

GUIDELINES FOR NATURAL VALUES ASSESSMENT

REPORTING ON THE IMPACT OF PROPOSED DEVELOPMENTS ON NATURAL VALUES AND PROVIDING RECOMMENDATIONS FOR MITIGATING THOSE IMPACTS

1. Introduction

In Tasmania, reports on the impact of proposed developments on natural values may be required by a regulator as part of a planning approval process under State legislation. These guidelines have been prepared for consultants who are engaged by proponents to survey and report on the impact of proposed developments on natural values within Tasmania. Natural values in this case refer to biological and geological values of conservation significance. In particular, those species, vegetation communities, sites or values that have significance or statutory protection under the *Nature Conservation Act 2002*, the *Threatened Species Protection Act 1995* or their subordinate regulations, and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*. It also includes sites of geoconservation significance listed on the current version of the Tasmanian Geoconservation Database. The size and scale of development proposals that may require natural values survey reports can range from the construction of a single dwelling on a bush block through to large scale industrial, agricultural or infrastructure developments extending over a wide area and a diverse range of natural values. In some cases a natural values survey report will identify that the proposed development will have an impact on one or more natural values, triggering the need for mitigation. A 'mitigation hierarchy' of first avoiding, then minimising and then mitigating the impact (including the potential for offsetting any residual or unavoidable impacts) is followed, as appropriate. The aim of this document is to ensure that the survey reports present all the necessary information and data in an accessible format and to an acceptable standard to enable an adequate assessment by decision makers of the potential impact of a proposed development on natural values, and any mitigation measures proposed. It does not provide detailed technical information on how to conduct natural values surveys, but rather describes the type of information to collect and how to present it in a report.

2. Planning a Natural Values Survey

There is a range of publicly available information that will assist consultants when planning to undertake a natural values survey. Some of the main information sources that should be consulted before undertaking a field survey are provided below. Using information from these and other relevant resources the consultant should compile a list of the natural values that could potentially occur at the site and plan appropriately for a site survey.

- The **Natural Values Atlas (NVA)** is the most authoritative repository of information on natural values in Tasmania. Run a 'natural values report' on the NVA website to obtain a map as well as lists of TASVEG vegetation communities, geoconservation sites listed on the Tasmanian Geoconservation Database, threatened flora and fauna species and species of conservation significance, for any site or area within the State. Note the NVA will not contain an exhaustive list of natural values with the potential to occur in a given area but will reflect the current level of knowledge of values and their distribution.

□ The **Land Information System Tasmania** (LIST) is a web based repository of the State's comprehensive spatial data resources including property and land title information, satellite imagery, topographic maps, geological maps and natural values data. Note that much of the NVA data is available through the LIST.

• The **Department of Primary Industries, Parks, Water and Environment** (DPIPWE) website contains links to biological and ecological information on many of the State's threatened species. This information is contained in notesheets for most threatened flora species and Listing Statements and Recovery Plans for selected threatened flora and fauna species. Departmental specialists are also available to provide advice when planning a survey.

• The **Forest Practices Authority** (FPA) website contains links to the '*Fauna Value Database*' which has biological and ecological notesheets on many of the State's threatened fauna species, as well as notesheets on threatened native vegetation communities.

• The **Water Information System of Tasmania** (WIST) website provides access to the Conservation of Freshwater Ecosystem Values Database which contains information on the conservation value of all the State's freshwater and estuarine systems.

• Use **Google Earth** to access the latest satellite imagery for the State.

• Utilise relevant **published reports and papers** on natural values.

3. Undertaking a Natural Values Survey

Undertake the survey using appropriate standard survey techniques. This will involve an initial reconnaissance of the general area to define the survey area and determine a survey method. Survey area and method will largely be dependent on the scope of the survey as defined by the client, however the following general principles should be applied:

The Surveyor

The proponent/consultant should ensure that the personnel undertaking the survey have extensive experience and/or advanced training in identification and documentation of all natural values of interest. For flora and fauna, knowledge of their habitat and other ecological requirements is also required. In addition make sure that the necessary equipment will be on hand, and enough time is allocated to identify and document all the natural values that are likely to be encountered at the site. Ensure that any necessary permits to collect threatened flora/fauna species for identification purposes and access authorisations have been obtained prior to going on site.

