## Risks and limits to offsets—supporting the risk assessment

Tables 1 and 2 below are intended to stimulate thinking when assessing the risk that an offset may fail to achieve no net loss and to help inform the <u>limits to offsetting assessment</u>. It can be useful when assessing the burden of proof necessary to demonstrate that an offset is likely; in particular, with respect to assessing the likelihood that project impacts can be successfully offset on the basis of residual impact magnitude, offset opportunity, and feasibility (Table 2 in Pilgrim et al. 2013). The tables are not intended to replace the <u>limits to offsetting assessment</u>; rather, they are intended to support the thinking necessary to make that assessment.

## Working through Table 1 helps establish:

- Whether offsets are likely to be possible and either straightforward or comparatively straightforward to achieve, i.e. whether project impacts and other project aspects (such as financial provisions for the offset), fall into the low risk (light blue) or medium risk (amber) categories, respectively; or
- Whether offsets are likely to particularly difficult or impossible to achieve.

## Working through Table 2 helps:

- Match the individual factors identified and assessed (ecological, social, financial etc., as in Table 1) with the relevant supporting verifier in each case; and
- Establish the kind of evidence that will be needed to show that a biodiversity offset could be achieved for a project with impacts and characteristics that fall into the low, medium and very high risk categories.

Table 1: Factors for assessing the level of risk relating to the offsettability of project impacts.

These factors are used for assessing the level of risk relating to the offsettability of project impacts on biodiversity components (e.g. species, habitats, communities, ecosystems, and/or ecological and evolutionary processes, and associated ecosystem services). The level of presumption should be determined by the most demanding of the factors. Note: where figures are provided, these are illustrative, not definitive.

| Risk that residual impacts may be non-offsettable                             | Offset may be achieved when conditions (set out in Table 2) can be met. |  | Offset likely to be difficult and, in some cases, impossible. There is a relatively high risk that some impacts may be non-offsettable. To limit that risk, a proposed offset would need to transparently demonstrate an appropriate level of burden of proof (Pilgrim et al. 2013). |  |  |
|---|---|--|--|--|--|
|   | Low risk → High risk  |  | Very high risk ► Extremely high risk   |  |  |
| Presumption against offsetting  | Weak Moderate   |  | Strong → Extreme   |  |  |
| Ecological factors  | Ecological factors  |  |  |  |  |
| Proportion of biodiversity component affected by project impacts <sup>1</sup> | Very low (e.g. < 0.1%) to low (e.g.<1%),                                |  | <b>High to very high</b> (e.g. > 10%), measured at an appropriate scale  |  |  |

The proportion of affected biodiversity could be measured at the local, regional, national and/or global scale (extent). Specialist advice is generally needed to guide this process, including the selection of appropriate scale/s for the scenario. It is critical that the scale is ecologically meaningful and appropriate for the type of biodiversity affected—e.g. relates to its representation and persistence requirements. This is important, as a project's impacts may be predicted to affect a 'low' proportion of the 'global population' of a particular species, but when measured at a regional or national level, this proportion may be 'high' or 'very high', so that the likelihood of that species' regional or national persistence may be compromised.

