



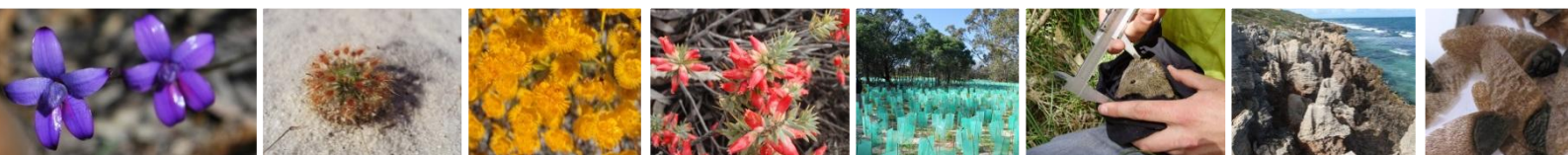
Natural Area  
CONSULTING MANAGEMENT SERVICES

**Beijaflora**

**Wellington National Park Tree Village  
Project**

**Environmental Management Plan**

Natural Area Holdings Pty Ltd  
Whadjuk Country  
57 Boulder Road, Malaga WA 6090  
Ph: (08) 9209 2767  
info@naturalarea.com.au  
[www.naturalarea.com.au](http://www.naturalarea.com.au)



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Ngala kaaditj Noongar moort keyen kaadak nidja boodja.

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Environmental management system registered to ISO 14001:2015

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Occupational health and safety management system registered to ISO 45001:2018

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## 1.0 Introduction

Natural Area Holdings Pty Ltd, trading as Natural Area Consulting Management Services (Natural Area) has been contracted by Beijafore to undertake the preparation of an Environmental Management Plan (EMP) for the Wellington National Park Tree Village project. This project includes the development of a treetop tourist attraction designed to provide accommodation, adventure and education to visitors.

### 1.1 Location

The site is located within the Wellington National Park, within the Shire of Collie and is nearby the Wellington Dam tourist area (Figure 1). The site is located within the Gervasse forest block (Department of Biodiversity, Conservation and Attractions (DBCA), 2023a).

### 1.2 Purpose of this Plan

This plan was prepared to define management actions relating to potential environmental impacts that may occur as a result of the tree village construction within Wellington National Park. Monitoring requirements to inform management actions have also been outlined.

### 1.3 Legislative Context

#### 1.3.1 Relevant Legislation

##### ***Biodiversity Conservation Act 2016 (WA)***

The *Biodiversity Conservation Act 2016* (WA) (BC Act) aims to protect and conserve biodiversity as well as to promote the ecologically sustainable use of biodiversity components in the State. The BC Act provides the statute relating to conservation and legal protection of flora, fauna, and ecological communities. The BC Act follows the principles of ecologically sustainable development, detailing that decision-making processes should effectively integrate long-term and short-term economic, environmental, social, and equity considerations.

##### ***Biosecurity and Agriculture Management Act 2007 (WA)***

The *Biodiversity and Agriculture Management Act 2007* (WA) (BAM Act) regulates the framework for plant and animal pest and disease biosecurity in Western Australia. The framework provides for the control of declared flora and fauna species (declared organisms) that are known to be a significant environmental threat and the management, control and prevention of these declared plants and animals.

##### ***Environmental Protection Act 1986 (WA)***

The *Environmental Protection Act 1986* (WA) (EP Act) provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment. The Environmental Protection Authority is established under this act and provides a structured policy framework that is consistent with the EP Act. The EPA produces the guidelines and procedures associated with conducting environmental assessments in line with the EP Act.

##### ***Environment Protection and Biodiversity Conservation Act 1999 (Cth)***

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) serves to protect and manage nationally and internationally important flora, fauna, ecological communities, and

heritage places. The primary objective of the EPBC Act is to promote the conservation of biodiversity and the sustainable use of natural resources while allowing for ecologically sustainable development. The EPBC Act allows for the creation of conservation agreements between the Australian government and individuals, communities, or organizations to support the conservation of biodiversity.

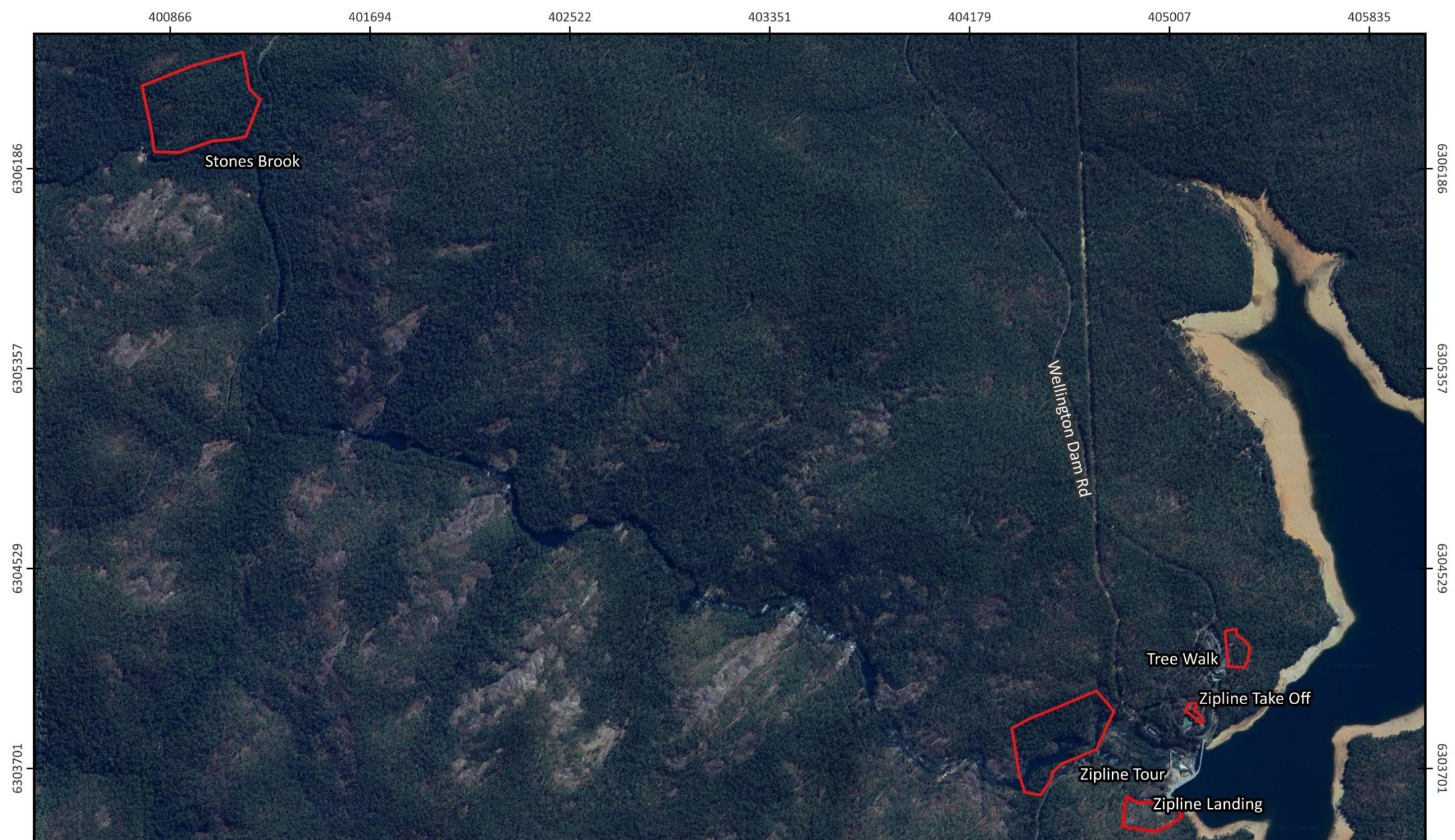
***Soil and Land Conservation Act 1945 (WA)***

The *Soil and Land Conservation Act 1945* (WA) serves to conserve soil and land resources, and to mitigate the impacts of erosion, salinity, and flooding. This Act outlines the mitigation and prevention of land degradation, promoting soil conservation and land management and the administration of Land Conservation District Committees (LCDC). The Commissioner of Soil and Land Conservation appoints members under the Act (Geographic Information Services, 2016). The site falls under the Collie LCDC, which has been wound-up and as such is inactive (Geographic Information Services, 2016).

**1.3.2 Planning and Policy Context****Wellington National Park, Westralia Conservation Park and Wellington Discovery Forest Management Plan**

This management plan is the overarching management plan for the Wellington National Park, Westralia Conservation Park and the Wellington Discovery Forest. This plan outlines management strategies, key performance indicators and objectives for managing the key values of the area, including environmental values, heritage values, tourism values and natural resources (Department of Environment and Conservation (DEC), 2008).





**Figure 1:**  
Site Boundaries

Wellington National Park, Western Australia

**Legend**

Site Boundary

Client: Beijaflore  
Date: 12/06/2025  
Created by: B. Daniels  
Image Source: Google Satellite, 2025  
Datum: GDA2020 / MGA zone 50  
Scale: 1: 20700

0 350 700 m





## 2.0 Project Summary

The project includes the design, construction and ongoing use of a tree village tourist adventure attraction consisting of a tree walk, giant zipline, zipline tour and ropes course. The tree village includes a suspended walk and facilities, including a ticket office, a pre-show activity area, ground level walkways, a tree top walkway and two short ground-level ziplines. The project also includes installation of low height, unsecured activities (not shown in Figures). A Giant Zipline will be constructed passing over Wellington Dam, which will require the construction of take-off and landing platforms on either side of the Collie River. A Zipline Tour will be constructed across the Collie River, to the west of the Giant Zipline. Tree climbing activities will take place at either the Stones brook or Zipline Tour area. Indicative construction footprints for the Tree Walk, Giant Zipline take-off and landing platforms and Zipline Tour have been provided in Figures 2 - 5. The tree climbing activities do not require any permanent structures to be installed and consist of climbing ropes installed in trees. If required, clearing of lower storey vegetation may be undertaken at a 5 m radius around the required trees only. As such, no maps showing any construction footprints have been produced for the Stones Brook area.

### 2.1 Tree Walk

#### 2.1.1 Construction Phase

The following is a brief outline of the expected activities to be undertaken during the construction phase of the Tree Walk area:

- Vegetation clearing within the pre-show area, ground level walkways and zipline area using small earthmoving machinery (Dingo Mini Digger).
- Grading the land required for the pre-show, zipline and walkway areas using small earthmoving machinery (Dingo Mini Digger).
- Grading land in multiple locations to install mulch trays for lower height and unsecured activities (Dingo Mini Digger).
- Installation of handrails along ground level walkways using small drilling machinery (Dingo Mini Digger with auger attachment).
- Installation of mulch in the ground level walkways and infrastructure areas using small earthmoving machinery (Dingo Mini Digger).
- Installation of concrete pads and timber decking for infrastructure.
- Installation of tree top platforms and walkways using small handheld tools to drill tree attachment bolts (Clou) into tree trunks.

No further clearing is required to that mentioned above for machinery and construction access.

#### 2.1.2 Operational Phase

The following is a brief outline of the expected activities that will occur during the operational phase in the Tree Walk area:

- Visitors will access the ground floor ticket office and pre-show activity area via constructed mulch walkways demarcated by handrails.
- Visitors will move throughout the Tree Walk area via either ground level constructed mulch walkways demarcated by handrails or suspended tree top walkways.



- Visitors can partake in ground level activities and use a small zipline.

