Concepts, approach and principles

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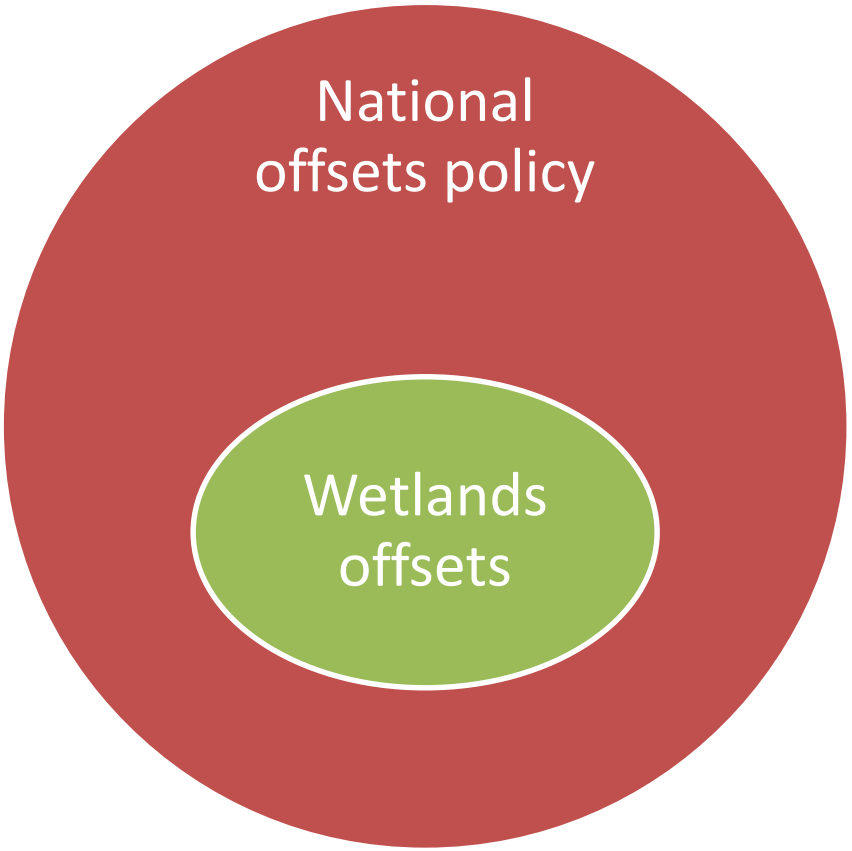
Wetland offsets are part of broader offsets policy development



Wetland offsets document sets out clear practical guidelines for implementing wetland offsets in a consistent way

Increase predictability of offset implementation

Designed to fit in with broader national policy

Definitions

Wetland offsets are ***measurable conservation outcomes*** resulting from actions designed to ***compensate for significant residual adverse impacts on wetlands*** (including all impacts on water resources, including hydrological and ecological processes and function, and wetland biodiversity including ecosystems, habitats and species). (Developed from BBOP biodiversity offsets definition).

Definitions (cont.)

Wetlands offsets are designed to deliver ***remedial measures commensurate*** with the ***significance of residual impacts***.

Wetland offsets address ***residual impacts*** to both the intrinsic value of wetlands as well as their value in terms of water resources, hydrological functioning and ecosystem services, ***arising from project development after appropriate prevention and mitigation measures*** have been taken.

Objectives of wetland offsets (1)

Provide appropriate and adequate compensation for residual impacts on water key ecosystem services and contribute to achieving water resource objectives by:

- **Ensuring no net loss in the overall wetland functional area** by providing gains in wetland area and/or condition equal to or greater than the losses due residual impacts
- Directing offset activities that will **improve key regulating and supporting services** towards those wetlands where these specific services can best be enhanced, and where these offset activities will contribute best to achieving water resource objectives including both Water Resource Management and Quality Objectives
- Providing 'in kind' services through offset activities, or substitute services acceptable to affected communities, for residual impacts on direct (provisioning or cultural) services, to ensure that these **communities are at least as well off** as prior to the development taking place

Objectives of wetland offsets (2)

Secure formal protection of wetland systems in a good condition so as to **contribute to meeting national biodiversity and protection targets**

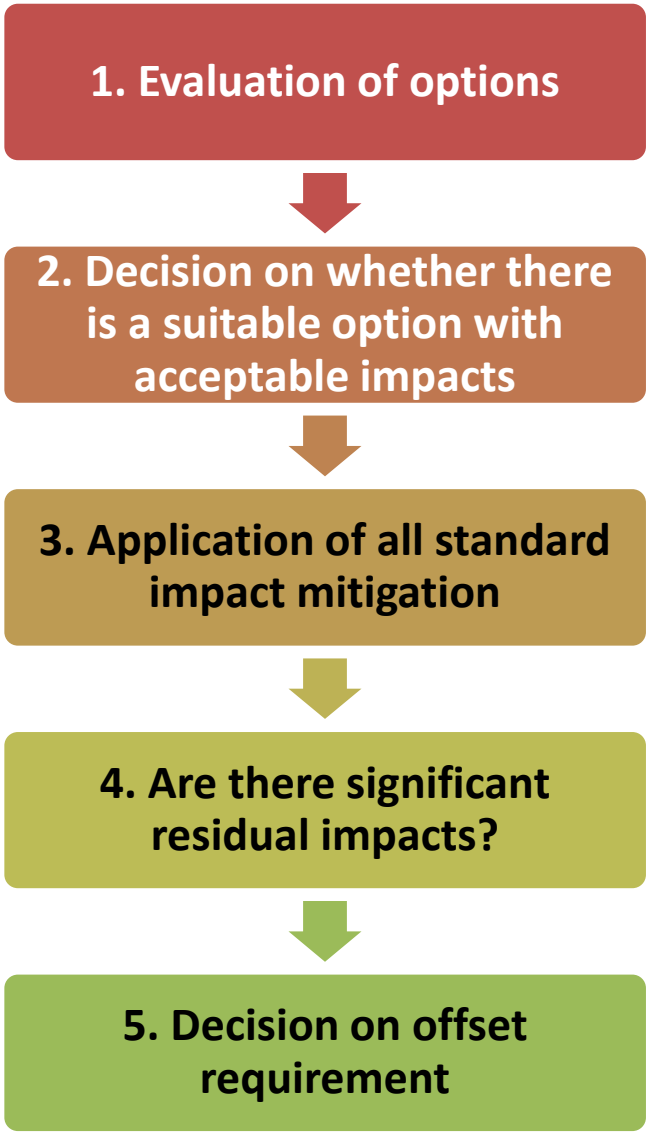
- To ensure representation and persistence of different wetland types
- To ensure that cumulative impacts of increased water use, development authorisation and land use change do not jeopardize the ability to meet the country's targets

