|  |
| --- |
| **BIODIVERSITY EVALUATION SHEET****QUARRY OPERATIONS** |
| **Planner name:** |  |
| **Date:** |  |
| **Location (Grid Reference):** |  |
| **Quarry Name:** |  |
| **Quarry Works Area (ha):**(e.g. area of quarry works, site rehabilitation, roading etc. within the FPP boundary) |  |
| **What quarry works are proposed?** **Is this a new quarry or extension to an existing quarry?** **Provide details and relevant maps.** |  |
| **Does the FPP area contain Vulnerable Land set aside in a previous FPP?** |  |

###### GENERAL INFORMATION

* **Please note: advice must be sought from both the Biodiversity Program and the Earth Sciences Program for all proposed Quarry FPPs.**
* This evaluation sheet is designed to ensure *Forest Practices Code* provisions for biodiversity values are taken into account in the preparation of a forest practices plan (FPP) for quarry operations. Note that this evaluation may not cover all biodiversity relevant provisions of the *Forest Practices Code*. The planner will need to consider any that are not covered here.
* Prior to completing this evaluation sheet, a desktop assessment (within 2km) must be undertaken as well as a comprehensive field assessment of the occurrence of biodiversity values within and immediately adjacent to the FPP area (within at least 100m). Note that an eagle nest search may also be required within 1km of the boundary of the FPP area and the results of the search recorded using the appropriate raptor search forms.
* Map(s) must be created indicating the location of biodiversity values (e.g. vegetation communities, known localities or habitats for threatened species etc.). The maps are intended to (1) inform the design of the proposed operation area taking into account the distribution, extent and quality of habitats, (2) assist FPA staff in providing advice on management of habitat (where required), and (3) provide a record of how the habitat assessment was undertaken for future compliance monitoring (i.e. maps should be uploaded to the FPA coverpage database).

###### Complete Sections 1 to 7 of the Biodiversity evaluation sheet for the FPP area.

###### Upload the draft biodiversity evaluation and any supporting information (e.g. maps, photos, database outputs, specialist advice, shapefiles) to the FPA notification system. Once advice is received, complete the sheets and upload the final biodiversity evaluation (including the final management prescriptions in Section 7 and any supporting information) to the FPA coverpage database for monitoring purposes.

###### FPOs must check that the recommended actions delivered by the TSA and other planning tools are current prior to certifying a FPP or variation to a plan. It is also recommended that biodiversity evaluations are reviewed if operations do not commence within, at most, six months of certification. This review will include, as a minimum, a check of the locality database information (e.g. known localities on the Biodiversity Values Database). Contact the FPA for advice if there is new information that might influence the management actions required

###### See the [Additional information](https://www.fpa.tas.gov.au/__data/assets/file/0007/122965/Additional_information_to_support_FPA_biodiversity_evaluation_sheets.pdf) document for explanatory notes, planning tools and definitions.

# ADVICE REQUIRED FROM THE FPA BIODIVERSITY PROGRAM

If advice is required, please provide information in the box below on the specific request/s for advice (e.g. I am seeking advice on the management of *eagle nest 1234*), and provide any extra background information to help with the provision of advice.

|  |
| --- |
|   |

###### SECTION 1: VEGETATION COMMUNITIES

Use the *Forest Botany Manual* and field observations to identify the vegetation communities within the FPP area.

## Native forest vegetation

List all of the native forest communities in the FPP area (use code or long name) in Table 1.

**Table 1 Native forest communities**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| *Floristic community* | *Floristic Priority (A, B, np)*  | *RFA community* | *RFA Priority (Y, Yog, N)* | *Is this a threatened community\* (Y/N)?* | *Area to be removed for quarry works (ha)* | *Area remaining in FPP area (ha)* | *Total in FPP area (harvested + remaining) (ha)* |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  | Total |  |  |  |

## \*Threatened communities include threatened native vegetation communities (TNVCs) listed under [Schedule 3A of the Tasmanian *Nature Conservation Act 2002*](https://dpipwe.tas.gov.au/conservation/threatened-species-and-communities/threatened-native-vegetation-communities)and threatened Ecological Communities (ECs) listed under the Commonwealth [*EPBC Act 1999*](https://www.environment.gov.au/epbc) – indicated in the *Forest Botany Manual* by a \* on the priority status.

## Native non-forest vegetation

List all native non-forest vegetation communities in the FPP area (use code or long name) in Table 2. Note that these are all floristic priority A.