Timing of Survey Consideration needs to be given to the best time of year and under what conditions to conduct field surveys for the values likely to be encountered. For example particular attention should be paid to the timing of the survey to account for threatened ephemeral flora species such as some orchids (see Wapstra *et al.* 2008 or Jones *et al.* 1999), nesting species or species that may only be active or detectable at certain times of year.

The Survey Area

The survey area must be of an appropriate size to identify all the relevant natural values that may be impacted, as well as provide some local context for those impacts. If natural values are to be impacted by the proposed development then the survey area should include additional areas that could potentially act as alternative sites, or offsets to those impacts, if necessary. The survey area should include:

- The 'development footprint' which will include those areas where the proposed development, activity or action will be directly located, as well as other associated developments such as access roads and tracks, parking and material storage areas. It will also include those areas that are likely to experience off-site impacts. The development footprint will need to be well defined by the proponent in order for the consultant to accurately determine the extent of potential impacts. If the footprint is not defined effectively there is potential for further studies to be necessary to cover any areas missed. It is therefore important to overestimate rather than underestimate the footprint.
- If it is determined that natural values are likely to be impacted within the development footprint, then the surrounding areas should also be surveyed in order to identify the nature and extent of those values in the local area. This will provide some local context to the impacts and enable a calculation to be made of the proportion of the local population, community or feature that will potentially be impacted by the proposal. Surveying a larger area may also identify an alternative site for the development that will avoid or reduce the impact on natural values. The larger survey area can also identify areas that could potentially act as an offset to any impacts from the development.

The Survey Methods

Methods should adopt standard surveying techniques relevant to the scope of the survey. They should be consistently applied across the survey area and be documented and mapped in sufficient detail to allow replication if necessary.

Information and Data to Record

Depending on the scope of the survey the following information should be recorded:

- Site details including tenure.
 - Surveyor(s) name, contact details and the date and time of the survey.
 - Survey methods used.
 - Survey area indicated by GPS tracklogs, maps or descriptions.
 - Basic underlying geology of the survey area.
 - Record and map the extent of all vegetation community types according to TASVEG mapping units as described in Harris & Kitchener (2005). If a community cannot be identified to a TASVEG mapping unit, describe the community and take photographs. Vegetation descriptions should include enough information to enable identification using the keys presented in the above reference.
 - For threatened vegetation communities provide an assessment of the condition of the community. The assessment should consider its size, spatial context, relative species diversity, canopy health, regeneration, presence of tree hollows and any potential threats such as the presence of declared or other weeds of significance, presence of introduced animals, grazing pressure, diseases (eg. *Phytophthora cinnamomi*), firewood collection, disturbance history etc.
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- For flora surveys record a full species list for vascular flora, including non-threatened, threatened and introduced species and declared and environmental weeds.
 - For threatened flora and fauna species:
 - Record the name, location and population size (or extent);
 - Do counts of the entire population if possible, or estimate this from samples of the population. Samples are best collected using standard field surveying techniques such as quadrats, plots or transects;
 - Record the age structure of the population if possible including any evidence of a viable reproducing population;

