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Capturing Community Members' Bushfire Experiences: The Lake Clifton (WA) Fire

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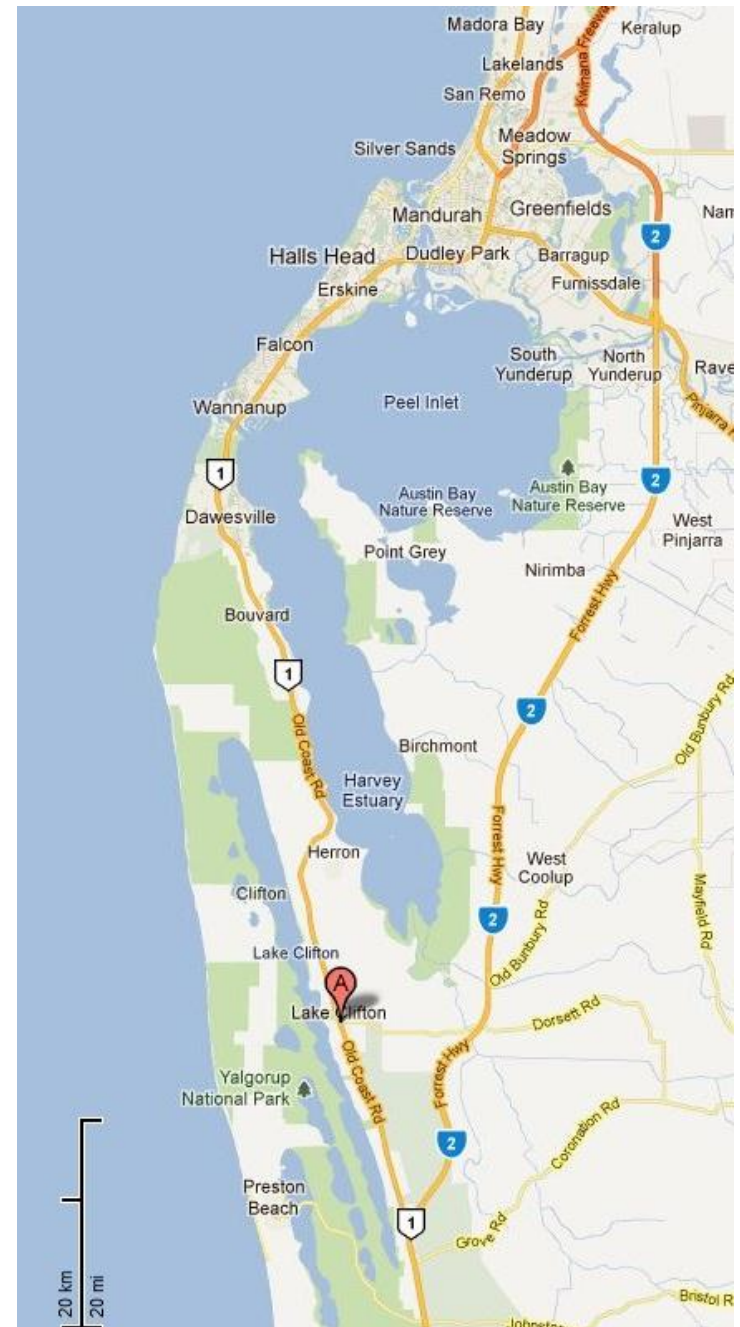
Overview

- Background
- Response
 - The taskforce
 - Preparation
 - Actions
- Results
- Lessons learned



Lake Clifton

- Approximately 100km south of Perth
- Falls within Shire of Waroona
- 2-6ha blocks, many vacant
- Variable house construction
- Many retirees ('tree-changers')





The Day of the Fire

- January 10, 2011
- Weather:
 - Peak temperature at Mandurah 37.2°C,
 - Relative Humidity 15%
 - ESE winds 20kph
 - Very High FDR for South-western coastal area
- Typical hot summer's day, though easterly breezes were unusual