## **2.2 Giant Zipline**

### **2.2.1 Construction Phase**

The following is a brief outline of the expected activities to be undertaken during the construction phase of the Giant Zipline:

- Vegetation clearing using a small excavator (3.5 - 5 t) to remove topsoil and lower and mid storey vegetation within the Giant Zipline take-off and landing sites to facilitate construction of the required platforms.
- Hauling debris off site in a suitably sized truck.
- Use of a telehandler to position the required drill rig and to lift construction materials onto the landing area.
- Drilling activities to facilitate installation of rock anchors for structures using either an A-frame Rig or a Spider Rig (as site topography allows).
- Constructing concrete anchor and shear blocks using a concrete boom pump to pour concrete.
- Transferring materials to the landing area using a 130 t crane.
- Transferring materials to the take-off area using a tom thumb crane.
- Using small hand tools to construct the structures.
- Installing roof sheeting using a small mobile scaffold.

### **2.2.2 Operational Phase**

The following is a brief outline of the expected activities that will occur during the operational phase for the Giant Zipline:

- Visitors will access the Giant Zipline take-off platform via the constructed stairway with hand rails between the car park and the platform.
- Visitors will ride the zipline across the Wellington Dam, exiting the zipline onto the Giant Zipline landing platform.
- Visitors will exit the landing platform via the constructed timber and limestone staircase leading to the access road off Falcon Road.

## **2.3 Zipline Tour**

### **2.3.1 Construction Phase**

The following is a brief outline of the expected activities to be undertaken during the construction phase of the Zipline Tour:

- Clearing access ways from the Silka Trail to the main platform and via ferrata (Dingo Mini Digger).
- Pedestrian access to all trees required for construction of the Zipline Tour.
- Construction crew accessing the tree canopy by climbing apparatus in all trees required for the purpose of installing the zipline.
- Installation of handrails along ground level walkways using small drilling machinery (Dingo Mini Digger with auger attachment).
- Installation of mulch in the ground level walkways and infrastructure areas using small earthmoving machinery (Dingo Mini Digger).

- Transporting materials along the Silka Trail on the north west side of the river (quad bike or four-wheel drive as applicable).
- Transporting materials along an unsealed service road on the south east side of the river (quad bike or four-wheel drive as applicable).
- If required, a boat may be used to ferry materials across the Collie River.

### **2.3.2 Operational Phase**

The following is a brief outline of the expected activities that will occur during the operational phase for the Zipline Tour:

- Visitors will access the Zipline Tour via ground level mulched walkways demarcated by handrails.
- Visitors will move throughout the Zipline Tour area aerially via zipline.

## **2.4 Stones Brook**

### **2.4.1 Construction Phase**

The following is a brief outline of the expected activities that will occur during the operational phase in the Stones Brook area:

- Clearing a 5 m radius of vegetation from the mid and lower storey under approximately 10 trees using handheld tools.
- Clearing vegetation for the construction of a pedestrian accessway using handheld tools
- Installation of mulch in the pedestrian walkways using small machinery (Dingo Mini Digger).
- Installation of ropes to trees using small handheld machinery.

### **2.4.1 Operational Phase**

The following is a brief outline of the expected activities that will occur during the operational phase in the Stones Brook area:

- Visitors will traverse the mulched walkways to access the ropes course.





**Figure 2:**  
Indicative Infrastructure  
Tree Walk

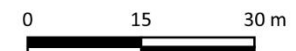


Wellington National Park, Western Australia

**Legend**

- Tree Walk
- Walkway
- Ziplines
- Activity Area
- Building
- Development Boundary

Client: Beijaflore  
Date: 21/05/2025  
Created by: B. Daniels  
Image Source: Nearmap, 2025  
Datum: GDA2020 / MGA zone 50  
Scale: 1: 1000







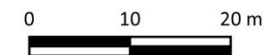
**Figure 3:**  
Indicative Infrastructure  
Giant Zipline - Take Off

Wellington National Park, Western Australia

**Legend**

- Material Access
- Zipline
- Zipline Platform
- Development Boundary

**Client:** Beijaflore  
**Date:** 12/06/2025  
**Created by:** B. Daniels  
**Image Source:** Nearmap, 2025  
**Datum:** GDA2020 / MGA zone 50  
**Scale:** 1: 750







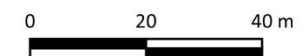
**Figure 4:**  
Indicative Infrastructure  
Giant Zipline - Landing

Wellington National Park, Western Australia

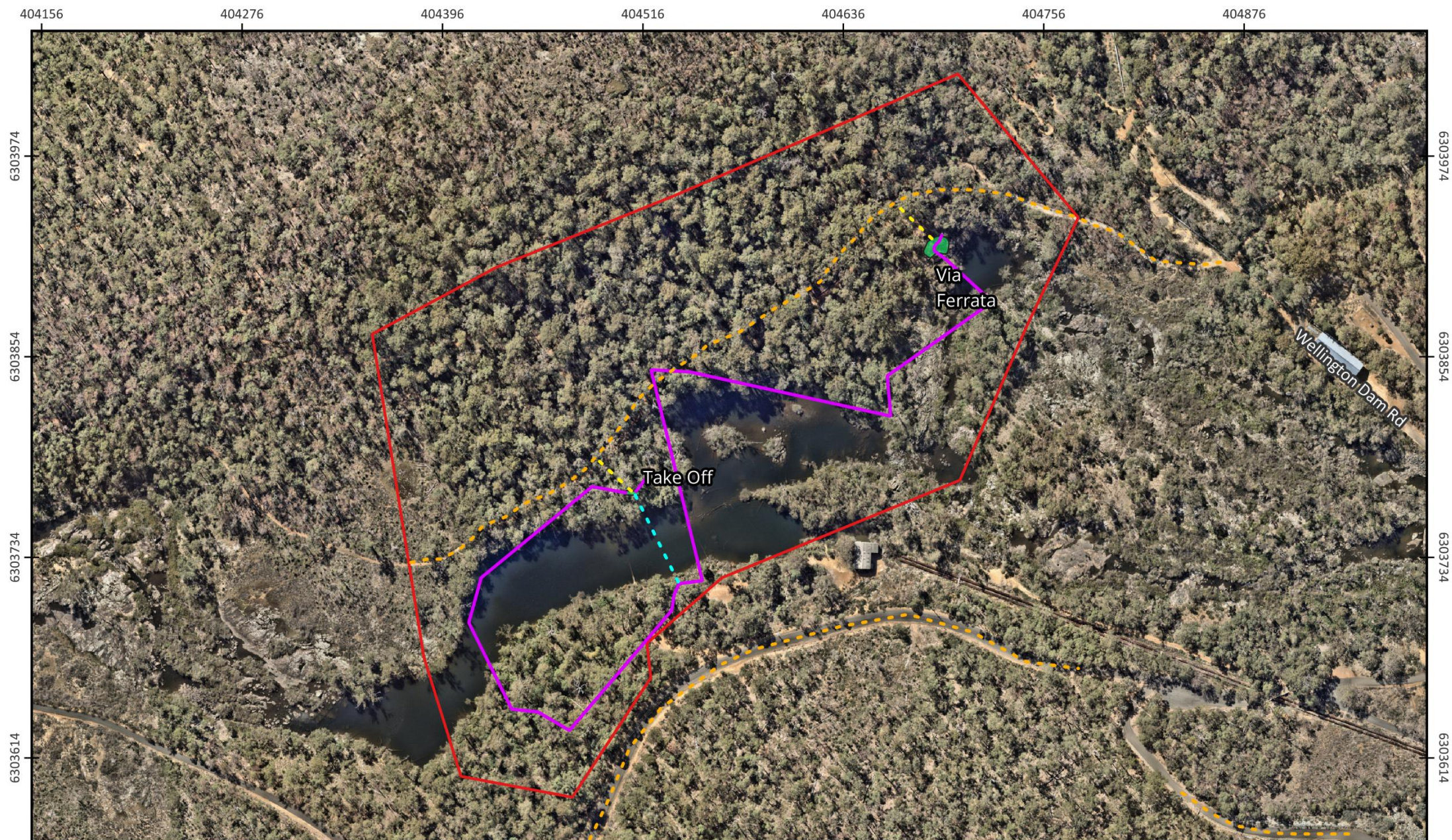
**Legend**

- Material Access
- Zipline
- Zipline Platform
- Development Boundary

Client: Beijaflöre  
Date: 12/06/2025  
Created by: B. Daniels  
Image Source: Nearmap, 2025  
Datum: GDA2020 / MGA zone 50  
Scale: 1: 1300







**Figure 5:**  
Indicative Infrastructure  
Zipline Tour

Wellington National Park, Western Australia

**Legend**

- Bridge
- Walkway
- Material Access
- Zipline
- Zipline Platform
- Development Boundary

Client: Beijaflore  
Date: 12/06/2025  
Created by: B. Daniels  
Image Source: Nearmap, 2025  
Datum: GDA2020 / MGA zone 50  
Scale: 1: 3000

0 50 100 m





### 3.0 Key Environmental Factors

The key environmental factors relating to the potential impacts of the construction and ongoing use of the Tree Walk area have been provided below. These are the factors at risk due to the proposed development due to vegetation clearing and associated fauna habitat degradation, soil disturbance, dieback spread and pest and disease introduction and/or spread.

#### 3.1 Flora and Vegetation

A total of 202 flora species (taxa) were recorded in Wellington National Park from 49 families, comprised of 38 introduced (weeds) species, 2 dubious species and 162 native species (Natural Area, 2024). No conservation significant or locally significant species were recorded within the development boundary during the 2024 surveys. No declared pests or Weeds of National Significance have been identified within the development boundary. The vegetation type within the development boundary consists of an open forest of *Eucalyptus marginata* over closed shrublands and heathlands with vegetation ranging from degraded to good condition (Natural Area, 2024).

#### 3.2 Fauna

A total of 19 fauna species were recorded during the survey, from 15 families. Species consisted of 13 native and 1 introduced bird, 3 native and 1 introduced mammal and 1 native reptile (Natural Area, 2024). During the 2024 survey conducted by Natural Area, evidence of five threatened or priority fauna species were found on site:

- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*, VU)
- Baudin's Cockatoo (*Zanda baudinii*, EN)
- Carnaby's Cockatoo (*Zanda latirostris*, EN)
- Western Brush Wallaby (*Notamacropus irma*, P4)
- Quenda (*Isodon fusciventer*, P4).

Evidence of one declared pest animal was found on site during the 2024 survey: Rabbit (*\*Oryctolagus cuniculus*). The Western Australian Organism List (WAOL) (Department of Primary Industries and Regional Development (DPIRD), 2025a) lists the Rabbit as a declared pest under the BAM Act.

A total of 31 trees with a DBH larger than 500 mm have been previously recorded within the project area (Zipline Landing and Zipline Tour areas). Of these, four trees with suitable breeding hollows have been identified within the project area; however, are not expected to be used as part of the tree village project. The area has been recorded as high-quality foraging habitat for all three species of black cockatoos, and may be suitable roosting habitat (Natural Area, 2024).

#### 3.3 Landscape and Soils

Two soil types are present within the site boundary, the Balingup moderate slopes phase and the Helena subsystem (Table 1). Two vegetation complexes exist within the project boundary, Helena 1 and Murray 1 and have been described in Table 2 below (DBCA, 2018).

**Table 1:** Soil types within survey areas

| Name                           | Description   | Location   |
|--------------------------------|---|--|
| Balingup moderate slopes phase | Moderate slope phase, slopes ranging from 15-35 %, with relief of 60-120 m.                               | <ul style="list-style-type: none"> <li>▪ Tree Walk</li> <li>▪ Giant Zipline Take Off</li> <li>▪ Giant Zipline Landing</li> </ul> |
| Helena subsystem               | A deeply incised valley (120-200 m) with steep slopes >25 %. Soils are stony with rocky outcrops present. | <ul style="list-style-type: none"> <li>▪ Giant Zipline Landing</li> <li>▪ Zipline Tour</li> <li>▪ Stones Brook</li> </ul>        |

Source: DPIRD, 2022

### 3.4 Current Land Use

The sites are nearby the Kiosk (café), Wellington Dam, and quarry (inoperative, now used for abseiling) to the south, and the Silka Trail and mountain bike track network to the east. There are hiking trails throughout the forest to the west of sites. Within the Tree Walk site boundary there is an Adventure Connections kiosk for tourism services such as bicycle and kayak hire, and a small section of the Silka Trail. The Collie River and a section of a walking trail intersects with the Zipline Tour area. The Giant Zipline take off platform is situated on top of the quarry lookout and the landing platform is nearby the service road off Falcon Road and the Wellington Dam. Facilities such as car parking, toilets and picnic areas are also nearby the sites. The primary use of the area is tourism, recreation, and conservation (DEC, 2008).

