

Knysna Fire Report



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Preface

- Two fully manned fire stations
- One sub station
- One Volunteer (Municipal Employee) Karatara
- One Volunteer (Municipal employee) Rheenedal

Five Pillars

- Drought
- Topography
- Fuel
- Berg winds
- Strong winds



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Fire on June

1. Kruisfontein Fire at 03h30
2. Lancewood Fire at 04h15
3. Elandskraal Fire at 06h15

Elandskraal fire response

1. Call received at 06h15
2. Karatara Volunteer responded at 06h20
3. Sedgefield on scene at 06h50

Investigation Method

1. First flight over area on morning of 8 June 2017
2. Emails from R Morris
3. Area investigated
4. Photographed the area
5. Dr W Vosloo report
6. W Sternsdorf report
7. Weather pattern
8. Eye witness interview



Evidence collected

- Emails from relevant residents
- Photos of smouldering fire
- Aerial photos
- Photos of structures in non V Pattern
- Photos of burn scar with V Pattern
- Ground photos

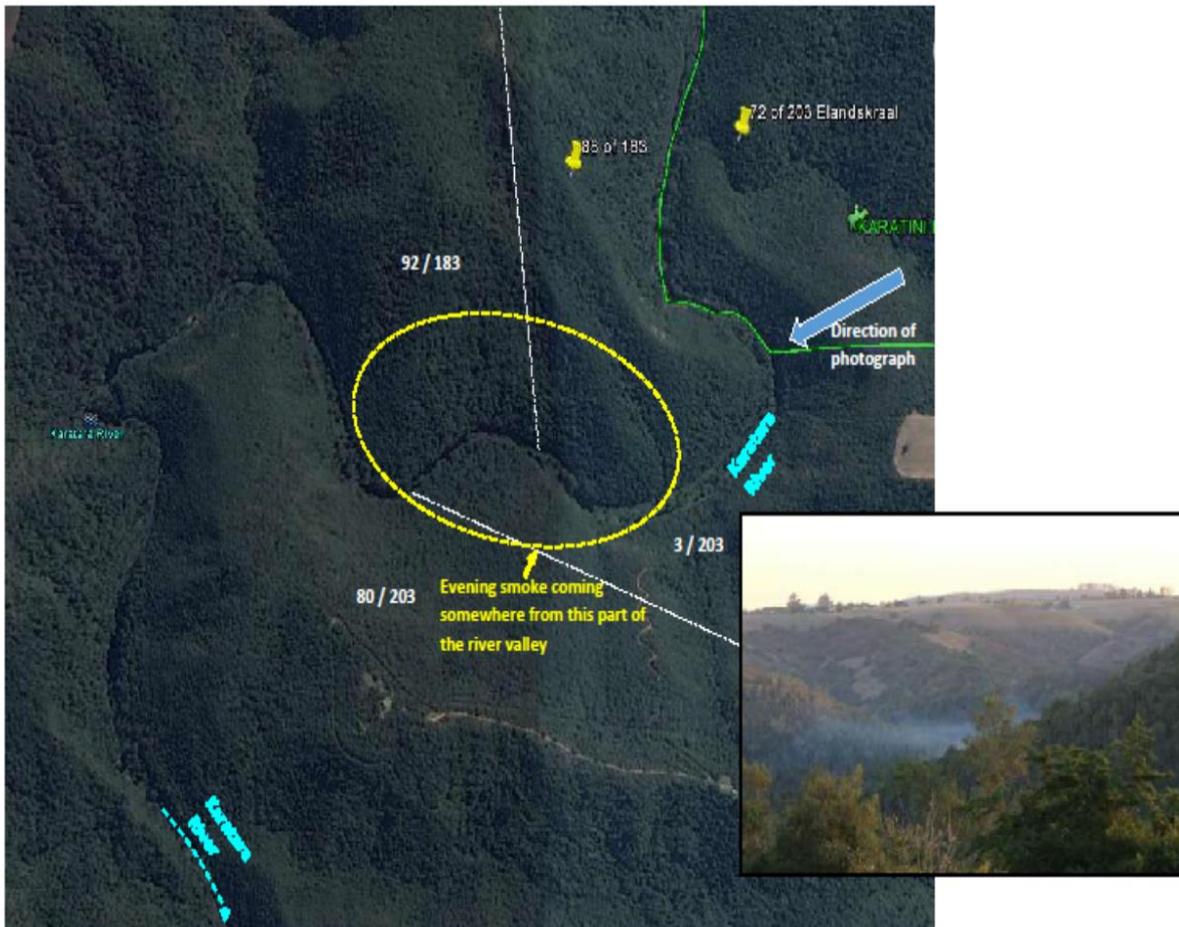


Resident's email 10 May



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APPROX POSITION OF FIRE SMOKE 10 May 2017 FROM KARATARA RIVER VALLEY (approx. boundaries shown)



Another email from resident 23 June 2017



23/06/2017 16:53



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BARRINGTON – ELANDSKRAAL – ROOIKRAAL – ROODEKRAAL AREA GRID MAP. IDENTIFY A GRID, EG TENIQUA TREETOPS = D12 OR D13. Suggest you print a copy and keep with you.