The Fire

- Initially detected at 11:47am
- Broke out west of Forrest Highway → WNW direction
- First home loss reported at 5:00pm
- Under control at 3:00am the following day
- Initially thought to have been deliberately lit, but investigations continuing



**Inc 171042 -
Dorset Road Fire
Waroona**

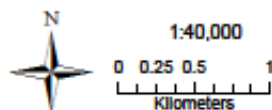
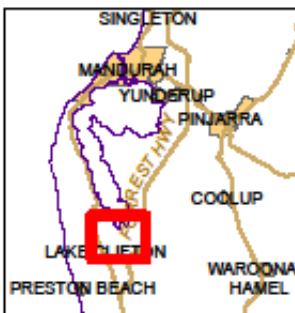
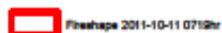
Legend



Road Closures

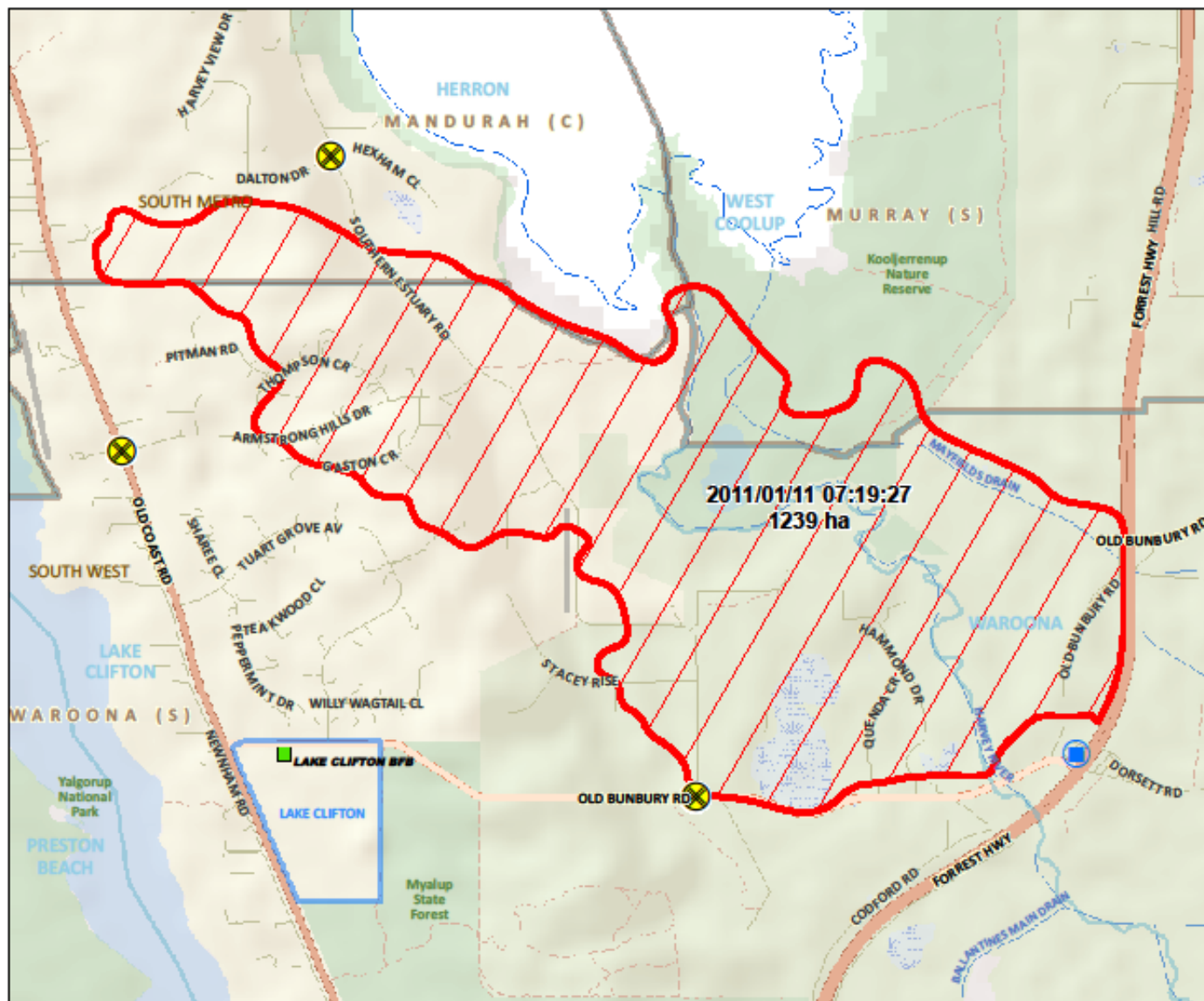


Forward Control Point



Map created by PRER Spatial Services
 Drawn by YP Lee on 11/01/2010
 Data sourced from Landgate, PRER Air Intel
 Ref: 1100000010-001 Plate C100A - 171042
 Download File: Warnings.mxd

DISCLAIMER: All information depicted in this map is current as of creation.
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The Results

- 10 homes destroyed
 - Outbuildings, equipment, and vehicle loss
 - Livestock losses

No human lives lost





Response

- Field research taskforce assembled:
 - 5 x Community Safety personnel from FESA
 - 4 x Bushfire CRC research personnel
- Mission: To learn about community members' experiences during the fire and their levels and types of preparation in the period leading up.





Planning

- Initial meetings with local government recovery team:
 - Explain goals/purpose
 - Learn about recovery services
 - ‘Market’ the project to encourage participation
- Establish a ‘home base’/operations centre
 - Lake Clifton bakery