Table 2: Vegetation complexes

| Name     | Description <sup>1</sup>  | Extent Remaining (%) <sup>2</sup> |                 | Location   |
|----------|---|-----------------------------------|-----------------|--|
|          |   | South West Forests                | Shire of Collie |  |
| Helena 1 | <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> - <i>E. marginata</i> subsp. <i>marginata</i> open forest with <i>E. rudis</i> on deeper soils. Some closed heath and lithic complex on granite associated shallow soils on steep valley slopes in humid and subhumid areas | 75.58 %                           | 96.69 %         | <ul style="list-style-type: none"><li>▪ Giant Zipline Take Off</li><li>▪ Giant Zipline Landing</li><li>▪ Zipline Tour</li><li>▪ Stones Brook</li></ul> |
| Murray 1 | <i>E. marginata</i> subsp. <i>marginata</i> - <i>C. calophylla</i> - <i>E. patens</i> open forest on valley slopes to <i>E. rudis</i> - <i>Melaleuca raphiophylla</i> woodland on valley floors in humid and subhumid areas   | 76.13 %                           | 63.23 %         | <ul style="list-style-type: none"><li>▪ Tree Walk</li><li>▪ Giant Zipline Take Off</li><li>▪ Giant Zipline Landing</li></ul>                           |

Source: <sup>1</sup>Heddle *et al.*, 1980, <sup>2</sup>Government of Western Australia, 2019

## **4.0 Environmental Management Plans**

Environmental management plans have been outlined in Tables 3 - 7. Each plan states the potential environmental impacts, objectives, management actions, management targets, monitoring requirements and environmental obligations and accountability measures.

These management plans are outcome based, with management actions proposed to ensure management targets are reached. Timing of the management actions have been included, as well as the party to be held accountable and the associated obligations with the management actions. These management plans have been developed based on the current understanding of the project design and best management practices associated with this type of activity.



## 4.1 Native Vegetation

Vegetation within the project areas consist of the following vegetation types defined in Natural Area (2024):

- *C. calophylla* and *E. marginata* closed forest (Stones Brook, Zipline Tour)
- *C. calophylla* open forest (Zipline Tour)
- *C. calophylla* open woodland (Giant Zipline - Take-off)
- *E. marginata* and *Agonis flexuosa* closed forest (Stones Brook)
- *E. marginata* and *C. calophylla* open forest (Giant Zipline - Landing)
- *E. marginata* and *C. calophylla* open forest - exposed granite (Giant Zipline - Landing)
- *E. marginata* open forest over *Hibbertia hypericoides*, *Xanthorrhoea gracilis* and *Bossiaea eriocarpa* heathland (Tree Walk)
- *E. marginata* open forest over *Trymalium odoratissimum*, *Persea longifolia* and *Hibbertia pilosa* closed shrubland (Tree Walk)
- *Verticordia plumosa* sparse shrubland (Zipline Tour, Giant Zipline - Take-off).

Vegetation within the sites ranged from completely degraded to excellent (Natural Area, 2024):

- |   |   |
|---|---|
| ▪ Tree Walk - degraded to good                                | ▪ Zipline Tour - good to excellent      |
| ▪ Giant Zipline - Take-off - good to very good                | ▪ Stones Brook - degraded to very good. |
| ▪ Giant Zipline - Landing - completely degraded and excellent |   |

One significant flora species *Acacia oncinophylla* subsp. *oncinophylla* (P3) was found within or nearby the following areas (Natural Area, 2024):

- Giant Zipline - Take-off
- Giant Zipline - Landing
- Zipline Tour.

Five locally significant flora species were identified within the following areas (Natural Area, 2024):

- |   |  |
|---|--|
| ▪ <i>Adiantum aethiopicum</i> (Zipline Tour, Stones Brook)            | ▪ <i>Diplolaena drummondii</i> (Giant Zipline - Landing, Zipline Tour, Stones Brook) |
| ▪ <i>Andersonia lehmanniana</i> (Zipline Tour)                        | ▪ <i>Verticordia pennigera</i> (Giant Zipline - Landing)                             |
| ▪ <i>Borya sphaerocephala</i> (Giant Zipline - Landing, Zipline Tour) | ▪ <i>Stypanandra glauca</i> (Giant Zipline - Landing).                               |

The Stones Brook area occurs within an area mapped as old growth forest (M. King, personal communication, August 22, 2024). No other areas consist of old growth forest.

The project methodology includes minimal native vegetation clearing, increased foot traffic, drilling platforms into tree trunks, and introducing foot traffic among the tree canopies. The risks associated with these activities include potential off target clearing during construction or degradation to flora and vegetation as a result of the operative activities of all areas. Risks include potential off target damage to the significant species or locally significant species listed above during both the construction phase and the operational phase. Management targets and actions to reduce the risk of these detrimental effects occurring have been outlined in Table 3.

**Table 3:** Environmental management plan for native vegetation

| Management Targets   | Management Actions  | Timing              | Accountability and Obligations  |
|--|---|---------------------|---|
| No off target clearing of native vegetation.                     | <ul style="list-style-type: none"><li>▪ Small machinery is to be utilised, to minimise the footprint required to access site.</li><li>▪ Where possible, construction personnel are to remain within the clearing footprint.</li></ul> | Construction phase. | <i>Project manager.</i> <ul style="list-style-type: none"><li>▪ If vegetation external to the required clearing area is cleared, the off target clearing is to be reported to the appropriate government agencies and operating procedures are to be reviewed to ensure no recurrences. Immediate rectification of off target clearing is to be implemented as required by the relevant government agency.</li><li>▪ If construction personnel are required to traverse areas not within the construction footprint due to a matter of project progression, safe access or other occasion as approved by the project manager, rectification of any damaged vegetation should be agreed upon with the landowner/manager and implemented immediately post construction.</li></ul> |
| No decline or damage to tree or vegetation health as a result of | <ul style="list-style-type: none"><li>▪ Small machinery is to be utilised, to minimise the footprint and residual effects of construction nearby vegetation.</li></ul>  | Construction phase  | <i>Project manager.</i> <ul style="list-style-type: none"><li>▪ If a decline in vegetation health is found to be attributable or exacerbated by the construction</li></ul>  |

| Management Targets  | Management Actions   | Timing             | Accountability and Obligations  |
|---|--|--------------------|---|
| the construction or ongoing use of the tree village.  | <ul style="list-style-type: none"> <li>Implement a monitoring program during construction to assess immediate effects of construction on the surrounding vegetation.</li> </ul>  |                    | activities, this is to be reported to the landowner/manager. Immediate rectification should be agreed upon and implemented.   |
|   | <ul style="list-style-type: none"> <li>Ensure visitors remain on designated walkways at all times while traversing all areas.</li> <li>Implement a monitoring program to assess vegetation for health declines and to determine causes of declines, with particular discussion around the health of old growth forest in the Stones Brook area.</li> </ul> | Operational phase  | <p><i>Operational manager.</i></p> <ul style="list-style-type: none"> <li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths. Immediate rectification is to be agreed upon with the landowner/ manager and implemented.</li> <li>If visitors are found to be damaging native vegetation, either deliberately or accidentally, the cause of damage should be determined and halted, and immediate rectification should be implemented.</li> <li>If a decline in vegetation health is found to be attributable or exacerbated by the operation of the tree village project, activities should be modified, and immediate rectification should be implemented.</li> </ul> |
| No unnecessary damage or destruction of the significant species <i>Acacia oincophylla</i> subsp. <i>oincophylla</i> (P3). | <ul style="list-style-type: none"> <li>Ensure a suitably qualified botanist demarcates populations of <i>Acacia oincophylla</i> subsp. <i>oincophylla</i> to be retained within the clearing and construction boundary prior to clearing and construction commencing.</li> </ul>   | Construction phase | <p><i>Project manager:</i></p> <ul style="list-style-type: none"> <li>If significant species are damaged either intentionally or accidentally, a record is to be kept of the locations and numbers of plants cleared. The relevant government agency is to be notified immediately.</li> </ul>  |
|   | <ul style="list-style-type: none"> <li>Ensure visitors remain on designated walkways at all times while traversing all areas.</li> </ul>   | Operational phase  | <p><i>Operational manager</i></p> <ul style="list-style-type: none"> <li>If visitors are found to be damaging significant species, either deliberately or accidentally, the cause of damage should be determined and halted, and immediate rectification should be implemented.</li> </ul>  |

| Management Targets   | Management Actions  | Timing                            | Accountability and Obligations   |
|--|---|-----------------------------------|--|
| Avoid damaging or destroying known populations of locally significant species as listed in section 4.1 where possible. | <ul style="list-style-type: none"> <li>Ensure project is designed in such a way that avoids clearing locally significant species. If this is not possible, ensure project is designed in such a way that minimises impacts to locally significant species.</li> <li>Where it is deemed that impacting locally significant species is unacceptable, a suitably qualified botanist should demarcate populations of these species to be retained within the clearing and construction boundary prior to clearing and construction commencing.</li> </ul> | Design phase, construction phase. | <ul style="list-style-type: none"> <li>A record is to be kept of the locations and numbers of plants damaged. The relevant government agency is to be notified immediately.</li> </ul> <p><i>Project manager</i></p> <ul style="list-style-type: none"> <li>If locally significant species that are demarcated to be retained are damaged, either intentionally or accidentally, a record is to be kept of the locations and numbers of plants cleared. DBCA is to be notified immediately.</li> </ul> |
|  | <ul style="list-style-type: none"> <li>Ensure visitors remain on designated walkways at all times while traversing all areas.</li> </ul>  | Operational phase                 | <p><i>Operational manager</i></p> <ul style="list-style-type: none"> <li>If visitors are found to be damaging locally significant species, either deliberately or accidentally, the cause of damage should be determined and halted, and immediate rectification should be implemented.</li> <li>A record is to be kept of the locations and numbers of plants damaged. DBCA is to be notified immediately.</li> </ul>   |
| Avoid damage to vegetation from vandalism as a result of tree village operations.                                      | <ul style="list-style-type: none"> <li>Ensure all visitors are educated on the requirements to stay on the marked pathways.</li> <li>Ensure all visitors are educated regarding responsibilities to not damage native flora.</li> </ul>   | Operational phase                 | <p><i>Operational manager</i></p> <ul style="list-style-type: none"> <li>If vegetation is vandalised during tree village operations, an appropriate management action is to be applied at the discretion of the operational manager, with the end result that vandalism is ceased.</li> <li>Damage to native vegetation through vandalism is to be rectified immediately.</li> </ul>   |

## 4.2 Soil and Land Management

Soils within the Tree Walk and Stones Brook are on moderate slopes and consist of red to brown loamy clay. Very little gravel and high leaf litter is typical of this area; however, the sections closer to roads have a higher percentage of gravel and rock and lower percentages of leaf litter. Soils within the Zipline Tour area consist of a brown clay loam with high percentage of leaf litter and low percentage of gravel or granite outcroppings with very low percentage of leaf litter and 100 % rock cover. The Giant Zipline take-off area consists of brown loamy sand with a high percentage of leaf litter and low percentage of gravel and the Giant Zipline landing area consists of a brown - red clay loam, moderate leaf litter and rock percentage on a steep granite slope (Natural Area, 2024).

There are no geological features of special value located within the Tree Walk or Stones Brook development boundary. Areas of granite outcropping are present within the Zipline Tour area and the Giant Zipline take-off area. Areas of exposed granite throughout native vegetation are present within the Giant Zipline landing area.

