

ATTACHMENT 11

Bushfire Emergency
Management Plan
prepared by Land and
Environment Consulting

Bushfire emergency management plan

Proposed Lumina Night Walk | Mount Coot-tha Road | Toowong | Queensland
Prepared for Light Dreaming Pty Ltd | 8 August 2022

Bushfire emergency management plan

Final

Report 22064 | Light Dreaming Pty Ltd | 8 August 2022

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Position Managing principal

Signature



Date 8 August 2022

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Document control

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Disclaimer

Notwithstanding the precautions adopted in this report, it should always be remembered that bushfires burn under a range of conditions. An element of risk, no matter how small always remains, and although AS 3959-2018 is designed to improve the performance of such buildings, there can be no guarantee, because of the variable nature of bushfires, that any one building will withstand bushfire attack on every occasion.

It should be noted that upon lodgement of a development application, council and/or the fire service may recommend additional construction requirements.

Although every care has been taken in the preparation of this report, Land and Environment Consultants Pty Ltd accept no responsibility resulting from the use of the information in this report.

1 Introduction

Land and Environment Consultants Pty Ltd (**LEC**) was engaged to prepare a bushfire emergency management plan (**BEMP**) for the proposed Lumina Night Walk at the Brisbane Botanic Gardens, Mount Coot-tha Road, Toowong (**the site**) properly described as lots 1 and 6/SP266267.

A material change of use development application (environmental facility and tourist attraction) will be made for the proposed Lumina Night Walk under the Brisbane City Plan 2014. The proposed Lumina Night Walk activity area plan is provided at Appendix 1 and shows the proposed activity area, Lumina track and overflow carparking areas. It also shows the location of the existing main carparking area and assembly areas.

A prelodgement meeting was held with Brisbane City Council (**Council**) on 28 March 2022. With regards to bushfire hazard, the prelodgement advice letter (dated 6 April 2022) states:

The site is mapped within the Bushfire overlay and the Bushfire Hazard Area in the State's Natural Hazards, Risk and Resilience mapping.

- a. Provide a Bushfire Management Plan which addresses emergency response procedures relating to a bushfire event, and includes:
 - i. detail on how emergency access / egress is managed, particularly for difficult to evacuate patrons;
 - ii. key contacts and protocols around emergency management; and
 - iii. details on how the facility is managed in Severe, Extreme or Catastrophic fire weather; or where bushfire is detected in close proximity to the development.

This BEMP has been prepared in response to Council's prelodgement meeting advice. The Brisbane City Plan 2014 *Bushfire planning scheme policy* does not provide guidance on the information required for a BEMP.

This BEMP is based on the New South Wales Rural Fire Services' *Guide to developing a Bush Fire Emergency Management Plan* (NSWRFS 2014) and includes a description of how the BEMP was developed, the bushfire hazard characteristics of the site, primary actions in the event of an unplanned bushfire, provisions for sheltering within the site and evacuation, actions for different stages of a bushfire emergency and BEMP training and testing requirements.

2 Emergency planning

This BEMP was prepared in consultation with Duncan Stone – Chief Executive Officer (**CEO**), Light Dreaming Pty Ltd (**Light Dreaming**) and Dale Arvidsson – Curator, Brisbane Botanic Gardens.

The role of the CEO Light Dreaming in this BEMP is to:

- establish and implement emergency plans and procedures;
- identify duties and responsibilities of staff;
- formulate emergency procedures;
- ensure staff are educated and trained on emergency procedures;
- ensure ticket holders are aware of the emergency procedures for the proposed Lumina Night Walk; and
- regularly review the BEMP to ensure it remains practical and current.

The CEO Light Dreaming will assign roles and responsibilities associated with the BEMP to staff. These roles and responsibilities may include (but are not limited to):

- monitoring information from the Queensland Fire and Emergency Services websites about bushfires and warning – see <https://www.qfes.qld.gov.au/>;
- instructing ticket holders;
- traffic management; and
- liaison with emergency services.