|   | Low risk —  | Medium risk ────────────────────────────────────  | Very high risk    Extremely high risk   |
|---|---|---|---|
| Irreplaceability of affected biodiversity components (at the development site and beyond)         | Low to moderate:  Affected biodiversity is regionally ubiquitous, well-represented on many sites. There are plenty of viable options for conserving this biodiversity elsewhere.  Examples could include:  • Areas of a regionally common vegetation type or ecosystem, where parts of this are degraded and effective restoration techniques are available.  | Moderate to high: Affected biodiversity is not commonplace but there are still several adequate viable options for conserving it elsewhere.  Examples could include:  Areas functioning as a broad ecological process corridor (spatially flexible) where conservation goals can be met in various places;  Areas that provide ecosystem services for which adequate substitutes can be identified. | High: Affected biodiversity is restricted to few sites or populations, and/or is limited in extent so that there are few or no viable offset site locations outside the area affected by development.  Examples could include:  • Endemic/range-restricted species and/or their habitats, rare/regionally unique ecosystems;  • Areas providing ecosystem services that are critical for the survival or resilience of local communities or cultures.   |
| Vulnerability of affected biodiversity components at the development site and beyond <sup>2</sup> | Eow to moderate:     Few sites, populations or processes are listed as, or known to be, threatened and declining, or at risk of further degradation or loss.     Species, communities, ecosystems are widespread, and/or they are well-conserved in statutory protected areas, so that their continued persistence in the landscape is highly likely;     There is at least some opportunity to add conservation value elsewhere through a proposed offset. | Moderate to high:  Negative trends (regional, global) are affecting biodiversity at the development site and elsewhere, so that a significant proportion of sites, populations or processes are under threat of further loss or degradation.  | <ul> <li>High:<sup>3</sup></li> <li>Little remains of the affected biodiversity (e.g. less than 10–30% remains), and/or a high proportion of what remains is threatened with further loss and/or additional degradation. In extreme cases (highly vulnerable biodiversity), there is a high risk of extinction within the next 50–100 years. Examples include:</li> <li>Endangered or Critically Endangered species and/or their habitats;</li> <li>A heavily transformed ecosystem reduced to a fraction (e.g. &lt; 10–30%) of its original extent (thus Endangered/Critically Endangered).</li> </ul> |
| Condition of affected biodiversity at the development site  | Low to moderate:     Biodiversity at the development site is reduced or degraded.     There are many viable opportunities to add  | Moderate to high: Biodiversity at the development site is in moderate condition. There are several viable opportunities to  | High:     Biodiversity is in good to very good condition (e.g. in a near pristine state).      There are few or no opportunities to add   |
|   | value through an offset.  | add value through an offset.  | value through an offset elsewhere.  |

<sup>2</sup> Vulnerability here refers to specific biodiversity components in their broader context, rather than just at the development site, as components at the site are highly vulnerable.

Moderate to high vulnerability does not only indicate moderate or high risk for offsetting, but it can also indicate opportunities for offsetting, provided there are known means to halt or reverse the decline.

|  | Low risk  | Medium risk → High risk  | Very high risk ► Extremely high risk  |
|--|---|--|---|
| Examples of commonly used and quite broad 'classifications' of biodiversity to illustrate how these could fit into the risk categories | <ul> <li>1. IFC Performance Standard 6 categories<sup>4</sup></li> <li>Some 'Modified' and some 'Natural habitat' associated with low risk for offsetting.</li> <li>2. IUCN Red List-type categories<sup>5</sup></li> <li>Species or ecosystems in 'Least concern' or 'Least threatened' categories</li> <li>Some 'Near threatened' species</li> <li>3. NZ Threat Classification system threat category<sup>5</sup></li> <li>Not Threatened, Introduced and Naturalised, or assess on species basis for Non-resident Native—Coloniser, Non-resident Native—Migrant or Non-resident Native—Vagrant</li> <li>N.B.: For impacts on biodiversity at the very lowest end of this category, an offset may not be justified or necessary, especially if impacts are very limited.</li> </ul> | <ul> <li>1. IFC Performance Standard 6 categories</li> <li>Some 'Natural habitat'.</li> <li>2. IUCN Red List-type categories</li> <li>Species or ecosystems in 'Vulnerable' category, some species in the 'Near threatened' category</li> <li>3. NZ Threat Classification system threat category</li> <li>Moderate risk:     At Risk—Naturally Uncommon,     At Risk—Recovering</li> <li>High risk:     At Risk—Declining,     At Risk—Relict,     Data Deficient (assign to threat level or use precautionary principle)</li> </ul> | <ul> <li>1. IFC Performance Standard 6 categories</li> <li>Most 'Critical habitat', some 'Natural habitat'</li> <li>2. IUCN Red List-type categories</li> <li>Species or ecosystems in 'Endangered' or 'Critically endangered' categories.</li> <li>3. NZ Threat Classification system threat category</li> <li>Very high risk:         <ul> <li>Threatened—Nationally Vulnerable</li> </ul> </li> <li>Extremely high risk:         <ul> <li>Threatened—Nationally Critical,</li> <li>Threatened—Nationally Endangered</li> </ul> </li> </ul> |

The IFC Performance Standard 6 Guidance Notes (2012) states there is no 'prescriptive set of metrics' for determining whether an area would be classified as modified or natural habitat, but that this will vary from place to place, and needs to be based on credible scientific analysis and best available information, as assessed by competent specialists. See

http://www.ifc.org/wps/wcm/connect/Topics Ext Content/IFC External Corporate Site/IFC+Sustainability+Framework/Sustainability+Framework/Sustainability+Framework/Sustainability+Framework-+2012/Performance+Standards+and+Guidance+Notes+2012/