Objectives of wetland offsets (3)

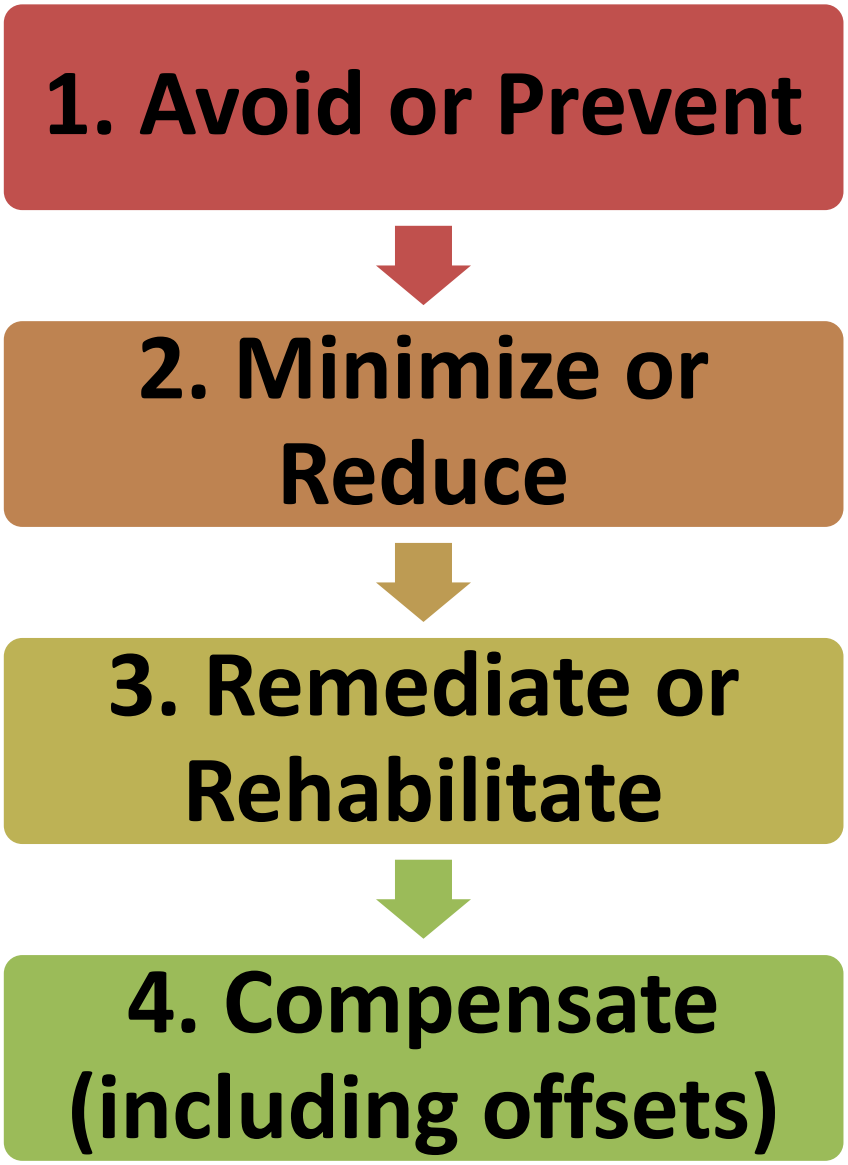
Adequately compensate for residual impacts on **threatened or otherwise important (e.g. wetland-dependent) species**

- through appropriate offset activities that support and improve the survival and persistence of these species.

Place in the decision making process



Place in the mitigation hierarchy



The key principles as per national framework (1):

Adherence to the mitigation hierarchy:	• An offset is a commitment to compensate for significant residual adverse impacts on biodiversity identified after appropriate avoidance, minimisation and on-site rehabilitation measures have been taken according to the mitigation hierarchy.
Limits to what can be offset:	• There are situations where residual impacts cannot be fully compensated for by an offset because of the irreplaceability or vulnerability of the biodiversity affected.
Landscape context:	• An offset should be designed and implemented in a landscape context to achieve the expected measurable conservation outcomes taking into account available information on the full range of biological, social and cultural values of biodiversity and supporting an ecosystem approach.
No net loss:	• An offset should be designed and implemented to achieve in situ, measurable conservation outcomes that can reasonably be expected to result in no net loss and preferably a net gain of biodiversity.
Additional conservation outcomes:	• An offset should achieve conservation outcomes above and beyond results that would have occurred if the offset had not taken place. Offset design and implementation should avoid displacing activities harmful to biodiversity to other locations.

The key principles (2):

Stakeholder participation:	• In areas affected by the project and by the offset, the effective participation of stakeholders should be ensured in decision-making about offsets.
Equity:	• An offset should be designed and implemented in an equitable manner.
Long-term outcomes:	• Secure outcomes that last at least as long as the project's impacts and preferably in perpetuity.
Transparency:	• The design and implementation of an offset, and communication of its results to the public, should be undertaken in a transparent and timely manner.
Science and traditional knowledge:	• The design and implementation of an offset should be a documented process informed by sound science, including an appropriate consideration of traditional knowledge.

