

Sustainable Sites

Aim of the Credit

To reward projects that choose to develop sites that have limited ecological value, re-use previously developed land and remediate contaminate land.

Credit Criteria

0	Conditional Requirement	<p>The Conditional Requirement is met where, 5 years prior to the project's Green Star Registration date, the project site met the following conditions:</p> <ul style="list-style-type: none"> • The project is not on land containing old-growth forest • The project does not impact on any wetland listed as being 'High National Importance'* • Where the project may have an impact on any wetland NOT listed as being of 'High National Importance', Wetland Protection Measures must be in place* • The project must not have a significant impact on 'Matters of National Significance' listed under the Environmental Protection and Biodiversity Conservation Act 1999
1	Reuse of Land	<p>1 point is awarded where either: 75% of the site was Previously Developed Land at the date of site purchase (see Compliance Requirements) OR The project is a building extension, and 75% of the extension (including landscaping) falls within an area of the site that was Previously Developed Land at the project's Green Star registration date.</p>
2	Best Practice Soil Remediation	<p>1 point awarded where all of the following conditions are met:</p> <ul style="list-style-type: none"> • The site was contaminated such that the uses permitted under the relevant planning scheme were initially precluded • The developer has adopted a best practice remediation strategy • The remediation strategy is signed off by and auditor prior to issue of the occupation certificate

*Where the project site was within 100 metres of a wetland listed as being of 'high ecological value', then the project can only be deemed eligible for a Green Star certified rating if the project is defined as a 'refurbishment' and the Wetland Protection Measures (as outlined below) have been completed

The Best Practice Soil Remediation criterion of the credit is 'Not Applicable' for projects that are refurbishments or building extensions and for sites where no contamination is found.

Compliance Requirements

0 – Conditional Requirement

Date of Site Purchase

The Eco-Conditional Requirement is to be applied to the state of the site that existed at the date of site purchase. In cases where the site has been owned by the current owner for more than five years (from the project's Green Star registration date), it is to be applied to the state of the site that existed at least five (but not more than ten years) prior to the project's Green Star registration date.

Previous Condition of Site

The previous condition of the site is to be demonstrated by the project team including, whether the site was greenfield or brownfield, the area of any buildings or structures, the types of land present on site and in a 100m radius of the site boundary.

How to determine the ecological value of a wetland

An ecologist or other qualified professional shall assess the site and determine the ecological value of the site. The ecologist's site assessment must be based on:

- A site survey including assessment of the vegetation, soil and hydrological regime
- Topographic mapping (to identify catchment areas and drainage patterns)
- Local, regional and state wetland mapping where available
- The Ramsar Convention on Wetlands and The Directory listing
- Aerial photography

For the purposes of this credit a wetland is considered a 'Wetland of National Importance' if it is:

- Deemed significant under a state or national register; OR
- A listed wetland under:
 - The Ramsar Convention on Wetlands; or
 - 'A Directory of Important Wetlands in Australia' (The Directory).

Wetland Protection Measures

- A site-specific Wetland Management Plan has been produced, exhibited and implemented;
- A minimum of 2 points are achieved in Emi - 'Stormwater'; and
- All points are achieved in Emi - 'Light Pollution'.

Wetland Management Plan

The site-specific Wetland Management Plan must be:

- Included within the Development Application;
- Exhibited to the public on the client's website, or the local council's offices or library for a minimum of 24 months. The 24 month period must start before construction of

the project begins. The public display of the Wetland Management Plan must be easily accessible to the public and include an easy to read summary.

The Wetland Management plan must be prepared by a qualified Ecologist and include:

- A clearly defined management objective to protect the wetland;
- A description of the ecological values of the wetland;
- A list of risks and threats to the conservation of the wetland values associated with the development;
- The proposed risk-management actions for all construction and operation stages;
- Assumptions and a statement of resources required i.e. budget and specific actions for the management response;
- Requirements for ongoing quarterly monitoring, annual reporting and management of the wetland ecosystem for a minimum of five years; and
- A statement regarding the operational timeframe of the Wetland Management Plan (minimum of five years).