**Table 2 Native non-forest communities**

|  |  |  |  |
| --- | --- | --- | --- |
| Community | Area to be harvested (ha) | Area remaining (ha) | Total in FPP area (harvested + remaining) (ha) |
|  |  |  |  |
| Total |  |  |  |

## Exotic vegetation

List all the exotic vegetation in the FPP area (use code or long name). Note that all exotic vegetation is non priority (N).

**Table 3 Exotic vegetation communities**

|  |  |  |  |
| --- | --- | --- | --- |
| Exotic vegetation | Area to be harvested (ha) | Area remaining (ha) | Total in FPP area (harvested + remaining) (ha) |
|  |  |  |  |

## Map of vegetation communities

**Attach a map** of the distribution of vegetation communities within the FPP area. Clearly indicate the area where quarry operations are proposed and areas set aside from harvesting on the map.

Is a vegetation community map attached? **YES** [ ]  **NO** [ ]

## Permanent Native Forest Estate (PNFE) ([Policy on the maintenance of the permanent forest estate](http://www.stategrowth.tas.gov.au/forestry/native-forest))

Check thelatest report on the PNFE figures on the FPA website ([www.fpa.tas.gov.au](http://www.fpa.tas.gov.au)). Does the FPP involve **any** **one or more** of the following?

* Clearing of more than 20 ha of native forest in any period of five consecutive years (based on calendar years) per property (PID)?
* Clearing of a threatened native forest community or threatened native non-forest community?
* Clearing of a native forest community which is less than 2,000ha in the bioregion (communities highlighted in the PNFE report)? or
* Clearing of a native forest community that has reached/exceed the clearing threshold (communities highlighted in the PNFE report) or this threshold would be reached/exceeded after the proposed operation is complete?

**YES** [ ]  **NO** [ ]

If **YES**, provide details. Note that clearing may not be permitted under the PNFE policy unless there are exceptional circumstances.

**Management prescriptions**

Using the information gathered above develop management prescriptions for vegetation communities to meet the relevant provisions of the *Forest Practices Code*. Provide these prescriptions in Section 7.

# SECTION 2: THREATENED FLORA SPECIES

1.

## Sources of information

Obtain database information on known localities of threatened species **within 2 km** of the FPP area and undertake a field survey. It is recommended that the BVD or the NVA is checked; FPA cannot guarantee the accuracy of other databases. Indicate the source of information used, attach database reports and any field information (e.g. FPO survey map, consultant report).

**Databases:** [ ]  BVD [ ]  NVA [ ]  CONSERVE [ ]  Other (specify): ……………………………. Date checked: ..………………….……….

**Field sources:** [ ]  FPO/forester field survey [ ]  Consultant survey/report [ ]  Other (specify): ………………………..….. Date of survey: ………………….……….

## Threatened flora risk assessment

In Table 4, list all threatened flora species with known localities within the FPP area and/or within 2 km of the FPP area, and complete the risk assessment for each species.

**Table 4 Threatened flora risk assessment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Species (scientific name) | Known locality – specify in/outside FPP area (include grid refs). | Is potential habitat present\*? Describe presence or absence of habitat and give location details.  | Is the proposed operation likely to impact a known locality or potential habitat? Give details. | TSA Rec\*\* | List management actions delivered through the TSA **where** **relevant to the operation**. | Can the management actions be applied? Provide details. |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

\* For **potential habitat** consider the **flora habitat descriptions** in the BVD report and relate them to the vegetation/habitats observed during the field survey. If present, it can be useful to **attach a map** of the distribution of potential habitat to the evaluation.

\*\* **TSA Recommendation number:** more than one TSA recommendation may be required for a species if the operation may impact a known locality and also potential habitat.

**Management prescriptions**

Using the information gathered above develop management prescriptions for threatened flora species to meet the relevant provisions of the *Forest Practices Code*. Provide these prescriptions in Section 7.

# SECTION 3: SITES OF POTENTIAL SIGNIFICANCE FOR FLORA

Does the proposed FPP area contain any sites of potential significance for flora identified in Table 4A or 4B of the [*Forest Botany Manual*](http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/forest_botany_manual)? **YES** [ ]  **NO** [ ]

If YES, provide details of site, any potential impacts, and proposed management actions in Table 5.