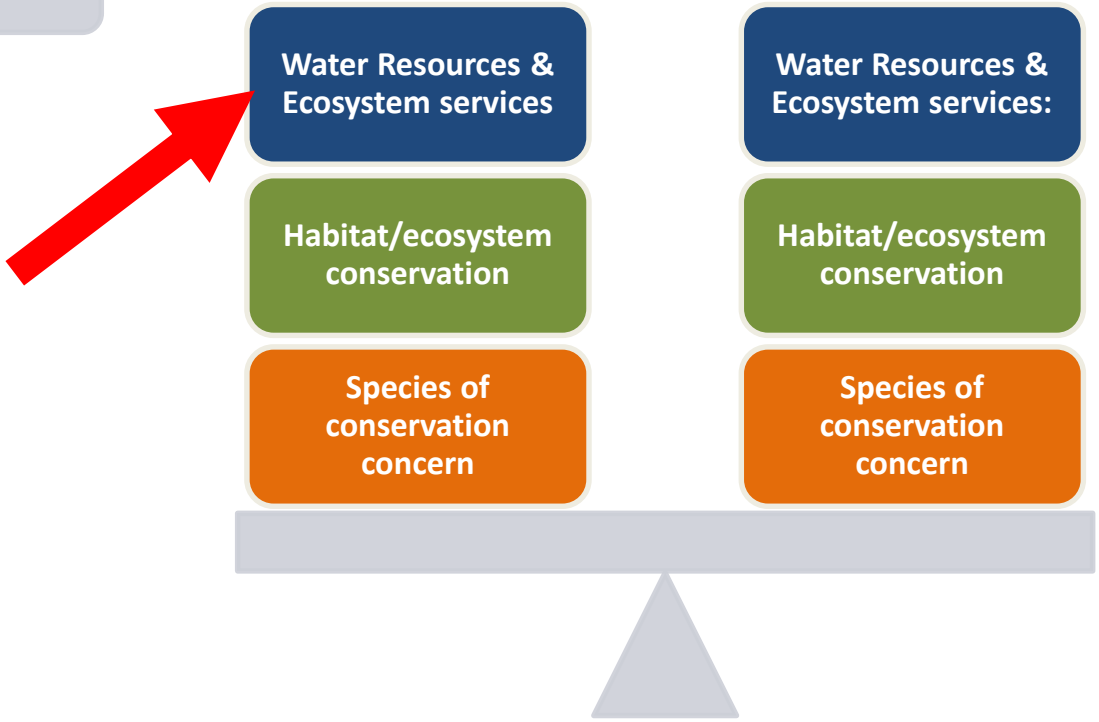
Limits to what can be offset

Freshwater Ecosystem Priority Area (FEPA) wetland	**Strategic Water Resource Area**	**Critical Biodiversity Area**
Critically Endangered or Endangered type	**Habitat to an Endangered or Critically Endangered species**	**Ramsar Site**
Provides critical regulating or supporting services at a catchment level	**Key feature identified in a Resource Quality Objective Assessment process**	**Heavily relied upon by local communities for livelihoods.**

Offsets are a very specific process of identifying impact and securing an equivalent gain

Residual impact at development site

Gains at offset site

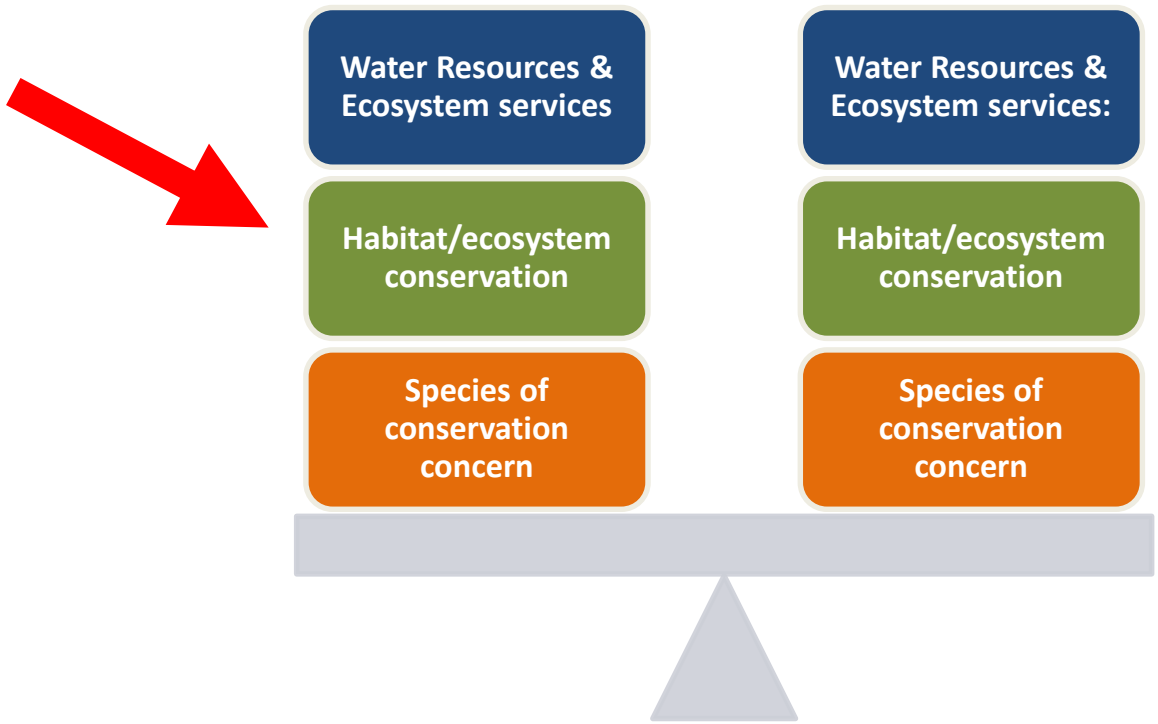


Water Resources & Ecosystem Services:

- What are the key water resources and services provided and to what extent will these be negatively affected?
- Requires an understanding of the effectiveness of the wetland for supplying a particular service, and its importance for supporting National Water Resource Management and Water Resource Quality Objectives.