This depends on the scale of assessment, as some species/ecosystems that are near-threatened or vulnerable at the global level may be endangered or critically endangered at the national or regional level (which is the appropriate scale in this case). See <a href="http://www.iucnredlist.org/technical-documents/categories-and-criteria/2001-categories-criteria">http://www.iucnredlist.org/technical-documents/categories-and-criteria/2001-categories-criteria</a>

<sup>&</sup>lt;sup>6</sup> Refer to <u>Limits to Offsets supporting data</u> for more details.

|   | Low risk  | Medium risk ───── High risk   | Very high risk ► Extremely high risk  |
|---|---|---|---|
| Examples of quite broad 'classifications' of habitat or ecosystem types | <ul> <li>1. IFC categories<sup>7</sup>:</li> <li>Modified habitat</li> <li>2. NZ Threatened Environments Classification:</li> <li>Less reduced and better protected</li> <li>3. NZ PNAP, SSBI or ABI classification:</li> <li>Low risk—any sites not included in the PNAP report</li> </ul> | <ul> <li>1. IFC categories:</li> <li>Natural habitat</li> <li>Concentrations of VULNERABLE species</li> <li>Areas of primary/old-growth/pristine forests or other areas with especially high levels of species diversity</li> <li>Climate change refuges</li> <li>Support key</li> <li>Landscape and ecological processes</li> <li>Habitat necessary for the survival of keystone species</li> <li>Areas of high scientific value</li> <li>2. NZ Threatened Environments Classification:</li> <li>Medium risk: Underprotected</li> <li>High risk: At Risk, Critically Underprotected</li> <li>3. NZ PNAP, SSBI or ABI classification:</li> <li>Medium risk—Any sites considered to be of local importance</li> <li>High risk—any sites considered to be of Regional Importance</li> </ul> | <ul> <li>1. IFC categories:</li> <li>Critical habitat</li> <li>Areas required as refuges or for the reintroduction of CRITICALLY ENDANGERED and ENDANGERED species, or climate change refuges for these species</li> <li>2. NZ Threatened Environments Classification:</li> <li>Very high risk: Chronically Threatened</li> <li>Extremely high risk: Acutely Threatened</li> <li>3. NZ PNAP, SSBI or ABI classification:</li> <li>Very high risk—any sites considered to be of national importance</li> <li>Extremely high risk—any sites considered to be of International importance</li> </ul> |

This is a very rough summary. The gradations between categories are more refined than indicated in this table. Refer to IFC Performance Standard 6 Guidance Notes (2012) which note that there is no 'prescriptive set of metrics' for determining whether an area would be classified as modified or natural habitat, but that this will vary from place to place, and needs to be based on credible scientific analysis and best available information, as assessed by competent specialists. See <a href="http://www.ifc.org/wps/wcm/connect/Topics\_Ext\_Content/IFC\_External\_Corporate\_Site/IFC+Sustainability/Sustainability+Framework/Sustainability+Framework/Sustainability+Framework/Sustainability+Framework/Sustainability+Framework-+2012/Performance+Standards+and+Guidance+Notes+2012/

Note, this is a guide only and also depends on the size of the area and the values within that area.