**Table 5 Sites of potential significance for flora risk assessment**

|  |  |  |
| --- | --- | --- |
| Site of significance – include details such as size, location in the FPP area, and any associated values (e.g. threatened species locality or habitat) | Potential impacts from the proposed operationsNote, if no impact is considered likely, a reason must be given.  | Proposed management actions to mitigate potential impacts (e.g. exclusion, buffers, boundary marking etc.)  |
|  |  |  |
|  |  |  |
|  |  |  |

**Management prescriptions**

Using the information gathered develop management prescriptions for sites of potential significance for flora species to meet the relevant provisions of the *Forest Practices Code*. Provide these prescriptions in Section 7 below.

# SECTION 4: OTHER FLORA ISSUES

###### 4.1 *Phytophthora cinnamomi* (PC)

|  |  |
| --- | --- |
| Does the proposed FPP have PC sensitive vegetation types (refer to Table 2 of FPA [Flora Technical Note 8](http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/flora_technical_notes) or the [*Forest Botany Manual*](http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/forest_botany_manual)) or is it within a PC Management Area (refer to [FPA BVD webmap](https://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/Biodiversity_values_database))?  | **YES** [ ]  **NO** [ ]  |

If **YES** to 4.1, give details below.

|  |
| --- |
|  |

|  |  |
| --- | --- |
| If **YES** to 4.1, can the guidelines in [Flora Technical Note No .8](http://www.fpa.tas.gov.au/__data/assets/pdf_file/0004/58054/Flora_technical_note_8_Phytophthora.pdf) Management of *Phytophthora cinnamomi* in production forest be applied***?*** If **YES**, include the standard management prescriptions in Section 7.  | **YES** [ ]  **NO** [ ]  **UNSURE** [ ]  |

If **NO** or **UNSURE** provide details explaining why the guidelines cannot be applied and seek advice from FPA Biodiversity Program.

###### 4.2 Weeds

The *Forest Practices Code* includes provision for the consideration of weed management in forestry operations. Please refer to the Code for guidelines on managing weeds. Use the box below to record any notes and/or management actions to be included for the management of weeds in the FPP area.

###### 4.3 Remnant forest

The *Forest Practices Code 2020* states: ‘*Where native forest occurs mainly as relatively small patches of forest in substantially modified landscapes, consideration will be given to retention of native forest remnants to maintain local biodiversity’* (Section D4, page 66).

The *Forest Practices Code 2020* defines remnants as *‘the native vegetation remaining from the 'original' forest or non-forest vegetation in a landscape after land clearance/alteration. A remnant can be of any size or condition, including individual trees, both live and dead.’*

|  |  |
| --- | --- |
| Does the proposed FPP area contain a native remnant?  | **YES** [ ]  **NO** [ ]   |

If **YES**, provide details including proposed actions to manage remnant vegetation in Table 6.

**Table 6 Remnant forest risk assessment**

|  |  |  |
| --- | --- | --- |
| Description of remnant - including size and location within the FPP area | Provide details of the **potential impacts** from the proposed operations.Provide reasons if impacts are **unlikely** | Proposed management actions to mitigate potential impacts |
|  |  |  |
|  |  |  |

###### 4.4 Effects on reserves

Reserves include:

* Formal reserves (e.g. World Heritage Area, State Reserve, Forest Reserve);
* Informal reserves (that have been dedicated as such for their flora values e.g. CAR informal reserves);
* Special Management Zones for Flora or Fauna;
* Private land reserves (e.g. Private Forest Reserves Program, Protected Areas on Private Land, etc.).

Note that wildlife habitat strips are assessed in Section 6.

|  |  |
| --- | --- |
| Is the FPP within, or directly adjacent to (e.g. sharing a boundary), a formal reserve, informal reserve, special management zone or private land reserve? | **YES** [ ]  **NO** [ ]   |

If **YES,** give details in Table 7.

**Table 7 Reserves risk assessment**

|  |  |  |
| --- | --- | --- |
| Reserve (name) and type of reserve | Potential impacts from the proposed operations (e.g. disease, weeds, wildlings, fire, mechanical damage, disturbance to threatened species) | Proposed management actions to mitigate potential impacts (e.g. applying buffers, machinery wash down) |
|  |  |  |
|  |  |  |

**Management prescriptions**

Using the information gathered, develop management prescriptions for other flora issues (PC, weeds, remnants, reserves) to meet the relevant provisions of the *Forest Practices Code*. Provide these prescriptions in Section 7 below. **Seek advice** from the FPA Biodiversity Program only if the reserve **cannot** be protected appropriately by the proposed management actions, or you are UNSURE.

# SECTION 5: MATURE FOREST HABITAT

## Assessment of mature habitat availability

Information on mature habitat availability within and surrounding the FPP area is required when using the TSA to obtain a management recommendation for mature forest species (e.g. masked owl, swift parrot).