- Record the condition of the population if possible and any potential threats;
- Record any distinguishing or unusual features of the population including differentiation or evidence of hybridisation and introgression.
 - For threatened fauna habitat surveys, record the name of the species, the type of habitat, its extent and condition and any indication of habitat use, for example the presence of tracks, scats, scratchings, burrows or nests.
 - Record any potential habitat for threatened flora or fauna species, the location, extent and condition.
 - For geoconservation surveys, record the geology, geomorphology and soils of the site and surrounds. Distinguish between relict and active features and estimate any potential impact of the proposed development on geomorphic features and processes. For any listed geoconservation sites or potentially significant features record the condition of the site and any potential geohazards (eg erosion, landslip, acid sulphate soils).
 - Record what proportion of the identified natural value will be impacted by the proposal and what will be retained.
 - Record any potential opportunities for avoiding, reducing or mitigating impacts.
 - Record any weeds or diseases present including the location(s), the extent of each weed/disease, and any proposed control activities. Please note that it is an offence under section 56 of the Tasmanian *Weed Management Act 1999* to grow, propagate, scatter or transport a declared weed. It is therefore important that the presence of declared weed at site to be developed is identified and appropriate measures put in place to prevent its spread.
 - Any other information or data considered relevant.

Additional Surveys

Additional follow-up surveys might be required if the initial survey has highlighted the requirement for more information. For example the initial survey may identify some threatened fauna habitat, which may then require a targeted threatened fauna survey to be undertaken. Additional surveys may also be required when identifying and documenting offset proposals.

- For flora surveys record a full species list for vascular flora, including non-threatened, threatened and introduced species and declared and environmental weeds.
 - For threatened flora and fauna species:
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 - Do counts of the entire population if possible, or estimate this from samples of the population. Samples are best collected using standard field surveying techniques such as quadrats, plots or transects;
 - Record the age structure of the population if possible including any evidence of a viable reproducing population;
 - Record the condition of the population if possible and any potential threats;
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geoconservation sites or potentially significant features record the condition of the site and any potential geohazards (eg erosion, landslip, acid sulphate soils).

- Record what proportion of the identified natural value will be impacted by the proposal and what will be retained.
- Record any potential opportunities for avoiding, reducing or mitigating impacts.
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- Any other information or data considered relevant.

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4. Reporting

Whilst it is understood that reports will be prepared primarily to meet the varying needs of a client, for assessment purposes within the planning approval process it is recommended they be concisely written and contain sufficient information (such as tables, maps, photographs etc.) to adequately detail and illustrate the impact of the proposal on natural values. Maps and photographs are a particularly powerful means of conveying information. Maps should be presented in colour and geo-referenced to GDA94 using GIS software. Photos should be presented in colour and adequately captioned with a description of what the photo is showing and the location and aspect from which the photo has been taken. The report should as far as possible follow a standard scientific reporting format such as: *Executive Summary – Introduction – Methods – Results – Discussion & Recommendations – References – Appendices*.

Depending on the scope of the survey, these sections should contain at least the following information where appropriate:

A. Executive Summary

- i. Summarise the scope and findings of the survey and the key recommendations.

B. Introduction

- i. Introduce the survey report including where, why, when and for whom the survey is being conducted.
- ii. Provide a location map and a description of the development proposal.
- iii. Provide a site map showing the development footprint and any associated offsite impacts.
- iv. State the aim of the survey.
- v. Provide the surveyor(s) name, contact details and the date and time of the survey.
- vi. Provide details of any permits or authorisations issued to the surveyor eg. for collection permits provide the permit number, date of expiry, and a Statement of Compliance with permit conditions.

C. Methods

- i. Indicate the background research and information sources consulted prior to the field survey.
- ii. Describe the field survey methods - eg. random meander technique, quadrats, plots, transects, call playback, expert opinion.

- iii. Describe the field survey effort – eg. extent of areas surveyed, number of person hours spent searching, indicate those areas surveyed intensively or less intensively, provide GPS tracklogs if available.
- iv. Discuss any limitations of the survey – eg. the timing of the survey, the methods used, the weather, difficult vegetation or terrain, the knowledge and experience of the surveyor(s).
- v. State which geographic datum has been used when providing spatial data. It is recommended to use the currently accepted standard in Tasmania which is the Map Grid of Australia MGA94 Zone 55 with coordinates expressed in eastings (6 digits) and northings (7 digits).
- vi. Specify which taxonomic nomenclature and vegetation classification systems have been used. It is recommended to be consistent with Buchanan (2008) for flora and Harris and Kitchener (2005) for vegetation communities