|   | Low risk   | Medium risk ────────────────────────────────────   | Very high risk ► Extremely high risk   |
|---|--|--|--|
| Opportunity for adding sufficient and additional conservation value through an offset (either through positive management or averted loss mechanisms) | <ul> <li>There is abundant opportunity to add value through a proposed offset involving restoration (shown to be feasible and successful), or averted risk interventions;</li> <li>Predicted residual impact is negligible in relation to the range of normal inter-annual variability, and/or</li> <li>Biodiversity is easy to restore, and/or the same biodiversity regenerates spontaneously;</li> <li>Abundant source populations of species are available;</li> <li>Temporal delays between impacts on biodiversity and offset delivery can be accommodated;</li> <li>There is plenty of opportunity for protecting biodiversity of like or higher conservation value through averted loss offsets;</li> <li>Additionality of outcomes is assured.</li> </ul> | <ul> <li>There is a range of opportunities to add conservation value through a proposed offset involving restoration or enhancement methods known to be feasible/successful, and/or through averted risk interventions;</li> <li>Biodiversity can be restored, but the cost may be very high, or techniques have had very mixed success, and/or</li> <li>Residual impact will not affect population sizes or ecosystem extent or condition beyond the range of inter-annual variability;</li> <li>Some source populations of species are available, and/or</li> <li>Temporal delays between impacts on biodiversity and offset delivery may be possible to accommodate, and/or</li> <li>There are few opportunities for securing biodiversity through averted loss offset mechanisms, and/or</li> <li>Additionality uncertain/needs to be proven.</li> </ul> | <ul> <li>Little or no demonstrable opportunity to add conservation value through a proposed offset;</li> <li>Predicted residual impact is such that the proportion of affected biodiversity remaining post-impact may be non-viable or at high risk of irreversible loss, and/or</li> <li>Predicted residual impact exceeds normal inter-annual variation in population size or ecosystem extent, and/or condition, and/or</li> <li>No known restoration or enhancement techniques exist or have been effective; and/or</li> <li>No source populations are available, and/or</li> <li>Temporal delays between impacts and offset delivery may result in the extinction of biodiversity components, and/or</li> <li>Background rates of loss for affected biodiversity are low, and there is no or little opportunity for protecting biodiversity through an averted loss offset;</li> <li>Additionality cannot be achieved, or assured.</li> </ul> |

|  | Low risk —  | Medium risk ───── High risk   | Very high risk ───►Extremely high risk   |
|--|---|---|--|
| OTHER FACTORS  |   |   |  |
| Socio-cultural consideratio  | ns  |   |  |
| Dependence on those ecosystem services underpinned by the biodiversity in question | <ul> <li>Affected people have low levels of dependence on the ecosystem goods and services underpinned by the biodiversity in question; and/or many alternatives are available to them and this has been demonstrated through a transparent and participatory process of stakeholder engagement.</li> <li>Access to these ecosystem services is not a critical factor determining livelihoods of affected communities.</li> <li>There is plenty of opportunity to compensate for the losses.</li> </ul> | The level of affected people's dependence on the ecosystem goods and services varies.  There is some (but possibly uncertain) opportunity for adequately compensating people for the losses in ecosystem goods and services   | <ul> <li>The level of affected people's dependence on ecosystem goods and services underpinned by the biodiversity in question is very high (e.g. a local community relies on these services to meet their basic and fundamental needs).</li> <li>The biodiversity in question is of very high social or cultural significance to local communities.</li> <li>There is no or very little opportunity for adequately compensating losses.</li> <li>The ecosystem services which would be lost or degraded cannot (easily) be substituted and/or alternatives are inaccessible, unaffordable or unacceptable to affected communities.</li> </ul> |
| Level of stakeholder support   | Affected stakeholders support the development and the proposed offset.  | Affected stakeholders are indifferent or<br>divided in their support for the<br>development and offset, but their support<br>can be gained through demonstrating<br>meaningful benefits.  | <ul> <li>Affected stakeholders are opposed to the<br/>proposed offset.</li> </ul>  |
| Legal, financial, institutiona   | al considerations   |   |  |
| Availability of offset sites to achieve additional conservation outcomes           | Sites for delivering the offset are readily identifiable and available (i.e. willing landowner/resource owners).  | Offset sites where the persistence of<br>affected biodiversity can be readily<br>identified, but their availability is uncertain<br>or doubtful.  | No or very few feasible offset sites can be<br>identified (beyond the area potentially<br>impacted) or secured for a NO NET LOSS<br>outcome.   |
| Legal mechanisms and land tenure for securing offsets                              | <ul> <li>Legal mechanisms for securing conservation land (and, in this case, biodiversity offsets) in the long term are available, and they are tried and tested and straightforward.</li> <li>A variety of effective conservation and management mechanisms is in use to protect priority biodiversity areas on land under different types of ownership.</li> </ul>  | <ul> <li>Legal mechanisms for securing conservation land in the long term are available, but they require testing and/or adaptation to be effective for biodiversity offsets.</li> <li>Legal mechanisms allow the right to some types of development (e.g. mining) to take precedence over any other land use/rights, and the land to be protected may be at some risk of being developed in future.</li> </ul> | <ul> <li>The legal mechanisms (e.g. the property rights regime) do not provide suitable options for maintaining the long-term security of offsets.</li> <li>Alternative means for protecting land lack stakeholder support.</li> <li>Legal mechanisms allow the right to some types of development to take precedence over any other land use/rights, and the land to be protected is in an area with development potential (e.g. mining, within urban edge, etc.)</li> </ul>  |

