

## New Zealand Assessment Tools

The following section provides a brief summary of each of the principal tools currently available for the New Zealand market.

<b>Homestar</b>	
<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• Developed by the New Zealand Green Building Council, BRANZ Ltd and Beacon Pathway Ltd.</li> <li>• The objective of the tool is to improve the performance and reduce the environmental impact of new and existing New Zealand homes, making them warm, healthy and comfortable places to live.</li> <li>• Targets residential buildings.</li> <li>• Self assessment or assessment by a credited person for Homestar Certification.</li> <li>• <a href="http://www.homestar.org.nz/">http://www.homestar.org.nz/</a></li> </ul>	<p><b>Method</b></p> <p>Online Tool</p> <ul style="list-style-type: none"> <li>• This free online tool allows homeowners to gain a better understanding of how sustainable their home is in terms of energy, health and comfort, water, waste etc.</li> <li>• Basic information about the house is entered into the online tool.</li> <li>• A report is produced indicating a provisional Homestar rating.</li> <li>• The report includes a list of recommendations on how the sustainability of a home can be improved.</li> </ul> <p>Homecoach assessment</p> <ul style="list-style-type: none"> <li>• A Homecoach uses the online tool to help homeowners better understand what they can do to increase the performance of their home.</li> </ul> <p>Homestar Practitioner</p> <ul style="list-style-type: none"> <li>• A Homestar Practitioner provides professional advice about home design for a new build or major renovation project.</li> </ul> <p>Homestar Certified assessment</p> <ul style="list-style-type: none"> <li>• A Homestar Certified rating is an onsite assessment performed by an independent Homestar Assessor, and confirms how well a home is working against a set of pre-determined benchmarks within the Homestar Tool..</li> </ul>
<b>GreenStar Suite of Tools</b>	
<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• Developed by the New Zealand Green Building Council in partnership with the building industry.</li> <li>• Targets a variety of non-residential buildings</li> <li>• The first tool 'Office Design' being launched in 2007.</li> <li>• Current suite of Tools include:-             <ul style="list-style-type: none"> <li>• Green Star Office 2009</li> <li>• Green Star Office Interiors 2009</li> <li>• Green Star Industrial 2009</li> <li>• Green Star Education</li> </ul> </li> </ul>	<p><b>Methodology</b></p> <p>The tools assess the environmental impact that is a direct consequence of a buildings site selection, design, construction, and maintenance.</p> <p>The framework has eight separate environmental impact categories plus an innovation category as set out below:</p> <ul style="list-style-type: none"> <li>• Management</li> <li>• Indoor Environment Quality</li> <li>• Energy</li> <li>• Transport</li> </ul>

<ul style="list-style-type: none"> <li>• Voluntary tools but are seeing increasing take up by the development industry. High profile developments now seeking to be accredited by the tools</li> <li>• NZGBC update and manage the tool as well as developing new tools. Current work includes developing a performance based tool.</li> <li>• Assessment carried out by credited person</li> <li>• <a href="http://www.nzgbc.org.nz/">http://www.nzgbc.org.nz/</a></li> </ul>	<ul style="list-style-type: none"> <li>• Water</li> <li>• Materials</li> <li>• Land Use &amp; Ecology</li> <li>• Emissions</li> <li>• Innovation</li> </ul> <p>All of the categories contain credits that address initiatives that improve or have the potential to improve a buildings environmental performance. Points are awarded in each credit for actions that demonstrate the building has met the credits criteria.</p> <p>A weighting factor is then applied to each category to reflect the overall importance of the environmental issue addressed by the category. These weightings vary between each Green Star tool to reflect the different environmental impacts of each building type.</p>
--	--

**The Green Home Scheme**

<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• With some funding from the Ministry for the Environment, The Green Home Scheme (GHS) is run by BRANZ Ltd and is based on a UK model called the Eco Home Tool.</li> <li>• The GHS is a voluntary ratings tool which is aligned with various national strategies and higher performance guidelines.</li> <li>• The tool is targeted at residential buildings at the developed design stage or those that just have been recently completed.</li> <li>• Assessment is carried out by independent, accredited (half-day workshop) third-parties.</li> <li>• <a href="http://www.greenhomescheme.org.nz/">http://www.greenhomescheme.org.nz/</a></li> </ul>	<p><b>Method</b></p> <p>The scheme is credits based, with one-step calculations (bar thermal insulation) for each of the criteria grouped under the following categories:</p> <ul style="list-style-type: none"> <li>• Household energy efficiency (e.g. use of heat and efficiency of major appliances)</li> <li>• More sustainable materials (e.g. including recognition of other certification schemes for materials)</li> <li>• Water economy (e.g. whether it collects its own water and how much water it uses)</li> <li>• Site selection (e.g. how easy it is for homeowners to not need to use their cars)</li> <li>• Indoor Air Quality (e.g. if air is pollutant and moisture free)</li> <li>• Fire safety (e.g. whether its code compliant)</li> <li>• Design Excellence (e.g. whether particularly innovative techniques have been used).</li> </ul> <p>Credits awarded for achieving a criteria are then grouped and weighed (to reflect relevant priority of environmental issues) to calculate a building's performance.</p>
--	---

