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Section 1 – Introduction

Purpose

These guidelines complement the WA Environmental Offsets Policy 2011 (offsets policy) by clarifying the determination and application of environmental offsets in Western Australia. Application of these guidelines will ensure that decisions made on environmental offsets are consistent and accountable under the Environmental Protection Act 1986 (the EP Act).

These guidelines expand on the offsets policy to ensure that the basis for decision-making on environmental offsets is understood by decision-makers, government officers, industry and the community and consistently applied by decision-makers.

These guidelines, together with the Environmental Offsets Register, will ensure transparency in the determination and application of offsets, while also providing a basis for auditing, compliance and enforcement.

What are environmental offsets?

Environmental offsets are actions that provide environmental benefits which counterbalance the significant residual environmental impacts or risks of a project or activity. Unlike mitigation actions which occur on-site as part of the project and reduce the direct impact of that project, offsets are undertaken outside of the project area and counterbalance significant residual impacts.

Application of these guidelines

These guidelines apply to all biodiversity offsets required as a condition of Western Australian environmental approval processes.

Specifically, these guidelines address the use of offsets under the EP Act, including both environmental impact assessment under Part IV and clearing permit applications under Part V. These guidelines aim to ensure that, regardless of the regulatory process, the basis of determining environmental offsets is the same.

These guidelines also apply to projects dealt with by the State under any bilateral agreement with the Commonwealth Government under the Environment Protection and Biodiversity Act 1999 (EPBC Act). In such cases the State will also have regard for the Offsets assessment guide under the EPBC Act.

These guidelines will be updated as early as practical within twelve months to include further information on the use of metrics in determining offsets and on the determination and application of offsets for cumulative impacts.

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1 Project refers to a proposal under Part IV of the EP Act and an application under Part V.
2 Project area refers to the proposal footprint (Part IV) or the application area (Part V).
Section 2 – Legislative context

Part IV of the EP Act

Section 38 of the EP Act provides for the referral of significant proposals (i.e. proposals likely to have a significant effect on the environment if implemented) to the Environmental Protection Authority (EPA). A proponent can refer a significant proposal to the EPA. Also, as soon as a decision-making authority has notice of a significant proposal, it must refer that proposal to the EPA. Section 39A of the EP Act provides the basis for the EPA to decide whether or not it will assess a proposal referred to it. The EPA makes this decision based on the likely significance of impact(s) of the proposal on the environment. Where the EPA decides to formally assess a proposal, it determines which level of assessment will apply.

The EPA undertakes an assessment of the proposal and prepares a report to the Minister for Environment on the outcome of its assessment. The assessment report sets out the EPA’s recommendation as to whether or not the proposal should be implemented and, if so, any conditions and procedures it should be subject to. These recommended conditions may include offsets if a significant residual impact remains after mitigation.

The proponent and any other person can appeal against the EPA’s report and recommendations.

After determining any appeals the Minister, in consultation with other relevant Ministers and decision-making authorities, determines whether or not the proposal should be implemented and, if so, the conditions and procedures that are to apply, including any offset conditions. The Minister’s decision on implementation conditions is subject to appeal by the proponent. In this case an Appeals Committee would consider the appeal.

Part V of the EP Act

Under Part V Division 2 (Clearing of native vegetation) of the EP Act, the Chief Executive Officer (CEO) of the Department of Environmental Regulation (DER) may grant a clearing permit that is subject to a condition under section 51I(2)(b) requiring an offset to “establish and maintain vegetation on land other than land cleared under the [clearing] permit in order to offset the loss of the cleared vegetation, or make monetary contributions to a fund maintained for the purpose of establishing or maintaining vegetation”. The clearing provisions of the EP Act allow for the giving of a conservation covenant or other form of binding undertaking for the purpose of establishing or maintaining vegetation as a condition of a clearing permit.

The Department of Mines and Petroleum (DMP) has delegated authority from the CEO of DER to regulate clearing of native vegetation for mining and petroleum purposes under the Mining Act 1978, various Petroleum Acts and State agreements administered by the Department of State Development.

The CEO’s decision to grant a clearing permit and any conditions on a granted clearing permit are open to appeal by the applicant or any person. In such cases, the Minister for Environment will consider the appeal and make the final determination.
Relationship between Part IV and Part V of the EP Act

A proposal that is assessed under Part IV of the EP Act and for which the Minister for Environment has made a decision that it may be implemented is exempt from the requirement for a permit where the clearing is done in accordance with that implementation decision. As a result, there is no duplicative process for offsets between Part IV and Part V.

Under the EP Act, significant proposals are referred to the EPA. If the only significant impact of a proposal referred to the EPA is from native vegetation clearing, the EPA may decide not to assess the proposal because it considers the impacts can be appropriately regulated under the Part V clearing provisions to meet its environmental objectives.

To streamline approvals, where the only significant impacts of a proposal are likely to be from native vegetation clearing, a proponent may apply for a clearing permit under Part V of the EP Act and not refer the proposal to the EPA. Consistent with the EPA’s Principles of EIA for the Proponent in its Administrative Procedures, proponents are expected to demonstrate that the unavoidable impacts will meet the EPA objectives for environmental factors and therefore their proposal is environmentally acceptable. This would include considering any offsets following mitigation. Where the impacts can be adequately managed under Part V of the EP Act, DER would not refer the project as a significant proposal to the EPA.

Figure 1 illustrates where decision-making occurs within Western Australia’s statutory framework.

Figure 1 Decision making process
These guidelines will be applied in Government decision making for projects in Western Australia to ensure that offsets are determined and applied consistently under Parts IV and V of the EP Act. Other Government agencies involved in providing advice through approvals processes where environmental offsets are considered will also have regard for these guidelines.

The Minister for Environment may also consider broader social and economic matters in making a decision.

**Interaction between State and Commonwealth processes**

Where projects impact on matters of national environmental significance (MNES) listed under the EPBC Act, the Commonwealth Government may also require environmental offsets. Where projects are assessed, this may be in parallel with State approvals (i.e. separate processes) or under an assessment bilateral agreement. To occur under a bilateral agreement, the proponent must refer the proposal concurrently to both the State and the Commonwealth.

