

GUIDELINE FOR PREPARING FLORA AND FAUNA REPORTS

1. PURPOSE OF THE GUIDELINES

These guidelines have been developed to specify the minimum level of information that is to be included in Flora and Fauna Reports that are required as part of a Development Application under Part 4 and Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

2. ECOLOGICAL DESIGN PROCEDURE

Development proposals should be designed according to the following steps in order of priority:

1. Design to avoid impacts.
2. Mitigate unavoidable impacts.
3. Offset remaining impacts.

3. WHEN TO SEEK ECOLOGICAL ADVICE

Seeking ecological advice at the start of your development design process will potentially save time and costs associated with having to modify a proposal down the track. This will identify the ecological constraints of the site and allow you to apply the above procedure from the outset to minimise impacts on biodiversity.

4. WHEN IS A FLORA & FAUNA REPORT REQUIRED?

A Flora and Fauna Report is required when a development proposal is likely to impact (either directly or indirectly) on native vegetation or fauna habitat. Generally this includes: remnant or native vegetation; living or dead trees, including those with hollows; a wetland or vegetation surrounding a wetland or dam; or a creek or riparian area.

5. WHO CAN PREPARE A FLORA & FAUNA REPORT?

The Report must be prepared by a suitably qualified and experienced ecological consultant, who has:

- tertiary qualifications in an ecological field obtained from an accredited institution; and
- relevant experience in flora and fauna survey and impact assessment; and
- a current Scientific Licence from the Office of Environment and Heritage (section 132C of the *National Parks and Wildlife Act 1974*) and an Animal Research Authority (section 25 of the *Animal Research Act 1985*) if undertaking any fauna survey.

6. WHAT SHOULD THE REPORT INCLUDE?

A Flora and Fauna Report must be prepared in accordance with these guidelines and the 'Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities Working Draft (November 2004)'. It is important that all sections are included and addressed adequately, as amendments can increase costs to the applicant and delay the development assessment process.

6.1 DETAILS OF THE AUTHOR AND SURVEYOR/S

The following information is to be provided for the author of the Report and all individuals who undertook any survey work: resume; Scientific Licence number(s); details of Animal Research Authority; any other licence or permit numbers relevant to the project.

6.2 SITE ATTRIBUTES

A description of the following site attributes must be included:

- The subject site and its landscape position;
- Geology and soil substrate;
- Identification of any vegetation community and habitat present and their extent across the site;
- The value and condition of the vegetation and habitat; and
- A list of all threatened species recorded within a 10km radius of the subject site and whether they are likely to be present or utilise the subject site as habitat.

6.3 SUMMARY OF THE PROPOSAL

The description shall include:

- An overview of the proposal;
- Details of activities both during and post construction, and the potential (direct and indirect) impacts on biodiversity values; and
- A scaled map indicating the full extent of the development proposal, including earthworks, road construction, buildings, stockpiling, on-site sewage management system, stormwater management,

proposed areas of vegetation removal or modification for each vegetation community, and asset protection zones (trees should be individually identified, numbered, tagged on site and clearly indicated on the map).

6.4 SURVEY METHODOLOGY

The extent of the survey required is determined by the likelihood of any threatened flora and fauna being present or reliant on the habitat present on the site and the likely extent of impacts from the proposal. Survey is to be undertaken in accordance with the 'Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities Working Draft (November 2004)' and any additional guidelines produced by Council or the NSW Office of Environment and Heritage. Any variation from the guidelines requires adequate justification which must be detailed within the Report.

Details of the specific survey methodology undertaken must be provided, including:

- sampling dates, times and weather conditions;
- methods used to determine sampling units;
- survey techniques utilised and the intensity of sampling for each entity, including targeted survey efforts for threatened species; and
- map(s) indicating the precise location for all sampling efforts.

6.5 SURVEY RESULTS

The results of the surveys must be provided, including:

- a list of all plant and animal species recorded;
- description of vegetation types in terms of structure and floristics, and a list of the dominant plant species in each growth stratum;
- for each vegetation type, a description of disturbance, weeds present and their density, and comments on the suitability of the area as habitat;
- map(s) of environmental features, vegetation types and habitat types; location of threatened species, populations or communities; areas of high biodiversity or other areas of special significance;
- photos of the study area and subject site; and
- raw data and quadrat assessment should be included as an appendix.

6.6 ASSESSMENT OF IMPACTS

The Report should include an assessment of both direct and indirect impacts of the proposal on: the natural environment; any threatened flora or fauna species, populations and their habitat(s); and any threatened vegetation community and their habitat(s).

Direct impacts include the removal of trees or vegetation for the construction of the development proposal. Indirect impacts are secondary impacts caused by the development, such as increased nutrient, sediment and pollutant run-off, increased number of feral animal and plants, or noise disturbance to bat roosting sites.

6.6.1 ASSESSMENT OF SIGNIFICANCE

The EP&A Act (section 5A) prescribes the seven factors that must be taken into account when determining whether a proposal is likely to have a significant effect on a threatened species, populations or ecological communities or their habitats. This is often referred to as an Assessment of Significance (AoS). An AoS must be undertaken and included in the Report for each threatened entity identified.

Where an AoS has determined a significant impact on a threatened entity, there are two legislative avenues to consider. A Species Impact Statement may be prepared according to the requirements of the Director General of the Office of Environment and Heritage. Alternatively, you may undertake a BioBanking Assessment and seek a BioBanking Statement for your application according to Part 7A of the *Threatened Species Conservation Act 1995*.

6.7 RECOMMENDATIONS TO REDUCE IMPACTS

Development proposals should be designed to avoid impacts as far as possible, in the first instance. If this is not possible then options to minimise or offset unavoidable impacts should be investigated and recommended. It is worthwhile to do this early in the process to reduce costs and delays in the development assessment process. The following provides some examples on how to implement these measures.

6.7.1 MITIGATION MEASURES

The following options to reduce impacts on biodiversity:

- locating structures and/or building platforms to minimise land clearing required, including clustering of building platforms;
- fencing of sensitive areas so that they are protected;
- locating on-site sewage management systems within asset protection zones;

- increasing the resilience of buildings to bushfire attack to reduce asset protection zones;
- relocating tree hollows from trees to be removed, or installing nest boxes;
- preparation and implementation of a Vegetation Management Plan to rehabilitate and manage remaining vegetation;
- provision of a Plan of Management to protect threatened species or populations.
- creation of a restricted development area to protect significant plants and/or vegetation communities; and
- establishment of a monitoring program.

6.7.2 OFFSET MEASURES

Offsets for unavoidable impacts may include:

- rehabilitation of vegetation and habitat on site or off site at a location agreed to by Council; and or
- the use of the NSW BioBanking scheme.

6.8 CONCLUSIONS

The conclusions must state whether the proposal results in a significant impact or otherwise according to section 5A of the EP&A Act for any threatened biota on the subject site. It must also summarise the recommendations to avoid, mitigate and offset impacts to threatened entities.

7. REFERENCES

Department of Environment and Conservation 2004, Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities Working Draft (November 2004). Available online: <http://www.environment.nsw.gov.au/resources/nature/TBSAGuidelinesDraft.pdf>

8. GLOSSARY

Offsets - An environmental offset is a measure instituted to compensate for adverse impacts of an action on the environment.

Mitigation - Mitigation measures are strategies for managing the potential environmental impact of a proposed action.