Enviro Wildfire (Pty) Ltd

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This summary report has been compiled with the intention of providing interested parties and members of the public with information pertaining to events and matters relating to the Devils Peak fires of 18 April 2021.

INVESTIGATOR

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DATE OF SUBMISSION

31 May 2021

1. SUBJECT: SUMMARY OF INVESTIGATION INTO 18 APRIL 2021 FIRE

2. PURPOSE

To provide a summary of the investigation pertaining to events and matters relating to the Devils Peak fires of 18 April 2021.

3. BACKGROUND

3.1 INTRODUCTION

3.1.1 Significant interest has been received from interested parties and members of the public relating to the fire that occurred on Sunday 18 April 2021.

3.1.2 This report serves to provide information for release into the public domain so as to provide an insight into events that occurred on that day.

3.2 THE FIRE OF SUNDAY MORNING

3.2.1 On Sunday morning 18 April 2021 at approximately 08h40 a fire originated on Table Mountain National Park (TMNP) property in the area known as Hospital Bend in close proximity to Philip Kgosana Drive.

3.2.2 The weather conditions, as confirmed by weather data, CCTV camera footage and eye witness accounts were a calm/very light breeze (the smoke was going straight up), the air being warm and dry, and these conditions prevailed until approximately 10h00.

3.2.3 The City of Cape Town fire department (CTFRS) and TMNP firefighting resources responded to the fire, each arriving at the scene within 12 minutes of them having received the fire call. Additional resources were requested and provided.

3.2.4 At approximately 10h00 Table Mountain National Park requested a helicopter to assist with extinguishing the fire. The helicopter was on scene within 23 minutes.

3.2.5 Due to the unusually and extremely dry conditions (the humidity dropped to below 15%) smouldering embers in the warm smoke column started to fall outside of the burn area from about

10h15 when the wind increased in speed and changed to a north-westerly direction. These embers caused new fires to start over a wide area.

3.2.6 The increase in the wind speed caused the new fires to rapidly spread in a south-easterly direction and caused damage to the Rhodes Memorial restaurant as a result of direct flame contact, radiated heat and wind-blown embers. Damage also occurred to buildings on University of Cape Town property, the historic Mosterts Mill and various private properties as a result of wind-blown embers landing in and on dry combustible materials such as thatch, pine and palm trees, ivy, and leaves in gutters.

3.2.7 Later on Sunday evening the wind changed direction again and caused the fire to spread in a westerly / north-westerly direction across the front of Devils Peak in the direction of the City Bowl area and towards Philip Kgosana Drive.

3.2.8 The fire was eventually extinguished on Tuesday afternoon.

3.2.9 Various potential causes of the fire were considered. The fire having been caused as a result of a natural or an accidental / negligent incident, has been eliminated. Evidence suggesting that the fire was started as a malicious act is being investigated.

3.3 THE FIRES OF SUNDAY EVENING

3.3.1 On Sunday evening at approximately 20h35 three separate fires in close proximity to each other were reported adjacent to Philip Kgosana Drive approximately 2 km to the west of where the morning fire had originated.

3.3.2 These fires were attended to and extinguished by the City of Cape Town and the TMNP. These fires did not contribute to the spread or loss suffered as a result of the morning fire.

3.3.3 A person was arrested and charged for starting these fires. This is an ongoing investigation.

3.3.4 There is currently no link between these evening fires and the fire on Sunday morning.

3.4 ASPECTS CONSIDERED AS PART OF THE INVESTIGATION

3.4.1 Legal requirements as per the National Veld & Forest Fire Act: The TMNP was and continues to be a member of the local fire protection association (Cape Peninsula Fire Protection Association). TMNP complied with the legal requirements of the Act including aspects pertaining to the preparation and maintenance of firebreaks, as well as the readiness for fire fighting and actions to fight fires.

3.4.2 Firebreaks:

a) It is important to understand that the purpose of firebreaks is not to only stop fires, but also to slow down the spread of fires.

b) The TMNP subscribes to the Cape Peninsula firebreak system. The firebreaks in the area around Devils Peak were in place and had been maintained before the fire season.

c) In this fire, windblown embers travelled long distances and caused new fires to start (called 'spotting'), which meant that firebreaks were not an effective means of preventing the fire from spreading. The longest distance travelled by a burning ember recorded on the day was over 350 m when it set a palm tree alight on Main Road in the Claremont area.