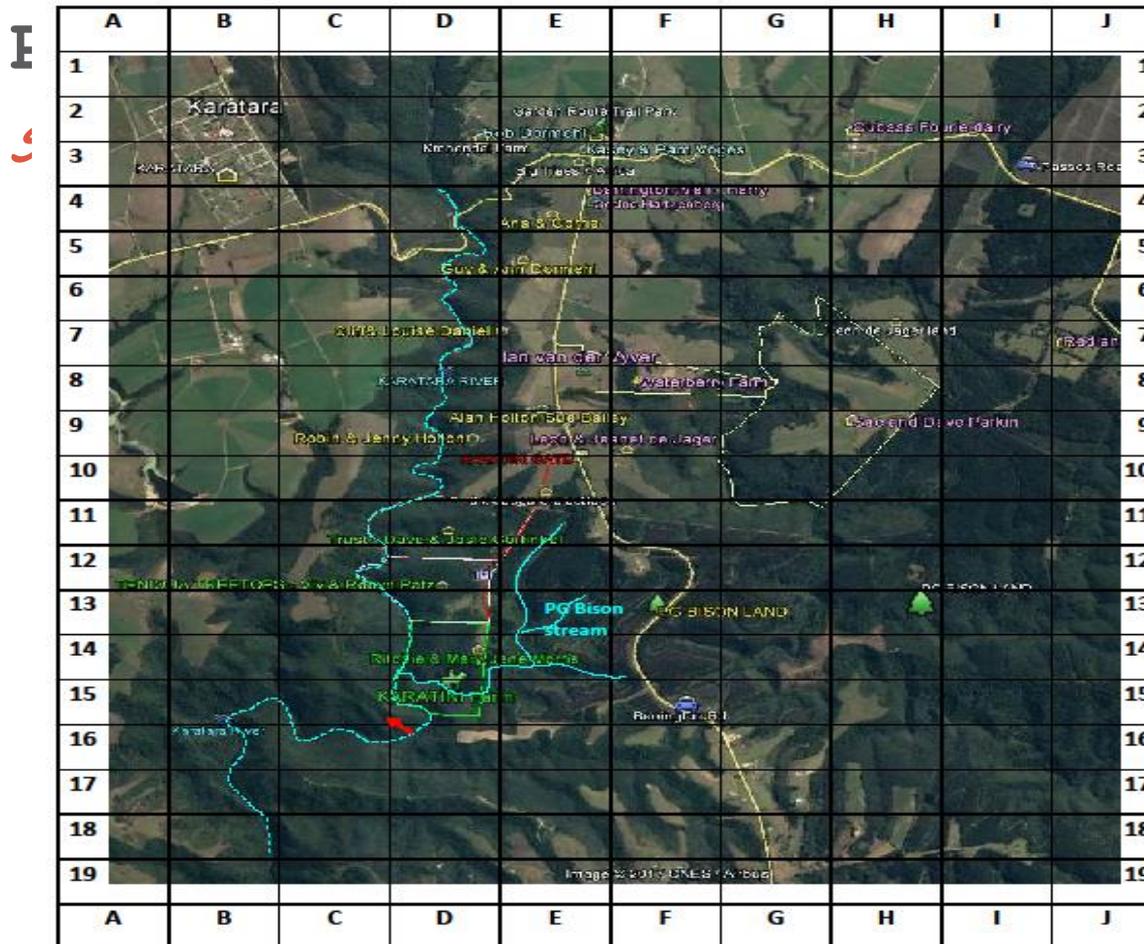


Photo received from resident



Smoulder photo 12 July



Smoke location



No V Pattern Area





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Exposed side



Protected side



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Access



Pottery remains



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Access Path



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Pottery pile



Access road

Towards V Pattern area



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Noah's Ark



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Shed



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Shed damage from Eastern side



Log damage from Eastern side



Burn Scar on poles from Eastern side



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V Pattern Burn Scar



Clearing at bottom of V



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Access to V Section



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Heavy fuel in clearing





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Charring uphill



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Previous fires in area





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Structure in V Path



Hypothesis 1

- Based on Dr Vosloo report
- Fire Originated in non V area
- Cause – lightning strike on 12 April 2017



Hypothesis 2

- Fire originated in V Pattern area
- Probable - man made

Testing Hypothesis 1

- Morris and Vosloo reports one smoulder
- Morris photos and location
- Sternsdorf pointed different location
- Eye witness confirms Morris and Sternsdorf locations
- Wind pattern supplied by Vosloo
- Vosloo not in Elandskraal on 7 June 2017



Testing Hypothesis 2

- Emails, photos and grids R Morris
- Aerial photos
- Fire ground investigation
- Non V Pattern area
- V Pattern Area
- Weather Data
- Burn scar



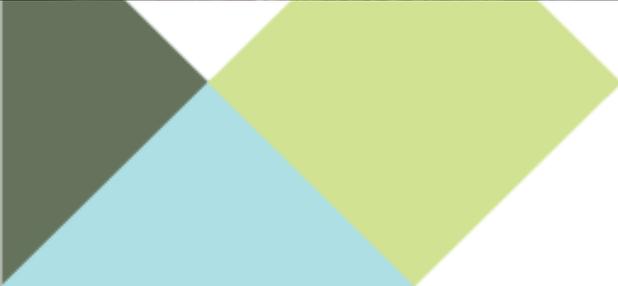
Burnt scar



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10/10/18



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Final Hypothesis

- Wild land fires first ignite light fuels then spread to heavy fuels
- Fire forms a V and grows laterally
- Heavy fuels found in clearing
- Pine cones out of place
- Charred logs out of place
- Access paths
- Previous human activity
- Previous fires
- Wind data and fire spread



Finding

Origin

- V Shape area
- First ignition point in clearing

Probable Cause

- Pine cones and stacked heavy fuels ignited

Questions?



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