The project methodology involves grading areas to prepare for the installation of infrastructure including walkways and buildings. Small amounts of native vegetation are to be removed during this process. During the operational life of the project, there is expected to be increased foot traffic on walkways. These activities can exacerbate erosion and soil compaction in the area, particularly during times of high rainfall. Mulch will be spread on graded paths and around infrastructure, which can mitigate erosion by slowing the flow of water through soil. Walkways will have handrails installed to direct visitors and ensure they remain on demarcated paths, which can prevent erosion and soil compaction from foot traffic in the surrounding bushland. Soil contamination can be a risk when the use of petrol or diesel fuelled machinery is used. Several trees adjacent to the granite outcropping in the east of the Zipline Tour area are proposed to be used for ziplines. A platform is to be constructed adjacent to the granite outcropping in the Giant Zipline take-off area. Minimal impacts are expected to the granite outcropping in the Zipline Tour area during construction, and none during the operational phase are expected as all pedestrian traffic should occur in the tree canopy. Potential impacts to the granite outcropping in the Giant Zipline take-off area include damage from drilling rock anchors below the surface of the rock and increased foot traffic.

Management targets and objectives to reduce the potential risks to soils and land have been provided in Table 4.



**Table 4:** Environmental management plan for soil and land management

| Management Targets   | Management Actions   | Timing             | Accountability and Obligations  |
|--|--|--------------------|---|
| No instances of erosion occurring within the project area or surrounding bushland as a result of construction or operational activities. | <ul style="list-style-type: none"> <li>Machinery is to access site through the areas cleared for the walkways to isolate potential erosion to a smaller area.</li> <li>A monitoring program is to be implemented to assess whether construction activities causing soil erosion within the project area.</li> <li>Works should not be undertaken during high rainfall events. In the event of a high rainfall event occurring during construction, erosion mitigation measures should be implemented prior to the rainfall event to prevent soil erosion occurring.</li> <li>Erosion mitigation measures should be utilised where contraction occurs on slopes. Temporary erosion mitigation measures can be implemented until final landscaping is undertaken.</li> </ul> | Construction phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If soil erosion is observed during construction, this is to be reported to the landowner/manager or project designer (as applicable). Erosion mitigation measures should be agreed upon and implemented immediately.</li> <li>If temporary erosion mitigation measures are applied and are observed to not be adequate, the project design should be modified to include permanent erosion mitigation measures (for example, re-designing walkways to follow existing contours and erosion control matting).</li> </ul> |
|  | <ul style="list-style-type: none"> <li>Visitors are to remain on demarcated paths at all times when traversing the site.</li> <li>A monitoring program is to be implemented to assess whether site activities cause soil erosion at site.</li> </ul>   | Operational phase  | <p><i>Operational manager.</i></p> <ul style="list-style-type: none"> <li>If erosion is observed during the operational phase, the area affected should be demarcated to restrict pedestrian access until erosion control measures are in place.</li> </ul>   |
| No instances of soil compaction occurring outside the required graded areas as a result of construction or operational activities.       | <ul style="list-style-type: none"> <li>Machinery is to access site through the areas cleared for the walkways to isolate potential compaction to a smaller area.</li> <li>A monitoring program is to be implemented to assess whether construction activities causing soil compaction within the project area.</li> </ul>  | Construction phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If soil compaction is observed, remediation is to be discussed with the relevant land owner/ manager and the compacted soils are to be rectified prior to completion of the construction phase.</li> </ul>  |
|  | <ul style="list-style-type: none"> <li>Visitors are to remain on demarcated paths at all times when traversing the site.</li> </ul>  | Operational phase  | <p><i>Operational manager.</i></p>  |

| Management Targets  | Management Actions   | Timing             | Accountability and Obligations   |
|---|--|--------------------|--|
|   | <ul style="list-style-type: none"> <li>A monitoring program is to be implemented to assess whether site activities cause soil compaction at site.</li> </ul>   |                    | <ul style="list-style-type: none"> <li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li> </ul>   |
| No instances of soil contamination through spillage of deleterious materials. | <ul style="list-style-type: none"> <li>Ensure appropriate procedures are in place in the event of a fuel, oil or other environmentally detrimental substance spill.</li> <li>All machinery and equipment are to be refuelled at a service station or within a bunded refuelling area.</li> </ul> | Construction phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If a spillage occurs, proper environmental procedures are to be followed. The spill is to be contained, and the area cleaned immediately. The project manager is to be notified, and the incident is to be reported to Department of Water and Environmental Regulation (DWER).</li> </ul> |
| No instances of off target damage to geological features of special interest. | <ul style="list-style-type: none"> <li>Ensure appropriate machinery are used for the applicable landform and geology to minimise impacts to granite outcroppings during drilling anchor blocks.</li> <li>Smaller machinery are to be utilised where possible.</li> </ul>                         | Construction phase | <p><i>Project manager</i></p> <ul style="list-style-type: none"> <li>If excessive damage is caused on granite outcroppings, the project manager is to review the construction methodology and assess whether a different style of drill rig is more suitable.</li> </ul>   |
|   | <ul style="list-style-type: none"> <li>Ensure pedestrians remain on demarcated walkways and stair cases, particularly when entering and exiting the Giant Zipline platforms.</li> </ul>  | Operational phase  | <p><i>Operational manager</i></p> <ul style="list-style-type: none"> <li>If the pathways and staircases are found to be ineffective, the pathway or staircase design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li> </ul>                           |

4.3 Weed Management

A total of 38 weed species are present in throughout the development areas (Natural Area, 2024), 11 of which are classed as high impact and 7 of which are classed as moderate impact. A total of 14 species are classed as rapid invaders, and 8 species are classified as moderate invaders according to the DBCA’s *South West Impact and Invasiveness Ratings* (2023b). Four species are classed as both a high impact and rapid invading species:

- *\*Agapanthus praecox*
- *\*Bromus hordeaceus*
- *\*Freesia leichtlinii* subsp. *alba* × *leichtlinii* subsp. *leichtlinii*
- *\*Pinus radiata*.

The project area also adjoins an area known to have presence of a declared pest (Arum Lily, *\*Zantedeschia aethiopica*).

The project methodology involves the introduction of machinery to the area which has the potential to introduce weed species through plant matter, and disturbance of the soil and native vegetation, potentially stimulating the weed seed bank to germinate. Introduction of mulch to the area may also facilitate the spread of weeds if the mulch is contaminated. The project will encourage increased foot traffic through the project area, which has the potential to introduce weed species into the site through shoes and clothing. This will be mitigated by encouraging visitors to stay on the marked pathways, ensuring more simple control of any introduced weeds. Management targets and associated actions to assist with mitigating the risk of weed spread have been provided in Table 5.

Table 5: Environmental management plan for weed management

| Management Targets  | Management Actions   | Timing             | Accountability and Obligations   |
|---|--|--------------------|--|
| No declared pests (DP) or Weeds of National Significance (WoNS) are to be present within the project areas or spread into the surrounding bushland as a result of the construction or | <ul style="list-style-type: none"><li>▪ Ensure appropriate weed hygiene procedures are followed by all construction personnel, including cleaning soil and plant material from machinery tyres and personnel work boots prior to entering and exiting site (Appendix 1).</li><li>▪ Ensuring only the required vehicle access tracks are used to move vehicles throughout the site, to reduce the potential area of any weed spread.</li><li>▪ Ensure vehicles, equipment and tools are clean and free of weed seed when entering and exiting the site.</li></ul> | Construction phase | <i>Project manager and landowner or manager.</i> <ul style="list-style-type: none"><li>▪ Any DP or WoNS observed should be reported to the landowner or manager.</li><li>▪ If DP/WoNS are observed within the site, the landowner or manager is required to control and limit populations under the BAM Act.</li><li>▪ If incidences of DP and/or WoNS are found to be a result of construction of the activities, the source of these should be determined and a targeted weed control program should be implemented.</li></ul> |

| Management Targets  | Management Actions  | Timing             | Accountability and Obligations   |
|---|---|--------------------|--|
| ongoing use of the tree village.  | <ul style="list-style-type: none"> <li>Ensure all mulch sourced for the project is tested and free of plant propagules prior to application on site.</li> <li>Implement a weed monitoring program to assess if any weed spread occurs during construction.</li> </ul>   |                    |  |
|   | <ul style="list-style-type: none"> <li>Ensure visitors remain on designated walkways at all times while traversing the project areas.</li> <li>Ensure all visitors make use of shoe cleaning stations provided at all ground entry and exit points.</li> <li>Implement a weed monitoring program to assess any weed spread in the surrounding vegetation.</li> </ul>  | Operational phase  | <p><i>Operational manager and land owner or manager.</i></p> <ul style="list-style-type: none"> <li>Any DP or WoNS observed should be reported to the land owner or manager.</li> <li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li> <li>If DP/WoNS are observed within the site, the landowner or manager is required to control and limit populations under the BAM Act.</li> <li>If incidences of DP and/or WoNS are found to be a result of the operation of the tree village project, the source of these should be determined and a targeted weed control program should be implemented.</li> </ul> |
| No evidence of high impact, rapid invading species spread into the surrounding area as a result of the construction or ongoing use of the tree village. | <ul style="list-style-type: none"> <li>Ensure weed hygiene procedures are followed by all construction personnel, including cleaning soil and plant material from machinery tyres and personnel work boots prior to entering site (Appendix 1).</li> <li>Ensure all mulch sourced for the project is tested and free of plant propagules prior to application on site.</li> <li>Implement a weed monitoring program to assess if any weed spread occurs during construction.</li> <li>Ensuring only the required vehicle access tracks are used to move vehicles throughout the site, to reduce the potential area of any weed spread.</li> </ul> | Construction phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If evidence of high impact rapid invading weed species spread is observed to be as a result of construction activities, this should be reported to the landowner or manager and weed control action should be undertaken.</li> <li>Effort should be made to control and limit these populations through the implementation of a weed control program.</li> </ul>   |

| Management Targets  | Management Actions  | Timing             | Accountability and Obligations  |
|---|---|--------------------|---|
|   | <ul style="list-style-type: none"> <li>Ensure vehicles, equipment and tools are clean and free of weed seed when entering and exiting the site.</li> </ul>  |                    |   |
|   | <ul style="list-style-type: none"> <li>Ensure visitors remain on designated walkways at all times while traversing the project areas.</li> <li>Ensure all visitors make use of shoe cleaning stations provided at all ground entry and exit points.</li> <li>Implement a weed monitoring program to assess any weed spread in the surrounding vegetation.</li> </ul>  | Operational phase  | <p><i>Operational manager.</i></p> <ul style="list-style-type: none"> <li>If evidence of high impact rapid invading weed species spread is observed to be as a result of ongoing use of the tree village, this should be reported to the landowner or manager.</li> <li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li> <li>Effort should be made to control and limit these populations through implementation of a weed control program.</li> </ul> |
| Minimise the spread of non-significant weeds resulting from the construction and ongoing use of the tree village areas into the surrounding bushland. | <ul style="list-style-type: none"> <li>Ensure weed hygiene procedures are followed by all construction personnel, including cleaning soil and plant material from machinery tyres and personnel work boots prior to entering site (Appendix 1).</li> <li>Ensure all mulch sourced for the project is tested and free of plant propagules prior to application on site.</li> <li>Implement a weed monitoring program to assess if any weed spread occurs during construction.</li> <li>Ensuring only the required vehicle access tracks are used to move vehicles throughout the site, to reduce the potential area of any weed spread.</li> <li>Ensure equipment and tools are clean and free of weed seed when entering and exiting the site.</li> </ul> | Construction phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If evidence of excessive weed spread is observed due to construction activities, weed control measures should be implemented.</li> <li>Effort should be made to control and limit weed populations through a weed control program.</li> </ul>   |



| Management Targets | Management Actions  | Timing            | Accountability and Obligations   |
|--------------------|---|-------------------|--|
|                    | <ul style="list-style-type: none"><li>▪ Ensure visitors remain on designated walkways at all times while traversing the tree village project areas.</li><li>▪ Ensure all visitors make use of shoe cleaning stations provided at all ground entry and exit points.</li><li>▪ Implement a weed monitoring program to assess any weed spread in the surrounding vegetation.</li></ul> | Operational phase | <i>Operational manager.</i> <ul style="list-style-type: none"><li>▪ If evidence of excessive weed spread is observed to be as a result of ongoing use of the tree village, this should be reported to the landowner or manager.</li><li>▪ If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li><li>▪ Effort should be made to control and limit weed populations through a weed control program.</li></ul> |

## 4.4 Fauna Management

A total of 19 fauna species have been identified on site, consisting of 17 native species and 2 introduced species. Of these, five species were threatened or priority species (Natural Area, 2024):

- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*, VU)
- Baudin's Cockatoo (*Zanda baudinii*, EN)
- Carnaby's Cockatoo (*Zanda latirostris*, EN)
- Western Brush Wallaby (*Notamacropus irma*, P4)
- Quenda (*Isoodon fusciventer*, P4).