**Green Globe 21: Design and Construct**

<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• Green Globe 21 is a worldwide certification program, Design and Construct is the tool focused on</li> </ul>	<p><b>Methodology</b></p> <p>The scheme assesses issues surrounding:</p> <ul style="list-style-type: none"> <li>• Design approach and</li> </ul>
---	--

<p>assessing tourism related infrastructure (e.g. hotels, youth hostels, villas, information centres etc).</p> <ul style="list-style-type: none"> <li>• The scheme is voluntary and offers participation at three levels: <ul style="list-style-type: none"> <li>• Awareness (affiliate program), focused on educating users and developers on sustainable design</li> <li>• Benchmarking independent of full certification.</li> <li>• Full certification</li> </ul> </li> <li>• Assessment is carried out by independent, accredited third-parties.</li> <li>• <a href="http://greenglobe.com/">http://greenglobe.com/</a></li> </ul>	<p>sustainability policies</p> <ul style="list-style-type: none"> <li>• Siting (e.g. location and suitability of the site)</li> <li>• Conservation of energy</li> <li>• Protection of earth, air and water</li> <li>• Construction processes</li> <li>• Responses to social and contextual issues</li> </ul> <p>Further matters addressed include</p> <ul style="list-style-type: none"> <li>• Whether developers have a written (and adheres to) Sustainable Design and Construction Policy</li> <li>• Compliance with the regulatory framework for design and construction</li> <li>• Comparison against benchmark indicators during both design and construction phases.</li> <li>• Process during design and construction which includes all stakeholders.</li> <li>• Adherence to requirements for community stakeholder consultation and performance reporting.</li> </ul>
---	--

### The Green Office Scheme

#### Background

- The Green Office Scheme (GOS) is run by BRANZ Ltd and is based on a UK model called the UK BREEAM '98 for Offices environmental assessment tool and aspects of US LEED tool.
- The tool is targeted at office buildings at the design stage, those that just have been recently completed, or after a major retrofitting.
- Carried out by trained assessors.
- <http://www.greenoffice.org.nz/>

#### Methodology

- The GOS offers three type of assessments: Design Stage; Existing Buildings (those operating for more than 2 years); and Major Refurbishments.
- The GOS differs in that design stage accreditation is given a provisional certificate, with the opportunity for full certification after two years thereby ensuring actual performance meets up with expected outcomes.
- The scheme is credit based; with credits given according to meeting criteria within itemised issues (the total available issue per issue is dependent on their environmental importance).
- Categories covered are
  - Management
  - Health and Well-being
  - Energy
  - Transport
  - Water consumption
  - Materials
  - Land use
  - Ecology
  - Pollution
  - Design Excellence

<b>Tools for Urban Sustainability Code of Practice</b>	
<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• TUSC (Tools for Urban Sustainability Code of Practice) is a Ministry for the Environment Sustainable Management Fund project developed by Waitakere City Council.</li> <li>• Currently, TUSC has been developed for residential buildings but will eventually cover a range of developments eventually ranging from single buildings through to neighbourhoods and cities.</li> <li>• TUSC is envisioned as both an assessment and planning-based tool, including decision making guides for performance standards, land use (i.e. likely for resource, and subdivision consents), and building planning.</li> <li>• TUSC is a web-based tool; therefore assessment would be carried out by a person wishing to obtain a resource consent.</li> <li>• <a href="http://tusc.synergine.com/">http://tusc.synergine.com/</a></li> </ul>	<p><b>Methodology</b></p> <ul style="list-style-type: none"> <li>• TUSC is a web-based tool accessed via a single website.</li> <li>• TUSC interacts via scalable GIS (Geographic Information Systems i.e. map based presentation of information), with layers to provide site-specific data.</li> <li>• A series of 'wizard' aides, and graphical tools will guide users to design or specify their development plan all the while an iterative score is formed.</li> <li>• TUSC is designed to that as new techniques and research becomes available, they are able to be adapted by the scheme.</li> <li>• TUSC is also designed to be integrated with industry standard software tools such as CAD (Computer Aided Draughting), GIS and other databases</li> </ul>
<b>NZ Settlement Liveability Index</b>	
<p><b>Background</b></p> <ul style="list-style-type: none"> <li>• The NZ Settlement Liveability Index (the Index) is a psychometric survey measuring New Zealander's attitudes towards the way our settlements are affecting our environment.</li> <li>• The Index is targeted at residential buildings.</li> <li>• Assessment is conducted by the Opus Central Laboratories in collaboration with the Landcare research team and the University of Auckland.</li> <li>• <a href="http://www.learningsustainability.org.nz/">http://www.learningsustainability.org.nz/</a></li> </ul>	<p><b>Methodology</b></p> <ul style="list-style-type: none"> <li>• Currently, the scaling of the psychometric survey is being formed.</li> <li>• Overseas examples of 'residential satisfaction' are being investigated.</li> <li>• Further research include qualitative enquiry, domestic migration studies and expatriate perception of New Zealand lifestyles.</li> </ul>