|                                       | Low risk —   | Medium risk ────────────────────────────────────  | Very high risk Extremely high risk   |
|---------------------------------------|--|---|--|
| Financial arrangements                | <ul> <li>The funds required to design and implement a biodiversity offset using best practice have been verifiably committed and secured, and</li> <li>Financial mechanism to support the process for the duration of the offset (e.g. as long as impacts last and preferably in perpetuity) is established, and is appropriate and adequate.</li> </ul> | <ul> <li>The funds required to design and implement the offset have been ascertained and partially secured, but full resources depend on additional future commitments, and/or</li> <li>The financial mechanism to be used to support the process is not entirely clear, or it has not been established.</li> </ul> | <ul> <li>The financial resources required to design a biodiversity offset using best practice cannot be assured, or the resources needed to implement the biodiversity offset cannot be secured or assured.</li> <li>Doubts exist as to whether appropriate financial mechanisms have been or can be established, and secure.</li> </ul> |
| Technical factors                     | <ul> <li>A defensible method for trading up to biodiversity of higher conservation value (out of kind exchange) can be devised.</li> <li>High-quality data and contextual information are available at the appropriate scales to design and implement the offset.</li> </ul>   | Some information is available but this<br>needs to be complemented with data<br>collected at local/regional scales to enable<br>offset design and implementation.   | The information required to specify a defensible offset is not obtainable. This may be the case where an out-of-kind (trading up) offset is proposed, but where contextual biodiversity data are inadequate or unavailable in the necessary timeframes.  |
| Governance and capacity of regulators | <ul> <li>Governance at local, regional and national levels is strong and transparent.</li> <li>Adequate capacity and resources to support biodiversity offset initiatives is available and forthcoming.</li> </ul>   | <ul> <li>There are formal governance structures at local to national levels but support for biodiversity offsetting is limited.</li> <li>Confused agency accountabilities or multiple roles in one agency complicate smooth offset planning, design, and implementation.</li> </ul>                                 | Governance is limited, as are capacity and resources of regulators, and there is corruption, and/or limited support for biodiversity initiatives.  |

Table 2. Some suggested 'verifiers' and evidence supporting the demonstrated feasibility that a biodiversity offset can be achieved.

The' burden of proof' should rest with the developer to demonstrate that no net loss or a net gain in biodiversity can be achieved through a proposed offset. The appropriate responses or measures are linked with the relevant factor in Table 1, e.g. where the irreplaceability of biodiversity affected by a set of project impacts results in a very high risk situation (Table 1), the corresponding verifiers relating specifically to irreplaceability in the 'red column' in Table 2 should be met.

Note that there may well be some overlap of verifiers relating to the ecological factors (e.g. irreplaceability and vulnerability).

| Risk that residual impacts may be non-offsettable | Low risk —   | Medium risk ────────────────────────────────────   | Very high risk ► Extremely high risk  |  |
|---|--|--|---|--|
| Overall response indicated                        | Assurance rests on verifying that the condition of equivalent or more threatened biodiversity can be enhanced or that a sufficient amount of like vulnerable biodiversity can be secured to avert loss of an amount equivalent to the impact over a defined, acceptable timeframe.   | Assurance rests demonstrating that stringent conditions have been met relating to achievement of a no net loss / net gain in the biodiversity outcome.   | <ul> <li>'No loss' rather than 'no net loss' of biodiversity is favoured in the first instance, unless strong assurance is given that there will be no decline in persistence of affected biodiversity and that a no net loss or net gain outcome is feasible, OR</li> <li>An appropriate offset is in place before the predicted impact occurs.</li> </ul> |  |
| VERIFIERS (evidence neede                         | VERIFIERS (evidence needed) that demonstrate offsettability from an ecological perspective   |  |   |  |
| Irreplaceability,<br>Vulnerability                | Ecological equivalence: the type of biodiver   | rsity exchange (losses and gains) needs to be  | e appropriate, as indicated by:   |  |
|   | <ul> <li>'Like for like<sup>9</sup>: in general, offset should be of the same kind of physical environment and species, but there is some flexibility to deviate from applying a strict 'like for like' approach; including by:</li> <li>'Trading up' to conserve an equal or greater quantity of more threatened or irreplaceable biodiversity (i.e. of higher conservation priority), which may be an option.</li> </ul> | <ul> <li>'Like for like': offset should be of same kind of physical environment, same community type and species (but offset may cater for different population from that affected by impacts).</li> <li>'Trading up' by conserving an equal or greater quantity of more threatened or irreplaceable biodiversity may be an option.</li> </ul> | <ul> <li>Stringent 'like for like' (in-kind) requirement should be applied:</li> <li>Same kind of physical environment, same community type and seral stage, composition and same species' population (offset must cater for same population).</li> </ul>   |  |