Suitable fauna habitat is found throughout all areas of the tree village project and includes the following vegetation types: (Natural Area, 2024):

- *C. calophylla* and *E. marginata* closed forest
- *C. calophylla* open forest
- *C. calophylla* open woodland
- *E. marginata* and *A. flexuosa* closed forest
- *E. marginata* and *C. calophylla* open forest
- *E. marginata* open forest over *H. hypericoides*, *X. gracilis* and *B. eriocarpa* heathland
- *E. marginata* open forest over *T. odoratissimum*, *P. longifolia* and *H. pilosa* closed shrubland
- *V. plumosa* sparse shrubland.

The site is not classed as a Fauna Habitat Zone (FHZ) (M. King, personal communication, August 22, 2024); however, is suitable habitat for fauna species. The site is suitable foraging and roosting habitat for all three species of black cockatoo (Natural Area, 2024). None of the trees required to support structures for the Tree Walk area or Zipline Tour have been identified as black cockatoo breeding trees, or trees with hollows. Trees are not expected to be used for securing ziplines or platforms within the Giant Zipline take-off and landing sites, as a platform will be constructed to support this zipline. No trees have been assessed for black cockatoo values or specified for use within the Stones Brook area.

The project construction methodology has the potential to introduce fauna disturbance through any lighting required for safe operation of machinery, noise generated by machinery, and physical disturbance of habitat by machinery traversing the project area. The ongoing operation of the tree village has the potential to

introduce fauna disturbances through increased foot traffic in the area and lighting and noise generated from the use of the tree village. Management targets and actions to mitigate risks to fauna species have been provided in Table 6 below.

**Table 6:** Environmental management plan for fauna management

| Management Targets  | Management Actions  | Timing                                   | Accountability and Obligations   |
|---|---|--|--|
| Vegetation clearing and degradation to be minimised to preserve fauna habitat where possible. | <ul style="list-style-type: none"> <li>Minimise the construction footprint by utilising smaller machinery and using existing cleared areas as laydowns and site access.</li> <li>Ensure visitors remain on the provided demarcated paths.</li> <li>Implement a monitoring program to ensure habitat (tree) health is not negatively affected by the suspended walkways, ziplines and associated tree platforms.</li> </ul>          | Construction phase and operational phase | <p><i>Project manager and operational manager.</i></p> <ul style="list-style-type: none"> <li>If further vegetation clearing is required outside of that outlined in Section 2 of this management plan, this plan is to be reviewed and if required, updated with relevant management actions. Appropriate approvals from the relevant regulatory authority should be sought prior to any additional clearing activities.</li> <li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li> <li>If tree health is affected by the use of the suspended walkway, the relevant authority must be notified, the cause of the decline determined, and immediate rectification and prevention measures implemented.</li> </ul> |
| Reduce the risk of disturbance to fauna species as much as practicable.                       | <ul style="list-style-type: none"> <li>Care should be taken to locate any nests, burrows or other specific fauna habitat or fauna species within the disturbance areas prior to moving machinery through site.</li> <li>All construction personnel, operational staff and visitors are to avoid directly interacting with fauna where possible.</li> <li>All operations are to be undertaken in a fauna friendly manner.</li> </ul> | Construction phase and operational phase | <p><i>Project manager operational manager.</i></p> <ul style="list-style-type: none"> <li>If fauna habitat is located, advice from an environmental specialist is to be sought. Alternative access through the site will be sought, and temporary signage and fencing to deter machinery and pedestrians from moving through the area will be installed where required.</li> <li>If fauna species are observed within the project area and are at risk of harm works are to cease. Works are not to recommence until the fauna has been relocated</li> </ul>   |

| Management Targets   | Management Actions  | Timing                                   | Accountability and Obligations  |
|--|---|--|---|
|  | <ul style="list-style-type: none"> <li>In the event that fauna are in any of the tree village areas that cannot be avoided (e.g. reptile is inside mobile plant) and will not leave the area on its own a local certified fauna handler is to attend site to remove the fauna.</li> <li>If any injured fauna species are encountered the DBCA Wild Care Helpline will be contacted for advice (08 9474 9055).</li> </ul>      |  | <ul style="list-style-type: none"> <li>by a qualified fauna specialist or mitigation measures are implemented to reduce the risk of harm.</li> <li>If injured fauna are found the project manager is to organise the animal to be transported to the nearest wildlife shelter or vet.</li> <li>If fauna species are observed within the tree village, visitors are to be instructed to not disturb the fauna. If the fauna does not appear to want to leave the tree village on its own, the operational manager is to be notified and engage a suitably qualified fauna handler to capture and relocate the fauna.</li> <li>If injured fauna are found the visitors are to be instructed to not disturb the fauna and the operational manager is to be notified and organise the animal to be transported to the nearest wildlife shelter or vet.</li> </ul> |
| Ensure activities relating to the construction and ongoing use of the suspended walk are designed with mitigation measures for disturbances to black cockatoo species. | <ul style="list-style-type: none"> <li>Ensure tree crown disturbance is kept minimal</li> <li>Ensure artificial lighting and noise produced during construction and post construction are minimised as much as possible, while ensuring relevant safety guidelines are adhered to.</li> <li>Ensure all personnel and visitors are educated on responsibilities to ensure no disturbances to black cockatoos occur.</li> </ul> | Construction phase and operational phase | <p><i>Project designer, project manager and operational manager.</i></p> <ul style="list-style-type: none"> <li>If excessive disturbance to trees are required that may constitute a 'significant impact' to black cockatoos as defined by the Department of Climate Change, Energy, the Environment and Water (DCCEEW, 2022), the element of the project requiring excessive disturbance must be redesigned. If this is not possible the action may be required to be referred to DCCEEW.</li> <li>If disturbance to black cockatoos becomes evident, a review of construction procedures should be undertaken to reduce the requirement for activities that produce deterrents to black cockatoos.</li> <li>If disturbance to black cockatoos becomes evident, a review of activities undertaken within the tree village</li> </ul>                         |

| Management Targets | Management Actions | Timing | Accountability and Obligations   |
|--------------------|--------------------|--------|--|
|                    |                    |        | should be undertaken with the intent to eliminate activities that produce disturbances to black cockatoos. |

4.5 Pest and Disease Management

Pest and disease management is required to be implemented under the tree village project. The project area is located within the Southern Jarrah Forest and receives approximately 918.9 mm rainfall per annum (Bureau of Meteorology (BoM), 2025, Collie Site ID 009628). All areas within the tree village are infested with Phytophthora Dieback (*Phytophthora cinnamomi*), with the exception of Stones Brook (M. King, personal communication, August 22, 2024). This means Stones Brook is a Disease Risk Area. A dieback risk assessment has been completed for the entire project area and the risk of the project infesting protected areas was classified high, as the Stones Brook area is uninfested old growth Jarrah forest (Appendix 2). The project area is located outside Polyphagous Shot Hole Borer (PSHB) Zones A and B, and is therefore considered free of PSHB (DPIRD, 2025b). Signs of Marri Canker have been recorded on site (Arbor Logic, 2024).

The project methodology includes installation of mulch and timber products, increased foot traffic and the use of machinery with the potential to move soil. Trees will also have structures fixed to trunks, which has the potential to make the trees more susceptible to diseases. These activities can facilitate the movement of pests or diseases into or out of the site. Management targets and actions to mitigate risks associated with pests and diseases have been provided in Table 7.

Table 7: Environmental management plan for pests and diseases

| Management Targets                                    | Management Actions   | Timing             | Accountability and Obligations   |
|---|--|--------------------|--|
| Dieback is not moved into or out of the tree village. | <ul style="list-style-type: none"><li>Dieback hygiene stations (shoe cleaning stations) are to be placed at all ground level entry and exit points of all activity areas.</li><li>Visitors are to be educated on the importance of dieback hygiene through signage and instruction from admin staff/ tour guides.</li><li>Visitors are to traverse the project area on the provided pathways, which are to be demarcated by handrails.</li></ul> | Operational phase  | <i>Operational manager.</i> <ul style="list-style-type: none"><li>If available dieback hygiene stations are found to be ineffective, additional dieback prevention measures should be agreed upon with the landowner/manager and implemented immediately.</li><li>If the pathways are found to be ineffective, the pathway design is to be reviewed and updated, to include stronger deterrents (e.g. fencing and/or signage) to encourage visitors to stay within the demarcated paths.</li></ul> |
|   | <ul style="list-style-type: none"><li>Ensure all contractors follow appropriate dieback management plans including but not limited to boot, machinery and equipment cleaning procedures and limiting soil movement during construction.</li></ul>  | Construction phase | <i>Project manager.</i> <ul style="list-style-type: none"><li>If dieback hygiene measures are not adhered to, the project manager should be notified, and immediate rectification of the cause should be implemented.</li></ul>  |

| Management Targets   | Management Actions   | Timing                                   | Accountability and Obligations  |
|--|--|--|---|
| All imported mulch products are to be free from pests and diseases.                                  | <ul style="list-style-type: none"> <li>Ensure all mulch supplied for the project is tested and negative for pathogens.</li> <li>Ensure all mulch supplied for the project originates from outside the Polyphagous Shot Hole Borer (<i>Euwallacea fornicatus</i>) quarantine zones.</li> </ul>  | Construction phase and operational phase | <p><i>Project manager.</i></p> <ul style="list-style-type: none"> <li>If mulch is supplied untested, the mulch must not be applied until the required tests for pathogens are undertaken.</li> <li>If mulch supplied is found to have originated from within quarantine zone A, the mulch must be disposed of appropriately, and new mulch sourced from a suitable area.</li> <li>If mulch is required to be supplied from quarantine zone B, it must meet the requirements outlined by DPIRD (2025) and must be &lt;2.5 cm in diameter.</li> </ul> |
| Minimise the risk of introducing Marri Canker to trees used in the construction of the tree village. | <ul style="list-style-type: none"> <li>Where possible, adjust the design of the structures to avoid using <i>Corymbia calophylla</i> (Marri) trees for structures that are required to be fixed to trees via screws, nails or other trunk penetrating means.</li> <li>Treat trees likely to be affected by Marri Canker with fortification measures such as phosphite injections to increase tree defence against diseases.</li> </ul> | Construction phase                       | <p><i>Project designer.</i></p> <ul style="list-style-type: none"> <li>If Marri trees are required to be used, these should be identified and a plan for ensuring the ongoing health of the tree should be provided.</li> </ul>   |
|  |  | Construction phase and operational phase | <p><i>Project manager and operational manager.</i></p> <ul style="list-style-type: none"> <li>If fortification measures are found to be ineffective, an experienced arborist is to be consulted immediately to determine implications and possible solutions for the declining health of the tree.</li> </ul>   |
| Control populations of any declared pest animal inhabiting the project area.                         | <ul style="list-style-type: none"> <li>Engage a licensed vertebrate pest controller if evidence of declared pest animals become known (scat, tracks, burrows/ dens).</li> </ul>  | Operational phase                        | <p><i>Operational manager:</i></p> <ul style="list-style-type: none"> <li>If populations are unable to be controlled, an integrated vertebrate pest management plan is to be implemented.</li> </ul>  |



## **5.0 Monitoring to Inform Management Actions**

### **5.1 Construction Phase**

Monitoring is required to determine whether the management targets outlined in the environmental management plans above are being met. An initial monitoring survey of the vegetation surrounding the construction site is to be conducted prior to the construction phase of the project. Monitoring quadrats (10 x 10 m) are to be established to collect representative data of the key environmental factors within the site. Where possible, monitoring quadrats should be divided between the development boundary (impact zone), a 100 m buffer zone and the surrounding forest outside the buffer zone (control). Buffer and control quadrats should be placed within an area representative of the vegetation type and condition present within the development boundary.