3 Site characteristics

The site is identified as a bushfire hazard area by the Brisbane City Plan 2014 *Bushfire overlay map*. A bushfire hazard area is an area of land that can support a bushfire or an area of land that could be affected by radiant heat, embers, burning debris or smoke from a bushfire.

The proposed Lumina Night Walk is an open air event in the Brisbane Botanic Gardens. The majority of ticket holders will drive to the site in private vehicles.

The proposed Lumina Track and main carparking area are located within a constructed rainforest which is maintained and under irrigation. These areas will not support a bushfire but could be affected by embers, burning debris or smoke in the event of a bushfire in the nearby forest.

The proposed overflow carparking areas are located within the Mount Coot-tha forest, off Sir Samuel Griffith Scenic Drive. A shuttle bus would transfer ticket holders from the proposed overflow carparking areas to the main carparking area and the proposed Lumina Track.

The land adjoining the proposed overflow carparking areas could support a bushfire, which could impact the ability of ticket holders to safely access their vehicles and leave the site. If a bushfire occurs in this area, ticket holders would be retained in the main carparking area until it is deemed safe for the shuttle bus to continue operations.

Vehicle access and egress is available in multiple directions via the Centenary Motorway, the Western Freeway, Mount Coot-tha Road, Scenic Drive and Sir Samuel Griffith Scenic Drive. Servicing by public transport during the night time hours of operation is limited.

It is anticipated that up to 1,000 ticket holders plus staff will occupy the site each night. Ticket holders would arrive at the site in stages based on the time period of the show they have booked. Shows would start at 15 minute intervals and each show could be attended by a maximum of 200 ticket holders.

Ticket holders would wait at the main carparking area for the show they have booked to commence.

Wheel chair users and people with special needs will be allocated parking in the main carparking area. This would be arranged during the ticket booking process.

4 Primary actions

In the event of a unplanned bushfire within the Mount Coot-tha forest, the proposed Lumina Night Walk would be shut down and ticket holders would be assisted to evacuate the site. Shuttle bus operations to the proposed overflow carparking areas would be stopped and ticket holders with vehicles parked in the proposed overflow carparking areas would be advised to remain near the main carparking area. Shuttle bus operations to the proposed overflow carparking areas would resume when advice is received from a fire authority that it is safe to do so.

The proposed Lumina Night Walk would not operate in the following circumstances:

- when a 'state of fire emergency' or 'local fire ban' is declared in the Brisbane City Council local government area; or
- when the fire danger rating for the South-east Coast Region is forecast to be 'extreme' or 'catastrophic'; or
- if advised that prescribed burning operations are being undertaken within the Mount Coot-tha forest and there could be a direct impact on the operation of the proposed overflow carparking area.

People booking tickets will be warned to consider respiratory illness if the proposed Lumina Night Walk is likely to be affected by smoke from a bushfire (planned or unplanned) within the Mount Coot-tha forest.

5 Sheltering and evacuation

The proposed Lumina Track and main carparking area are located within a constructed rainforest which is maintained and under irrigation. These areas will protect ticket holders from flame contact and radiant heat exposure.

As stated in Chapter 4, the primary action in the event of an unplanned bushfire within the Mount Coot-tha forest is to shut down the proposed Lumina Night Walk and evacuate the ticket holders from the site.

Transportation for ticket holders to off-site refuge areas would not be required because the majority of ticket holders would drive to the site in private vehicles. It is noteworthy that there is limited public transport to the site during the night time hours of operation.

As stated in Chapter 3, wheel chair users and people with special needs will be allocated parking in the main carparking area, which will assist with their efficient evacuation and alleviate the need for Ambulance services.

The proposed Lumina Night Walk can use the existing assembly areas identified for the Brisbane Botanic Gardens, which are located adjacent to the Mount Coot-tha library and main carparking area. Ticket holders using these assembly areas have access to amenities adjacent to the main carparking area. These assembly areas and amenities may be temporarily required by ticket holders with vehicles parked in the proposed overflow carparking areas if shuttle bus operations to the proposed overflow carparking areas are stopped.