Planning

- Map of the area:
 - Vacant/occupied lots
 - Affected/unaffected properties
 - Track which had been visited
- Equipment:
 - Digital audio recorder, writing materials, interview protocol (laminated), information and support sheets, and demographic questionnaires
 - Water, sunscreen, hat, insect repellent



Interview Protocol

- Based on Bushfire CRC Research Taskforce interviews after 2009 bushfires:
 - Impressions of community
 - Awareness of bushfire risk
 - Fire plan
 - Preparatory actions taken
 - Information about preparedness
 - Warnings about the fire
 - Response to fire



Procedure








- Interviews conducted from January 18-21
- Interviews conducted in pairs:
 - Maximum of one FESA rep
 - No identical pairs worked multiple blocks
- Interviewers wore branded outfits
- Days divided into AM and PM blocks, lunch in between

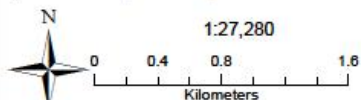
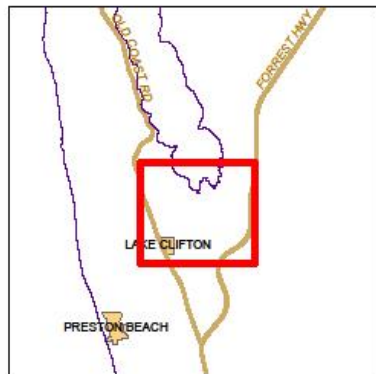


Interviews

- Residents approached in their home
 - 39 agreed to be formally interviewed, 1 wanted to tell his story
 - 2 people declined
 - 1 person declined to be recorded
- 52 interviewees (60% female) in 40 interviews
- Mean age = 54 years (range 26-77)
- 24 households without children, 16 with (mean= 2)

Dorset Road Fire - Waroona Shire

-  Fire Perimeter
-  Lot Boundaries
-  Properties Interviewed (No Damage)
-  Properties Interviewed (Damaged/Destroyed)
-  Damaged/Destroyed Properties
-  Vacant Blocks
-  Roads