D. Results

- i. Use tables, maps and photographs to summarise and illustrate the survey results. In addition to the written report format, provide any data in electronic format if possible (eg. shapefiles, spreadsheets etc).
- ii. Provide a map of the local vegetation community types alongside a table indicating the TASVEG descriptions and codes, their conservation status, the extent or size of the communities in hectares, an indication of the condition of the communities, how much will be impacted by the development and how much will be retained. Additionally, provide this data to tasveg@dpiwwe.tas.gov.au using the TASVEG external mapping downloadable proforma available on the DPIWWE website.
- iii. For threatened species recorded during the survey, provide their location(s), local population size or extent (include confidence intervals when appropriate), and if possible the age structure and condition of the population and any unusual features observed. Indicate how much of the local population will be impacted by the development and how much will be retained.
- iv. For threatened fauna habitat specify the type of habitat (eg. foraging, nesting, migratory) and provide a map of its local extent, an indication of its condition and any evidence of habitat use by the species. Indicate how much of the habitat will be impacted by the development and how much will be retained.
- v. For potential habitat of threatened flora species, especially threatened ephemeral species, indicate the location, extent and condition of habitat, when appropriate.
- vi. For geoconservation features details on the type, size and significance of the feature should be provided. For large or complex sites, geology, soil and landform maps should be provided, or at a minimum a detailed description of these attributes. Describe the nature and areal extent of anticipated impacts to geoconservation values.
- vii. Provide a map clearly showing the location and extent of all the natural values identified relative to the development footprint.
- viii. Provide a list and map of the extent of any weeds, pests or diseases observed on the site.
- ix. Submit all records of threatened flora, threatened fauna and weeds compiled during the survey to the Natural Values Atlas (NVA) using the online standard proforma and data entry facility. Consultants will first need to apply for access on the NVA website and will then need to request the creation of a project to lodge their data under.

E. Discussion and Recommendations

- i. Discuss the consultant's view or opinion of the quality and condition of the natural values that have been identified and the significance of the impact of the proposal on these values.
- ii. Discuss the context of the site with regard to its location and condition, the proximity to areas already reserved for conservation, or other nearby areas of unreserved habitat.

- iii. Discuss the potential for the spread of weeds, pests and plant and animal diseases. Identify whether a hygiene plan is required (eg. DPIWE *et al.*, 2004). Recommend any other measures to prevent the spread of those weeds, pests or diseases either elsewhere on the site or to areas offsite and any mitigation strategies where contamination has occurred.
- iv. Discuss the risk of erosion, landslip, acid sulphate soil or other geohazards in relation to the proposal and the potential for these to impact on karst, groundwater or other natural values.
- v. If possible, discuss the legislative implications of the proposal particularly with regard to the requirements for any permits or approvals.
- vi. Discuss and detail the options for avoiding, minimising, or mitigating the impact(s) including the potential for offsetting any residual or unavoidable impacts. Make recommendations in this regard and indicate whether these recommendations have been made in consultation with the client. Refer to the *General Offset Principles* at Appendix A for all forms of developments other than dams. For dams refer to the Assessment Committee for Dam Construction *Guidelines for Establishing Offsets for Impacts on Natural Values within the Dam Assessment Framework* (ACDC, 2007), available from the DPIPWE website.
- vii. If an offset is required, outline the location and details of the proposed offset.

F. Reservation Offsets

Where a reservation offset is required, the consultant will provide the following additional information (including in digital form if possible) relating to the offset area:

- i. Name and contact details of the landowner.
- ii. Map the offset boundaries and provide coordinates with a suitable level of detail for the creation of a Central Plan Register Plan. They should also preferably be marked on the ground by the consultant and landowner.
- iii. All vegetation community type(s) encountered, their name, distribution on the site (mapped), and condition.
- iv. All recorded threatened species: names, locations, extent of populations; as well as potential habitat for any threatened species.
- v. Record any listed or potentially significant geoconservation features.
- vi. Detail any recorded weed species including the extent of each weed (mapped), clumped or scattered etc, and any proposed weed control activities.
- vii. Provide detail on condition of the site eg. whether there are any erosion issues, diseases (eg. *Phytophthora*), firewood collection, grazing etc.
- viii. Indicate locations of existing or proposed tracks and provide indications of whether they are to be maintained, upgraded or rehabilitated.
- ix. Indicate locations of existing or proposed fences including condition and whether they require repair.
- x. Information on current and proposed landuse including for adjacent land owned by proponent eg. developments, stock.
- xi. Information on any existing or proposed infrastructure on the land eg. pipelines, dams/waterholes, sheds.
- xii. Indicate whether revegetation will be required within the covenant area.
- xiii. Indicate what recreational activities are proposed to occur in the covenant area.
- xiv. Any other information or data considered relevant.

G. References

- i. Provide a list of references using a standard scientific reporting format.

H. Appendices

- i. For threatened species, provide a list of species that occur, or have the potential to occur, within 5km of the site alongside a comment on whether the species was recorded, and if not, a brief assessment of the risk of having overlooked it giving particular regard to the suitability of habitat at the site and the timing of the survey.
- ii. For flora surveys provide a species list for vascular flora, indicating threatened and introduced species and declared and environmental weeds.
- iii. For vegetation communities not able to be assigned to a TASVEG mapping community, provide a percent cover and a flora species list for each structural vegetation strata (eg. trees, tall shrubs, low shrubs, graminoids, grasses, herbs). Provide accompanying photographs.

5. References

Assessment Committee for Dam Construction (ACDC) (2007) *Guidelines for Establishing Offsets for Impacts on Natural Values within the Dam Assessment Framework*. Self-published by the author. Tasmania. (Available online)

Buchanan A.M. (Ed.) (2008) *A Census of the Vascular Plants of Tasmania & Index to The Students Flora of Tasmania*. Tasmanian Herbarium. Web Edition. (Available online)

DPIWE, Forestry Tasmania & Agricultural Contractors (2004) *Tasmanian Washdown Guidelines for Weed and Disease Control, Edition 1*. Self-published by the authors. Tasmania. (Available online)

Harris, S. and Kitchener, A. (2005) *From Forest to Fjaeldmark: Descriptions of Tasmania's Vegetation*. Department of Primary Industries, Water and Environment. Hobart. (Available online)

Jones, D., Wapstra, H., Tonelli, P. & Harris, S. (1999) *The Orchids of Tasmania*. University Press. Melbourne.

Michaels, K. (2006) *A Manual for Assessing Vegetation Condition in Tasmania, Version 1*. Resource Management and Conservation, Department of Primary Industries, Water & Environment. Hobart. (Available online)

Wapstra, M., Roberts, N., Wapstra H. & Wapstra A. (2008) *Flowering Times of Tasmanian Orchids: A Practical Guide for Field Botanists*. Self-published by the authors. Tasmania. (Available online)

APPENDIX A – General Offset Principles (for Developments other than Dams)

General Offset Principles

How do offsets apply under RMPS?

The objectives of the Resource Management and Planning System for Tasmania (RMPS) include promoting “sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity.” The RMPS definition of sustainable development includes “avoiding, remedying or mitigating any adverse effects of activities on the environment.” Offsets are one form of mitigation for the potential impacts of proposed activities on natural values. They are actions that contribute to the conservation of natural values outside of the development footprint, and can include reservation, active management, and other actions that demonstrate a conservation benefit for a particular natural value. Offsets operate within a “mitigation hierarchy”, where the first consideration is whether impacts can be avoided or minimised, followed by remedying of the impacts on site, followed by mitigation options within the footprint area of the development, followed by offsetting some or all of the residual impacts, as appropriate. Where offsets are identified as being required for a particular proposal, the proponent should propose offsets that aim to meet the following policy principles. Proposed offsets should be assessed against these principles, and must meet these principles in order to be approved.