The proposed Lumina Night Walk would provide sufficient supervision of ticket holders to respond to an unplanned bushfire event. Ticket holders will be fully guided and supervised by staff. Staff will be able to communicate with each other and coordinate an evacuation and provide safety instructions to ticket holders via portable two way radios.

6 Actions

This chapter outlines actions to be taken at various stages of a bushfire emergency, being preparation, response and recovery. The actions and their triggers are outlined in Table 6.1.

Table 6.1 Actions

Stage	Action	Trigger
Preparation	Provide a copy of the BEMP to the Curator, Brisbane Botanic Gardens.	Prior to commencing operation of the proposed Lumina Night Show.
Preparation	Train staff in roles and responsibilities and carpark traffic management and test the actions in this BEMP.	Prior to commencing operation of the proposed Lumina Night Show.
Preparation	Monitor for state of fire emergency, local fire ban and fire danger rating at https://www.qfes.qld.gov.au/ daily.	When the bushfire season is declared – generally from early September to late January or until consistent summer rainfall has occurred.
Preparation	Cease operations.	If a state of fire emergency or local fire ban is declared in the Brisbane City Council local government area; or when the fire danger rating for the South-east Coast Region is forecast to be extreme or catastrophic.
	Cease operations.	If advised that prescribed burning operations are being undertaken within the Mount Coot-tha forest and there could be a direct impact on the operation of the proposed overflow carparking area.
Preparation	Warn people booking tickets to consider respiratory illness.	If a bushfire (planned or unplanned) has occurred within the Moot Coot-tha forest.
Response	Cease operation of the light show.	If advised by a fire authority that an unplanned bushfire has occurred within Mount Coot-tha forest.
Response	Direct ticket holders to evacuate the site and aid with the evacuation.	If advised by a fire authority that an unplanned bushfire has occurred within Mount Coot-tha forest.
Response	Stop the operation of the shuttle bus to the proposed overflow carparking areas and direct ticket holders relying on the shuttle bus to wait at the assembly areas located adjacent to the Mount Coot-tha library and main carparking area.	If advised by a fire authority that an unplanned bushfire has occurred within Mount Coot-tha forest.
Recovery	Resume shuttle bus operations to the proposed overflow carparking areas.	When advice is received from a fire authority that it is safe to do so.

Table 6.1 Actions

Stage	Action	Trigger
Recovery	Restart operations.	In consultation with the Curator, Brisbane Botanic Gardens after advice is received from a fire authority that it is safe to do so.
Recovery	Review the effectiveness of the BEMP and revise actions or triggers based on lessons learnt. The Curator, Brisbane Botanic Gardens and staff must be involved in reviewing the BEMP.	After an unplanned bushfire has occurred within Mount Coot-tha forest and caused the light show to cease operations and evacuate ticket holders.

The proposed Lumina Night Walk activity area plan is provided at Appendix 1.

7 Training and testing

The CEO Light Dreaming must educate and train staff to fulfill their roles and responsibilities for the implementation of this BEMP. This may include training in carpark traffic management so that they can assist with the orderly evacuation of ticket holders from carparking areas in their private vehicles.

Prior to commencing operations, the CEO Light Dreaming must facilitate an exercise to test the actions and triggers in this BEMP. This exercise should be repeated annually or when an action or trigger in the BEMP is revised.

References

New South Wales Rural Fire Service (NSWRFS) 2014, *Guide to developing a Bush Fire Emergency Management Plan*, 2014

Appendix 1 Proposed Lumina Night Walk activity area plan

Lumina Night Walk Activity Area Plan

- Lumina Track
- Activity Area
- Ticketing
- Existing Tracks
- Subject Site
- Cadastre
- Car Parking

Note:
Within the Activity Area, the proposed use area equates to approximately 4512m² inclusive of 8 areas (approximately 314m² in size) connected to each other via a 1km long walking trail (approximately 2 metres wide).

6SP266267

TSP266267

200 100 0 200 Metres

1 cm = 100 m