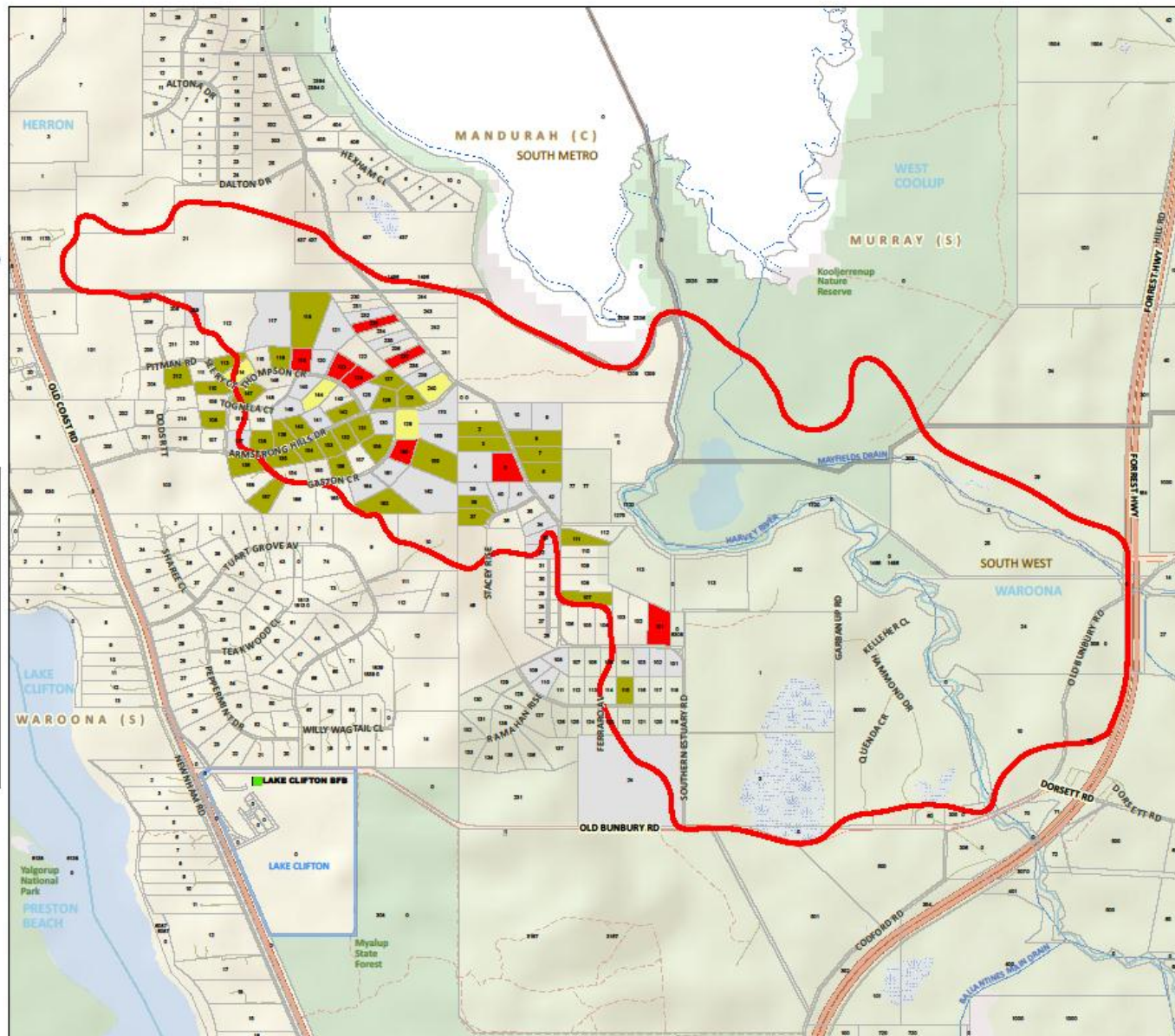


Map created by FESA Spatial Services
Drawn by TP Lee on 11/01/2010
Data sourced from Landgate, FESA and
Ref 1 Incident (2010-2011 Lake Clifton - 171040)
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DISCLAIMER: All information depicted in this map is correct as of creation.
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FESA
Fire & Emergency Services
Authority of Western Australia





Results – Sense of Community

“We didn’t really communicate...I introduced myself when they first moved in, and it kind of didn’t really work out. And I guess that’s the way people are here. When you move into these kind of environments on, like, five acre blocks and no one can see you, it’s kind of like that’s the way people want it.”