What is the predicted availability of high and/or medium mature habitat pre-harvest (ha) within a 1km radius, and a 5km radius, of the FPP centroid?

One of the following spatial tools is required to answer this question. Indicate which tool has been used -

 FPA Habitat Context Assessment Tool [ ]  STT LCPlus report [ ]  PI-type [ ]  Other ……………………

What area (ha) of mature habitat is expected to be harvested during operation? FPA Fauna Technical Note 3 provides some guidance for the on-ground assessment of mature habitat availability.

Provide the response to these questions in Table 8 and attach the report from the spatial tool used and map of the distribution of mature forest (the mature habitat availability map available via the Habitat Context Assessment Tool may be used).

**Table 8 Mature forest availability pre-harvest and area of mature forest proposed for harvest**

|  |  |  |
| --- | --- | --- |
| % of area within 1km of FPP centroid (ha) with high and/or medium mature habitat  | % of area within 5km of FPP centroid (ha) with high and/or medium mature habitat  | Area (ha) of high and/or medium mature habitat proposed for harvest |
|  |  |  |

Comments on the availability of mature habitat noted in the field compared with the information provided by the ‘desk-top’ tools (spatial information) can be provided in the box below.

## **5.2 Wildlife habitat strips (WHS)** (see FPA Fauna Technical Note 8: Wildlife habitat strips for details)

|  |  |
| --- | --- |
| a) Are any planned WHSs present within or adjacent to the FPP area? | **[ ]** YES **[ ]** NO |
| b) Are new WHSs required for the FPP area? If yes, please provide a **map** of proposed WHS design. | **[ ]** YES **[ ]** NO  |
| c) Will roading be undertaken through a WHS? | **[ ]** YES **[ ]** NO  |
| d) Is a change to the location or management of a WHS required?  | **[ ]** YES **[ ]** NO  |

If **YES** to any of a-e above, provide details in the box below. Seek advice from FPA Biodiversity Program if guidelines for wildlife habitat strip management in FPA Fauna Technical Note 8 **CANNOT** be applied. **Advice may also need to be sought from a STT Conservation Planner for operations within Permanent Timber Production Zone Land (PTPZL).**

|  |
| --- |
|  |

**Management prescriptions**

Using the information gathered and the guidelines in FPA Fauna Technical Note 8develop management prescriptions for wildlife habitat strips to meet the *Forest Practices Code* requirements. Provide these prescriptions in Section 7 below.

# SECTION 6: THREATENED FAUNA SPECIES

## Sources of information

Obtain information on threatened fauna species that are likely to occur **within 2 km** of the proposed FPP area. It is recommended that the BVD or the NVA is checked; FPA cannot guarantee the accuracy of other databases. Indicate the source of information used, attach database reports and any field information (e.g. FPO survey map, consultant report).

**Databases:** [ ]  BVD [ ]  NVA [ ]  CONSERVE [ ]  Other (specify): ……………………………. Date checked: ..………………….……….

**Field sources:** [ ]  FPO/forester field survey [ ]  Consultant survey/report [ ]  Other (specify): ………………………..….. Date of survey: ………………….……….

## Threatened fauna risk assessment

Use the information from the database report and on-ground surveys to determine if there are any **known localities** of threatened fauna, the species **range category**, and if the FPP area supports **potential or significant habitat** for a threatened species. Provide this information in Table 9 and complete the risk assessment for each species.

Please be aware that if within the range of the following species there are precautionary management recommendations in the TSA even if no habitat or known localities are present: masked owl (rec 2), eagles (rec 4), grey goshawk (rec 2 or 3), quolls (rec 2) and Tasmanian devil (rec 3). The precautionary recommendation should be included in tables 5 and 6, and in the FPP.

**Table 9 Threatened fauna risk assessment**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Species name | Known localities\* specify in/outside FPP area | Range category  | Is potential and/or significant habitat present? Describe presence or absence of habitat and give location details\*\* | Are there likely to be any impacts from the proposed operation? Give details | TSA Rec\*\*\* | Summarise management actions delivered through the TSA that are **relevant to the operation** | Can the management actions be applied? Provide details |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |

**\*known locality:** You should list all localities (include grid references) within, and outside of, the FPP area that may be impacted by the operation. E.g. eagles nest within 500m or 1km line of site (LOS) of the operations within the FPP area, or a stream species locality immediately downstream of the FPP area.

**\*\*potential and/or significant habitat:** Provide description of the habitat and location within or adjacent to the FPP area (e.g. potential habitat within 500m/1km LOS for eagles, downstream habitats for stream species, or within 100m adjacent search area). **Prepare** **a map** of the distribution of fauna habitats.

**\*\*\* TSA Recommendation number:** more than one TSA recommendation may be required for a species if the operation may impact a known locality and also potential habitat.

**When to seek advice from FPA Biodiversity Program**

Advice must be sought from FPA if:

* the management actions delivered through the TSA for a threatened fauna species **cannot** be applied; or
* there is not a suitable TSA pathway for the species and/or operation type.

**If a threatened species is not included in the TSA, please apply interim guidelines (e.g. administrative instructions issued by the CFPO) or seek advice from FPA.**

## If a TSA recommended action requires a specialist survey to locate a particular habitat feature at risk from a planned forest practices (e.g. eagle nest survey) then note here if the survey has been undertaken prior to certifying the Forest Practices Plan and attach the required report (or indicate file/document number).

|  |  |  |  |
| --- | --- | --- | --- |
| Is a specialist survey required?  |  **YES** [ ]   | **NO** [ ]   |  |
| Is a survey report attached?  |  **YES** [ ]   | **NO** [ ]  | Document number/title: |

## Management prescriptions

Using the information gathered above, develop management prescriptions for threatened fauna species to meet the relevant provisions of the *Forest Practices Code*. Provide these prescriptions in Section 7 below.

# SECTION 7: PRESCRIPTIONS FOR BIODIVERSITY VALUES

* Using the information gathered in the above sections (1-6) and any advice provided by the FPA biodiversity program (and/or any other information) list the management prescriptions to be included in the FPP for each biodiversity value in Table 10 below. Management prescriptions may not be required for all biodiversity values covered in this evaluation sheet. Ensure all specialist advice received is saved in the FPA notification database.
* Note that the recommended action(s) delivered by the TSA, TSA and other planning tools should be translated into a management prescription in the FPP. Simply copying all of the wording from specialist advice or planning tools into an FPP may be inappropriate. The management prescriptions relevant to the operation area **must** be worded such that the action is clear to those responsible for conducting the operation (e.g. contractor and supervisor). Maps, photos and illustrations should be provided to clarify actions required (e.g. eagle nest, tree hollow).

**Table 10 Management prescriptions for biodiversity values to be included in the FPP**

|  |  |
| --- | --- |
| **Biodiversity value** | **Management prescriptions for the FPP document** |
| 1. Vegetation communities  |  |
| 2. Threatened flora species  |  |
| 3. Sites of potential significance for flora  |  |
| 4.1 *Phytophthora cinnamomi* (PC) |  |
| 4.2 Weeds |  |
| 4.3 Remnant forest |  |
| 4.4 Effects on reserves |  |
| 5. Mature habitat & WHS |  |
| 6. Threatened fauna species |  |
| Any other management prescriptions for biodiversity values |  |

***Include the following wording in all FPPs –***

**Reporting new sites for threatened fauna and flora**

If new sites for threatened fauna (e.g. raptor nests, devil dens etc.) or flora are found during the implementation of a forest practices plan, the sites must be reported to the Forest Practices Authority as soon as practical.

# SECTION 8: DUTY OF CARE

If the management prescriptions for biodiversity values developed for the plan area (listed in Section 7) result in an area excluded from harvest that is above the Duty of Care threshold (see Guiding Policy of the *Forest Practices Code*) **and** the landowner/forest manager is not willing/able to meet the prescription through voluntary mechanisms then **seek further advice from the FPA**.

###### Upload the final version of this biodiversity evaluation report and any supporting information (e.g. maps, database outputs, specialist advice) to the [FPA coverpage database](https://coverpage.stategrowth.tas.gov.au/account/login) for monitoring purposes.

###### It is recommended that FPOs also keep a final version of this biodiversity evaluation and any supporting information, with the FPP.

***Errors and Omissions Disclaimer:*** *While the FPA has made every attempt to ensure the information contained in this document has been obtained from reliable sources, FPA is not responsible for any errors or omissions, or for the results obtained from the use of this information. All information in this document or in documents or web sites referred to is provided “as is”, with no guarantee of completeness, accuracy, timeliness of the results from the use of this information, and without warranty of any kind, express or implied. In no event will the FPA, agents or employees thereof be liable to you or anyone else for any decision made or action taken in reliance of information in this document or for any consequential, special or similar damages, even if advised of the possibility of such damages.*