Matters of National Significance

A project will not be eligible for Green Star certification if it is likely to impact on a Matter of National Significance, the project has been referred to the Federal Environmental Minister for consideration and the project is assessed as a 'controlled action'

Matters of National Environmental Significance are protected by the Environmental Protection and Biodiversity Conservation Act 1999. More information can be found at

<http://www.environment.gov.au/topics/about-us/legislation/environment-protection-and-biodiversity-conservation-act-1999/what>

Definitions for Criterion 0 – Land Use & Ecology Conditional Requirement

New Development

A 'new development' is defined as a development on a greenfield site or a development that extends outside the footprint of any existing buildings on the site. Building extension projects do not automatically meet the Credit Criteria.

Old-Growth Forest

'Old-growth forest', as defined by the National Forest Policy Statement, is a forest that is ecologically mature and has been subjected to negligible unnatural disturbance such as logging, roading and clearing. The definition focuses on forest in which the upper stratum or overstorey is in the late mature to overmature growth phases.

Wetlands

The following definitions from the Queensland Environmental Protection Agency (2005) Wetland Mapping and Classification Methodology and the New South Wales Wetlands Policy (1996) are to be used. If either of these criteria is met then the area is considered to be a wetland for the purposes of this credit.

Wetlands are areas of permanent or periodic/intermittent inundation, with water that is static or flowing fresh, brackish or salt, including areas of marine water, the depth of which at low tide does not exceed 6 metres. To be classified as a wetland, the area must have one or more of the following attributes:

- i. at least periodically, the land supports plants or animals that are adapted to and dependent on living in wet conditions for at least part of their life cycle, or
- ii. the substratum is predominantly undrained soils that are saturated, flooded or ponded long enough to develop anaerobic conditions in the upper layers, or
- iii. the substratum is not soil and is saturated with water, or covered by water at some time.

Wetlands, as defined by the NSW Wetlands Policy 1996, are areas that are wet for long enough periods that the plants and animals living in or near them are adapted to, and often dependent on, wet conditions for at least part of their life cycle. (NSW Wetlands Policy, 1996).

The Australian Wetland Database contains a list of all wetlands listed under either the Ramsar Convention on Wetlands (Ramsar) or the Directory of Important Wetlands in Australia.

Wetlands that are man-made Water Sensitive Urban Design (WSUD) elements (stormwater treatment systems) that are less than five years old (from the project's Green Star registration date), are excluded from the definition of wetlands for the purposes of this conditional requirement.

Qualified Ecologist

A qualified Ecologist is considered to be an ecologist who has a degree in Ecology or similar and/or a minimum of five years continuous experience working as an ecologist. The ecologist must be independent and have no vested interest in the project.

Do you support the removal of 'prime agricultural land' from the land types excluded from Green Star Certification?

Do you support the exclusion of projects that impact on of 'Matters of National Significance' from Green Star Certification?

1- Reuse of Land

Previously Developed Land

Previously Developed Land includes:

Land that is or was occupied by a permanent structure, associated curtilage, road, car park or other hard stand including working areas of mines, landfills, brick pits, quarries or other industrial activity and associated curtilage.

This definition excludes:

- previously developed land that has undergone ecological restoration or land that is scheduled to be restored through development control procedures;
- land that was previously developed but where the developed areas have been reclaimed by the surrounding landscape via natural process and the passing of time, to the extent that it can reasonably be considered as covering more than 50% of the site and an integral part of the natural surroundings;
- land that was used for agricultural purposes at the time the site was purchased; and
- land in built up areas that has not been developed previously, even though these areas may contain certain urban features such as paths pavilions and other buildings.

Curtilage is defined as the enclosed area surrounding a building or dwelling including yards and paved surfaces. Yards are defined as highly modified landscaped areas including lawns, sporting courts and sports fields within the site boundary previously used for regular recreation or outdoor activities related to the building. Curtilage excludes areas of remnant vegetation, parkland and agricultural land.

Date of Site Purchase

In cases where the site has been owned by the current owner for more than five years (from the project's Green Star registration date), the criterion is to be applied to the state of the site that existed at least five, but not more than ten years, prior to the project's Green Star registration date

Pre-development

The conditions of the site prior to any works commenced as part of the registered project.