Additionally, during the monitoring event each tree used to support structures, ziplines or ropes are to be monitored for health including an assessment of the condition of each tree using a canopy scoring system such as Clifton (1988), and any detrimental factors to tree health. Monitoring should be conducted by an experienced environmental contractor. A report should be produced, to consolidate the results of the monitoring activities, and to assess any significant changes in the environmental conditions of the site.

A weed mapping event should be undertaken prior to construction, to provide baseline data on weeds present at site. Weed mapping methodologies should be quantitative and repeatable to allow for a comparative assessment over time. A weed mapping report should be provided outlining methodology, results (highlighting the locations of significant weed species), implications and recommendations.

### **5.2 Post Construction**

Monitoring is required to determine whether the management targets outlined in the environmental management plans above are being met. Monitoring surveys are to be undertaken annually for a period of two years post construction and will be a continuation of the quadrat monitoring and tree health monitoring undertaken during construction. Additionally, the site will be assessed for any impacts to the key environmental factors arising from the ongoing use of the tree village project. Monitoring should be conducted by an experienced environmental contractor. Reporting is to be undertaken annually, to consolidate the results of the monitoring activities, and to assess any significant changes in the environmental conditions of the site.

Weed mapping events should be undertaken annually for a period of two years post construction and will be a continuation of weed mapping activities undertaken during construction. Annual weed mapping reports should be provided outlining methodology, results (highlighting the locations of significant weed species), implications and recommendations.

A monitoring schedule for each site has been provided in Table 8 below.

The site may also be referred to BirdLife Australia for inclusion in the Great Cocky Count (GCC). The GCC is an annual citizen science volunteer event undertaken every autumn, spanning one evening requiring participants to record sightings of black cockatoos roosting on site (BirdLife Australia, n.d.).

**Table 8:** Monitoring schedule

| Area Name              | Monitoring Quadrats   | Tree Health Assessment                              | Weed Mapping                                   | Timing  |
|------------------------|---|---|--|---|
| Tree Walk              | Six 10 x 10 m: <ul style="list-style-type: none"> <li>3x within the development boundary.</li> <li>2x outside the development boundary (100 m buffer zone).</li> <li>1x control quadrat placed outside the buffer in the adjacent forest.</li> </ul>    | All trees used to support the suspended walkway     | Impact and buffer zones                        |   |
| Zipline Tour           | Seven 10 x 10 m: <ul style="list-style-type: none"> <li>3x within the development boundary.</li> <li>2x outside the development boundary (100 m buffer zone).</li> <li>2x control quadrats placed outside the buffer in the adjacent forest.</li> </ul> | All trees used to support the zipline and platforms | Impact and buffer zones                        |   |
| Giant Zipline Take-off | Three 10 x 10 m: <ul style="list-style-type: none"> <li>1x within the development boundary.</li> <li>1x outside the development boundary (100 m buffer zone).</li> <li>1x control quadrat placed outside the buffer in the adjacent forest.</li> </ul>  | N/A - no trees proposed to be used                  | N/A - area is too small, quadrat is sufficient | Monitoring surveys are to be conducted in spring to coincide with the peak flowering season for south- western WA: <ul style="list-style-type: none"> <li>Once prior to commencement of construction.</li> <li>Annually for two years post construction.</li> </ul> |
| Giant Zipline Landing  | Three 10 x 10 m: <ul style="list-style-type: none"> <li>1x within the development boundary.</li> <li>1x outside the development boundary (100 m buffer zone).</li> <li>1x control quadrat placed outside the buffer in the adjacent forest.</li> </ul>  | N/A - no trees proposed to be used                  | Impact and buffer zones                        |   |
| Stones Brook           | Three 10 x 10 m: <ul style="list-style-type: none"> <li>1x within the development boundary.</li> </ul>  | All trees used to support the ropes course          | Impact and buffer zones                        |   |

| Area Name | Monitoring Quadrats   | Tree Health Assessment | Weed Mapping | Timing |
|-----------|---|------------------------|--------------|--------|
|           | <ul style="list-style-type: none"><li>1x outside the development boundary (100 m buffer zone).</li><li>1x control quadrat placed outside the buffer in the adjacent forest.</li></ul> |                        |              |        |

## 6.0 Adaptive Management and Review

This management plan has been prepared in accordance with the most recent and relevant information relating to the proposed activities. This management plan should be reviewed and updated if any one of the following triggers occur:

- The construction methodology or scope of works varies from that provided in Section 2 of this management plan.
- The expected use of the project area varies from that provided in Section 2 of this management plan.
- When there is need to improve performance in an area of environmental impact.
- If any of the following incidents are observed an assessment of its severity and extent are to be undertaken, followed by an assessment of the effectiveness of the relevant management action outlined in this plan. If the management actions identified in this plan are not sufficient to address the impact, then this plan will be reviewed and updated accordingly:
  - plant deaths, plant stress or evidence of trampling or damage to vegetation in areas adjacent to any infrastructure
  - weed spread as a result of construction or ongoing use of the tree village
  - evidence of detrimental pests or diseases being introduced within the project area, including but not limited to Marri Canker, PSHB or declared pests and Weeds of National Significance.
  - negative impacts to fauna from the construction or use of the tree village project including but not limited to observing injured or deceased native fauna within the project area.
- If the development boundary changes from that shown in Figures 1 - 5.

### 6.1 Summary of Changes to this EMP

The scope of works and development boundary have varied from the D2 version of this management plan. This has triggered a review of the management plan to address any additional environmental impacts. Changes made to this EMP have been detailed in Table 9 below.

**Table 9:** Summary of changes to this EMP.

| Item | Section    | Complexity of Change | Summary of Change   | Reason for Change                            | Version Number Implemented |
|------|------------|----------------------|---|--|----------------------------|
| 1    | 2.0        | Moderate             | Addition of project summaries for additional activities included in the proposal (Giant Zipline, Zipline Tour and Stones Brook).                                    | Additional activities added to the proposal. | D3                         |
| 2    | 3.0        | Minor                | Updated Key Environmental Factors to encompass environmental factors within the Zipline Tour, Giant Zipline Take-off, Giant Zipline Landing and Stones Brook areas. | Additional activities added to the proposal. | D3                         |
| 3    | 4.0        | Moderate             | Updated environmental management plans to encompass new risks and management strategies for the additional activities.  | Additional activities added to the proposal. | D3                         |
| 4    | 5.0        | Moderate             | Addition of monitoring schedule to include the Zipline Tour, Giant Zipline Take-off, Giant Zipline Landing and Stones Brook areas.                                  | Additional activities added to the proposal. | D3                         |
| 5    | Appendix 2 | Moderate             | Updated the dieback risk assessment for additional activities included in the proposal (Giant Zipline, Zipline Tour and Stones Brook).                              | Additional activities added to the proposal. | D3                         |

## 7.0 References

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Natural Area Consulting Management Services (Natural Area). (2024). *Wellington National Park Tree Village Flora, Fauna and Black Cockatoo Habitat Surveys*. Unpublished report prepared for Beijaflöre.

## Appendix 1: Example of Weed and Dieback Hygiene Procedures

Weed and dieback hygiene procedures are required to be undertaken when moving into and out of natural areas to prevent the spread of weeds, dieback and other soil or plant borne pathogens. Weeds and pathogens are commonly spread by infested material on tyres and shoe treads, or on tools and equipment. Before entering and leaving natural areas, the following should be undertaken to minimise the risk of weed, dieback or other pathogens spreading:

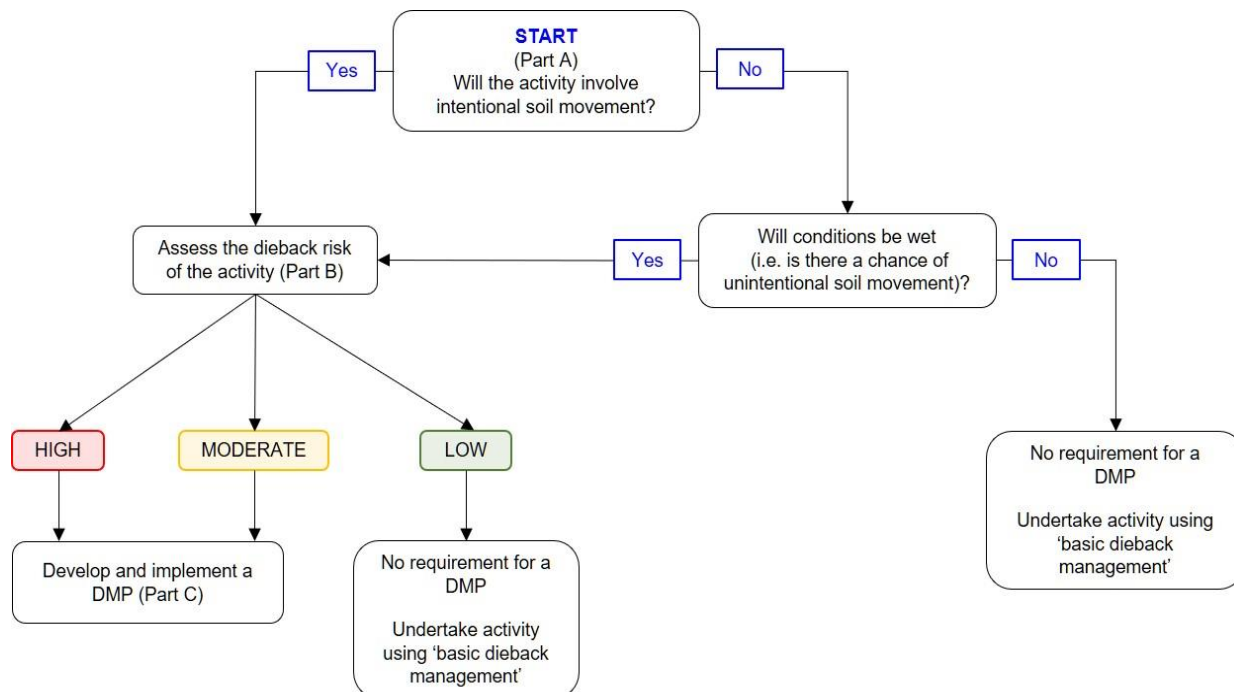
- All dirt and plant material should be brushed from shoes, paying particular attention to deep treads in shoes where soil may be stuck.
- All dirt and plant material should be brushed out from vehicle and machinery treads, taking care to move the vehicle slightly after the initial brush down to ensure all dirt is removed from the entire circumference of the wheels or tracks.
- All tools and equipment should be cleaned of all soil and plant matter.
- A dieback solution (70 % methylated spirits) should be sprayed on shoe treads, vehicle and machinery tyres/ tracks and tools.

All visitors entering and exiting the tree village should also partake in weed and dieback hygiene procedures, with shoe cleaning stations provided at entry and exit points (shoe brushes at a minimum, dieback solution sprayer may be required).

## **Appendix 2: Phytophthora Dieback Risk Assessment Form**

### PART A: DISTURBANCE ACTIVITY

The decision tree below will help determine if the activity constitutes a disturbance and requires a risk assessment (Part B), and the risk assessment will determine if a DMP is required (Part C).