The MNES that are considered by the Commonwealth Government (for example threatened species and ecological communities) are only a subset of the matters that the State considers (e.g. biodiversity, wetlands). As such, the State may require offsets to other environmental values which are not relevant to the EPBC Act.

Where there are values that overlap, Western Australian government agencies will endeavour to work cooperatively with the Commonwealth Government to align offsets and avoid duplication to the fullest extent practicable.

- Where the project has already been assessed by the Commonwealth Government and offsets have been applied, the State will consider these offsets as contributing to the State’s requirements.
- Where the project is being assessed under a bilateral agreement, formal consultation mechanisms exist for interaction between the agencies to align any offset requirements as far as possible.
- Where the project is being assessed in parallel under the EP Act and EPBC Act, agencies will consult to align offset requirements as far as possible.

Further opportunities to align offsets exist through the use of strategic approaches (such as the Perth-Peel strategic assessment). Strategic approaches can set out the framework for a coordinated approach to offsets in an area. Impacts from individual projects can then contribute to achieving the activities and objectives identified in the framework. This allows for State and Commonwealth matters to be consistent and removes duplication in offsets requirements.
Section 3 – When are offsets required?

Environmental offsets will only be applied where the residual impacts of a project are determined to be significant, after avoidance, minimisation and rehabilitation have been pursued.

Mitigation process

Environmental offsets will only be considered after avoidance and mitigation options have been pursued (principle 1, offsets policy). Environmental offsets address significant environmental impacts that remain after on-site avoidance and mitigation measures have been undertaken. Environmental offsets will only be considered after strategies to avoid and mitigate significant environmental impacts have been applied.

There are four steps in the mitigation hierarchy – Avoid, Minimise, Rehabilitate and Offset – as outlined in Figure 2. In developing a project, proponents/applicants must apply this hierarchy to reduce its potential impacts on the environment. Reducing the environmental impact of a project benefits both the proponent or applicant and the environment by reducing the likelihood that an offset may be required and also the magnitude of any offset that is required. This is consistent with principle 2 of the offsets policy, which states that while environmental offsets may be appropriate for significant residual impacts or risks, they will not be applied to minor environmental impacts (i.e. where the residual impact is not considered to be significant, no offset will be required).

Figure 2 shows how the mitigation hierarchy applies to reduce the residual impact before its significance is assessed to determine whether or not an offset is required.

Figure 2 Mitigation hierarchy
When a project is first considered, it will have a predicted impact on the environment. Through the environmental impact assessment or clearing permit processes, a proponent or applicant should demonstrate how it has applied the mitigation hierarchy to its project. This may include reducing the footprint or changing the location of the footprint to avoid areas with high environmental values. It is expected that the first three steps of the mitigation hierarchy are to be applied to the greatest extent practicable before determining the residual impact and, if significant, any consideration of an offset.

There are many actions a proponent or applicant can take to reduce the impact of its project, for example, managing surface water discharge, restricting clearing to outside of breeding seasons or restricting dredging to outside the migration period of threatened species.

For some projects there is also an opportunity for rehabilitation after a project has been implemented or completed. Rehabilitation efforts should be aimed at restoring the maximum environmental value that is reasonably practicable. Effective rehabilitation can substantially reduce the permanent impact of a project. However, while rehabilitation is an important component of the mitigation hierarchy, not all environmental values can be effectively rehabilitated. Some values or ecosystem functions may be permanently lost, and it may be necessary to consider the time lag before values are re-established to the maximum extent possible. Offsets will generally only be considered where it is determined that even with best-practicable rehabilitation, a significant residual impact is likely to occur.

In discussing how the mitigation hierarchy has been applied, the proponent or applicant should include all actions proposed to be undertaken as part of the project, including those that are a requirement of other legislation. These actions reduce the residual impacts of a project and are therefore part of the mitigation hierarchy.

**Significant residual impacts**

Environmental offsets are not appropriate for all projects (principle 2) and are not appropriate in all circumstances. The applicability of offsets will be determined on a project-by-project basis consistent with these Guidelines.

To ensure consistency and transparency of whether offsets should be applied to a project, the significance of residual impacts will be determined through the application of the residual impact significance model shown at Figure 3.

In general, significant residual impacts include those that affect rare and endangered plants and animals (such as declared rare flora and threatened species that are protected by statute), areas within the formal conservation reserve system, important environmental systems and species that are protected under international agreements (such as Ramsar listed wetlands) and areas that are already defined as being critically impacted in a cumulative context. Impacts may also be significant if, for example, they could cause plants or animals to become rare or endangered, or they affect vegetation which provides important ecological functions.
The residual impact significance model (Figure 3) outlines how significance will be determined and when an offset is likely to be required, or may be required, in relation to relevant EPA environmental factors (see EAG 8) and the relevant clearing principles in Schedule 5 of the EP Act. The model identifies four levels of significance for residual impacts:

- **Unacceptable impacts** – those impacts which are environmentally unacceptable or where no offset can be applied to reduce the impact. Offsets are not appropriate in all circumstances, as some environmental values cannot be offset.
- **Significant impacts requiring an offset** – any significant residual impact of this nature will require an offset. These generally relate to any impacts to species, ecosystems, or reserve areas protected by statute or where the cumulative impact is already determined to be at a critical level.
- **Potentially significant impact which may require an offset** – the residual impact may be significant depending on the context and extent of the impact. These relate to impacts that are likely to result in a species or ecosystem requiring protection under statute or increasing the cumulative impact to a critical level. Whether these impacts require an offset will be determined by the decision-maker based on information provided by the proponent or applicant and expert judgement; and
- **Impacts which are not significant** – impacts which do not trigger the above categories are not expected to have a significant impact on the environment and therefore do not require an offset.

Application of the residual impact significance model is expected to ensure that the determination of significance of residual impacts is consistent, regardless of the regulatory process.