Residual impact at development site

Gains at offset site

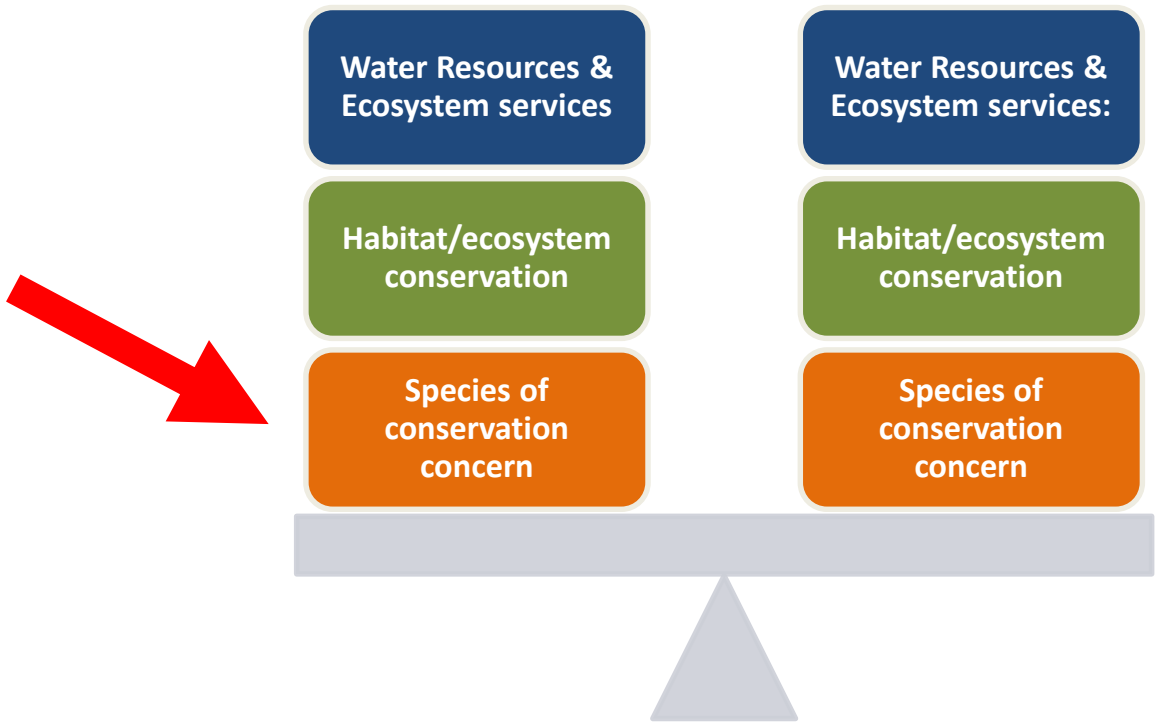


Habitat/Ecosystem Conservation:

- How important is the wetland biodiversity for conservation goals?
- What is the importance of the affected wetland in terms of contributing towards biodiversity conservation targets?

Residual impact at development site

Gains at offset site



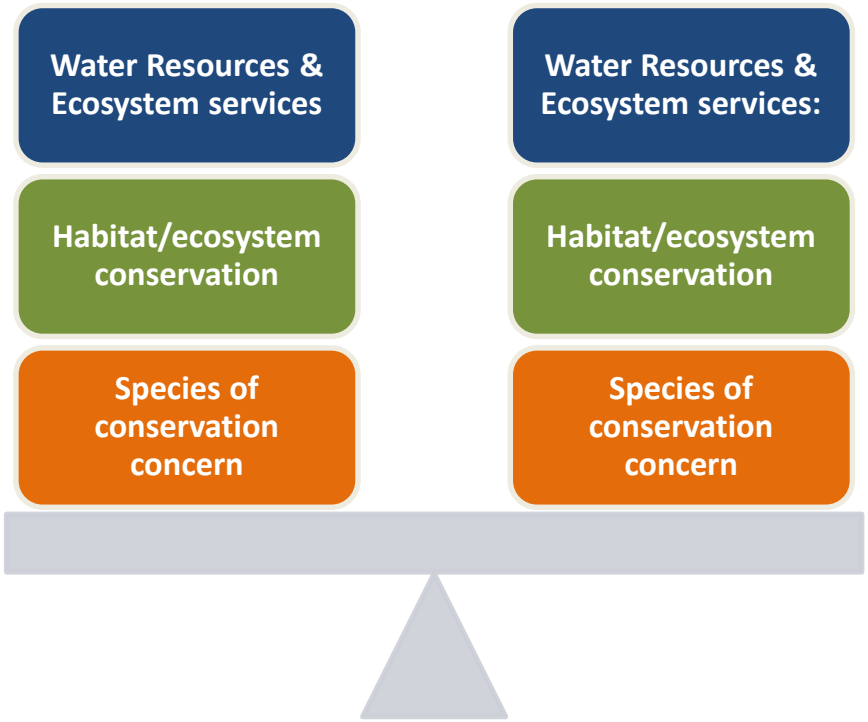
Species of Conservation Concern:

- Are threatened and other important species associated with the wetland and to what degree are they likely to be impacted?