Principles

1.1 General design of offsets *Mitigation hierarchy*

- Offsets can act as a form of mitigation for the residual impacts of a development proposal on natural values. Alternatives and options to avoid, minimise and remedy the impacts of the proposal must be adequately addressed prior to the consideration of offsets.

Staged Developments

- For staged developments, such as a staged subdivision proposal, proponents should provide details of the whole proposal early in the process to allow for a single assessment wherever possible. This will normally provide better conservation outcomes and greater certainty for the proponent. Any offsets that are required can be implemented either up-front, or in a staged manner in accordance with approvals for each stage of the development.

Conservation outcomes

- Proposed offsets should aim to maintain or improve conservation outcomes, and offsets should generally be for the same species, native vegetation community, or other natural value that is to be adversely impacted by the proposal.
- A greater magnitude of offset is generally required for impacts on natural values on sites that are protected or managed for nature conservation, including reserves and public lands that are managed for natural values. Impacts on these sites may decrease the protection or reservation status of those natural values. For impacts in public reserves, wherever possible the offset should provide outcomes within the reserve system

1.2 Location of offsets

On-property offsets

- Where offsets will occur on the same property as the development, overall conservation outcomes for natural values on the property may be considered in determining appropriate offsets, including existing reservation and formal management arrangements.
- Offsets should contribute to well-designed proposals and property management planning that takes account of impacts on natural values and the potential for achieving genuine conservation gains at a property or landscape level. This includes providing for the recognition of land management practices which provide positive environmental outcomes.
- In general, conservation actions (such as a covenant) that have received substantial funding from other sources will not be considered as an offset for a development proposal.

Off-site offsets

- Where it is not practical for offsets to be provided on the site or property where the impact will occur, consideration may be given to other proposed locations for offsets. Preference should be given to locating the offset where the greatest conservation gains can be made at a bioregional or State level.
- In cases where the proposed offset is not on land currently owned by the proponent, the proposal will need to demonstrate how the proponent intends to ensure that the offset is effectively implemented and maintained.
- Offsets can be used to reserve and manage sites of high conservation value, and provide opportunities to achieve genuine conservation gains in areas that are more viable than the impacted site or are identified as strategic priorities.
- For reservation of sites that are identified as a priority in a planning tool such as a recovery plan, the whole site should be reserved wherever possible. This is because assessments of viability and management are implicit in identifying these sites, and a smaller area is less likely to be viable in the long-term.

1.3 Offset Mechanism *General mechanisms*

- Offsets must be designed to meet conservation priorities or to address known threats for specific natural values. Flexibility will be incorporated into the appropriate offset mechanism/s to the extent that the offset principles are met.
- A package of individual offsets may be approved where this will achieve conservation outcomes that are consistent with this principle.
- In general terms, offsets can include:
 - improved reservation of a site, such as through conservation covenants, transfer of land to the Crown for reservation, or formal management agreements;
 - management actions that aim to benefit specific natural values at an existing site;
 - restoration or revegetation of sites to provide a direct conservation benefit, such as the creation of foraging habitat for a threatened species or actions facilitating the recovery of areas with the potential to revegetate naturally; and
 - where lack of knowledge is considered a threat to a specific natural value, or as part of an offset package, agreed actions to increase knowledge regarding that natural value may constitute an offset if the actions aim to increase protection or viability.

Reservation

- For offsets involving reservation, the size, condition, context and viability of the impacted site and the offset site should be compared. The assessment should consider the management requirements of the natural values involved and the expected outcomes of any management actions that form part of the offset.
- For threatened species and threatened native vegetation communities, the 'size' is the number of individuals in the population to be lost (or protected through an offset), or the area of habitat or native vegetation community that will be lost (or protected through an offset).
- Where reservation forms the major part of the offset, the offset site should protect natural values of a magnitude at least as large as that lost, and maintain or improve the condition and/or context of the site.
- Offsets should generally last for the duration of the impact. Where reservation is required as part of an offset, and the proposal results in the loss of the natural values in perpetuity, the offset must protect the site in perpetuity.