3.4.3 Use of aerial resources (helicopters):

a) Aerial support is provided to TMNP pursuant to an agreement with Working on Fire. The signed agreement for the use of aerial resources is that pilots and Dispatch Centre staff commence work daily at 10h00 and finish at 18h00. Times can be extended in cases where a fire fighting operation is underway.

b) On 18 April 2021 the fire behaviour until 10h00 was regarded by eye witnesses (including members of the public) as mild due to the absence of wind and relatively small area that was burning.

c) When conditions changed, aerial assistance was requested at 10h00 and the first helicopter was dropping water 23 minutes later. Additional helicopters were requested and assisted with firefighting operations.

e) Thick smoke prevented the helicopter pilots from being able to see the flames and made it impossible to attack the section of the fire that was burning towards the south-east.

3.4.4 Pine trees growing on the TMNP property:

a) When the TMNP was handed the area by the City of Cape Town to manage on a 99 year lease, the Pine trees on the property were already in place and had heritage status preventing such trees from being removed, unless they were in danger of falling over and causing injury to the public.

b) In addition the Pine trees on the University Cape Town property are located in the UCT Heritage Park and the Framework document referring to these pine trees states that *"There appears to be overwhelming consensus from all stakeholders that the desired heritage landscape should remain a post-colonial sylvan one with large trees forming a high tree canopy – possibly dominated by Stone Pines….."* and *"Thus a visually orientated, cultural heritage landscape, rather than the indigenous, or natural heritage landscape, is the preferred future for the UCT Heritage Park"*.

3.4.5 Preventing vagrants and other people from making fires in the TMNP:

a) The Open Park concept (no fences surrounding the majority of the TMNP) makes it impossible to implement absolute access control of the general public including vagrants, church groups and criminals.

b) Regular patrols are undertaken in areas (Noon Gun, Deer Park, Newlands Forest, Silvermine, Kalk Bay Caves, etc.) where fires have historically occurred more frequently.

c) In the case of the fire of 18 April 2021, the current finding is that the fire was not started as a result of vagrant activity.

3.4.6 Management of invasive alien vegetation:

a) The TMNP commenced with alien vegetation clearing in April 1998 with the establishment of the Park.

b) The clearing and eradication of alien vegetation within the TMNP is an ongoing task and based on the size of the Cape Peninsula and the ongoing germination of seeds, the programme is a long term one.

c) Over the past 36 months approximately 620 ha have been cleared in the area where the fire occurred and an amount of R 5.1m spent since 2011.

d) This is in addition to the approximately R 63m that has been spent over the past 4 years in other parts of the Park.

3.4.7 Management of fuel loads:

a) The TMNP has an active fuel reduction and ecological burning programme that is implemented upon the approval of burning permits issued by the City of Cape Town.

b) Challenges in conducting prescribed burning operations include:

- The time period between the application being submitted and the permit being issued.
- Available days with suitable weather conditions to allow for burning to be conducted safely.
- The days of the week when burning may be undertaken (no burning on weekends, Public Holidays, etc.).
- Prevention of burning due to objections from the public sector (residents, businesses, wine farms, public pressure groups).
- Proximity to the urban edge.

3.4.8 Damage to the historic Mosterts Mill:

a) Damage to the historic Mosterts Mill occurred when windblown embers landed on the thatched roof and set it alight.

b) There were no fire protection measures (treated thatch, sprinkler systems, fire hoses, etc.) in place at the historic (1796) Mosterts Mill site.

3.4.9 Damage to UCT buildings:

a) The dry combustible vegetation (pine and palm trees, ivy, bushes) on UCT's property and close to or growing on the various buildings, caught alight when windblown embers landed in or on them.

b) Leaf-filled gutters also ignited as a result of windblown embers, which in turn caused buildings to catch alight.

c) Bitumen on the flat-roofed buildings furthermore probably contributed to damage when burning embers landed on this flammable material and ignited.

d) It is probable that open windows also contributed to buildings being damaged when burning embers may have entered rooms and ignited combustible materials located inside.

4. DISCUSSION

4.1 The extremely low humidity coupled with an increase in wind speed and a change in the wind direction caused embers carried in the warm smoke column to land outside of the burn area where they ignited the surrounding veld. The dry vegetation and wind caused the fire to spread rapidly over a wide front.

4.2 The primary reason for loss being suffered from this fire event was due to windblown embers landing on dry fuels (thatch roofs, pine and palm trees, ivy, leaves in gutters, etc.) that set them alight, resulting in buildings catching on fire.

5. RECOMMENDATIONS

That this report be used to provide information to interested parties.