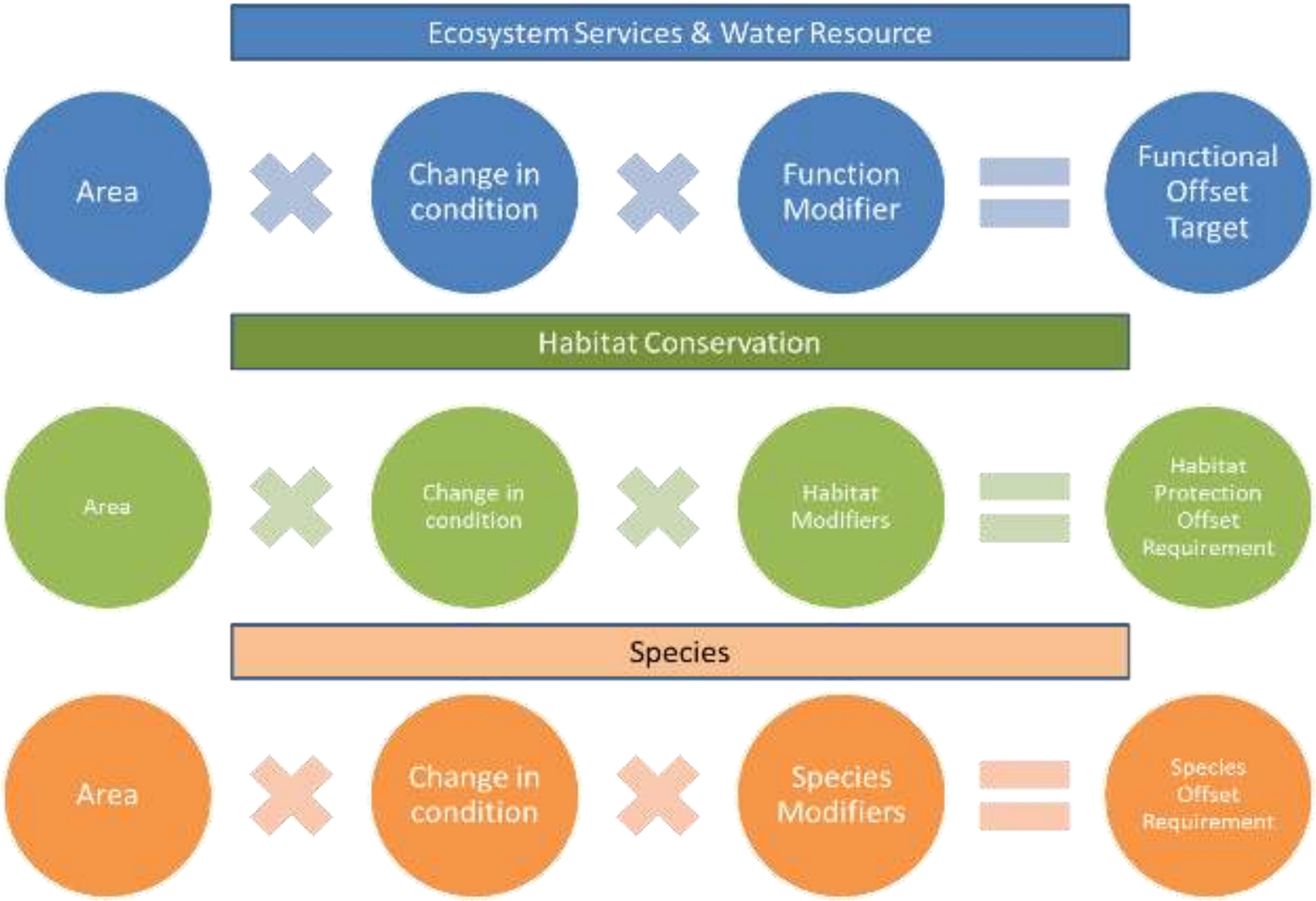
Approach

1. Residual impact at development site

2. Gains at offset site

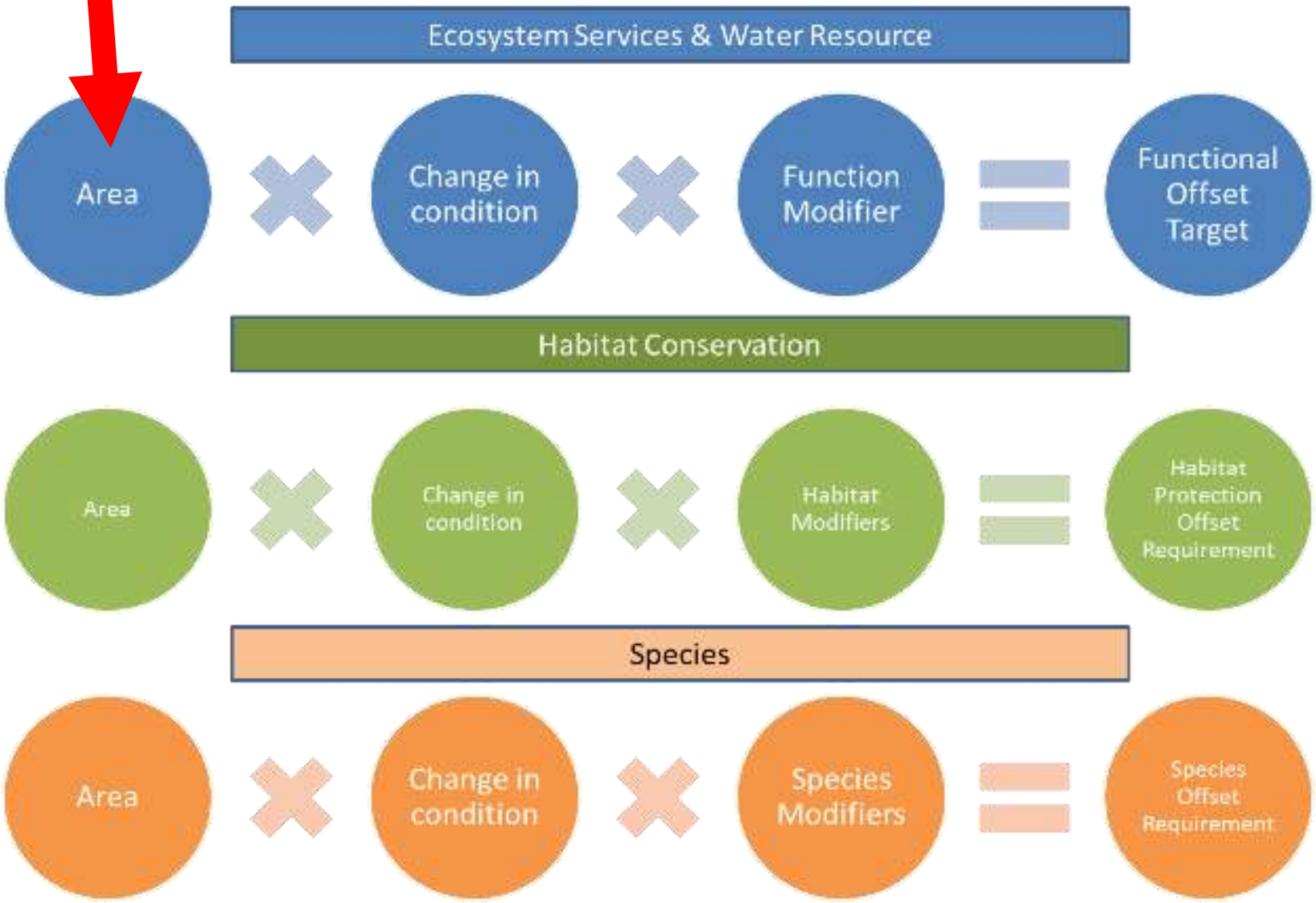


Approach


Ecosystem Services & Water Resource
Area
Change in condition
Function Modifier
Functional Offset Target