### Details of disturbance activity

|   |   |  |                        |
|---|---|--|------------------------|
| <b>Region/District of activity:</b>   | Gervasse  | <b>Date of activity:</b><br><i>(give date range if a prolonged activity)</i> | October 2025 - Ongoing |
| <b>Location of site of activity:</b><br><i>(Forest Block, Reserve or coordinates)</i> | Wellington National Park  | <b>Disease Risk Area:</b><br><i>(yes or no)</i>                              | Yes (Stones Brook)     |
| <b>Vegetation type/complex:</b>   | Murray 1 and Helena 1   |  |                        |
| <b>Description of the activity:</b><br><i>(timber harvesting, road upgrade etc.)</i>  | Construction of a tree villiage adventure attraction  |  |                        |
| <b>Proponent of the activity:</b><br><i>(DBCA, FPC, MRWA, Water Corp. etc.)</i>       | Beijaflore pty ltd  |  |                        |
| <b>Departmental objective for dieback management:</b>                                 | To minimise the potential for the introduction or spread of dieback associated with planned disturbance activities. |  |                        |

Indicate what parts of the form have been completed for the activity described above:

| Part   | Purpose         | Requirement  | Tick parts completed |
|--|-----------------|--|----------------------|
| <b>B</b>   | Risk Assessment | To be completed if decision tree in Part A indicates that intentional or unintentional soil movement will occur during the activity. | ✓                    |
| <b>C</b>   | DMP             | To be completed if risk is assessed in Part B to be 'High' or 'Moderate'   | ✓                    |
| <div style="display: flex; justify-content: space-between;"> <span>Dieback Management Plan No.</span> <span><i>Allocated by District</i></span> </div> |                 |  |                      |

**PART B: RISK ASSESSMENT**

**Step 1: MOISTURE conditions**

Higher moisture during a disturbance activity increases the likelihood that soil will stick to a carrier (e.g. vehicles, equipment and/or footwear). Tick the box adjacent to the moisture conditions that are forecast for the period of the activity. If the activity will continue for an extended period, planning should consider the highest possible risk (wettest) conditions that may occur. If the activity is planned for dry conditions but the conditions change to become wetter prior to or during the activity, a contingency plan is required.

|                   |   |   |
|-------------------|---|---|
| <b>Dry soil</b>   | where dust forms when exposed soil is disturbed   |   |
| <b>Moist soil</b> | where soil is damp but does not stick to tyres, equipment and/or footwear               |   |
| <b>Wet soil</b>   | where soil and moisture combine so that soil sticks to tyres, equipment and/or footwear | ✓ |

**Step 2: Determine the LIKELIHOOD of introducing or spreading dieback**

Circle the description in each column that best describes the activity. An activity may fit between descriptions, in which case write a description into the appropriate blank cell.

*The overall likelihood rating is determined by the criteria with the highest rating.*

| Disturbance type (e.g. action)       | Introduction of raw material              | Access   | Complexity of activity | Extent of activity                        | Duration of activity   | Drainage                          | Unmanaged access  | Likelihood rating |
|--------------------------------------|---|--|------------------------|---|--|-----------------------------------|---|-------------------|
| Heavy earth moving, tracked vehicles | Infested or unknown raw material          | Access crosses water (irrespective of frequency) |                        |   | Activity area disturbed & map expired so impossible to revalidate boundaries |                                   | Increased public access in area of high public use                | Very likely       |
| Soil disturbance over a distance     |   | Activity requires frequent access to site        | Highly complex         | Vehicle traverses several mini-catchments | Activity extends over several wet seasons                                    | Surface water increased           |   | Likely            |
| Soil disturbance at single points    | Crushed rock with no organic fraction     |  | Complex                |   | Activity occurs during a single wet season                                   |                                   | Increased public access, but access restricted and/or site remote | Possible          |
| Rubber tyred vehicle, bicycle        | 'High confidence' uninfested raw material | Activity requires infrequent access to site      |                        | Single mini-catchment                     | Entry in short timeframe under dry conditions                                | Minimal increase in surface water |   | Unlikely          |
| Human, animal traffic                |   |  | Not complex            | Point or human traffic                    | Single entry in short timeframe under dry conditions                         |                                   | Activity does not alter frequency of access to site               | Very unlikely     |

### Step 3: Determine the CONSEQUENCE of introducing or spreading dieback

Determine the potential CONSEQUENCE that introducing or spreading dieback may cause by going through the table below systematically and circling the description in each column that best estimates the consequence.

*The overall consequence rating is determined by the criteria with the highest rating.*

| Area put at risk  | Predicted impact  | Biodiversity and sensitive areas at risk   | Consequence rating   |
|---|---|--|----------------------|
| Ongoing potential <sup>1</sup> to completely infest all protectable areas in activity landscape unit <sup>2</sup>   | Predicted <b>very high</b> impact: (majority of species at the activity area are susceptible and/or introducing dieback will result in extinction of species or populations)<br><u>or</u><br>Wet areas which contain any <i>Banksia</i> species or jarrah | >1 threatened/priority plant or animal species, critical habitat, TEC and/or Ramsar wetlands that is susceptible to dieback<br><u>and/or</u><br>Old-growth jarrah forest   | <b>Severe</b>        |
| Potential to infest all protectable areas in activity landscape unit <sup>1</sup>   | Predicted <b>high</b> impact: (many susceptible species and/or introducing the pathogen will result in loss of populations or localised extinction of species)<br><u>or</u><br>Where predicted impact cannot be determined, jarrah forest on upland areas | At least one threatened/priority plant or animal species, critical habitat, TEC and/or Ramsar wetlands that is susceptible to dieback<br><u>and/or</u><br>Sensitive neighbouring property  | <b>Significant</b>   |
| Potential to infest more than 5% of any protectable area or 4 ha's (whichever is greater – assessor may set a lower minimum protectable area where appropriate) | Predicted <b>moderate</b> impact: (moderate numbers of susceptible species and/or introducing the pathogen will result in a reduction in species/populations)   |  | <b>Intermediate</b>  |
|   | Predicted <b>low</b> impact (low numbers of susceptible species)  | Fauna Habitat Zones  | <b>Minor</b>         |
| No protectable areas estimated within any related landscape unit<br><u>and/or</u><br>The area is already infested <sup>3</sup>                                  | No susceptible species and/or the activity area is in the 'excluded' category.<br><u>or</u><br>Introducing dieback will have no impact discernible outside natural variation <sup>3</sup>   | No threatened/priority plant or animal species; critical habitat; TEC; and/or Ramsar wetlands that are susceptible to dieback.<br><u>or</u><br>As the activity area is already infested there will be no increased risk to threatened species and communities present <sup>3</sup> | <b>Insignificant</b> |

<sup>1</sup> Ongoing potential for an area to become infested occurs when the disturbance activity involves construction of permanent infrastructure e.g. roads or camp sites especially high in the landscape

<sup>2</sup> Landscape unit is an area bounded by features such as creeks, ridges, saddles, open roads and/or freehold land

<sup>3</sup> Provide a map showing evidence that area is infested and attach to the risk assessment

## Step 4: Determine the overall dieback RISK rating

- Refer to the table below that corresponds to the soil MOISTURE conditions (Step 1)
- Circle where the LIKELIHOOD rating (Step 2) intersects the CONSEQUENCE rating (Step 3)

This is the overall dieback RISK rating for the activity.

| DRY SOIL      |   |               |          |              |             |          |
|---------------|---|---------------|----------|--------------|-------------|----------|
| LIKELIHOOD    | Disturbance examples                      | CONSEQUENCE   |          |              |             |          |
|               |   | Insignificant | Minor    | Intermediate | Significant | Severe   |
| Very likely   | tracked machines ripping, pushing soil    | Low           | Moderate | High         | High        | High     |
| Likely        | snigging/light surface skim over distance | Low           | Moderate | Moderate     | High        | High     |
| Possible      | installing posts, exploration drilling    | Low           | Low      | Moderate     | Moderate    | High     |
| Unlikely      | driving with rubber tyres                 | Low           | Low      | Low          | Moderate    | Moderate |
| Very unlikely | walking                                   | Low           | Low      | Low          | Low         | Low      |

| MOIST SOIL    |   |               |          |              |             |          |
|---------------|---|---------------|----------|--------------|-------------|----------|
| LIKELIHOOD    | Disturbance examples                      | CONSEQUENCE   |          |              |             |          |
|               |   | Insignificant | Minor    | Intermediate | Significant | Severe   |
| Very likely   | tracked machines ripping, pushing soil    | Low           | High     | High         | High        | High     |
| Likely        | snigging/light surface skim over distance | Low           | Moderate | High         | High        | High     |
| Possible      | installing posts, exploration drilling    | Low           | Moderate | Moderate     | High        | High     |
| Unlikely      | driving with rubber tyres                 | Low           | Low      | Low          | Moderate    | High     |
| Very unlikely | walking                                   | Low           | Low      | Low          | Moderate    | Moderate |

| WET SOIL      |   |               |          |              |             |          |
|---------------|---|---------------|----------|--------------|-------------|----------|
| LIKELIHOOD    | Disturbance examples                      | CONSEQUENCE   |          |              |             |          |
|               |   | Insignificant | Minor    | Intermediate | Significant | Severe   |
| Very likely   | tracked machines ripping, pushing soil    | Low           | High     | High         | High        | High     |
| Likely        | snigging/light surface skim over distance | Low           | High     | High         | High        | High     |
| Possible      | installing posts, exploration drilling    | Low           | Moderate | High         | High        | High     |
| Unlikely      | driving with rubber tyres                 | Low           | Moderate | Moderate     | High        | High     |
| Very unlikely | walking                                   | Low           | Low      | Low          | Moderate    | Moderate |

## Step 5: Can the RISK be reduced by altering the activity or conditions?

If the risk rating is 'High' consideration should be given to:

- Cancelling the activity which avoids the risk; or
- Postponing the activity until conditions are dry for activities scheduled during moist or wet conditions.

If cancelling or postponing is not possible the activity should be re-assessed to determine if the risk can be reduced by altering some of the parameters of the activity. For example, tired machinery generally causes less soil disturbance and are easier to clean, compared to tracked machines which cause more damage and pick up soil in the cleats which is hard to remove. Refer to the appendices for further guidance on reducing risk associated with an activity.

