essential.</li> <li>• Strategic control lines (10-12m) will assist in containing forward fire spread.</li> </ul>				
Flame Lengths		High: 2-4m						
Kill Zone		6-12m						
Forward ROS		1000 – 2000m/h						
Fire Intensity kJ/s/m		2001 - 2800						
26.	<b>Type 2 Fire</b>	Fire Intensity kJ/s/m	3000 - 3600	<ul style="list-style-type: none"> <li>• 18-20 SBU's and 2 WoF Strike Teams or 2 WoF Hand Crews with extensive logistical support is needed to effectively contain and suppress the fire. Wof Hand Crews cannot be deployed in a direct attack role and provides support for mop-up, crews SBU's or is utilised for indirect attack strategies.</li> <li>• Extensive coordinated logistical support with bulk water tankers is essential to maintain effective control and suppression efforts.</li> <li>• Strategic Buffer zones (20-30m) will assist in containing forward fire spread.</li> </ul>				
Flame Length		Very High: 4-8m						
Kill Zone		9-16m						
Forward ROS		2000 -4000m/h						
Fire Intensity kJ/s/m		3000 - 3600						
27.	<b>Type 1 Fire</b>	Fire Intensity kJ/s/m	>3700	<ul style="list-style-type: none"> <li>• 20-30 SBU's and 3-4 WoF Strike Teams or 2-3 WoF Hand Crews with extensive logistical support is needed to effectively contain and suppress the fire. Wof Hand Crews cannot be deployed in a direct attack role and provides support for mop-up, crews SBU's or is utilised for indirect attack strategies.</li> <li>• Extensive coordinated logistical support with bulk water tankers is essential to maintain effective control and suppression efforts.</li> <li>• Fire unlikely to be contained under current conditions</li> </ul>				
Flame Length		Extreme: 8-15m						
Kill Zone		>16m						
Forward ROS		4000 – 8000m/h						
Fire Intensity kJ/s/m		>3700						