One of the key requirements for achieving a no net loss outcome is that the biodiversity gains delivered by an offset are of the same kind as the biodiversity that is predicted to be lost ('like for like'). Closer equivalence (i.e. a very strict definition of 'like for like' biodiversity exchange) is required for higher-value losses and more flexible equivalence may be appropriate for lower-value losses, including trading up where the values lost are low and those gained are demonstrably higher and the trade is supported by stakeholders.

| Risk that residual impacts may be non-offsettable | Low risk —  | Medium risk ────────────────────────────────────   | Very high risk ────► Extremely high risk  |
|---|---|--|---|
| Irreplaceability<br>Vulnerability                 | Temporal context: the ecological implications of delays in offset delivery/maturity have been identified and the timing of biodiversity exchange (losses relative to achieving gains) neither causes bottlenecks nor deprives people of benefits; for example, by ensuring that:                                  |  |   |
|   | Offset is underway within 5 years after<br>impact or as otherwise appropriately<br>identified.  | Offset is delivering measurable outcomes<br>prior to impact or within 3 years of the<br>impact and no affected biodiversity is at<br>risk of bottleneck impacts.   | Offset outcomes are fully delivered and<br>sustainable before impact begins for those<br>biodiversity components that may suffer<br>bottlenecks due to any impacts.   |
| Irreplaceability,<br>Vulnerability                | Spatial and functional context: the relative indicated below:   | location in the broader landscape of the biod  | iversity losses and gains is appropriate, as  |
|   | <ul> <li>The offset is within the same broad ecological region as the impact. (e.g. globally defined WWF ecoregions, or more detailed level).</li> <li>It is theoretically possible to establish (through management interventions) the required ecological processes at the proposed offset site/s.</li> </ul>   | <ul> <li>Offset preferably in nearest neighbouring 'patch' (vegetation/habitat) of sufficient size within same ecological region (nationally or regionally defined), and/or level of connectivity.</li> <li>Proximity to key source populations is maintained.</li> <li>The proposed offset location/s has ecological processes established, OR</li> <li>Key ecological processes at the site can and will be restored using tried-and-tested techniques.</li> </ul> | <ul> <li>Same or adjacent 'patch' (vegetation/habitat) within the same ecological region (nationally or regionally defined), and connectivity.</li> <li>Proximity to key source populations is maintained.</li> <li>The full suite of ecological processes required to sustain biodiversity at the proposed offset site in the long term is already established at the site/s.</li> </ul> |
|   | Functional context: the ecological function   | ality and likelihood of persistence of affected  | biodiversity are retained, as indicated by:   |
| Irreplaceability                                  | The level of irreplaceability does not increase (in the case of a like for like offset), OR Irreplaceability of impacted (low irreplaceability) biodiversity may increase somewhat, if an offset contributes to a lowering of the irreplaceability of biodiversity of greater conservation priority (trading up). | The level of irreplaceability does not increase.   | <ul> <li>The level of irreplaceability of affected biodiversity and of supporting ecological processes does not increase at any time during the life of the project.</li> <li>The range/extent of affected biodiversity does not decrease at any time.</li> </ul>   |
| Vulnerability                                     | The level of vulnerability remains the same<br>(like for like exchange) or decreases (like<br>for like or better, if trading up is proposed).   | The level of vulnerability remains the same<br>(like for like exchange) or decreases (like<br>for like or better, if trading up is proposed)   | The level of vulnerability is shown not to increase at any time, or is shown to decrease.   |