In determining the significance of an impact, it is important to consider the impacts in the regional context. In isolation, a project may not be considered to have a significant impact. However, when considered along with other projects, activities and threats in the region, the cumulative impacts may be significant. That is, the context of impacts plays a role in determining the requirement for and scale of an offset. The proponent or applicant should consider any relevant policy and advice documents issued by the EPA, DER and other government bodies on cumulative impacts in the area. Where cumulative impacts are known to be already significant and these are published (e.g. loss of high conservation value wetlands on the Swan Coastal Plain, native vegetation in the Wheatbelt) impacts will normally be considered as requiring an offset. Where the EPA or the DER consider that cumulative impacts in a region are reaching a point, or are likely to reach a point, that they are significant, and therefore that they consider offsets should be applied, they will provide the rationale for this as part of the EPA’s recommendations to the Minister (Part IV) or the clearing permit decision report (Part V).
Government agencies will, in consultation with stakeholders, develop specific policy and guidance on the determination and application of environmental offsets for cumulative impacts.

In Part IV, there may be cases where there is some uncertainty about whether a significant residual impact will occur, and/or the extent of the impact. An offset may apply in some cases based on an assessment of the risk using a normal risk-based approach, that is considering the ‘likelihood’ of the impact occurring and the ‘consequences’ of the impact if it did occur, based on the evidence and information available. Offsets would normally only be applied in cases where there was a significant risk that the impact was likely to occur and there was likely to be a significant consequence.

For Part IV indirect impacts will be treated in the same way as direct impacts in determining whether an impact is significant. For example, if a project involves discharging water into a creek and this increased water flow is likely to cause an impact downstream, such as the loss of native vegetation, this indirect impact of the project will be assessed. This is in line with the definition of clearing in the EP Act.
### Figure 3  Residual Impact Significance Model

#### Residual impact that is environmentally unacceptable and cannot be offset

**Significant residual impacts that will require an offset -**

- All significant residual impacts to species and ecosystems are protected by statute or where the cumulative impact is already at a critical level.

**Significant residual impacts that may require an offset -**

- Any significant residual impact to potentially threatened species and ecosystems, areas of high environmental value or where the cumulative impact may reach critical levels if not managed.

#### Residual impacts that are not significant

**Assessment**

<table>
<thead>
<tr>
<th>Does this project meet the EPA's objective for this factor? / Is this project at variance with the Clearing Principles?</th>
<th>Part IV Guidance</th>
<th>Part V Guidance</th>
</tr>
</thead>
</table>

**Acronyms**

- **WC Act**  
  Wildlife Conservation Act 1950  
  - JAMBA  
  Japan-Australia Migratory Bird Agreement
- **EPBC Act**  
  Environment Protection and Biodiversity Conservation Act 1999  
  - CAMBA  
  China-Australia Migratory Bird Agreement  
  - ROKAMBA  
  Republic of Korea-Australia Migratory Bird Agreement
- **EP Act**  
  Environmental Protection Act 1986  
  - Environmental Protection Policy
Section 4 – Determining offsets

Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted (principle 3). Environmental offsets should be proportionate to the significance of the environmental value being impacted with a preference for cost-effective solutions.

Types of offsets

There are generally three types of environmental offsets – land acquisition, on ground management and research.

The type of offset depends on the:

- impact predicted (e.g. temporary or permanent, broad scale clearing or effect on an individual species);
- options for offsets in the vicinity of the project (such as the availability of land for purchase and protection); and
- state of knowledge of the environmental value being impacted.

Land acquisition offsets

These involve the protection of environmental values through improved security of tenure or restricting the use of the land. This may be achieved through ceding freehold land to the Crown for conservation purposes or perpetual covenants for conservation. In considering land acquisition offsets, the need for ongoing management must be considered. Any offsets proposing land acquisition, whether the land is to be managed by the proponent/applicant, a third party or the Department of Parks and Wildlife, must consider the upfront costs of establishing the offset site and the on-going management costs of maintaining the offset for the long term.

Where land is ceded to the Crown, the Department of Parks and Wildlife is generally responsible for maintaining this land in perpetuity. While a proponent or applicant is not expected to fund ongoing management in perpetuity, a contribution to management is expected at the commencement of the offset to establish the integrity of the proposed reserve. For example, if extensive weed management is required for ten years to establish the offset site, a contribution to ten years of ongoing management costs may be required by the proponent/applicant (see section 6 for more details on the duration of an offset). When selecting land to be acquired for an offset there is a need to consider other stakeholders’ interests in the proposed offset site and whether such an offset is feasible.

On-ground management

This includes revegetation (re-establishment of native vegetation in degraded areas) and rehabilitation (repair of ecosystem processes and management of weeds, disease or feral animals). The objective of on-ground management actions is tangible improvement to environmental values in the offset area.
**Research projects**

Research project offsets can only be applied under Part IV of the EP Act and must be reasonably related to the impact. Research projects can add significant value to the outcomes of on-ground management and the understanding of the environmental value being impacted. The research must be designed to result in positive conservation outcomes, and may be targeted at improving the management and protection of existing conservation estate, adding to existing State Government initiatives, policies or strategies. Research that may include field surveys should be designed to address priority knowledge gaps with the outcomes publicly available to improve management of the environment generally, and provide information that will improve environmental assessment of future projects. Research projects should be focused on achieving an outcome, rather than expending a certain amount of money.

Research projects are generally only appropriate as offsets where there is a high degree of uncertainty regarding impacts of a project and new science is required to develop better mitigation measures or predictive tools to avoid and minimise the particular type of impact. Where new information is gained through research this can lessen the need for a proponent to continue an existing offset, or avoid the need for an offset in future projects. Trials, research and monitoring which is undertaken in implementing best-practicable rehabilitation as part of mine closure is not generally an offset.

**Appropriate offsets**

**Relevant and proportional**

Principle 3 of the offsets policy states “Environmental offsets will be cost-effective, as well as relevant and proportionate to the significance of the environmental value being impacted.”

Any offset needs to be relevant not only to the environmental value being impacted (e.g. flora, fauna) but also to the associated attributes which may be lost or are at risk (e.g. habitat). Offsets should be ‘like-for-like’ – that is, impacts to an environmental value are required to be offset by actions that benefit the same environmental value being impacted. For example, an impact to a threatened species should be offset with actions that improve the overall viability of that species. Similarly there is an expectation that significant residual impacts on the public conservation estate (including State forests) will be offset by actions and activities that benefit the estate.

In some cases strict like-for-like may not be possible. In these cases the Minister may accept an alternative offset, however, it should still be related to the significant residual impacts of the project.

The offset should be proportionate to the level of impact and significance of the environmental value being impacted. A suitable offset must be designed to counterbalance the impact and take into account any risk of failure in implementing the offset. This is discussed further in the quantification of offsets section below.

When identifying an appropriate offset site, the following values should be considered:

- it provides better condition / less disturbance compared with the impacted environmental value;
• it contains habitat structure as similar as possible to undisturbed examples of the vegetation type to be impacted;
• it has a better area to perimeter ratio than the impacted site;
• it contains additional numbers of rare or otherwise significant species and threatened species or community compared with the impact site;
• it is contiguous with an existing conservation area;
• it enhances biological corridors or ecological linkages between conservation areas;
• it includes actions to address threatening processes; and/or
• it allows for secure management arrangements in place that will provide for long term conservation.

Sound knowledge and adaptive management

Principle 4 of the offsets policy states “environmental offsets will be based on sound environmental information and knowledge”. Proponents/applicants should demonstrate how a proposed offset counterbalances the significant residual impact of its project and how it will deliver long term environmental benefits. Offsets should be scientifically robust. For example, offsets could include actions that complement park management plans or are listed in species recovery plans, reports published by the EPA, strategic conservation plans prepared by Government (e.g. Kimberley Science and Conservation Strategy, Bush Forever, Great Western Woodlands strategy) and peer reviewed scientific literature.

Principle 5 states “environmental offsets will be applied within a framework of adaptive management”. This means that offsets should allow for improvement to the project as knowledge and understanding advances. For example, a land management offset will focus on achieving an outcome. The actions undertaken as part of the land management offset may change in response to regular evaluation of whether or not the outcome is being achieved. In the case of research offsets, knowledge gained should inform on site and offset management and mitigation of impacts. Information obtained from an offset, particularly a research offset, may lead to information that means an offset is not required in a similar situation for a future project.

Quantification of offsets

These guidelines outline the methodology for determining an appropriate offset by identifying the key elements which should be considered. As soon as practical within twelve months, government agencies, in consultation with stakeholders, will refine this methodology to establish specific metrics as appropriate.

There are two parts to quantification of an appropriate offset: (a) quantification of the significant residual impact to be offset and (b) quantification of the value of environmental benefit provided from the proposed offset.
Quantifying the significant residual impact

**Considering mitigation actions**

Mitigation actions should be identified and accounted for in quantifying the significant residual impact. Mitigation includes the effect of onsite rehabilitation in rectifying the impact of a project once complete.

Some mitigation actions may reduce the original impact through avoidance or minimisation. The contribution of onsite rehabilitation to reducing the significant impact needs to be described and quantified. Normally proponents or applicants would be expected to set out how best-practicable rehabilitation would be achieved for their project including reference to any similar rehabilitation cases and trials and monitoring to be undertaken.

Mitigation may include actions such as constructing project infrastructure outside of breeding seasons, implementing buffer zones, targeting rehabilitation efforts to reproduce hollow bearing trees, etc.

In considering how to quantify the contribution of onsite rehabilitation to mitigation, there are two elements:

- type of onsite rehabilitation; and
- likely success of onsite rehabilitation actions

**Type of rehabilitation**

This refers to both the type and level of rehabilitation that is proposed to be undertaken. Rehabilitation will recreate particular ecosystem services or a full suite of values, e.g. cockatoo foraging habitat may only require fruit-bearing vegetation, so the rehabilitation may not restore all the other ecosystem values.

**Likely success of rehabilitation**

The following should be considered in determining the likely success of rehabilitation:

- What is the type of vegetation being rehabilitated (includes evidence of demonstrated success)?
- Does the operator have experience in undertaking rehabilitation?
- Is there evidence the environmental values can be rehabilitated?
- Can the environmental values be restored with minimal delay and if not, what is the likely lag time before rehabilitation addresses the impacts?

Once the mitigation actions have been quantified, the significant residual impact can be determined (Figure 4).
Elements in quantifying significant residual impacts

There are a number of elements which affect the level of significant residual impact. Impacts can be measured in scale/quantity or environmental values, whichever is most appropriate.

The following elements will be considered in quantifying the significant residual impact (see Figure 5):

- Extent of impact (hectares or numbers)
- Quality of the environmental value
- Conservation significance of environmental value
- Land tenure
- Time scale

Extent of impact (scale/quantity)

This means the number of hectares that are significantly impacted by the project or the number of important features that are impacted (such as trees with hollows or number of individuals of a rare species).

Quality

This refers to the condition rating of vegetation to categorise disturbance related to human activities. It also refers to the quality of habitat or features for elements of biodiversity (for example species, ecological communities).
**Conservation significance**

This refers to the importance of the environmental value being impacted such as rarity or uniqueness. Rarity is given consideration in the acknowledgement that impacts to different environmental values may both be significant but to different degrees. There are some values that are not replaceable.

**Land tenure**

This element would only apply where the impact is to an area managed for conservation. The significance would range from small (e.g. local community reserve) through to large (e.g. Class A Nature Reserves) depending on the level of protection the conservation area has been afforded.

**Time scale**

This component only applies to certain types of impacts where the length of time over which the impact occurs directly affects the significance of the impact. For example, clearing of a temporary access track may only be needed for a short period of time before the track is rehabilitated and environmental values are returned.

![Image of elements to consider in quantifying the significant residual impact]

**Figure 5 The elements to consider in quantifying the significant residual impact**

**Quantifying environmental value of offsets:**

Once the significant residual impact that needs to be counterbalanced by the offset (see Figure 6) has been quantified, then quantifying the environmental benefit of the proposed offset requires consideration of:

- Type of offset
- Security of offset
• Likely success of achieving the offset
• Time lag in achieving the offset

Type of offset
Different types of offsets will result in different levels of environmental values as certain actions provide more environmental benefit than others. There are three main offset types:

• On-ground management including revegetation ( revegetation of degraded areas to achieve set target ecological values) and offsite rehabilitation (repair of ecosystem processes and management of weeds, disease or feral animals).
• Land acquisition (purchase of land for conservation tenure or entering into conservation covenant or other legally binding agreements).
• Research (must directly relate to supporting management and decision-making for the environmental value impacted and is applicable to Part IV only).

Security of offset
This element is about how likely the offset is to persist in the long term.

Revegetation that is established as a requirement of a written law (e.g. revegetation required under a Ministerial Statement or clearing permit as an offset) is considered to be native vegetation for the purposes of the clearing provisions of the EP Act and cannot be cleared without a permit or exemption. Native vegetation includes marine and aquatic (e.g. seagrass, macroalgae) as well as terrestrial vegetation. This requirement affords some protection to areas established as a result of offset conditions.

Acquiring land and making it subject to a conservation covenant or transferring the land into the conservation estate both reduces the risk to the offset site and increases the long term protection of the site. Offsets for clearing permits require long-term security of the outcome (whether land acquisition or on-ground management).

Likely success of achieving the offset
The likely success of an offset applies to on-ground management actions and the following needs to be considered:

• What is the type of vegetation being revegetated?
• Can the environmental values being offset be defined and measured?
• Does the operator have experience in undertaking these actions?
• Is there evidence the environmental values can be recreated (evidence of demonstrated success)?

Time lag in achieving the offset
This element relates to the time difference between the impact and when the environmental benefit of the offset will be achieved. For example, the time delay between planting and trees growing to productive capacity to provide foraging habitat for a threatened species. Where there is a lag between the environmental benefit of an offset and the impact, the
proponent/applicant should consider a complementary offsets package – that is, an offset that provides initial benefit (e.g. land acquisition), plus another offset to provide ongoing benefit (e.g. revegetation). The time lag becomes significant when growing trees for nesting hollows as it may take more than 80 years to be of a size where hollows may form.

When designing an offset, proponents/applicants need to consider the time lag associated with improvements to environmental values. For example, trees established as revegetation take time to be suitable as foraging habitat. If clearing and revegetation of trees occurs at the same time, there is a loss of environmental value until the trees are suitable to provide food. It is preferable that an offset require revegetation to occur prior to clearing to reduce this time lag, or supplement revegetation to reduce the time lag (e.g. with a species that bears food sooner). This may not be possible for all projects.

![Diagram](image)

**Figure 6** The elements to consider in quantifying an environmental offset

**Quantitative tools**

To ensure consistency and alignment of offsets with the EPBC Act, where threatened species or ecological communities have been assigned IUCN criteria, a calculator modified from that applied under the EPBC Act is a tool for quantifying the required offset, including the value of the onsite rehabilitation in mitigating the impact (as discussed above in “Identifying and quantifying significant residual impact”). This approach emphasises the importance of onsite rehabilitation undertaken by proponents/applicants.

It is noted that even where quantitative tools have been developed, such as an offsets calculator, they still require a considerable degree of judgement and expertise in their use. It is also the case that such tools must be used with care and not be applied without regard to the reasonableness of the outcome they deliver.
**Actions required by other legislation**

Actions undertaken offsite which are required by other legislation generally cannot be considered an offset. However, where EPBC Act offsets address values that are also of relevance to EP Act processes, these would reduce any state-based offsets to the extent of the overlap.

Some examples of actions required under legislation include where a proponent or applicant manages a pastoral lease and is required to manage feral animals through a condition of the lease. This management is not an offset. However, if the management went beyond legislative requirements and included additional actions for a conservation purpose, these management actions may be considered. For example, the installation of a predator-proof fence and the removal of pests around a high environmental value area could be considered as an offset if the environmental value was impacted by the project.

Similarly, offset projects undertaken within conservation areas must be such that the actions being proposed are additional to work already undertaken by the Department of Parks and Wildlife or the land manager and not be part of normal responsibilities. It will be necessary to demonstrate the additionality of actions to the regulator. For example, an offset could be proposed to construct a predator-proof enclosure within a conservation area, as there is a clear purpose and an environmental benefit from this action which is beyond basic reserve management. Offsets may be used to expand an existing program, but must be additional to current work or programs being undertaken.

Offsets do not include actions required to manage environmental impacts caused by a project, or to improve the social and economic wellbeing of a local community. These latter initiatives are sometimes referred to as corporate social responsibility initiatives.

**Other considerations in quantifying offsets**

Due to the land tenure arrangements, the history of land use and the nature of the values in Western Australia, offset considerations are different depending on whether the project is based in the southwest land division or the rangelands (see Figure 7).

In the southwest (intensive land use zone), more traditional offsets such as land acquisition and management are possible as there is adequate freehold land available with appropriate values.

For the extensive land use zone of the State where land is almost exclusively Crown land overlain by pastoral leases and mining provinces, a different approach is needed as there is almost no opportunity for land acquisition to occur. In order to quantify impacts in the ELZ, there is a need to consider a proxy value for what would normally be direct land purchase or implementation works which are undertaken by the proponent.
Figure 7  Intensive Land Use Zone (south-west; highlighted)

**Strategic approaches**

Principle 6 of the offsets policy states that “environmental offsets will be focused on longer term strategic outcomes”. In some cases, a better environmental outcome can be achieved by considering offsets at a landscape rather than at a local scale. Strategic approaches could be based on a regional need or be focused on addressing issues related to a particular species.

The use of a strategic approach, such as a fund, is a solution to overcome land use tenure issues by providing a coordination mechanism to implement offsets across a range of land tenures. This type of approach may be suitable to apply in the extensive land use zone.

Strategic offsets should create opportunities for on-ground conservation management, restoration of bushland and ecological linkages between areas of remnant vegetation in an integrated regional approach to protect biodiversity and the environment. In the extensive land use zone, strategic offsets may also include conservation and enhancement of existing ecological systems. The use of such strategic offsets should relate and be relevant to the impacted environmental values.

**“Pre-impact” offsets**

Early offsets involve proponents or applicants delivering the offset prior to project approval. Early offsets reduce the time lag normally associated with offsets as the improvement value of the offset can be advanced ahead of the impact. The advantage of using early offsets for proponents and applicants is that if the values of the early offset are improved, it will reduce the quantum of offset required. The advantage for the environment is reduced lag time between impacts and benefit. For example, an early offset may provide foraging habitat for a species that can be accessed as soon as the impact occurs so that there is no loss of foraging habitat. A traditional offset would reduce availability of foraging habitat while
replanted trees mature to start providing a food source at a similar capacity to that lost through the development.

Early offsets can either be initiated ahead of time where a proponent or applicant has multiple projects that it believes will require offset or where a proponent or applicant acquires land that is larger than required for its offset. In the second case, the excess land could be managed for conservation and used on a future project or sold to another proponent or applicant requiring an offset.

Anyone seeking to undertake an early offset should discuss this with the appropriate agency ahead of time. It must be recorded that a particular site is being managed as an early offset. Importantly, the requirements of the Policy and these guidelines must still be met by any early offset. That is, an early offset will not be automatically accepted, but the proponent or applicant must demonstrate how the offset counterbalances the significant residual impact of the project. For example, an early offset which has restored possum habitat cannot be used to offset impacts to a wetland.
Section 5 – Implementing offsets

Offsets may be achieved through:

- direct action by the proponent/applicant;
- funding by the proponent/applicant directly to a third party to undertake agreed offset actions; or
- contributions by the proponent/applicant to a fund for the purpose of undertaking agreed offset actions.

In some cases it may be more beneficial to add several contributions towards a single offset (such as land acquisition). Such contributions must clearly identify the quantification, type and value of the offset in the relevant condition.

Where offsets involve a contribution to a fund, this funding must be spent on the agreed actions to deliver the specific offset that are identified in the Ministerial Statement, clearing permit or defined as part of the establishment of a fund body. Fund contributions for offsets cannot be consolidated into general agency funds.

The Government is considering the appropriateness of a government-established strategic conservation fund for the Pilbara but has not formally approved the establishment of such a fund at this time. Further consultation will occur with industry before any decision is made regarding this.

For Part IV, if a proponent managed trust fund model is proposed, a robust governance model must include:

- decision making arrangements;
- the approval requirements set out in the Ministerial conditions
- objectives;
- key offset actions and strategies;
- rules of expenditure;
- principle amount;
- probity standards;
- reporting requirements that demonstrate how the approval conditions have been met; and
- legislative requirements.

Regardless of the offset funding arrangement, the proponent/applicant is still responsible for ensuring any offset condition imposed is complied with.

Commencement of the offset

The timing for commencement of an offset will be stated in conditions and will be set to best meet the objective of that offset. The aim should be to implement offsets as soon as possible to minimise the significant residual impact of the proposal. For some offsets, for example a
research program, where the outcomes should be applied to construction activities, then these will normally be required to be completed prior to construction commencing.

**Duration of the offset**

Where an impact creates a temporary loss of value, the length of the offset should be matched to counterbalance this temporary impact. If an impact is permanent, offsets must ensure a long lasting environmental benefit and be capable of being maintained into the future (including after the project has been completed). This does not necessarily mean that a proponent is responsible for an offset forever, but that the offset must sustain the increase in environmental value. In all cases completion criteria for the offsets will be defined in the Ministerial Statement or the clearing permit will set out the conditions with which the applicant must comply.
Section 6 – Timing and consultation on offsets

Timing of offsets discussions

Offsets are the final step in the mitigation hierarchy and are only applied as a last resort after other avoidance and mitigation measures have been considered. Therefore discussion of the mitigation hierarchy would begin at project scoping stage. The significance model outlined in Figure 3 provides an indication of the types of impacts that, if not avoided or mitigated, are likely to be significant and require offsets.

Proponents/applicants should include in their documentation discussion of how the mitigation hierarchy has been applied in reducing the impacts of a project.

Figure 8 and Figure 9 present simplified process maps which outline the process for offsets that apply to Part IV and Part V. For clearing permits under Part V, the DMP is delegated the administration of the clearing provisions where the clearing is for mining or petroleum activities approved under the Mining Act 1978 and various petroleum legislation or State agreements administered by the Department of State Development.
From the pre-referral discussions through the whole assessment process, the proponent should consider the mitigation hierarchy and how it can reduce the impacts of its proposal.

After a proposal is referred, the EPA will make a decision on whether or not it will be assessed. The EPA may:
- assess a proposal that is likely to have a significant effect on the environment;
- not assess a proposal but recommend a Part V Clearing Permit, where flora and vegetation is the only key environmental factor likely to have a significant effect on the environment;
- not assess a proposal where the EPA does not believe it will have a significant effect on the environment.

Proponents should demonstrate how they have addressed the mitigation hierarchy, identify the significant residual impacts (if any), and, if required, what offsets are proposed.

The proponent has the opportunity to provide comment on draft conditions that may affect the practical implementation of the offset (e.g. timings proposed). The EPA then reports to the Minister recommending whether the proposal may be implemented and, if so, what conditions should apply.

Once the EPA report has been released, any party may appeal the EPA report and recommended conditions, including offset conditions.

If appealed, the Appeals Convenor will produce a report and recommendation on the grounds of the appeal. The Appeals Convenor may seek further information from the proponent or the OEPA.

Upon determining any appeals, the Minister for Environment will consult other relevant Ministers before determining whether a proposal may be implemented and any associated environmental conditions.

Figure 8  Simplified Part IV process map
Figure 9  Simplified Part V Process map
Consulting on offsets

It is the responsibility of the proponent/applicant to consult all relevant stakeholders regarding offsets, particularly those whom the offset will directly affect.

As a minimum, proponents/applicants should consult with the relevant management agency for the environmental value that is being impacted, such as the Department of Parks and Wildlife, Department of Fisheries, or Department of Water.

The Department of Parks and Wildlife may have any of the following roles in offsets:

- As the agency with overall responsibility for planning and implementation of the protection of biodiversity in WA; provide specialist scientific advice on biodiversity conservation values, the significance of impacts and the suitability of offsets.
- As the agency that manages lands and waters under the Conservation and Land Management Act 1984 and wildlife under the Wildlife Conservation Act 1950; and
- As a party that may be directly responsible for management of offsets, for example land ceded to the Crown for the purpose of conservation.

It is also important to engage with stakeholders who have an interest in land being set aside for conservation. The departments of Mines and Petroleum, Agriculture and Food WA, and Planning, as well as local governments and Traditional Owners, are examples of stakeholders that the proponent/applicant may need to consult.

In the Part IV process, the Minister for Environment consults with other Ministers in determining whether a proposal may be implemented and if so, what conditions are required. If consultation with other agencies has not occurred, this can delay the Ministerial decision-making process.
Section 7 – Governance, auditing, enforcement and review

How will offsets be defined?

Offsets are imposed as conditions of the ministerial statement or clearing permit. Conditions are legally enforceable. Conditions apply only to the holder of the ministerial statement or clearing permit. While third party delivery arrangements may occur, the legal obligation remains with the proponent or permit holder.

A number of conditions for Part IV projects involve the contribution of funding over time. To ensure that the value of this funding remains relative, the value of offset contributions may be maintained through indexation to the Perth Consumer Price Index.

Offsets register

The Environmental Offsets Register is available online at www.offsetsregister.wa.gov.au. The offsets register contains information on offsets applied by the State Government since 25 July 2013. Offsets applied prior to launch of the register are being progressively added.

The Offset Register will provide information regarding the rationale for the need and quantum of an offset, the spatial location of offsets (where applicable), any proposed offset actions and the implementation of offsets.

The aims of the offset register are to:

- ensure transparency and accountability regarding offset requirements;
- provide a single cross-Government record for environmental offsets;
- provide for monitoring of offset implementation and outcomes; and
- improve auditing and quality control of offsets.

Public availability of research offsets

For Part IV projects, it is expected that the knowledge obtained from offsets will be shared and publicly available to benefit the environment through improved evidence based decisions on environmental management.

For offsets involving the acquisition of data or research, current conditions require all validated environmental data (including sampling design, sampling methodologies, empirical data and derived information products such as maps) relevant to the offset to be made publicly available.

Specifically, proponents are expected to ensure that any data generated are shared with relevant government agencies for inclusion in government corporate databases. Research results are expected to be published or communicated via public articles and presentations.
Responsibilities of proponents/applicants

Proponents/applicants are expected to:

- consider these guidelines and agency process requirements in the early stages of project planning and development;
- consult regulatory agencies early in the assessment process about the potential need for environmental offsets for a project and the possible scope of offset options;
- ensure offset proposals meet all statutory, planning and regulatory requirements, including auditing and compliance;
- base offsets proposals on good science and adequate information;
- have regard to the reasonable risks for delivery of the offset and not transfer its responsibility, where a proponent/applicant elects to have a third party manage or establish the offset area or program;
- prepare, in consultation with government regulatory agencies, an offset proposal as required by the decision-maker, including the significant residual impact and how the proposed offset will counterbalance this, and the objectives, targets, success criteria, monitoring, timeframes, rationale and cost effectiveness of any offset option; and
- facilitate information/knowledge sharing including learnings and outcomes of offset actions.

Responsibilities of government regulatory agencies

This applies to government agencies responsible for approvals processes that include the consideration of offsets. This currently includes the OEPA, the DER and the DMP (for its delegation of Part V). Regulatory agencies are expected to:

- ensure that offsets are considered as part of relevant statutory approval processes in a timely way;
- ensure that government agencies are adequately consulted where there are impacts to, or offsets are proposed on, public lands and waters under their responsibility. Where government agencies hold relevant expertise in relation to an environmental value, their advice should be sought as necessary;
- make these guidelines and any associated guidance materials available to proponents/applicants;
- ensure that agency specific guidance is reviewed and consistent with State Government policy and legislation;
- provide adequate justification for any offset and the quantum of that offset;
- provide guidance on the likely scope of offset options that may apply to a project;
- undertake discussions on offsets in such a manner so as not to pre-empt any offset decision or decision on the acceptability of the project;
- maintain records of offset discussions and recommendations in accordance with the State Records Act 2000;
• ensure offsets funds meet the accountability and reporting requirements of the *Financial Management Act 2006*, the EP Act and relevant Treasurer’s Instructions;
• ensure environmental offsets for any approved project are maintained in a public register;
• conduct audit programs of environmental offsets;
• ensure that environmental offsets are enforced as appropriate;
• facilitate information/knowledge sharing including learnings and outcomes of offset actions.

**Responsibilities of government implementer agencies**

Implementer agencies are expected to:

• ensure any discussions are undertaken consistent with the guidelines and the statutory role of the agency, and that any potential conflicts of interest are managed. Also ensure that the appropriate regulatory agency is consulted on discussions to be held and the outcomes of these. Discussions on offsets are to be undertaken in such a manner so as not to pre-empt any offset decision or decision on the acceptability of the project by the regulator;
• implement the offset in accordance with the conditions or permit;
• maintain records of offset discussions and recommendations in accordance with the *State Records Act 2000*;
• ensure offsets expenditure meets the accountability and reporting requirements of the *Financial Management Act 2006*, the EP Act and relevant Treasurer’s Instructions;
• ensure the implementation of environmental offsets for any approved project is maintained in a public register; and
• facilitate information/knowledge sharing including learnings and outcomes of offset actions.
Section 8 – Additional Resources

For further information on the EPA's factors and objectives, please see EPA policies and guidance at:

EPA Policy by factor

For further information on Part V, please see:

Native Vegetation Guidelines
Appendix 1 – Case studies of quantification
## Mine in the Intensive Land use Zone