Habitat Conservation
Area
Change in condition
Habitat Modifiers
Habitat Protection Offset Requirement
Species
Area
Change in condition
Species Modifiers
Species Offset Requirement

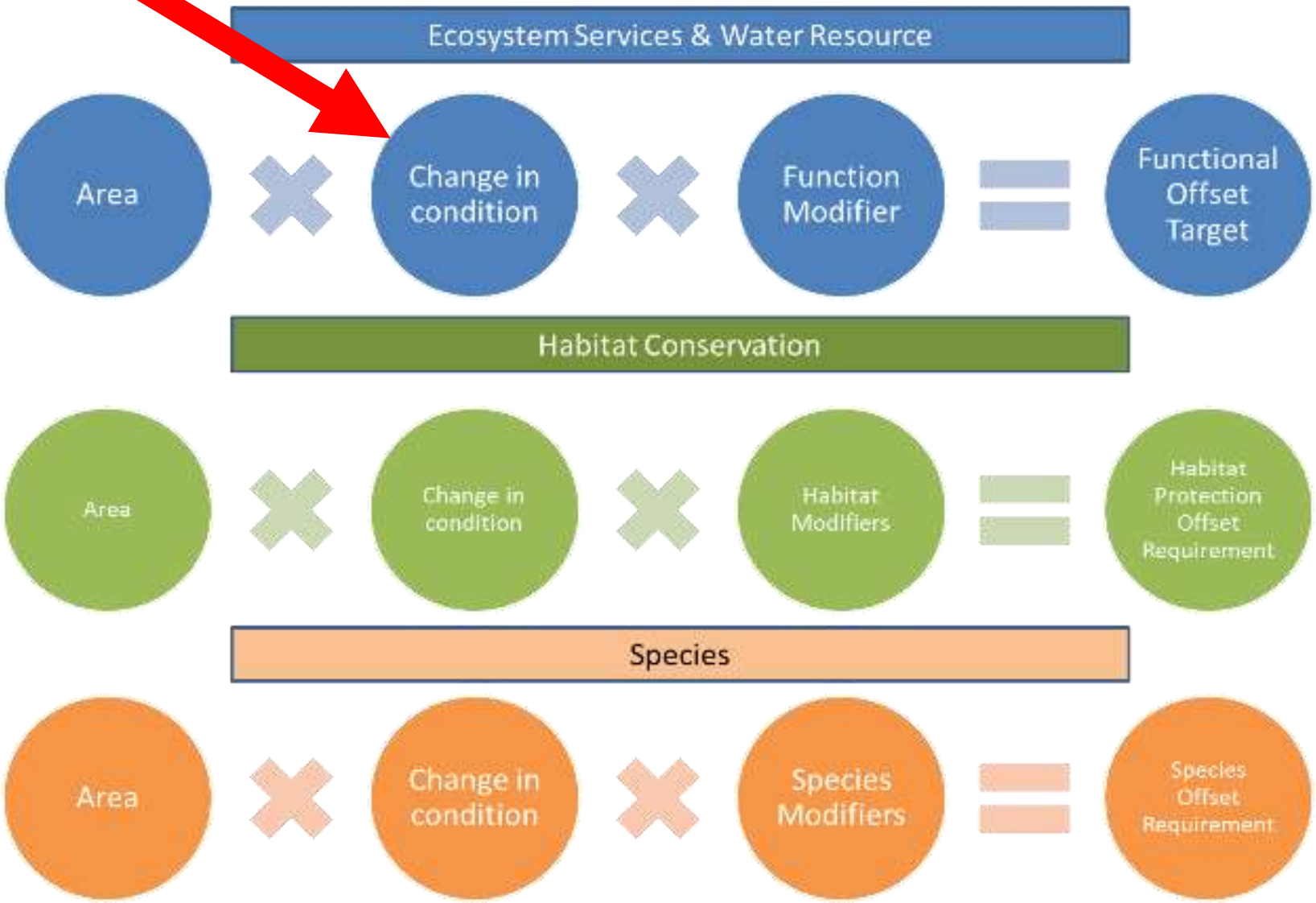
1.) Identifying the nature and extent of the feature impacted:

Approach



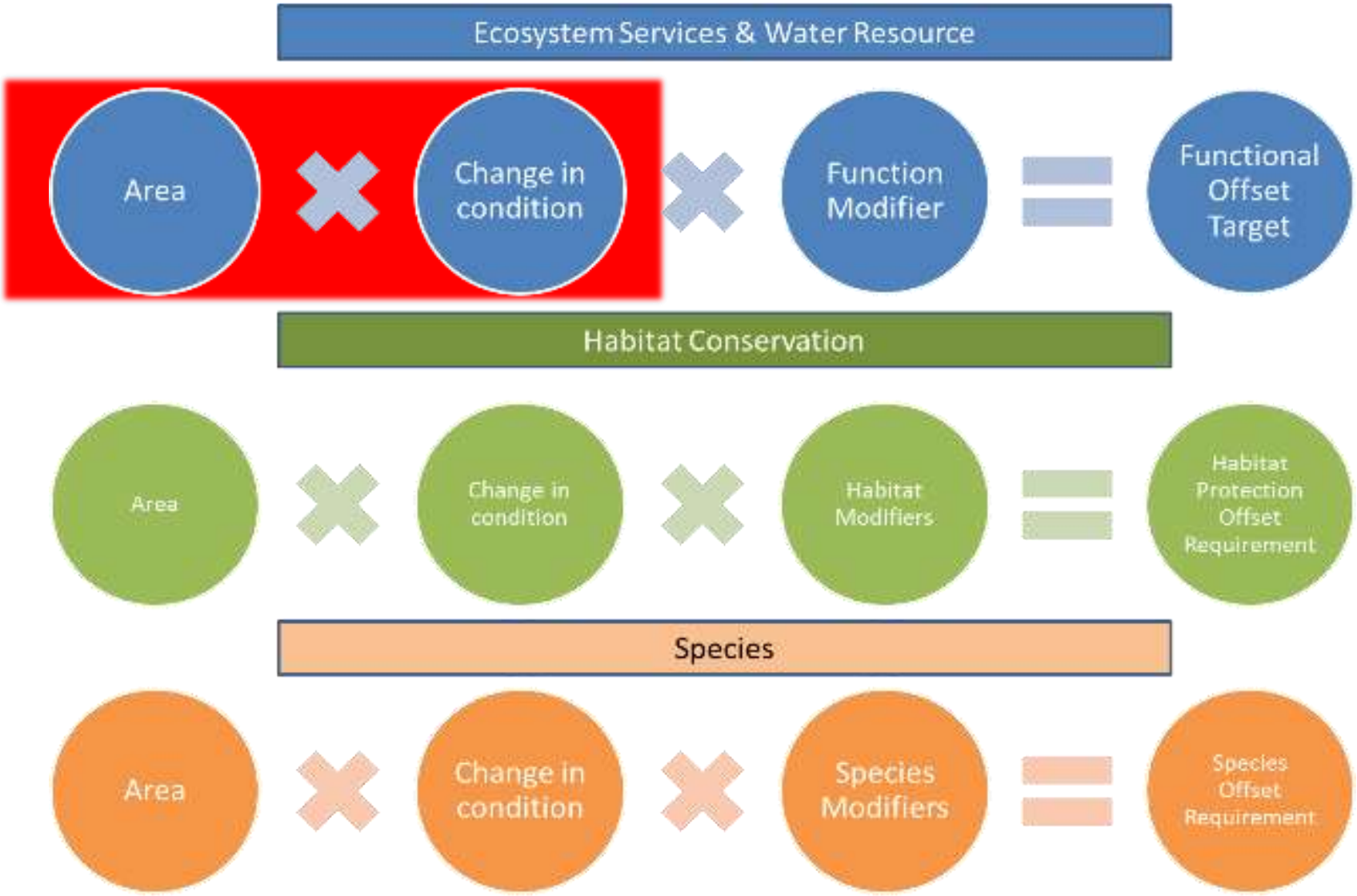
2. Identifying the change in condition as a result of the anticipated impact.