## Step 6: Determine requirements based on RISK rating

Tick the box adjacent to the RISK rating of the activity as determined by the risk table.

|                 |  |   |
|-----------------|--|---|
| <b>High</b>     | <ul style="list-style-type: none"> <li>Complete Part C based on valid comprehensive dieback interpretation with Regional Manager (or delegate) approval before implementation, and sign-off after close-out</li> <li>Green Card training<sup>1</sup> for all proponents and contractors involved in activity</li> </ul>  | ✓ |
| <b>Moderate</b> | <ul style="list-style-type: none"> <li>Complete Part C based on valid comprehensive dieback interpretation OR conditional dieback occurrence information with Regional Manager (or delegate) approval before implementation, and sign-off after close-out</li> <li>Green Card training<sup>1</sup> for proponent and contractors involved in activity</li> </ul> |   |
| <b>Low</b>      | <ul style="list-style-type: none"> <li>Part C not required. Activity can proceed using basic dieback management</li> <li>Green Card training<sup>1</sup> for all proponents and contractors involved in activity</li> </ul>  |   |

<sup>1</sup> Green Card training is mandatory for nominated departmental staff

## Step 7: Risk Assessment sign-off

|   | Full Name | Position | Signature | Date |
|---|-----------|----------|-----------|------|
| Risk Assessment conducted by:                                 |           |          |           |      |
| Risk Assessment checked by:<br>(Regional Manager or delegate) |           |          |           |      |

Additional comments or conditions:



## PART C: DIEBACK MANAGEMENT PLAN

Dieback Management Plan No. \_\_\_\_\_  
*Allocated by District*

### Step 1: Dieback occurrence information & map *(supervising officer/proponent)*

| Valid comprehensive occurrence information |  |  | or | Conditional occurrence information |  |
|--|--|--|----|------------------------------------|--|
| Interpreter report/map no. and/or name     | Is the assessment evidence DHSO endorsed?  |  |    | Source                             |  |
|  | Dieback History - Wellington National Park |  |    |                                    |  |

### Step 2: DMP meeting *(supervising officer/proponent)*

|              |  |              |  |
|--------------|--|--------------|--|
| Date:        |  | Convened by: |  |
| Attended by: |  |              |  |

### Step 3: Risk management tactics *(supervising officer/proponent)*

| Tactic no.  | TACTICS TO BE DEPLOYED<br><i>Refer to the Appendices in the Phytophthora Dieback Management Manual for guidance</i>  | To be implemented<br><i>(✓= required)</i> | Implemented<br><i>(initialled when complete)</i> | Checked<br><i>(initialled when checked)</i> |
|---|--|---|--|---|
| <b>MOISTURE CONDITIONS</b>  |  |   |  |   |
| 1   | Moisture conditions as per Part B/Step1    dry <input type="checkbox"/> moist <input type="checkbox"/> wet <input checked="" type="checkbox"/>   |   |  |   |
| 2   | Contingency in event that conditions become wetter than those planned for before or during the activity:   |   |  |   |
|   | • postpone/cease activity  |   |  |   |
|   | • fall back to low risk area (e.g. infested area)  | ✓   |  |   |
|   | • risk reassessed and new DMP developed based on wetter conditions   |   |  |   |
| <b>PROTECTABLE AREAS <i>(and other management boundaries)</i></b> |  |   |  |   |
| 3   | Protectable area (and management unit boundaries within them) have been established in the field and are identified as P <input type="checkbox"/> to P <input type="checkbox"/> on the attached dieback management map   |   |  |   |
| 4   | Management boundaries (unrelated to Protectable Areas) have been established in the field and identified on the management map e.g. mini-catchments, impact etc.   | ✓   |  |   |
| <b>HYGIENE</b>  |  |   |  |   |
| 5   | Clean on Entry (COE) points and No Soil Movement (NSM) roads identified on map and signs installed in-field (record COE numbers in appropriate boxes):<br><input type="checkbox"/> COE road access <input checked="" type="checkbox"/> COE entering vegetation / protectable areas<br><input type="checkbox"/> COE NSM | ✓   |  |   |
| 6   | <input type="checkbox"/> COE gates installed and indicated on map against COE no.  |   |  |   |

| Tactic no.                        | TACTICS TO BE DEPLOYED<br><i>Refer to the Appendices in the Phytophthora Dieback Management Manual for guidance</i>  | To be implemented<br>(✓= required)                                    | Implemented<br>(initialled when complete) | Checked<br>(initialled when checked) |
|-----------------------------------|--|---|---|--------------------------------------|
| 7                                 | <input type="text"/> turnarounds for COE points, numbered and marked on map  |   |   |                                      |
| 8                                 | COE points <input type="text"/> will be closed to Type <input type="text"/> when the operation is to cease for <input type="text"/> weeks, and on completion of all <input type="text"/> activities all temporary COE will be closed to Type <input type="text"/> by the proponent |   |   |                                      |
| 9                                 | Cleandown points established in field and indicated on map<br>How is effluent to be managed for wet cleandown?   | ✓   |   |                                      |
| 10                                | Machines and vehicles with portable hygiene kits   | ✓   |   |                                      |
| 11                                | Records kept (circle relevant): <input type="checkbox"/> COE <input type="checkbox"/> clean down <input type="checkbox"/> NSM  |   |   |                                      |
| 12                                | Management points (if applicable) numbered on map. Provide detail below on the decision or action that must be taken at each management point:<br>M1:<br>M2:   |   |   |                                      |
| <b>TRAINING AND COMMUNICATION</b> |  |   |   |                                      |
| 13                                | Staff/contractors with Green Card training   |   |   |                                      |
| 14                                | DMP briefings (circle relevant): <u>at commencement</u> <input type="checkbox"/> weekly <input type="checkbox"/> daily <input type="checkbox"/> other  | ✓   |   |                                      |
| <b>DISTURBANCE</b>                |  |   |   |                                      |
| 15                                | Machinery type(s): Small earthmoving machinery   | Machine Nos: <input type="text"/> TBC                                 |   |                                      |
| <b>RAW MATERIALS</b>              |  |   |   |                                      |
| 16                                | Type: Mulch  | Supplier/Source: TBC  |   |                                      |
| 17                                | Status (attach evidence):  |   |   |                                      |
| <b>ACCESS</b>                     |  |   |   |                                      |
| 18                                | Disease Risk Area permit obtained if required (attach copy)  |   |   |                                      |
| 19                                | Access route planned to place least amount of protectable area downslope at risk, and shown on map   | ✓   |   |                                      |
| 20                                | Road maintenance uses tactics to mitigate harm to protectable areas:   | use interpreted boundaries  |   |                                      |
| 21                                |  | push soil downslope only  |   |                                      |
| 22                                |  | clean bucket, shovel, auger after digging culverts/holes              | ✓   |                                      |
| 23                                |  | use uninfested/low risk material to patch road                        |   |                                      |
| 24                                | <input type="text"/> roads to be closed, each road closure is numbered and marked on map   |   |   |                                      |
| 25                                | Each road closure has been constructed to effectively control access   |   |   |                                      |
| 26                                | Roads effectively closed/rehabilitated within <input type="text"/> weeks of end of activity  |   |   |                                      |
| 27                                |  | located in infested/unprotectable categories when possible            |   |                                      |
| 28                                | Road construction uses tactics to mitigate harm to protectable areas:  | low in profile  |   |                                      |
| 29                                |  | high crown for better drainage  |   |                                      |
| 30                                |  | deep roadside drains & coarse material to minimise erosion            |   |                                      |
| 31                                |  | mitre/offshoot drain preferentially located towards base of the slope |   |                                      |

| Tactic no.                   | TACTICS TO BE DEPLOYED<br><i>Refer to the Appendices in the Phytophthora Dieback Management Manual for guidance</i>  | To be implemented<br>(✓= required) | Implemented<br>(initialled when complete) | Checked<br>(initialled when checked) |
|------------------------------|--|------------------------------------|---|--------------------------------------|
| 32                           | 'Green bridge' implemented (mark on map)   |                                    |   |                                      |
| 33                           | Activity to be undertaken using split-phase (provide detail):  |                                    |   |                                      |
| <b>DURATION</b>              |  |                                    |   |                                      |
| 34                           | Duration of activity >1 year, engage Interpreter to recheck the boundaries   | ✓                                  |   |                                      |
| <b>EXTENT</b>                |  |                                    |   |                                      |
| 35                           | Divide area into management units for work in dry, moist or <u>wet</u> (circle relevant)   |                                    |   |                                      |
| 36                           | 1 Protectability   |                                    |   |                                      |
| 37                           | 2 Presence of biodiversity values  |                                    |   |                                      |
| 38                           | 3 Predicted impact   |                                    |   |                                      |
| 39                           | 4 Potential for spread   |                                    |   |                                      |
| 40                           | 5 Machine/vehicle floatation   |                                    |   |                                      |
| 41                           | 6 Access prone to bogging  |                                    |   |                                      |
| 42                           | 7 Ability to control unmanaged access  |                                    |   |                                      |
| 43                           | 8 Distance from roads  |                                    |   |                                      |
| 44                           | Operate to mini-catchments   |                                    |   |                                      |
| <b>DRAINAGE</b>              |  |                                    |   |                                      |
| 45                           | Drainage directed away from protectable areas, and drainage points numbered and marked on map  |                                    |   |                                      |
| 46                           | Imported water Source:   |                                    |   |                                      |
| 47                           | Disinfectant type and dosage:  |                                    |   |                                      |
| <b>WEEDS</b>                 |  |                                    |   |                                      |
| 48                           | In areas infested with Declared/Prohibited or very high to moderate priority weeds, which are marked <span style="border: 1px solid black; display: inline-block; width: 100px; height: 1.2em; vertical-align: middle;"></span> on the map, the proponent (circle appropriate):<br>a) will not enter area<br><u>b) will clean down machinery when leaving area</u> | ✓                                  |   |                                      |
| <b>ADDITIONAL CONDITIONS</b> |  |                                    |   |                                      |
|                              |  |                                    |   |                                      |
|                              |  |                                    |   |                                      |
|                              |  |                                    |   |                                      |
|                              |  |                                    |   |                                      |
|                              |  |                                    |   |                                      |

### Step 4: Dieback management map checklist (supervising officer/proponent)

Tactics decided on above should be clearly marked on the map using the symbols in brackets. Each point will have a unique no. (e.g. COE1; COE2; X1) and the total number recorded below (e.g. total 2 COE points; 1 road closure)  
*Note: staff and contractors in the field must be briefed and supplied with a management map*

|   |  |
|---|--|
| DMP No. recorded on management map <input style="width: 50px;" type="text"/>        | Road drainage points (D): No. <input style="width: 50px;" type="text"/>                  |
| Protectable areas and/or management units <input style="width: 50px;" type="text"/> | Roads/areas with 'No Soil Movement' (NSM): No. <input style="width: 50px;" type="text"/> |
| 'Clean on Entry' points (COE): No. <input style="width: 50px;" type="text"/>        | Road closures (X): No. <input style="width: 50px;" type="text"/>                         |
| COE with gates (COE with gates): No. <input style="width: 50px;" type="text"/>      | Turnarounds and roads for rehab. (map legend)  |
| Management points (M): No. <input style="width: 50px;" type="text"/>                | Access route (map legend)  |
| Clean down locations (W): No. <input style="width: 50px;" type="text"/>             |  |

### Step 5: Proponent sign-off (external i.e. non-DBCA proponent)

I, the undersigned, agree to implement the above DMP:

|                  |                 |                            |                  |             |
|------------------|-----------------|----------------------------|------------------|-------------|
|                  |                 |                            |                  |             |
| <b>Full Name</b> | <b>Position</b> | <b>Agency/Organisation</b> | <b>Signature</b> | <b>Date</b> |

### Step 6: DMP approval (Regional Manager or delegate)

I, the undersigned, have reviewed the Risk Assessment and approved the DMP:

|                       |                 |                  |             |
|-----------------------|-----------------|------------------|-------------|
|                       |                 |                  |             |
| <b>Full Name</b>      | <b>Position</b> | <b>Signature</b> | <b>Date</b> |
| Comment (if required) |                 |                  |             |

### Step 7: DMP close-out (supervising officer/proponent)

All tactics identified in the DMP were implemented as approved?

Yes  No

|                       |                 |                  |             |
|-----------------------|-----------------|------------------|-------------|
|                       |                 |                  |             |
| <b>Full Name</b>      | <b>Position</b> | <b>Signature</b> | <b>Date</b> |
| Comment (if required) |                 |                  |             |

### Step 8: DMP sign-off (Regional Manager or delegate)

I, the undersigned, am satisfied that the DMP has been implemented and closed-out as approved:

|                       |                 |                  |             |
|-----------------------|-----------------|------------------|-------------|
|                       |                 |                  |             |
| <b>Full Name</b>      | <b>Position</b> | <b>Signature</b> | <b>Date</b> |
| Comment (if required) |                 |                  |             |



## Step 9: Document management checklist

Records ticked below are filed in the following location:

|  |   |
|--|---|
|  | Dieback occurrence information (Interpretation report and map) have been uploaded to <a href="#">DAS</a> . If a DAS is not required, then forward FEM079 and occurrence information to Forest Management Branch at <a href="mailto:femweb@dbca.wa.gov.au">femweb@dbca.wa.gov.au</a> |
|  | Dieback Management Map  |
|  | Dieback Risk Assessment and Management Plan form (Parts A, B and C)   |
|  | COE and clean down records  |
|  | Disease Risk Area permit  |