| Risk that residual impacts may be non-offsettable                                 | Low risk —  | Medium risk ────────────────────────────────────  | Very high risk  → Extremely high risk  |
|---|---|---|--|
| Opportunity to add sufficient and additional conservation value through an offset | <ul> <li>Opportunities for creating sufficient and additional conservation value through an offset have been identified and have been or can be secured.</li> <li>Additionality can be demonstrated.</li> </ul>   | There is abundant opportunity to add conservation value through a proposed offset involving restoration or enhancement methods that have been shown to be feasible and successful, or through averted loss interventions.  Additionality can be demonstrated.               | <ul> <li>The requisite offset is already in place; OR</li> <li>A range of viable and appropriate opportunities for creating sufficient and additional conservation value through an offset has been identified and secured.</li> <li>The site/s and activities ensure spreading of risk to biodiversity, employ various mechanisms for conserving biodiversity (combine restoration, enhancement and averted risk, where suitable).</li> <li>Additionality is demonstrated.</li> </ul> |
| Verifiers for legal, financial,   |   |   |  |
| Social and culturally relevan   | nt verifiers  |   |  |
| Dependence  | <ul> <li>Affected stakeholders/communities can sustain their livelihoods if levels of access to or provision of affected ecosystem services alter and there are acceptable alternatives or compensation for services lost.</li> <li>This must be demonstrated through a transparent and participatory process.</li> </ul> | <ul> <li>Affected stakeholders/communities can sustain their livelihoods if levels of access to or provision of affected ecosystem services alter.</li> <li>This must be demonstrated through a transparent and participatory process of stakeholder engagement.</li> </ul> | <ul> <li>Affected stakeholders/communities can sustain their livelihoods if levels of access to or provision of affected ecosystem services alter.</li> <li>This has been demonstrated through a transparent, rigorous and participatory process of stakeholder engagement.</li> </ul>   |
| Support   | Many affected stakeholders fully support<br>the project and offset, and are as well off<br>as a result of these developments as they<br>were before.  | Most affected stakeholders fully support<br>the project and offset, and are at least as<br>well off, or better off as a result of these<br>developments than they were before.  | Almost all affected stakeholders fully support<br>the project and offset, and are at least as<br>well off, or better off as a result of these<br>developments than they were before.   |
| Legal, financial, institutiona  |   |   |  |
| Availability of offset sites  | Offset sites are known to be available and can be secured through relevant agreements.  | Offset site/s have been secured, or are in<br>the process of being secured, or  | <ul> <li>The offset is preferably provided in advance<br/>and offset site/s have been secured under<br/>formal protection agreements, or this<br/>process is underway, with guarantees for its<br/>completion.</li> </ul>  |
| Legal mechanisms for securing offsets (and land tenure)                           | Appropriate mechanisms exist to secure<br>land use tenure for offsetting activities.  | Appropriate formal, long-term agreements<br>have been reached for securing and<br>managing the proposed offset site/s.  | Access to the land needed to provide the offset is assured, either through purchase or long-term agreement with the landowner and/or a restrictive covenant/servitude registered on land title. A management agreement is in place and is of sufficient duration to ensure biodiversity values will be sustained.  |

| Risk that residual impacts may be non-offsettable | Low risk —  | Medium risk ────────────────────────────────────  | Very high risk   ► Extremely high risk   |
|---|---|---|--|
| Financial arrangements                            | <ul> <li>Offset activities for the duration of the offset (e.g. duration of project impacts and, preferably, in perpetuity) are fully funded and secured for long term use, e.g. through a trust fund, so that:</li> <li>The funds required to deliver the offset are allocated and are sufficient to deliver the required outcome.</li> <li>Financial mechanisms and plans are in place to ensure the flow of funds that will support offset management and activities.</li> </ul> | <ul> <li>Offset activities for the duration of the offset (e.g. duration of project impacts and preferably in perpetuity) have been adequately costed and are fully funded, with funds secured for long term use, e.g. through a trust fund, so that:</li> <li>The funds required to deliver the offset are allocated and are sufficient to deliver the required outcome.</li> <li>Financial mechanisms and plans are in place to ensure the flow of funds that will support offset management and activities for the duration of project impacts.</li> </ul> | <ul> <li>Offset activities for the duration of the offset (e.g. duration of project impacts and preferably in perpetuity) have been adequately costed and integrated into a strategy for sustainable conservation. They are fully funded, with funds secured for long term use, e.g. through a trust fund, so that:</li> <li>The funds required to deliver the offset are allocated and are sufficient to deliver the required outcome.</li> <li>Financial mechanisms and plans are in place to ensure the flow of funds that will support offset management and activities at least for the duration of project impacts.</li> </ul> |