Approach



3. Hectares Equivalents

Approach

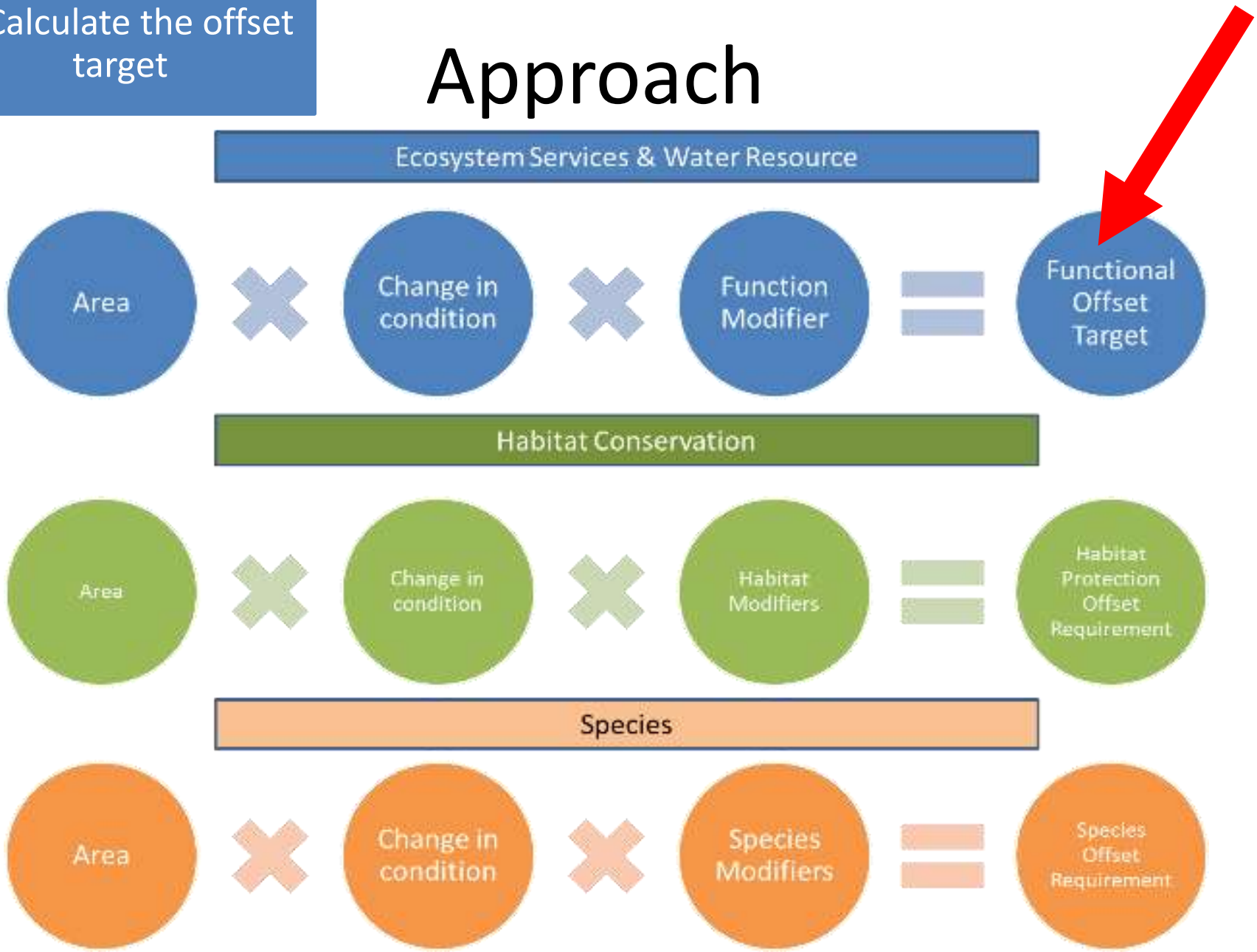


4. Then modified on the basis of how important the wetland is.

Approach

5. Calculate the offset target

Approach



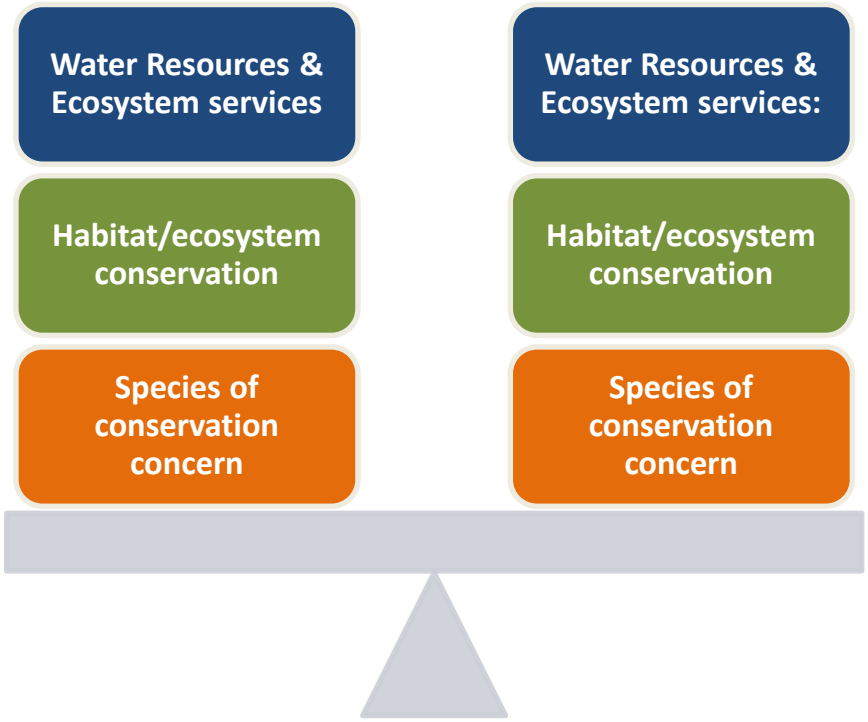
Approach

1.

Residual impact at development site

2.

Gains at offset site



Offset receiving site

Process for evaluating equivalence

Guidance on selecting sites

Incentivize desirable offsets

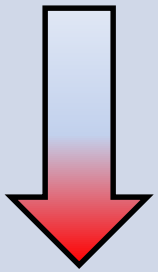
- Best sites
- Long term protection
- Low risk activities

Requirements

- Security of tenure
- Mangement

Ways of achieving wetland offsets

Offset receiving areas

Priority	Wetland functioning	Wetland protection
	Same local catchment	Same wetland type within the same wetland vegetation group
	Same quaternary catchment	Alternative wetland type of same or higher threat status & within the same wetland vegetation group
	Same tertiary catchment	Alternative wetland type of a lower threat status within the same wetland vegetation group
	Different tertiary catchment	Alternative wetland type of a higher threat status in another wetland vegetation group (trading up).

Overview

Delineation: What is the extent of the wetland and what type/s?

Wetland condition:

What is the current state of the wetland, and to what degree will the development cause further degradation?

Ecosystem Conservation :

How important is the wetland biodiversity for conservation goals?

Water Resources & Ecosystem services:

What are the key water resources and services provided and to what extent will these be negatively affected?

Species of conservation concern

Are threatened and other important species associated with the wetland and to what degree are they likely to be impacted?

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