2 - Best Practice Remediation

Contamination is defined in the National Environment Protection Measures (NEPM) for the Assessment of Site Contamination, as “the condition of land or water where any chemical substance or waste has been added at above background level, and represents, or potentially represents, an adverse health or environmental impact”.

While the NEPM for the Assessment of Site Contamination is a nationally consistent approach to assessing site contamination, each state and territory regulates the assessment of site contamination separately.

Contamination

For the purpose of this credit, ‘Contamination’ refers to any contamination in the soil and groundwater (regardless of extent, concentration, toxicity, or otherwise) where the site uses permitted under the local planning scheme were precluded by the contamination present.

To be deemed no longer contaminated, the site must meet the regulated levels deemed suitable by relevant authority, e.g. Department of Environment and Conservation NSW (2006) ‘Contaminated land – Guidelines for the NSW Auditor Scheme Appendix II Soil investigation levels for urban developments in NSW’.

Minor local contamination will occur on most previously used sites and such minor decontamination is not addressed by this credit. For the purpose of this credit, there should be substantial recommendations for containment and/or removal made in the site contamination report.

Contamination resulting from the project construction works (e.g. with asbestos from demolition of the existing buildings) cannot contribute to this credit.

Best Practice Remediation

Best practice remediation is one developed in accordance with the Sustainable Remediation Forum document titled “A Framework for Assessing the Sustainability of Soil and Groundwater Remediation” dated April 2011.

Standard Practice Remediation

Where contamination is found on site and the ground is remediated to meet requirements of the relevant authority using methods other than those set out in ‘Best Practice Remediation’ i.e. removal to landfill, no points will be awarded under this criteria.

Auditor Competencies and Sign Off

For the purpose of this credit, an auditor is a person appointed under the relevant State Environmental legislation to act as an auditor or environmental auditor or third party reviewer who had the delegated authority to issue audit reports under that particular jurisdiction.

The auditor report forms the main part of the submission for this criterion of the credit. The auditor certificate or statement (as is relevant in the project location) is required to clearly state that significant contamination that was previously found on the site has now been cleaned up to an extent that uses of the land, which were previously precluded by the contamination, are now permitted.

Alternatively project may submit a certificate, report or formal document issue by the relevant State environmental authority indicated that the condition of the land has been remediated such that the previously precluded uses are now permitted.

Occupation Certificate

Occupation Certificate refers to any certification, whether issued by the planning authority or approved independent building surveyor, indicating that the building or buildings are suitable for occupation

Documentation Requirements

'Design Review' Submission (Optional)

Project teams are to submit information/documentation marked with an asterisk* for 'design review'

As Built Submission

All project teams are to submit the following documentation:

Submission Template*

- Date of purchase*
- Description of the site at the time of purchase*
- Confirmation that the site meets the conditional requirements*
- Percentage of the site that was Previously Developed Land at the time of purchase or time of Green Star Registration*
- Description of the contamination found on site*
- Details of the types of development that were precluded from the site due to the contamination*
- Description of the decontamination and how this demonstrates best practice according to "A Framework for Assessing the Sustainability of Soil and Groundwater Remediation"*
- Confirmation that the site has been decontaminated

Project teams are required to provide documentation supporting credit compliance. The following documents may be used to demonstrate compliance:

- **Extracts from the Development Application**
- **Zoning Plans**
- **Wetland Management Plan**
- **CV of ecologist**
- **As Built Drawings** showing the areas that were Previously Developed Land at the time of purchase or Green Star Registration

- **Aerial Photographs** showing the areas that were Previously Developed Land at the time of purchase or Green Star Registration
- **Contamination Report OR Site Assessment**
 - Completed in line with National Environment Protection Measure (NEPM) guidelines;
 - Current at the time of site purchase or otherwise reflective of the site condition at the time of purchase; and
 - Clearly documenting the contamination present on the site and confirming this contamination precludes the development.
- **Certificate from the environmental auditor or relevant authority** confirming that the site has been correctly and appropriately decontaminated in accordance with the relevant state and federal legislation, dated prior to the commencement of the construction phase of the project.

Please provide your feedback to the technical content of this credit: