

# Guidelines for ecological surveys and reports for areas proposed for a forest practices plan

Forest Practices Authority

2018

## DEFINITIONS

Threatened fauna: Species of fauna listed on the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Threatened flora: Species of flora listed on the Tasmanian *Threatened Species Protection Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

Threatened native vegetation communities: Native vegetation communities listed under Schedule 3A of the *Nature Conservation Act 2002*.

## ABBREVIATIONS

BVD: Biodiversity Values Database

DPIPWE: Department of Primary Industries, Parks, Water and Environment.

FPA: Forest Practices Authority

FPP: Forest Practices Plan

NVA: Natural Values Atlas

## INTRODUCTION

These guidelines have been prepared by the Forest Practices Authority (FPA) for consultants conducting ecological surveys and preparing ecological reports for areas subject to a proposed Forest Practices Plan. These guidelines closely follow DPIPWE's guidelines for natural values surveys, but have been tailored for the risk assessments undertaken through the Tasmanian forest practices system. If additional information is required the ecological consultant should consult DPIPWE guidelines:

Natural and Cultural Heritage Division (2015) Guidelines for Natural Values Surveys - Terrestrial Development Proposals. Department of Primary Industries, Parks, Water and Environment

Guidelines on the requirement for an ecological survey and report are provided in the companion document titled *'The ecological assessment requirements of forest practices plan applications for clearance and conversion of native vegetation'* ( see, [http://www.fpa.tas.gov.au/fpa\\_services/fpo\\_documents](http://www.fpa.tas.gov.au/fpa_services/fpo_documents)).

## PURPOSE OF THE GUIDELINES

The primary purpose of these guidelines is to assist applicants and ecological consultants to meet the requirements of the FPA biodiversity 'risk assessment procedure' designed to assess the potential impacts of the proposed FPP on the ecological values. The use of these guidelines will help to ensure that surveys and reports are completed to a standard that enables the FPA to perform its role efficiently and effectively. It is recommended that these guidelines are adopted as a minimum standard. 'Ecological values' under these guidelines refers to biodiversity values, in particular threatened fauna and flora, and vegetation communities.

Please note, other organisations or agencies (such as the Australian Government Department of Environment and Energy) may require additional information, or may require ecological information to be reported in a different format. It is the responsibility of the applicant and the ecological consultant to determine if additional survey effort and/or reporting is required.

## **CURRENCY AND TIMING OF SURVEYS**

Survey reports are generally regarded as current for up to two years from the date of the field survey, provided no significant changes have occurred, no new relevant information has become available and that the timing is consistent with other survey requirements (e.g., the currency of a wedge-tailed eagle nest search). The timing of surveys must take into consideration the ecological values of interest at the site. For example, the survey may need to be undertaken during a flowering time for an orchid, or the survey may need to be conducted outside of the eagle breeding season if there is an active nest nearby. The survey report must include information regarding timing of surveys, survey method and duration/intensity.

## **PERSONNEL AND PREPARATION**

The ecological consultant must ensure that they have the appropriate skills, qualifications and/or experience in identification and documentation of all ecological values relevant to the site. The consultant should ensure they have the necessary equipment and that sufficient time is allocated to completing the survey, and all necessary permits and authorisation to access the site. Appropriate biosecurity procedures need to be implemented as required.

## **DESKTOP ASSESSMENT**

It is recommended that an initial desktop assessment of the site is undertaken prior to the ecological survey. Desktop assessments should include Biodiversity Values Database (BVD) search and a Natural Values (NVA) report as a minimum. These reports will determine the threatened flora, fauna and vegetation communities likely to be present, and may determine the timing of the survey (e.g., if a threatened flora species needs to be flowering for the survey to be completed). It is important that site information provided by the desktop assessment is supported by the ecological survey. For example, threatened vegetation communities identified in the NVA report must be confirmed and mapped during the ecological survey.

## **KNOWLEDGE MANAGEMENT**

All records of threatened flora, listed fauna (and products thereof), weeds, pests and diseases which are compiled during the field survey/s should be submitted to the Natural Values Atlas (NVA) within three months of survey (Natural and Cultural Division 2015).

## **POTENTIAL IMPACTS AND MITIGATION**

The ecological consultant may provide information on the potential impacts of the proposed FPP on ecological values and appropriate mitigation measures. However it is the responsibility of the Forest Practices Officer (FPO) working in consultation with the applicant and the FPA advisory staff to develop site specific management actions consistent with the Forest Practices Act and Code for biodiversity values.

## **ENVIRONMENT PROTECTION AND BIODIVERSITY CONSERVATION ACT**

Forest Practices Plans can cover operations where forestry is not the primary purpose (eg., agricultural development). It is recommended that the proponent seek advice from their ecological consultant as to whether the proposed activity requires a separate approval under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999*.

## ECOLOGICAL SURVEY AND SURVEY REPORT REQUIREMENTS

To complete an ecological survey and report for the FPA the following information must be recorded and included in the report (note, more information on habitat classifications etc. under the 'resources' section):

### General information

- Details of the FPP area including the size, location, tenure and PID(s).
- The name and contact details of the ecological consultant(s) undertaking the survey.
- The time, date and duration of the survey(s).
- Description of the survey area including a GPS track-log and/or maps.

Category	Information to include	Resources
Native vegetation	Description of native vegetation communities present (basic floristics and structure), including comments on condition if relevant.	FPA Forest Botany Manual TASVEG vegetation condition manual
	Map(s) showing distribution of the vegetation communities, also include stream localities and stream classes.	TASVEG 3.0
Threatened flora	Map showing localities of threatened flora (from database search and/or ecological survey) and areas of potential habitat identified if relevant. Include description of survey methodology.	BVD/NVA report FPA flora habitat descriptions FPA flora survey guidelines DPIPWE Threatened Species Link
Threatened fauna (include all species with range boundaries overlapping the FPP area)	Map of threatened fauna locations from known records and/or new localities observed during ecological survey. Include GPS coordinates for all localities. Include survey methodology if relevant	BVD/NVA report FPA fauna technical notes (see Appendix 1)
	Map of potential and/or significant habitat for threatened fauna, with description of the quality of the habitat if relevant. Include photographs.	FPA/DPIPWE agreed fauna habitat descriptions delivered through the BVD*
Threats	Map showing the location of potential threats, such as weeds or disease.	DPIPWE weed management and hygiene guidelines FPA technical notes

\*[http://www.fpa.tas.gov.au/\\_\\_data/assets/pdf\\_file/0011/111404/Threatened\\_fauna\\_range\\_and\\_habitat\\_descriptions.pdf](http://www.fpa.tas.gov.au/__data/assets/pdf_file/0011/111404/Threatened_fauna_range_and_habitat_descriptions.pdf)

## **REFERENCES**

Forest Practices Authority (2016) Habitat Descriptions of threatened flora in Tasmania. Forest Practices Authority, Hobart. (Available online).

Forest Practices Authority (2017) Threatened flora species survey notes. Forest Practices Authority, Hobart. (Available online)

Forest Practices Authority and Threatened Species Section (2012a) Threatened fauna species range boundaries and habitat descriptions. Forest Practices Authority. Hobart. (Available online)

Kitchener, A and Harris, S. (2013) From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation. Edition 2. Department of Primary Industries, Parks, Water and Environment. Hobart. (Available online)

Natural and Cultural Heritage Division (2015) Guidelines for Natural Values Surveys - Terrestrial Development Proposals. Department of Primary Industries, Parks, Water and Environment.

## Appendix 1: A list of FPA technical notes

Technical note name and link to online version	Description
<b>Fauna Technical notes</b> ( <a href="http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/fauna_technical_notes">http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/fauna_technical_notes</a> )	
Technical Note 1: Eagle nest management	Management of eagles nests. This Technical Note has been revised. The latest draft is available here. Please contact the FPA Biodiversity Program staff if you have any comment.
Technical Note 2: Mature habitat availability	Some background information on the construction and limitations of the mature habitat availability map.
Technical Note 3: Swift parrot breeding habitat	Provides guidance on identification of swift parrot potential foraging and breeding habitat. This new Technical Note formalises documentation that has already been used by industry planners for many years.
Technical Note 4: Broad-toothed stag beetle survey protocol	A survey protocol for determining the presence/absence of the broad-toothed stag beetle.
Technical Note 5: Mt Mangana stag beetle survey protocol	A survey protocol for determining the presence/absence of the Mt Mangana stag beetle.
Technical Note 6: Using the wedge-tailed eagle nesting habitat model	An explanation of how the model should be used for nest searches.
Technical Note 7: Wildlife habitat clump flow diagram	Some background information on implementation of wildlife habitat clump provisions of the <i>Forest Practices Code</i> .
Technical Note 8: Wildlife habitat strip location and management guidelines	Some background information on implementation of wildlife habitat strip provisions of the <i>Forest Practices Code</i> .
Technical Note 9: Fauna record sheet	This record form can be used to complete details of interesting or unusual sightings of any fauna - details will be passed on to PWS.
Technical Note 10: Identifying Tasmanian devil and spotted-tailed quoll habitat	Provides guidance on identifying potential Tasmanian devil and spotted-tailed quoll habitat and some guidance on designing effective habitat networks across the broader landscape.
Technical Note 11: Methods for surveying for threatened stag beetle species	Tasmania has five species of stag beetle listed as threatened on the Tasmanian <i>Threatened Species Protection Act 1995</i> - this technical note outlines the recommended survey method so that results can be interpreted in terms of existing knowledge.
Technical Note 12: Goshawk habitat categories	The habitat categories presented in this technical note may be used to assist with decisions on the management of habitat for the grey goshawk in the north-west of the state. Note that this Technical Note has been revised to take into account habitat in the rest of the state. The revised version will be made available in the near future.
Technical Note 13: Method for surveying for the keeled snail	The keeled snail ( <i>Tasmaphena lamproides</i> ) is listed as rare on the Threatened Species Protection Act 1995 - surveys may be required for this species in areas proposed for forestry

	operations. This technical note outlines recommended survey methods.
Technical Note 14: Nest identification	Identification of eagle and goshawk nests can be tricky, even for the specialists. In answer to this common question we have put together these notes on things to look for when trying to decide to whom that large collection of twigs you have just found belongs.
Technical Note 15: Culverts	Guidance for the design of fauna friendly culvert crossings. The latest draft is available here. Please contact the FPA Biodiversity Program staff if you have any comment.
Technical Note 16: Assessing the suitability of headwater (class 4) streams for the giant freshwater crayfish	Assessing the suitability of headwater (class 4) streams for the giant freshwater crayfish. Provides guidance for assessing habitat suitability. The latest draft is available here. Please contact the FPA Biodiversity Program staff if you have any comment.
Technical Note 17: Identifying masked owl habitat	Information on identifying and assessing masked owl habitat and guidance on how to manage known masked owl sites and potential habitat
Technical Note 18: Threatened frogs	Information on identification of habitat for the two species of threatened frog found in Tasmania; the green and gold frog ( <i>Litoria raniformis</i> ) and the striped marsh frog ( <i>Limnodynastes peroni</i> ).
<b>Flora technical notes</b> ( <a href="http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/flora_technical_notes">http://www.fpa.tas.gov.au/fpa_services/planning_assistance/advisory_planning_tools/flora_technical_notes</a> )	
Flora Technical Note 2 Useful references on Tasmania's flora	This technical note briefly describes many of the texts, web-sites and CD-ROMs that provide information on Tasmanian flora. Some are intended simply as identification aids whilst others provide more detailed information about community types or plant groups.
Flora Technical Note 3 Collecting and preserving plant specimens	A collection of pressed and labelled plant specimens is an aid to plant identification and can provide useful ecological information if good records are kept. Advice about collection, preservation methods and information to record is given in this technical note. Includes a sheet of herbarium labels.
Flora Technical Note 4 Relict rainforest management	Patches of relict rainforest occur in the east, north-east and central north of the state, and are considered to be left-over from a time when rainforest was more widespread. These patches are of high conservation value, and this technical note outlines their appropriate management with regard to forestry operations.
Flora Technical Note 5 Treefern identification and management	There are five species of treefern in Tasmania, two of which are rare. Even the more common treefern species are important for the role they play in forest ecology. Ways of mitigating forestry impacts on treeferns are considered in this technical note. A key and diagrams to assist in their identification are also provided. Correct identification is especially important where commercial harvesting of treeferns is proposed.
Flora Technical Note 6 Sphagnum communities	<i>Sphagnum</i> communities are fragile and ecologically unique plant communities. These communities should be given special consideration during forestry operations. A key to the various

	community types associated with Sphagnum communities is provided, and appropriate management practices are discussed.
Flora Technical Note 8 Phytophthora	<i>Phytophthora cinnamomi</i> is a root fungus which can devastate drier forest and non-forest communities in lowland areas of Tasmania. This technical note lists susceptible species and communities, and gives hygiene measures to reduce risks of spreading <i>Phytophthora</i> . Procedures relating to roads and tracks, quarries and machinery washdown are described and illustrated. This technical note forms part of the flora evaluation process for preparation of forest practices plans.
Flora Technical Note 12 Management of gene flow from plantation eucalypts	This technical note provides information on which native eucalypts are susceptible to hybridisation with <i>Eucalyptus nitens</i> and how to recognise hybrid seedlings. A method for assessing and managing hybridisation risk is also presented, including monitoring guidelines. Eucalypt hybridisation is an important issue to consider when preparing forest practices plans for plantation coupes and it is the subject of ongoing research. FPOs and others are urged to notify researchers if they see hybrid seedlings (or suspected hybrid seedlings) near plantations.