### Existing environment/Impact

<table>
<thead>
<tr>
<th>Existing environment/Impact</th>
<th>Mitigation</th>
<th>Significant residual impact</th>
<th>Offset calculation methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,000 hectares of clearing</td>
<td>Avoid and minimise 900 hectares native vegetation/Carnaby's Cockatoo foraging habitat</td>
<td>Likely rehabilitation success</td>
<td>Type</td>
</tr>
<tr>
<td>100 hectares cleared land (pasture)</td>
<td>100 hectares returned to pasture</td>
<td>Can the environmental values be rehabilitated?</td>
<td>Extent</td>
</tr>
<tr>
<td>900 hectares native vegetation/Carnaby's Cockatoo foraging habitat</td>
<td>900 hectares revegetated with Carnaby's cockatoo foraging habitat Progressive clearing and rehabilitation – beginning with 200 hectares of clearing with backfilling and rehabilitation progressively * Cannot restore full ecosystem function.</td>
<td>* Vegetation is in pristine-to-excellent condition.</td>
<td>N/A - no temporary clearing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>* Known to provide foraging habitat</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Conservation Significance</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endangered species</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Land Tenure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Time Scale</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>N/A - no temporary clearing</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>According to the agreed significance framework, residual impact is considered to be significant because a specially protected species under the Wildlife Conservation Act 1995/Threatened Species under EPBC Act is impacted.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Revegetation / On ground management</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Possible sites on Parks and Wildlife managed land (low risk) and others on freehold land (higher risk)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can the values be defined and measured?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Yes - value to Carnaby's can be measured</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operator experience/Evidence?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Varied - The Department of Parks and Wildlife may undertake some of the offset, local landcare groups may also be engaged</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>What is the type of vegetation being revegetated?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Habitat suitable for Carnaby's Cockatoo</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7-10 years for Carnaby's species to become productive for foraging; 1-5 years for other management actions</td>
<td></td>
</tr>
<tr>
<td>Potential DRF habitat (no plants within the footprint, but there are plants in close proximity to) but on a different geology / soil type to the mined area.)</td>
<td>Avoidance of DRF plants and suitable habitat. Management of indirect impacts of mining on nearby DRF is likely to be effective</td>
<td>Rehabilitation of the mined area adjacent to the DRF population will occur within a short period (&lt;5 years) after mining – risk to the adjacent DRF</td>
<td>Rehabilitation of similar mined areas has been demonstrated as successful and is therefore unlikely to pose a long term risk to nearby DRF populations</td>
</tr>
</tbody>
</table>
### Mine in the Intensive Land use Zone

<table>
<thead>
<tr>
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<th>Significant residual impact</th>
<th>Offset calculation methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid and minimise</td>
<td>Likely rehabilitation success</td>
<td>Type</td>
</tr>
<tr>
<td>Priority flora – 100 individuals removed and loss of potential habitat</td>
<td>Avoided 1,800 plants in the area through site selection for infrastructure.</td>
<td>As above</td>
<td>No</td>
</tr>
<tr>
<td>Potential habitat for Western Ground Parrot</td>
<td>Surveys - no individuals found</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Adjacent to Nature Reserve</td>
<td>Avoid all direct and indirect impacts to Nature Reserve</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetlands (equivalent to Conservation Category wetlands) – potential impact to 200 hectares from groundwater drawdown</td>
<td>*Additional modelling - predicted impact reduced to 50 hectares * Condition to limits impact to 50 hectares</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Offset calculation methodology**

<table>
<thead>
<tr>
<th>Extent</th>
<th>Quality</th>
<th>Conservation Category</th>
<th>Wetland Conservation Significance</th>
<th>Land Tenure</th>
<th>Time Scale</th>
<th>Can the values be defined and measured?</th>
<th>Operator experience/Evidence?</th>
<th>Secures habitat upon agreement – no time delay</th>
<th>Area contained within land acquisition offset above. Therefore no additional offset is warranted.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 hectares</td>
<td>Low</td>
<td>land to be ceded to the Department of Parks and Wildlife</td>
<td>Yes</td>
<td>The Department of Parks and Wildlife will manage the land</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>
The application is for clearing in relation to a school site, and is at variance to principle b) and principle c)

The offset required is 13 ha of land acquisition, and 20 ha of rehabilitation containing Carnaby’s cockatoo foraging habitat.

In this scenario, the applicant has purchased a 33 ha parcel of land; part of which is in good condition (13 ha) and the remaining is in a degraded condition (20 ha) and will be rehabilitated.

<table>
<thead>
<tr>
<th>Existing environment/ Impact</th>
<th>Mitigation</th>
<th>Significant residual impact</th>
<th>Offset</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Avoid and minimise Rehabilitation type Likely rehab success</td>
<td>Type Risk Likely offset success Time lag Offset value</td>
<td></td>
</tr>
<tr>
<td>12.8 ha of native vegetation was applied to be cleared. The permit was granted after negotiation with the applicant to reduce the area of the clearing permit to 9.8ha. The land is reserved for public purposes - high school.</td>
<td>The applicant originally applied to clear 12.8 ha. Following discussion with DER this was reduced to 9.8ha of clearing, of which 7.8 ha is Carnaby's cockatoo habitat.</td>
<td>Onsite rehabilitation is not possible, as a permanent structure is being erected.</td>
<td>The significant residual impact remains as 7.8 ha due to the permanent loss of values impacted. Extent: 7.8 ha Quality: Good condition Conservation Significance As the application is at variance to principle b, and impacts on threatened species habitat, there is a high conservation significance. Land Tenure: N/A Time Scale: Permanent. As per the significance framework, the residual impact is significant as the impacts are to habitat of a species, listed under the Wildlife Conservation Act 1950 and Environment Protection Biodiversity Conservation Act 1999 with a classification of endangered (IUCN criteria).</td>
</tr>
<tr>
<td>Existing environment/ Impact</td>
<td>Mitigation</td>
<td>Significant residual impact</td>
<td>Offset</td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------</td>
<td>-----------------------------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td>Avoid and minimise</td>
<td>Rehabilitation type</td>
<td>Likely rehab success</td>
</tr>
<tr>
<td>3 ha of threatened flora habitat, containing Eucalyptus argutifolia (rare flora, principle c)</td>
<td>The applicant agreed to avoid the impacts to rare flora and reserve bushland onsite as a conservation area.</td>
<td>None</td>
<td>Rehabilitation</td>
</tr>
<tr>
<td>2 ha of vegetation (non Carnaby's cockatoo habitat) in degraded condition, the clearing of which is not at variance to any of the clearing principles.</td>
<td>None - not at variance</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>