“We know people's faces a lot but we don't really associate with a lot of people, apart from our immediate neighbours, because both of us still work.”



Preparedness for Bushfires

- Reading about Bushfire safety:

“We've had plenty of information from fire authorities. A kit came through, you know, your bushfire survival kits and all that type of thing. They've been very, very good. How to prepare in case of a fire and emergency and of course when the day comes you think Jesus Christ I should have read that bloody thing a bit more.”



Awareness of Risk

- High levels of awareness of risk (though after the fact)

“Yeah, I suppose it was a concern. When I first bought it and we saw all these trees and vegetation around I think it's the first thing you think about is fire. But then again some of the neighbours tell us we haven't had a fire here since Jesus Christ entered Jerusalem. So everything was honky-dory and we took it on... You get that feeling it'll never happen. It'll never happen. But it did. It did, yeah.”



Preparation

- Only two of the interviewees appeared to have undertaken extensive preparatory actions:
 - Secondary break
 - Fuel-powered generator
 - Independent water supplies
- Another 16 had reported some preparation:
 - Slashing vegetation
 - Cleaning litter
 - Prepare items to take on evacuation



Readiness to Take Action

- Residents varied considerably in their readiness to take action in response to the threat

“by the time I got here it was the orange haze and it was ash falling....So I was here five minutes, grabbed the car, drove in the dogs and we were gone”

“I just grabbed the phone that was - I was standing right there and ringing my husband at work and I was just in a mad panic. I just said to him - trying to say what I had to say, and I could hardly speak and I could hear him trying not to panic.”



Intentions vs. Actions

Prior Bushfire Plan/Intention	N	Action on the Day	n	%
<u>Leave Early</u>	26	Left early	5	19%
		Left late	19	73%
		Absent by chance	2	8%
<u>Stay and Defend</u>	4	Stayed and defended	3	75%
		Left late	1	25%
<u>Wait and See</u>	2	Stayed and defended	1	50%
		Absent by chance	1	50%
<u>No Plan</u>	5	Left late	2	40%
		Left early	1	20%
		Stayed and defended	1	20%
		Absent by chance	1	20%
<u>Unclear</u>	3	Stayed and defended	2	67%
		Left late	1	33%



Information Seeking – Driving Towards the Fire

“We looked out over the hill and went gee – that looks really close, I’ve never noticed a fire that close before. So we went for a drive to see where it was.”

“As soon as we saw the smoke at 12 o’clock – I was having a sleep and recuperating and I said to S_____ [wife] ‘please drive down to spot where that fire is, don’t go near it, tell me where it is’. Because when it took off I said it’s at [_____] farm, it’s in the grass.”



Information and Expectations

- Most learned of fire from the smoke and/or flames (83%)
- Many received phone calls from friends, neighbours, or family members (65%)
- 7 expected to receive formal warning from emergency services personnel
- 3 expected fire fighting / rescue assistance



Key Influences over People's Actions

- Perceived threat of the fire
- Commitment to a bushfire plan
- Desire to save pets and/or livestock
- Perceived threat to life of family members
- Lack of time
- Insurance

“It's only bricks and mortar. Everything's replaceable. The first thing is you, your family...they come first. Living things come first. End of story.”



Extraneous Factors Influencing Decisions

- Beneficial:
 - Practical assistance from family, friends, neighbours
 - Information about location of the fire
 - Regulating fear and anxiety
 - Focusing on survival-related tasks
- Barriers:
 - Not knowing where the fire was
 - Panic
 - Illness of self or family members
 - Presence of children
 - Lack of confidence



Lessons Learned for Future Research

1. Value of forming cross-disciplinary teams
 - But importance of maintaining independence
2. Promoting the project before it begins
3. Establishing a presence in the community
4. Feedback to residents
5. Dogs!



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Thank you!

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