Restoration and revegetation

- Revegetation of complex ecosystems or threatened species populations through planting or translocation are generally unsuitable as offsets, however there may be exceptions where a genuine conservation gain can be demonstrated and the level of risk associated with the success of the actions is considered to be acceptable.
- Where restoration and revegetation of complex ecosystems or threatened species populations through planting or translocation is accepted as an offset, it should be carried out in advance of the development where feasible to demonstrate success of the actions.
- Restoration or revegetation should include a performance-based measure.
- Where restoration or revegetation is used as an offset and there will be a significant time lag between the impacts of the proposal and the creation or improvement in condition of the site, the offsets should wherever possible include actions with short-term results.

Management actions

- Where specific management actions are likely to be required to ensure the viability of an offset site in the long-term, the offset should include the necessary management actions.
- Where appropriate, adaptive management can be agreed, with monitoring used to review the required management actions at appropriate intervals.

□ Management actions that form part of a development approval should require reporting at appropriate intervals. The nature, frequency and responsibility for management actions and reporting should be clearly specified in the permit or other legal mechanism established as a condition of approval.

- Where a third party will be carrying out management actions as part of an offset, any required funding for management should be provided by the proponent up-front or at intervals by agreement, as part of the offset.

Knowledge-based actions

- Knowledge-based actions are appropriate for some threatened species, geodiversity and other natural values, where knowledge gaps are recognised as a conservation priority for those values.
- Knowledge-based actions should only be used in conjunction with other actions as offsets for vegetation communities.
- Actions for the purposes of increasing knowledge may include research that addresses conservation priorities for the natural values. Examples may include research that is identified as a priority in a recovery plan, or surveys to determine the likely extent of a value where there are significant knowledge gaps that lead to difficulties for the protection and management of that value.

Threatened species

- Where loss of threatened species populations is likely to be unavoidable and there are substantial residual impacts identified, the offset should, where possible, include outcomes for threatened species populations, rather than for potential habitat only.

Native vegetation communities

- Offsets for threatened native vegetation communities should be based on the reservation and management of threatened native vegetation communities elsewhere.
- The offset may include some regeneration of adjacent areas to be protected within the reserved area where it is likely that a viable extension to the native vegetation community will result (eg fencing to exclude grazing). This aims to account for the loss of extent of the native vegetation community due to the proposal.

1.4 Relationship to other approvals and legal mechanisms

Legal mechanisms

- Offsets must be legally enforceable through permit conditions or some other legal mechanism established as a condition of approval. Offsets should be designed so as to have outcomes that are certain.
- Offsets that form part of a development approval should be linked to a legally enforceable mechanism prior to the impacts on natural values commencing, such as through tenure, management agreement or consent conditions. The approval should include a time frame for implementing the offset/s.

Previous approvals

- Where offset-like actions have been required under a regulatory process, these will not be considered as an offset for any future development proposal. However, additional offset actions may occur on the same site if it can be demonstrated that an environmental benefit will occur, such as additional active management of the area.
- If a subsequent development proposal will impact on an existing offset, the values that were protected under the offset may not be further impacted upon without additional offsetting. Additional offsets will need to adequately address the impacts of the current proposal and the impacts on the offset provided under the original proposal.

1.5 Information Requirements for Assessment of Development Applications

- The best available information shall be used in the assessment of the impacts of a proposal on natural values and the determination of appropriate offsets.
- Proposals should include adequate information on the natural values at the impacted site and at any proposed offset site.
- Proposals must clearly define the impacts that are being offset. Where the impacts on natural values cannot be fully described or quantified, a risk assessment should be undertaken and provided as part of the proposal.
- Proposals should specify the conservation requirements of the natural values (eg breeding and foraging habitat or management requirements for threatened species), to aid in determining appropriate offsets.
- Information derived through the application and assessment process that adds to the records of natural values on a site will form part of the assessment of the proposal. Provision of this new information is not considered to be an offset. However, other research may be used as an offset in some cases.
- If a proposal is modified and additional impacts will occur, the proposal should be reassessed.