



# **STUDY REPORT**

**SR 271 (2012)**

## **Evaluation of Environmental Choice New Zealand as a Best Practice Ecolabel and Comparison with the GBCA Framework**

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The work reported here was funded by BRANZ from the  
Building Research Levy

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ISSN: 1179-6197

## **Preface**

This is the first of a series of reports prepared in order to better understand the assessment of environmental impacts of construction materials and products in building environmental rating tools in order to inform a Plan to move to a more holistic, robust assessment process that considers materials and products in the context of the building in which they are used.

This report focuses on the current means of assessment of materials and provides recommendations that can be considered for implementation in the short term, which will not require dramatic redefinition of current processes for evaluation of environmental impacts associated with materials and products.

## **Acknowledgments**

This work was funded by the Building Research Levy.

BRANZ would like to thank Robin Taylor of Environmental Choice New Zealand (ECNZ) for time and access to documentation for this review. Rohan Bush of the New Zealand Green Building Council and David Baggs of Global GreenTag Pty Ltd are also thanked for comments received on this report.

## **Note**

This report is intended for the New Zealand Green Building Council and construction product and material manufacturers who want to better understand how environmental performance of materials is currently evaluated in green building rating tools such as Green Star NZ, and how this could be improved in the short term.

# **Evaluation of Environmental Choice New Zealand as a Best Practice Ecolabel and Comparison with the GBCA Framework**

**BRANZ Study Report SR 271**

**David C Dowdell**

## **Reference**

Dowdell D. (2012). Evaluation of Environmental Choice New Zealand as a Best Practice Ecolabel and Comparison with the GBCA Framework; BRANZ Study Report (SR 271), Judgeford

## **Abstract**

This report reviews governance, transparency and standards development at Environmental Choice New Zealand (ECNZ), and assesses how its procedures compare with a best practice framework developed for this work based on international standards and guidance for ecolabels. The report also assesses the equivalency of ECNZ to requirements in the Green Building Council of Australia's Framework for Product Certification Schemes, both of which provide alternative pathways for obtaining credits for materials in the New Zealand Green Building Council's building environmental rating tool Green Star.

The report focuses on potential improvements to the current process that can be considered in the short term, and comprises one of several reports that will set out recommendations for a move to materials and products assessment in the context of the building in which are used.

## EXECUTIVE SUMMARY

Environmental Choice New Zealand (ECNZ) is a Government backed, independent, not-for-profit Type I ecolabel scheme for New Zealand which currently covers about 2,500 products. It is recognised by the New Zealand Green Building Council (NZGBC) in its Green Star NZ building environmental rating tool in parallel with ecolabels assessed onto the Green Building Council of Australia Framework for Product Certification Schemes (GBCA Framework).

NZGBC wants to continually improve the way that materials and products are assessed within Green Star NZ using BRANZ and other research to help inform this process. This report looks at the comparability of ECNZ governance, transparency and standard development procedures with GBCA Framework requirements, and broader requirements based on additional guidance, standards and reports about ecolabel schemes. The findings are used as a basis for assessing whether ECNZ governance, transparency and standard development requirements are based on current standards of best practice and provides recommendations for consideration.

Two ecolabels from the GBCA Framework (Global GreenTag<sup>Cert™</sup> and the Carpet Institute of Australia Limited Environmental Certification Scheme (CIALECS)) have also been selected and mapped to the additional requirements and criteria in the best practice framework, using publicly available information about the schemes.

This tactical research provides an assessment of the options currently available for environmental rating of building materials and products as part of a programme for longer term improvement that considers materials in the context of the buildings in which they are used. The suggested programme will be set out in an Environmental Profiling Plan available for consultation with the construction industry and other interested stakeholders later this year.

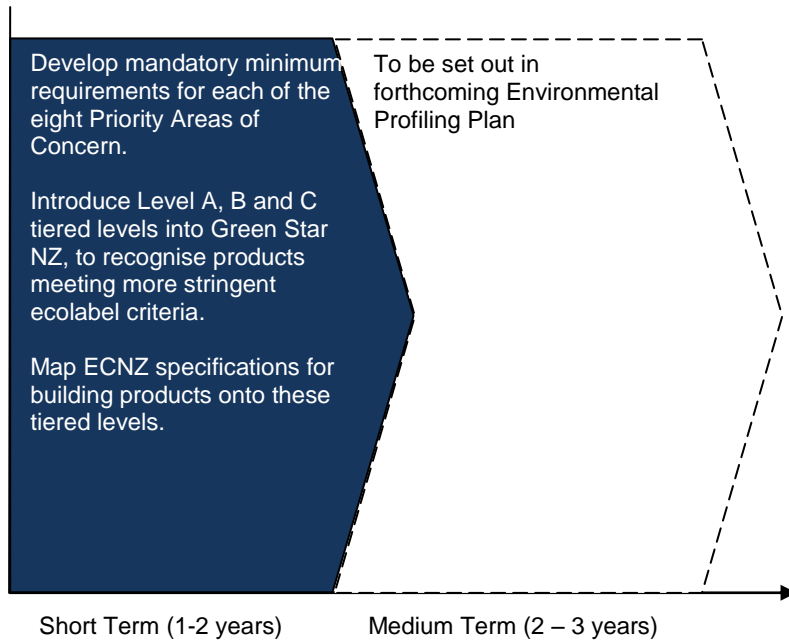
Key findings from this work are as follows:

- From a governance and transparency perspective, ECNZ meets requirements and almost all criteria in the best practice framework developed for this project. Based on this and other assessments (GENICES, 2012; ERM, 2008), the scheme is considered as representing best practice with respect to its governance, transparency and standard setting procedures nationally and internationally.
- Global GreenTag<sup>Cert™</sup> also meets almost all requirements and criteria added to the GBCA Framework to create the best practice framework in this work. This conclusion is based on publically available information about the scheme which has not been independently tested or audited in this work. The CIALECS scheme, which has been solely developed to add to an existing Australian carpet classification scheme, does not meet all additional requirements and criteria developed for this report.
- ECNZ governance, transparency and standard development requirements are considered at least comparable to GBCA Framework requirements. This conclusion is not based on a formal assessment of ECNZ onto the GBCA Framework which would be necessary to confirm this.
- When the current version of Green Star NZ was released, both it and the Australian version of Green Star did not differentiate between levels of performance within ecolabel schemes. Green Star in Australia was subsequently adapted to reflect three levels of compliance for products in ecolabel schemes (Level A, B and C). This means that products achieving a lower level of compliance on the GBCA Framework obtain the same points as products obtaining a higher level of compliance in Green Star NZ. For example, a product rated as Level A on Global GreenTag<sup>Cert™</sup> gets the same points as a product rated as Level C on Global GreenTag<sup>Cert™</sup>. Therefore, Green Star NZ does not

reward products attaining higher levels of environmental achievement. *Consideration should be given to adoption of the Level A, B and C tiered levels used in the GBCA Framework to differentiate levels of environmental achievement attained in ecolabel schemes.* This could be implemented in the short term and would provide an incentive for use of products rated at Level A rather than Level C, for example, as more points would be obtainable by their use within a building.

- Adoption of the above recommendation by NZGBC means that there would need to be a basis by which ECNZ specifications could be reflected on the Level A, B and C tiered levels. ECNZ specifications are developed independently of the GBCA Framework and the ecolabel itself has no tiered levels. Suggested approaches for this are as follows:
  - *Less robust:* Given the high standard of governance, transparency and standard setting procedures found, set ECNZ specifications to Level A and develop an appeal process which investigates particular specifications if reasonable doubt is provided that a Level A rating is not appropriate.
  - *More robust:* Map construction related ECNZ specifications onto the GBCA Framework Priority Areas of Concern (PACs) in order to produce an indicative level for each specification for use in Green Star NZ.
  - *Most robust:* ECNZ could consider GBCA Framework PACs as part of its specification setting procedures going forward, and demonstrate where there is alignment. Formal assessment of ECNZ onto the GBCA Framework would be another option.
- The purpose of this research was not to assess the GBCA Framework itself but it is worth noting that there are no mandatory minimum requirements in the GBCA Framework PACs except in two cases – carcinogens in PAC 2 Toxicity and legal compliance in PAC 5 Social and Environmental Compliance. This means that ecolabels assessed against the GBCA Framework do not need to address all PACs or all criteria within PACs (apart from the two mandatory requirements) to achieve the highest level of recognition (Level A) within the Framework. For example, both Global GreenTag<sup>Cert™</sup> and CIALECS offer pathways for Level A compliance that do not require compliance with PAC 1 and PAC 4 on product carbon and water footprinting respectively (both of which might be considered to be aspirational by some companies). *It is recommended that the PACs in the GBCA Framework are reviewed with the aim of setting mandatory minimum requirements for each (assessed on a Pass/Fail basis). In addition, achievement of selected more aspirational goals (such as a publicly reported product water footprint in PAC 4) in each of the PACs could attract points to determine the tier level achieved in the GBCA Framework, as in the current system.*
- Whilst the PACs in the GBCA Framework have been developed for Australia, they represent environmental issues that have relevance to New Zealand in general. Not all PACs may be relevant or significant for specific products on ecolabel schemes. The GBCA Framework is therefore flexible, so that weightings applied to PACs can be varied to reflect the emphasis placed on different environmental issues within ecolabel schemes. This flexibility means that when applied to New Zealand, issues such as water may be given a low weighting (on the basis that water scarcity is less of an issue in New Zealand compared to Australia).
- PACs addressed by ECNZ specifications include criteria relevant to PACs in the GBCA Framework but do not match specific requirements, since ECNZ specifications are developed independently of the GBCA Framework and for specific products. Both Global GreenTag<sup>Cert™</sup> and CIALECS have been developed to align with and demonstrate product compliance with the GBCA Framework and therefore largely base their requirements on this.

- The recommendations in this report (illustrated below) represent suggested improvements in the short term that could be considered within the existing approach to materials in Green Star, thereby not requiring significant changes to current procedures.



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# 1. INTRODUCTION

Environmental Choice New Zealand (ECNZ) is a Government backed, independent, not-for-profit Type I ecolabel scheme for New Zealand. The programme, which labelled its first product in 1993, operates independently from the New Zealand Government but is Government owned and endorsed. Its objectives, taken from the Environmental Choice website ([www.enviro-choice.org.nz/about\\_ecnz/](http://www.enviro-choice.org.nz/about_ecnz/)), are as follows:

- Improve the quality of the environment by encouraging more sustainable processes through e.g. the design, production, marketing, and use of products which have a reduced environment impact during their entire life cycle.
- Offer a credible national and/or regional (e.g. Australasian) programme for environmental labelling;
- Work towards compliance with recognised international programmes and principles;
- Foster and develop international relationships with relevant recognised international networks and other ecolabelling programmes/initiatives;
- Establish mutual recognition agreements with other similar programmes and work towards the harmonisation of national and/or international product specifications;
- Provide a clear, credible and independent guide to help consumers (including business consumers) identify products and services that are less harmful to the environment;
- Provide a market incentive to manufacturers, suppliers and retailers of environmentally preferable products and services;
- Encourage manufacturers, suppliers and retailers to develop products and processes that are in compliance with published product specifications;
- Promote responsible procurement policies by central and local government, other organisations and business;
- Establish and maintain strategic relationships with government, business and non government organisations which have common environmental and product performance interests.

Sixty six (construction and other sector) companies, with a further 40 in process, currently participate in the scheme covering over 2,500 products (NZET; 2012a). For the construction sector, there are currently twelve published specifications for products currently listed on the website include carpets (wool, wool rich and synthetic), paints, gypsum plasterboard, insulation material, floor coverings, furniture and fittings and long steel products, the scheme covers a much wider range of products.

Until 2009, ECNZ was the only third party verification scheme or ecolabel recognised in Green Star NZ. In 2009, other international ecolabels based on a Green Building Council of Australia (GBCA) Framework for Product Certification Schemes (“the GBCA Framework”) were also recognised. The GBCA Framework was established to define best practice criteria and benchmarks for Australia, against which applying product verification schemes seeking recognition within Green Star could be assessed.

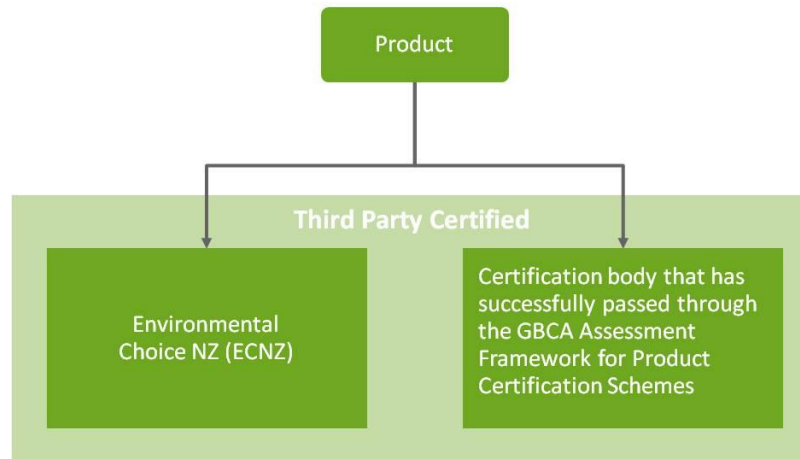
## 1.1 About the GBCA Framework

The GBCA Framework (GBCA; 2009a; 2009b; 2009c; 2009d) is divided into two parts:

- Part I covers scheme level requirements under the headings (A) Governance & Transparency and (B) Standard Development. In total, there are 14 criteria under Part I.

- Part II sets out eight Priority Areas of Concern (PACs) covering key environmental issues.

As Figure 1 (taken from [www.nzgbc.org.nz](http://www.nzgbc.org.nz) under Rating Tools/Products and Materials) illustrates, ECNZ is also recognised under the New Zealand Green Building Council (NZGBC) scheme in addition to the ecolabels in the GBCA Framework, providing an alternative pathway to recognition in Green Star NZ.



**Figure 1. Alternative Ecolabel Pathways for Materials recognition in Green Star NZ.**

## 2. OBJECTIVES

NZGBC wants to continually improve the way that materials and products are assessed within Green Star NZ using BRANZ and other research to help inform this process.

This tactical research provides an assessment of the options currently available for environmental rating of building materials and products as part of a programme for longer term improvement that considers materials in the context of the buildings in which they are used. The suggested programme will be set out in an Environmental Profiling Plan available for consultation with the construction industry and other interested stakeholders later this year.

The defined objectives for this research are as follows:

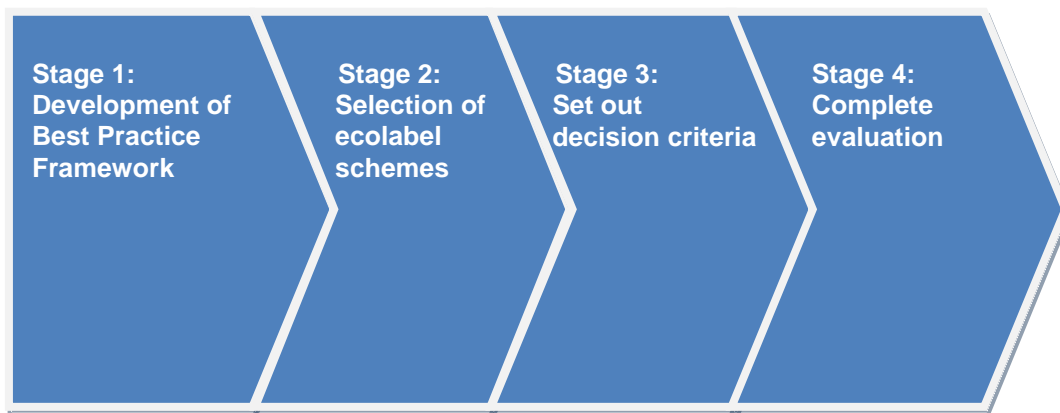
- Use the GBCA Framework and other guidance and reports to develop a best practice framework for evaluation of procedures and processes at the organisational level (Part I in the GBCA Framework).
- Independently evaluate ECNZ (and compare with two other selected best practice ecolabel schemes assessed onto the GBCA Framework) against requirements and criteria in this framework.
- Compare an ECNZ specification (synthetic carpets (NZET; 2012b)) to the PACs in Part II of the GBCA Framework.
- Report on the findings.

This research does not cover the following:

- Formally assess ECNZ onto the GBCA Framework.
- Audit the assessment processes and operations required for ecolabels to be recognised on the GBCA Framework.
- Reproduce the assessment process that has been carried out that has resulted in recognition of ecolabels on the GBCA Framework.

### **3. METHODOLOGY FOR ASSESSMENT OF ECOLABEL SCHEMES**

The methodology used can be broken down into four stages summarised in Figure 2.



**Figure 2. Summary of the Methodology used in this Project**

#### **3.1 Stage 1: Development of a Best Practice Framework**

A best practice framework for evaluating ecolabel schemes was developed in this project.

The GBCA Framework (GBCA; 2009a, b, c, d), which itself draws on several cited standards and codes of practice (ISEAL; 2006; ISO, 2008), has provided the basis for structure and content of the framework in this report. The GBCA Framework operates at two levels – Part I operates at the ecolabel organisation level covering (A) Governance & Transparency and (B) Standard Development whilst Part II operates at the product/material specification level.

Table 1 summarises the evaluation categories at the scheme level (Part I).

**Table 1. Summary of Part I Evaluation Categories under the GBCA Framework**

<b>GBCA Part I Framework Heading</b>	<b>Evaluation Category Headings</b>
Part IA: Governance & Transparency (scheme level)	Independent Assessment Environmental Claims Transparent Methodology Conflict Resolution
Part IB: Standard Development (scheme level)	LCA-based Stakeholder Representation Decision Making Public Comment Stated Objectives Criteria Representative of Best Practice Publicly Available Procedures Harmonisation

By reviewing other guidance and reports (for example ERM; 2008, ISO; 1999, GEN), additional criteria and/or requirements have been added to develop the best practice framework used as the basis for this report. Additional criteria added to GBCA Part I headings are summarised in Table 2 together with a brief definition. Addition of these criteria recognises that the best practice framework provides broader objectives not necessarily emphasised in the GBCA Framework.

**Table 2. Summary of Additional Criteria in the Best Practice Framework**

<b>GBCA Part I Framework Heading</b>	<b>Evaluation Category Headings</b>	<b>Definition</b>
Part IA: Governance & Transparency	Robustness of Evidence Base	Requirements for compliance, testing and measurement.
	ISO 14024 Compliance	Independent assessment of conformance with ISO 14024.
	Accessibility	Access for all.
	Avoidance of Conflict of Interest	Transparency & procedures to avoid undue influence.
	Mutual Recognition	Facility to accept equivalent ecolabel schemes.
	Quality Management	Documented quality management system.
Part IB: Standard Development	Review and Update <sup>1</sup>	Processes for regular review in place.

Requirements under Part I criteria are summarised in Appendix A.

<sup>1</sup> Covered in the GBCA Framework under “Publicly Available” but separated out for this work to provide greater emphasis.

Part II of the GBCA Framework additionally sets out eight PACs which address the specification level, summarised in Table 3. The GBCA developed these based on best practice environmental, social and human health impact criteria following a detailed review of standard-setting methods, international best practice environmental and human health impact assessment criteria, as well as information from national and international ecolabelling programs (GBCA; 2009a). Criteria were also refined by engaging an Expert Reference Panel.

**Table 3. Summary of Part II PACs as defined in the GBCA Framework**

GBCA Part II Framework Heading	Criteria Headings
Part II: Priority Areas of Concern (specification level)	PAC 1: Greenhouse Gases PAC 2: Toxicity PAC 3: Material Extraction PAC 4: Water PAC 5: Social and Environmental Compliance PAC 6: Durability PAC 7: End of Life PAC 8: Product Emissions

ECNZ has undertaken a comparison with other ecolabels for selected specifications, available on the ECNZ website ([www.envirochoice.org.nz/specifications/international\\_comparison/](http://www.envirochoice.org.nz/specifications/international_comparison/)). These comparisons include specifications for products used in buildings including synthetic carpets (NZET; 2012b).

Specification level requirements may vary across different ecolabel schemes according to specific requirements or infrastructure in the country or region covered by the ecolabel. Examples include levels of legal discharge consent limits and availability of take back schemes.

For this project, ECNZ's synthetic carpet specification (NZET, 2012b) is compared with Part II requirements in the GBCA Framework. Since ECNZ specifications are developed independently of the GBCA Framework, findings based on this specification are assumed to be representative of other ECNZ specifications in terms of structure, content and detail. This is a limitation of the specification level evaluation.

### **3.2 Stage 2: Selection of Ecolabel Schemes**

In addition to ECNZ, two ecolabel schemes (with specifications/standards covering carpets) assessed onto the GBCA Framework were selected for comparison. These were as follows:

- Global GreenTag<sup>Cert™</sup> ([www.globalgreentag.com](http://www.globalgreentag.com)), and;
- Carpet Institute of Australia Limited Environmental Certification Scheme (CIALECS) ([www.carpetinstitute.com.au/environment/index.htm](http://www.carpetinstitute.com.au/environment/index.htm)).

Both schemes largely base environmental criteria on the PACs in the GBCA Framework.

### **3.2.1 Global GreenTag<sup>CertTM</sup>**

Global GreenTag<sup>CertTM</sup> is a voluntary green building product rating scheme operated by Global GreenTag Pty Ltd, operating under licence to ecospecifier Global, a wholly owned private sector company. Global GreenTag Pty Ltd has a full list of products certified under the scheme on its website, as well as certification levels achieved, expiry dates and links to full product reports on [www.ecospecifier.com.au](http://www.ecospecifier.com.au). The scope of the scheme covers building products.

Global GreenTag<sup>CertTM</sup> has been specifically developed to comply with the GBCA Framework and is one of a number of products and services provided to support the global green building industry (ecospecifier Global; 2010), by:

- Evaluating products against compliance criteria for other rating tools such as LEED in the USA and BREEAM in the UK.
- Evaluating products using a full life cycle assessment (LCA) approach, under a parallel scheme called LCARate.

Version 3.1 of the Green Tag standard (with supplementary standards including one for carpets and floor coverings) is freely available on completion of a standard licence agreement. There is currently a version 3.2 of the standard which is currently out for consultation.

Information and assessment undertaken in this report is based on version 3.1 of the standard.

### **3.2.2 CIALECS**

The Australian Carpet Classification Scheme (ACCS) is a voluntary industry labelling and grading scheme for textile floor coverings manufactured in Australia or imported for use within Australia. Under the Scheme, textile floor coverings are classified by an independent panel of experts. In addition to this, there is an environmental certification scheme which is an extension of the ACCS and consists of four levels of certification from ECS Level 1 to 4 (CIAL; 2010). ECS Levels 2 to 4 have been developed to align with the GBCA Framework as shown in Table 4.

The scheme is administered by the Carpet Institute of Australia Limited (CIAL) which represents manufacturers producing 95% of Australian carpet production. The scope of the scheme covers carpets only.

## **3.3 Stage 3: Set out Decision Criteria**

This study compares ECNZ to all criteria and requirements in the best practice framework developed for this report. Any differences between requirements and reviewed procedures at ECNZ are summarised in Appendix B and D under “Assessment Reasoning”.

When assessing ECNZ in comparison with GBCA Framework requirements specifically, the study employs an approach as outlined by the GBCA Framework. This states that ecolabel schemes must meet all Part I requirements for (A) Governance & Transparency and (B) Standard Development. Therefore, in making conclusions about ECNZ and its equivalency to GBCA Framework requirements, the assessment is based on compliance with all Part I GBCA Framework requirements.

In order to assess the ECNZ synthetic carpet specification against Part II of the GBCA Framework, this study uses an approach which is consistent.

Part II of the GBCA Framework is assessed on a points basis. The Framework allows three levels of attainment (Level A, B and C) based on the accumulated points (out of 100) received for compliance with Part II requirements as follows:

- Level A: 65 points out of 100.
- Level B: 45 points out of 100.
- Level C: 35 points out of 100.

Points are assigned across the eight PACs. A degree of flexibility is allowed for the weighting applied to each PAC to reflect different emphases placed on environmental issues by alternative schemes. Two PACs have fixed weightings which cannot be altered PAC 7 End of Life (fixed at 20 points) and PAC 8 Product Emissions (fixed at 8 points).

Two requirements are mandatory. These relate to carcinogens in PAC 2 Toxicity and legal compliance in PAC 5 Social and Environmental Compliance (Appendix C).

Global GreenTag<sup>Cert™</sup> and CIALECS have both been formally assessed by the GBCA against the GBCA Framework and both schemes have been found to be compliant. This means that both schemes have met all Part I criteria and the tiered structure employed in both schemes is mapped to the Levels A, B and C in the GBCA Framework, as summarised in Table 4.

**Table 4. Summary of how Global GreenTag<sup>Cert™</sup> and CIALECS are mapped onto the GBCA Framework**

GBCA Framework		Global GreenTag <sup>Cert™</sup>		CIALECS	
Level	Min. Points	Level	Requirement	Level	Requirement <sup>2</sup>
A	65/100	A	Requires PAC 2, 5, 6, 7, 8 as a minimum + 28 options	4	Requires PAC 2, 6, 8, 3, 7 (Path A) OR PAC 2, 6, 8, 3, 1, 4, 5 (Path B)
B	45/100	B	Requires PAC 2, 5, 6, 7, 8 as a minimum + 8 options	3	Requires PAC 2, 6, 8, 3
C	35/100	C	Requires PAC 2, 5, 6 as a minimum + 8 options	2	Requires PAC 2, 6, 8

Table 4 illustrates that schemes do not need to require a minimum level of achievement in all PACs and in effect, those PACs which are not needed to achieve the 65 points are weighted as zero. For example, in the CIALECS scheme in Table 4, a carpet product can achieve Level 4 (the equivalent of Level A under the GBCA Framework) without requirements under PAC 1 (greenhouse gases) and PAC 4 (water) under Path A of the scheme options.

Whilst the A to C levels are used in the Australian version of Green Star to differentiate levels of environmental performance, they are not currently used in Green Star NZ. At the time the latest version of Green Star NZ was released, both it and the Australian version of Green Star did not differentiate between levels of performance within ecolabel schemes. Green Star in Australia was subsequently adapted to reflect three levels of compliance for products in ecolabel schemes (Level A, B and C). Instead, Green Star NZ assigns 100% of

<sup>2</sup> A mandatory requirement of the scheme is that manufacturers must sign and be bound by the provisions of the ACCS Code of Practice for Environmental Management (ACCS; Version 1.1). The Code of Practice sets out a list of requirements including meeting all regulatory environment, health and safety needs. This covers the PAC 5 mandatory element on legal compliance.

available points to an ecolabel scheme in the GBCA Framework whether it achieves an A, B or C level. This difference of approach is summarised in Table 5.

**Table 5. Proportion of Materials Points Available in Green Star according to GBCA Framework Level**

GBCA Framework Level	% of maximum Materials points	
	Green Star (Australia)	Green Star (NZ)
A	100	100
B	65	
C	45	

Therefore, to achieve the same number of points in Green Star NZ, ECNZ can be considered to be at least equivalent to ecolabel schemes on the GBCA Framework if it meets the Part I requirements set out in the best practice framework developed for this work (plus mandatory elements of Part II), and achieves at least 35 points for PAC requirements.

Whilst this work estimates the points ECNZ might receive (based on the synthetic carpet standard only) and where this would place ECNZ on the Level A, B or C scale used by the GBCA, *the evaluation undertaken in this work should not be considered to be a formal assessment onto the GBCA Framework.*

### 3.4 Stage 4: Evaluation

Evaluation criteria and the assessment are as follows:

- Appendix A sets out the best practice framework and reference sources on which Part I requirements and criteria are based. Additional requirements and criteria are provided in green text in Appendix A, so they can be easily separated from the GBCA Framework. Requirements and criteria for Governance & Transparency are in Table A1 and for Standard Development in Table A2.
- Similarly, Appendix C sets out the compliance criteria and additional guidance for Part II requirements based on the GBCA Framework. This has not been edited.
- Appendix B (for Part I requirements in Appendix A) and Appendix D (for Part II requirements in Appendix C) set out the results of the evaluation.

Since ECNZ has not been formally assessed for compliance against the GBCA Framework, it is reviewed against all requirements and criteria set out in the best practice framework.

As Global GreenTag<sup>Cert™</sup> and the CIALECS schemes have already been assessed onto the GBCA Framework, they are only evaluated against additional requirements and criteria in the best practice framework. Text is coloured in green to reflect this. It should also be noted that the assessment is based on documented information about both schemes. No attempt has been made to separately audit this.

The ECNZ evaluation against Part II criteria has been undertaken for its EC-33 synthetic carpets standard only (NZET; 2012b), available on the ECNZ website ([www.environmentalchoice.org.nz/specifications/published\\_specifications/index.htm](http://www.environmentalchoice.org.nz/specifications/published_specifications/index.htm)).

The ECNZ evaluation in Appendices B and D uses the follow colour coding to summarise compatibility between ECNZ and best practice framework requirements:



ECNZ excludes criteria

ECNZ includes the same criteria but has different compliance requirements

ECNZ includes the same criteria and meets or exceeds compliance requirements

Comments received from ECNZ to this report are reproduced in Appendix E.

Global GreenTag<sup>Cert™</sup> and CIALECS, which are only assessed against additional requirements and criteria in the best practice framework, are not colour coded.

## 4. SUMMARY OF FINDINGS

The analysis carried out in Appendix B and D provides the following conclusions based on the research carried out for this report. Specific recommendations are provided in *italics*. Findings are provided under the following headings:

- The GBCA Framework.
- NZGBC & Green Star NZ.
- Ecolabel Scheme Assessment.

### 4.1 The GBCA Framework

- The purpose of this research was not to assess the GBCA Framework itself but it is worth noting that there are no mandatory minimum requirements for each of the PACs except in two cases – carcinogens in PAC 2 Toxicity and legal compliance in PAC 5 Social and Environmental Compliance. This means that ecolabels assessed against the GBCA Framework do not need to address all PACs or all criteria within PACs (apart from the two mandatory requirements) to achieve the highest level of recognition (Level A) within the Framework. For example, both Global GreenTag<sup>Cert™</sup> and CIALECS offer pathways for Level A compliance that do not require compliance with PAC 1 and PAC 4 on product carbon and water footprinting respectively (both of which might be considered to be aspirational by some companies). *It is recommended that the PACs in the GBCA Framework are reviewed with the aim of setting mandatory minimum requirements for each (assessed on a Pass/Fail basis). In addition, achievement of selected more aspirational goals (such as a publicly reported product water footprint<sup>3</sup> in PAC 4) in each of the PACs could attract points to determine the tier level achieved in the GBCA Framework, as in the current system.*
- Whilst the PACs in the GBCA Framework have been developed for Australia, they represent environmental issues that have relevance to New Zealand in general. Not all PACs may be relevant or significant for specific products on ecolabel schemes. The GBCA Framework is flexible, so that weightings applied to PACs can be varied to reflect the emphasis placed on different environmental issues within ecolabel schemes. This flexibility means that when applied to New Zealand, issues such as water may be given a low weighting (on the basis that water scarcity is less of an issue in New Zealand compared to Australia).

### 4.2 NZGBC & Green Star NZ

- Green Star NZ does not currently adopt the tiered levels in the Australian version (Level A, B and C) used to reflect levels of compliance within ecolabel schemes. This means that products achieving a lower level of compliance on the GBCA Framework obtain the same points as products obtaining a higher level of compliance. For example, a product rated as Level A on Global GreenTag<sup>Cert™</sup> gets the same points as a product rated as Level C on Global GreenTag<sup>Cert™</sup> in Green Star NZ. Therefore, Green Star NZ does not reward products attaining higher levels of environmental achievement. *Consideration should be given to adoption of the Level A, B and C tiered levels used in the GBCA*

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<sup>3</sup> The GBCA acknowledges the aspirational nature of this goal and recognises that specific water footprint standards are yet to reach international acceptance (GBCA; 2009a). An international water footprint standard is currently in development (ISO; 2012).

Framework to differentiate levels of environmental achievement attained in ecolabel schemes and illustrated in Figure 3. This could be implemented in the short term and would incentivise greater use of products rated at Level A rather than Level C, for example, as more points would be obtainable by their use within a building.

NOW		% of maximum Materials	
GBCA Framework Level	Green Star (Australia)	Green Star (NZ)	
A	100	100	
B	65		
C	45		

↓

SHORT TERM		% of maximum Materials	
GBCA Framework Level	Green Star (Australia)	Green Star (NZ)	
A	100	100	
B	65	65	
C	45	45	

**Figure 3. Recommendation for a shift to recognition of tier levels within Ecolabel Schemes in Green Star NZ to align with Green Star Australia.**

- It is likely that the ECNZ specification for synthetic carpets would obtain 65 or more points which is equivalent to a Level A rating on the GBCA Framework. This is based on a mapping exercise to the Framework rather than a detailed assessment (which would be necessary to confirm this). Another report (ERM, 2008) selected ECNZ's Furniture and Fittings specification as an example of best practice globally, providing an indication that this too should obtain a Level A rating under the GBCA Framework. Adoption of the recommendation above by NZGBC means that there would need to be a basis by which ECNZ specifications could be reflected on the Level A, B and C tiered levels in the GBCA Framework, since each ECNZ specification is developed independently. Suggested approaches are as follows:
  - **Less robust:** Given the high standard of governance, transparency and standard setting procedures found, set ECNZ specifications to Level A and develop an appeal process which investigates particular specifications if reasonable doubt is provided that a Level A rating is not appropriate.
  - **More robust:** Map construction related ECNZ specifications onto the GBCA Framework PACs in order to produce an indicative level for each specification for use in Green Star NZ.
  - **Most robust:** ECNZ could consider GBCA Framework PACs as part of its specification setting procedures going forward, and demonstrate where there is alignment. Formal assessment of ECNZ onto the GBCA Framework would be another option.

### 4.3 Ecolabel Scheme Assessment

- From a governance and transparency perspective, ECNZ meets requirements and almost all criteria as part of the best practice framework developed for this work. This finding, together with results of other reviews (GENICES, 2012; ERM, 2008) provides a

further indication that ECNZ is considered as representing best practice with respect to its governance, transparency and standard setting procedures.

- Based on the documented information provided by ecospecifier, which has not been independently tested or audited as part of this work, the Global GreenTag<sup>Cert™</sup> scheme also meets almost all the additional requirements and criteria developed for the best practice framework. Some information was not obtained during the timeframe of this project and therefore some criteria could not be reviewed. The CIALECS scheme, which has been solely developed to add to an existing Australian carpet classification scheme, does not meet all additional requirements and criteria developed for this report.
- ECNZ governance, transparency and standard development requirements are considered at least comparable to GBCA Framework requirements. This conclusion is not based on a formal assessment of ECNZ onto the GBCA Framework which would be necessary to confirm this.
- Both Global GreenTag<sup>Cert™</sup> and CIALECS have been developed to align with and demonstrate product compliance with the GBCA Framework and therefore largely base their requirements for environmental achievement of products on this. Environmental issues and levels of achievement required in ECNZ specifications vary according to the specification because each is developed individually for the product under consideration. Criteria included in the ECNZ synthetic carpet specification are relevant to PACs in the GBCA Framework but do not match specific requirements since ECNZ specifications are developed independently of the GBCA Framework. Examples of differences are illustrated in Table 6.

**Table 6. Examples of Product Level Differences between the GBCA Framework and ECNZ**

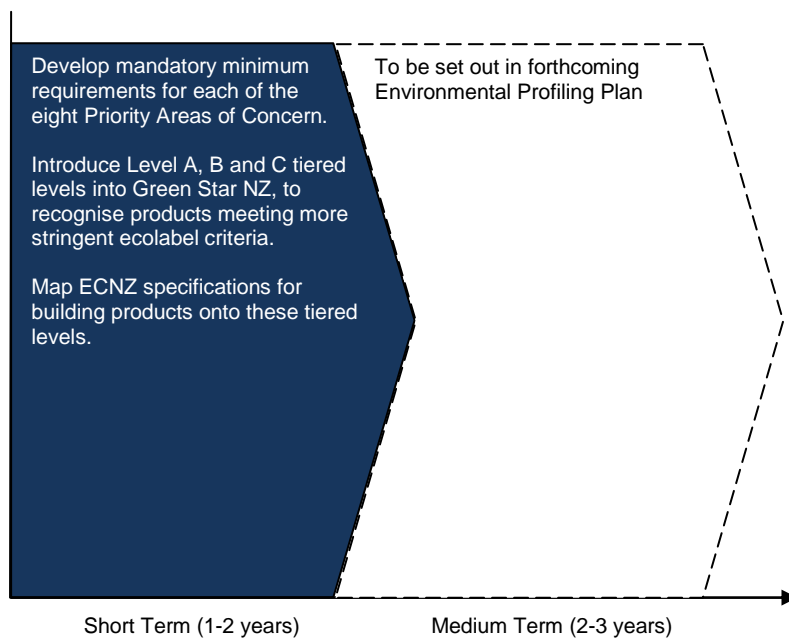
	GBCA Framework Criteria	ECNZ Criteria	Key Differences
PAC 1: Greenhouse Gases	Requires public reporting of a comprehensive product life cycle greenhouse gas footprint based on a functional unit.	Licence holder required to report annually on energy management including initiatives taken to calculate and reduce carbon dioxide emissions.	<ul style="list-style-type: none"> <li>• GBCA requires calculation of a carbon footprint taking into account the supply chain, whilst ECNZ concentrates on site only emissions.</li> <li>• GBCA requires compliance with relevant ISO standards, ECNZ does not cover this.</li> <li>• GBCA requires public reporting, ECNZ does not.</li> </ul>
PAC 4: Water	Requires calculation of a product water footprint, independently assessed for compliance with ISO standards.	Requires site based processes to minimise water use in dyeing processes and monitoring and checking.	<ul style="list-style-type: none"> <li>• Calculation of the water footprint required by the GBCA considers the whole supply chain, whilst ECNZ concentrates on site only water use.</li> <li>• GBCA requires independent assessment to international standards, ECNZ does not.</li> </ul>

- With greater availability of robust data on the environmental impacts of New Zealand products (derived from Life Cycle Assessment) in the future, ECNZ may want to consider utilising these data in its specification development processes. This would help set quantitative industry benchmarks and more closely align ECNZ with requirements in the GBCA PACs, notably PAC 1 for greenhouse gases which requires a publicly reported product carbon footprint and PAC 4 for water which requires a publicly available product water footprint, based on international standards.

#### 4.4 Summary of Recommendations

The recommendations in this report (illustrated in Figure 4) represent suggested improvements in the short term that could be considered within the existing approach to materials in Green Star, thereby not requiring significant changes to current procedures.

There is an opportunity to develop quantitative assessment of materials in the context of the building in which they are used, which will form the basis of an Environmental Profiling Plan being developed by BRANZ as part of ongoing further research, and due for consultation with the industry later this year.



**Figure 4. Summary of Recommendations**

## 5. REFERENCES

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- ISO; *ISO 14044 – Environmental Management – Life Cycle Assessment – Requirements and Guidelines*; 2006c

ISO; *ISO and Social Responsibility*; [http://www.iso.org/iso/socialresponsibility\\_2006-en.pdf](http://www.iso.org/iso/socialresponsibility_2006-en.pdf); accessed 2008.

ISO; *ISO / CD 14046 - Water Footprint – Requirements and Guidelines*; ISO TC207 SC5; 2012

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ISO; *Thermal Insulation – Determination of Steady State Thermal Resistance and Related Properties – Guarded Hot Plate Apparatus*; 1991

NZET (New Zealand Ecolabelling Trust); *GENICES Submission*; January 2012a

NZET; *Licence Criteria for Synthetic Carpets (EC-33-12)*; March 2012b

NZET; *Licence Criteria for Long Steel Products for Construction (EC-41-09)*; October 2008

SAI (Social Accountability International); *Social Accountability 8000*; 2008

## APPENDIX A BEST PRACTICE FRAMEWORK FOR ECOLABEL COMPARISON AT THE SCHEME/ORGANISATION LEVEL (BASED ON PART I IN THE GBCA FRAMEWORK)

This section summarises the best practice framework criteria and requirements developed for this project. It is divided into two sections – **Governance & Transparency** and **Standard Development** – based on the structure used in the GBCA Framework (Part I). The best practice framework below is based on review and input from the following:

- GBCA; *Part I – Criteria for Evaluating Product Certification Schemes V3* (GBCA; 2009a).
- ISO; *ISO 14024 – Environmental Labels and Declarations – Type I Environmental Labelling – Principles and Procedures*; 1999.
- Global Ecolabelling Network (GEN); *A Member’s Guide to the Global Ecolabelling Network’s Internationally Coordinated Ecolabelling System – GENICES*. Taken from <http://www.globalecolabelling.net/docs/genices/genices.pdf>.
- ERM’s report entitled *Mapping and Analysis of Sustainable Product Standards* (ERM; 2008).

Wording and structure in the GBCA Framework is used as the basis for criteria development. Further criteria added from other references in the framework below are coloured in green text.

**Table A1. Best Practice Framework – Criteria used to assess selected Ecolabels for Governance & Transparency**

<b>GOVERNANCE &amp; TRANSPARENCY</b>	<b>Assessment Criteria</b>	<b>Reference</b>
Independent Assessment	<ul style="list-style-type: none"> <li>• Products or materials shall be assessed by a party independent of the scheme.</li> <li>• The scheme shall ensure certification decisions are free of conflicts of interest from parties with vested interests.</li> <li>• Assessments shall be performed by accredited auditors registered by RABQSA (in Australia) or other national or international auditor accreditation systems.</li> <li>• All elements of product environmental criteria and product function characteristics of the labelling programme shall be verifiable, making use of ISO/IEC standards, other internationally recognised standards, regional/national standards, other repeatable/reproducible methods following accepted principles of good laboratory practice and manufacturer’s evidence (ISO; 1999 Section 5.10)</li> <li>• Procedures in place for checking auditor qualifications, selection of audit team and monitoring audit team performance (GEN, Schedule A2, 4.7, 4.8)</li> </ul> <p>Additional Guidance: In accordance with ISO Guide 65 (which is the basis for awarding deemed-to-satisfy compliance with Part-I of the</p>	GBCA; 2009a, ISO 1999, GEN



GOVERNANCE & TRANSPARENCY	Assessment Criteria	Reference
	<p>Framework), a Certification Body (CB) may have the evaluator activity under their control (e.g. via employment or service contract with the evaluator) as long as the evaluation and the final decision to award the certification are independent from one another. However, the certification decision must remain with the CB and not the evaluator.</p> <p>Examples of Auditor Accreditation Systems include:</p> <ul style="list-style-type: none"> <li>• RABQSA, <a href="http://www.rabqsa.com/">http://www.rabqsa.com/</a></li> <li>• IRCA, <a href="http://www.irca.org">www.irca.org</a></li> <li>• IPCA, <a href="http://www.ipcaweb.org/">http://www.ipcaweb.org/</a></li> <li>• JAB, <a href="http://www.jab.or.jp/english/index.html">http://www.jab.or.jp/english/index.html</a></li> </ul>	
Environmental Claims	<ul style="list-style-type: none"> <li>• Claims made by the scheme on behalf of a certified product or its manufacturer or supplier shall be compliant with ISO 14021 'Environmental Labels and Declarations – Self-Declared Environmental Claims' (Type II Environmental Labelling) requirements, OR the Global Reporting Initiative's 'Sustainability Reporting Guidelines'.</li> <li>• Scheme requires licensees to inform the ecolabelling body of any change that might affect its continued compliance with the requirements (ISO; 1999 Section 7.5)</li> <li>• Provide information on the meaning of the label on request (GEN, Section 7) and guidance for the use of the logo (GEN, Schedule A2, 4.3).</li> </ul> <p>Additional Guidance:</p> <p>The ISO 14000 series is a series of international standards and guides concerning environmental management. Among other matters, the ISO 14000 series provides guidelines for making balanced environmental claims.</p>	GBCA; 2009a, ISO; 1999, GEN
Transparent Methodology	<ul style="list-style-type: none"> <li>• Schemes shall provide a publicly available and transparent methodology for the assessment of products or materials with a clear pass/fail, or tiered structure (e.g. Level 1, Level 2, Level 3) for the award of certification.</li> <li>• Controls in place to protect confidential information provided by licence applicants during the assessment process (GEN, Schedule A2, 10).</li> <li>• Information available to interested parties for inspection including selection of product categories, selection and development of product environmental claims, product function characteristics, testing and verification methods, certification and award procedures (ISO; 1999 Section 5.11; GEN, Schedule A2, 5)</li> </ul>	GBCA; 2009a, ISO; 1999, GEN
Conflict Resolution	<p>The applicant scheme shall have a conflict resolution process in place with procedures to manage disputes regarding compliance between an applicant and the auditing body. Procedures shall be publicly available and ensure that the conflict resolution process:</p> <ul style="list-style-type: none"> <li>• Is independent and free from conflicts of interest;</li> </ul>	GBCA; 2009a, GEN (Section 4.3)

<b>GOVERNANCE &amp; TRANSPARENCY</b>	<b>Assessment Criteria</b>	<b>Reference</b>
	<ul style="list-style-type: none"> <li>• Is completed in a timely manner;</li> <li>• Provides an opportunity for appeal by the aggrieved party; and</li> <li>• Includes a provision to make public the outcome of the grievance resolution process.</li> </ul> <p>Additional Guidance: Refer to Section 2.2 [of GBCA; 2009a] for information on deemed-to-satisfy options available for this criterion.</p>	
Robustness of Evidence Base	<ul style="list-style-type: none"> <li>• Requires applicants to declare compliance and provide a relevant testing or measurement report, meeting applicable standards or guidelines (GEN, Schedule A2, 4.9, 4.10, 4.13).</li> </ul>	GEN
ISO 14024 Compliance	<ul style="list-style-type: none"> <li>• The scheme can demonstrate conformance with ISO 14024 (GEN, Schedule A2, 7).</li> <li>• The findings of the audit are publicly available (GEN, Annex 2, 3<sup>rd</sup> and last paragraphs).</li> </ul>	GEN
Accessibility	<ul style="list-style-type: none"> <li>• The programme is open to any applicant who wishes to apply for a licence including large and small manufacturers or service providers (GEN, Schedule A2, 6).</li> <li>• The programme is voluntary (ISO; 1999 Section 5.1).</li> <li>• No differences between foreign and domestic applicants leading to unnecessary obstacles to international trade (ISO; 1999 Section 5.12, 5.13; GEN, Schedule A2, 12).</li> </ul>	ISO; 1999, GEN
Avoidance of Conflict of Interest	<ul style="list-style-type: none"> <li>• Procedures in place to avoid undue influence and conflict of interest (GEN, Schedule A2, 8, 13).</li> <li>• Transparency with respect to funding sources for programme development and fees and charges publicly available (ISO; 1999 Section 5.11).</li> </ul>	ISO; 1999, GEN
Mutual Recognition	<ul style="list-style-type: none"> <li>• Facility exists to accept processes and information from other ecolabel schemes that meet the same requirements (GEN, Schedule A2, 11).</li> <li>• Information on mutual recognition arrangements with other ecolabelling bodies shall be made available (ISO; 1999 Section 5.18).</li> </ul>	ISO; 1999, GEN
Quality Management	<ul style="list-style-type: none"> <li>• Documented quality management system is in place (GEN, Schedule A2, 15).</li> </ul>	GEN

**Table A2. Best Practice Framework – Criteria used to assess selected Ecolabels for Standard Development**

STANDARD DEVELOPMENT	Assessment Criteria	Reference
LCA-based	<ul style="list-style-type: none"> <li>• The scheme shall use science-based data to set pass or fail limits and benchmarks (GEN, Schedule A2, 2.3 – 2.7).</li> <li>• Development and selection of criteria shall be based on sound scientific and engineering principles (ISO; 1999 Section 5.14)</li> <li>• All targets, limits or benchmarks in the standard shall be clearly identified.</li> <li>• Multiple criteria-based approach (ISO; 1999 Section 3.1) that links key identified environmental impacts across the life cycle (ISO; 1999 Section 6.4.1).</li> <li>• Life cycle stages taken into account when developing product environmental criteria including extraction of resources, manufacturing, distribution, use and disposal. Any departure from this comprehensive approach must be justified (ISO; 1999 Section 5.4; GEN, Schedule A2, 2.0; ERM pg. 5).</li> <li>• Show that the selection of environmental criteria will not lead to the transfer of impacts from one stage of the life cycle to another or from one medium to another without a net gain of environmental benefit (ISO; 1999 Section 6.4.1).</li> <li>• In the consideration of product function characteristics, consider their identification, selection of key performance elements that characterise the function, verify that the key performance elements are applicable to all products in the category and identify necessary levels of performance (ISO; 1999 Section 6.5; GEN, Schedule A2, 2.11, 2.12).</li> </ul>	GBCA; 2009a, ISO; 1999, ERM; 2008, GEN
Stakeholder Representation	<p>The scheme shall demonstrate that it has invited all relevant stakeholders to be involved in the development of the standard and that all reasonable efforts have been made to address concerns of stakeholders as per the guidelines of:</p> <ul style="list-style-type: none"> <li>• The ISEAL ‘Code of Good Practice for Setting Social and Environmental Standards’; OR</li> <li>• The guidelines for balanced representation from the Australian Accreditation Board for Standards Development Organisations (ABSDO 2007); OR</li> <li>• Other international frameworks applicable to certification schemes as described in Section 2.2 of [GBCA; 2009a]</li> </ul>	GBCA; 2009a, ERM (pg 5); 2008, ISO; 1999, GEN (Sched. A2, Sect. 3.0)
Decision Making	<p>The scheme shall ensure that:</p> <ul style="list-style-type: none"> <li>• The standard development process includes strategies for seeking consensus among stakeholders expressing interest in the topic of the standard under development;</li> <li>• Documented procedures exist to guide decision making in the absence of consensus; and</li> <li>• Procedures for decision making are publicly available and easily accessible to any interested stakeholders.</li> </ul>	GBCA; 2009a, ISO; 1999, GEN (Sched. A2, Sect. 3.0)
Public Comment	<p>The scheme shall provide at least one round of public review/comment period by interested parties for the development and revision of standards.</p>	GBCA; 2009a, GEN (Sched. A2,

STANDARD DEVELOPMENT	Assessment Criteria	Reference
	<ul style="list-style-type: none"> <li>• Comment period shall be for a minimum of 30 days.</li> <li>• The scheme shall take into account comments received from the comment period.</li> <li>• Written synopsis of comments shall be compiled and made publicly available.</li> </ul>	Sect. 3.0)
Stated Objectives	<ul style="list-style-type: none"> <li>• The scheme shall clearly and explicitly specify the social, environmental and/or economic objectives of a standard.</li> </ul>	GBCA; 2009a
Criteria	<ul style="list-style-type: none"> <li>• Standards shall be expressed in terms of a combination of process, management and performance criteria rather than design or descriptive characteristics.</li> <li>• Standards shall not favour a particular technology or patent(s).</li> <li>• The detail of compliance requirements to all criteria must be publicly available and must clearly outline the exact requirements for achieving compliance with each criterion.</li> <li>• Compliance requirement details shall be included within the standard document itself for each criterion.</li> <li>• Requires compliance with environmental and other relevant legislation as a precondition of certification (ISO; 1999 Section 5.3, GEN; Schedule A2, 4.1).</li> <li>• Give consideration to relative environmental impacts, measurement capability and accuracy (ISO; 1999 Section 5.6.2, GEN; Schedule A2, 2.7) and provide reference to test methods and available competent laboratories (ISO; 1999 Section 6.4.2.5, GEN; Schedule A2, 4.13).</li> <li>• Product environmental criteria should be expressed in terms of impacts on the environment and natural resources or, when this is not practicable, environmental aspects such as emissions to the environment (ISO; 1999 Section 6.4.2.1).</li> <li>• Numerical values shall be assigned to each criteria that most accurately reflects selected environmental aspects – these may be minimum values, threshold levels, a scale-point system or other appropriate approaches (ISO; 1999 Section 6.4.2.4, GEN; Schedule A2, 2.9).</li> </ul>	GBCA; 2009a, ISO; 1999, GEN
Representative of Best Practice	<ul style="list-style-type: none"> <li>• The scheme shall establish standards that encourage improvements above and beyond regulatory standards.</li> <li>• The scheme shall ensure that the standard development process includes a review of existing international and national regulations and standards that are relevant to the standard under development.</li> <li>• The findings of this review shall be used to inform environmental and social performance-based benchmarks in the standard.</li> <li>• Product environmental criteria established to differentiate environmentally preferable products from others in the product category, based on measurable differences in environmental impact (ISO; 1999 Section 5.5, GEN; Schedule A2, 2.7, 2.9).</li> </ul>	GBCA; 2009a, ISO 1999, GEN

STANDARD DEVELOPMENT	Assessment Criteria	Reference
Publicly Available	<p>The scheme shall ensure that:</p> <ul style="list-style-type: none"> <li>All approved standards are published and publicly available;</li> <li>Standard-setting procedures and summaries of work programmes are publicly available;</li> <li>A contact point for standard-related enquiries is available.</li> <li>Certified products are available on the website (GEN; Schedule A2, 4.5)</li> </ul>	GBCA; 2009a, GEN
Procedures	<p>The scheme shall ensure that:</p> <ul style="list-style-type: none"> <li>Documented procedures are available to all interested parties on the standard development and certification process; and</li> <li>Procedures include a complaints resolution mechanism for interested parties that may object to the standard development process or outcomes of the developed or revised standard.</li> <li>The process for selection of product categories includes conducting a feasibility study (including market survey, suppliers in the market, environmental impacts of products, potential and need for environmental improvement, definition of scope of product categories (taking into account equivalence of use), fitness for use, availability of data, current national and international legislation and agreements) and preparation of a product category proposal for interested parties (ISO; 1999 Section 6.3.2).</li> </ul>	GBCA; 2009a, ISO 1999
Harmonisation	<ul style="list-style-type: none"> <li>The scheme shall pursue harmonisation between standards by synchronising the requirements of other similar standards operated by the same scheme, or similar national and international standards.</li> <li>The scheme shall document any differences between its standard(s) and other similar national or international standards and provide justification for these differences.</li> </ul> <p>Additional Guidance: Documentation and justification of differences between similar standards shall be provided in the format of a comparison table. The IAP [Independent Assessment Panel] reserves the right to seek additional information from the scheme, or to reject the rationale put forward by the scheme for its justification of differences, if such justification is deemed to be insufficient by the IAP.</p>	GBCA; 2009a
Review and Update	<ul style="list-style-type: none"> <li>Product environmental criteria and product function requirements for each product category set for a predefined period (ISO; 1999 Section 5.8.1).</li> <li>Standards are reviewed and updated according to a publicly communicated schedule of regular review (wording taken from Publicly Available category in GBCA; 2009a, ISO; 1999 Section 5.8.2).</li> <li>Have procedures in place for implementation of modifications to product environmental criteria (GEN; Schedule A2, 2.14).</li> </ul>	ERM (pg 5); 2008, ISO; 1999; GEN

## **APPENDIX B COMPARISON OF ECOLABELS AGAINST PART I REQUIREMENTS**

This section sets out the results of the review of ECNZ processes in comparison with all criteria and requirements in the best practice framework.

Performance of two further ecolabel schemes in the GBCA Framework – Global GreenTag<sup>Cert™</sup> and CIALECS – are included in comparison with additional requirements and criteria in the best practice framework ie. not including requirements and criteria from the GBCA Framework against which they have already been formally assessed.

The following colour coding is used in Tables B1 and B2 for the ECNZ evaluation:

ECNZ excludes criteria

ECNZ includes the same criteria but has different compliance requirements

ECNZ includes the same criteria and meets or exceeds compliance requirements

Global GreenTag<sup>Cert™</sup> and CIALECS are not colour coded as shown above. Requirements for these schemes are provided for information only, and are based solely on information provided in their documentation and standards, which has not been audited for this work. Text is in green to reflect additional requirements in the best practice framework only.

This section summarises the findings of the comparison against scheme level requirements under Governance & Transparency (Table B1) and Standard Development (Table B2).

Page or section number references in the tables refer to the listed reference at the top of each column in the Source References row.

**Table B1. Scheme Level Comparison – Governance and Transparency Criteria**

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
<i>Version</i>	2012	3.1	1.2
<i>Source references</i>	<a href="http://www.enviro-choice.org.nz/">http://www.enviro-choice.org.nz/</a> NZET; 2012a	<a href="http://www.globalgreentag.com">http://www.globalgreentag.com</a> Ecospecifier Global; 2010	<a href="http://www.carpetinstitute.com.au/environment/">http://www.carpetinstitute.com.au/environment/</a> CIAL; 2010
Independent Assessment	<ul style="list-style-type: none"> <li>• Maintains a list of competent assessors who have received training and are evaluated on a regular basis (Section 16).</li> <li>• Assessors required to sign a Code of Ethics, which includes matters of confidentiality and impartiality (Section 16).</li> <li>• Auditors trained to undertake performance reviews to scheme requirements and monitored. All reports peer reviewed by a RABQSA registered auditor.</li> <li>• Product environmental criteria defined against ISO 14024 and ISO 14020 requirements, and documented as part of specification setting procedures (example for Fitness Centre Services sighted).</li> <li>• A detailed checklist is provided for each audit to help ensure consistency between assessors (Section 16).</li> <li>• Auditor training manual sighted by reviewer.</li> <li>• List of competent auditors sighted by reviewer.</li> <li>• Auditor qualifications held and auditors selected based on this list. Auditors evaluated against Assessor Competencies (form sighted by reviewer).</li> </ul>	<ul style="list-style-type: none"> <li>• Program has been set up to be compliant with ISO 14024 and ISO 14021 in addition to other referenced international and region specific standards (pg. 9-10).</li> <li>• The GreenTag (environmental) Process has been third party certified on the GBCA Framework (pg. 46).</li> <li>• Methods for assessing compliance in accordance with ISO 14024 requirements (pg. 23).</li> <li>• Standard available publicly (on signing a licence agreement for version control), including supplementary product specific standards.</li> <li>• Product compliance verified by accredited assessors.</li> <li>• Maintains information on auditor qualifications, training and experience (pg. 29)</li> </ul>	<ul style="list-style-type: none"> <li>• Product environmental criteria and product function characteristics set out clearly.</li> <li>• Third party certified on the GBCA Framework.</li> <li>• No information available on website about procedures for checking auditors and monitoring audit team performance.</li> </ul>
	<b>Assessment Reasoning:</b> Has systems and procedures in place for independent assessment.	<b>Assessment Reasoning:</b> Has been independently audited for compliance with the GBCA Framework	<b>Assessment Reasoning:</b> No information available on how auditors selected and their

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<i>Meets criteria</i>	(and other schemes globally). Maintains information about auditors and undertakes internal checks.  <i>Meets additional criteria</i>	qualifications.  <i>Does not meet additional criteria</i>
Environmental Claims	<ul style="list-style-type: none"> <li>• Scheme carries out its activities in accordance with ISO 14020 and ISO 14024, and awards a licence on the basis of a multi-criteria, whole of life approach that is independently audited (GENICES; 2012). The scheme itself does not make claims on behalf of products or manufacturers.</li> <li>• ECNZ requires licensees to inform of change affecting compliance according to its Terms &amp; Conditions.</li> <li>• General information about what ecolabels mean provided on website. Guidance for the use of the logo sighted (Guide to using the Label and Making Environmental Claims; May 2011) and available on website.</li> <li>• CEO signs off on compliance.</li> </ul>	<ul style="list-style-type: none"> <li>• Product assessments last for one year. Each year, prior to renewal of an existing licence, a signed declaration from the Director or Principal of a company must be provided stating there have been no changes to the product's design, specification or composition (pg. 26).</li> <li>• Information about the label can be found on the website. Rules for use of the logo provided in Style Guidelines (pg. 26).</li> </ul>	<ul style="list-style-type: none"> <li>• Technical warranty on grading for a minimum of 2 years (pg. 7). No information found concerning procedures if there is any change that might affect continued compliance with environmental requirements.</li> <li>• Information about the labels provided (pg. 17).</li> </ul>
	<p><b>Assessment Reasoning:</b> Scheme publishes list of licensed products/manufacturers, based on its procedures which are independently audited against ISO 14024 requirements. <i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Scheme has procedure in place requiring licensees to inform of changes that could affect their licence annually. Information and guidance available. <i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b> Further information would be beneficial about the process for communication by licensees if there is a change that could affect compliance. <i>Does not meet additional criteria</i></p>
Transparent Methodology	<ul style="list-style-type: none"> <li>• Licence criteria for products freely available on website. Consultation used in procedures for selecting product categories and during specification development (Section 5).</li> </ul>	<ul style="list-style-type: none"> <li>• Information identified as confidential is covered and maintained by an agreed Confidentiality Agreement (pg. 25).</li> </ul>	<ul style="list-style-type: none"> <li>• No detail about how confidential information handled is specifically stated.</li> <li>• Testing and verification</li> </ul>



	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<ul style="list-style-type: none"> <li>• Controls in place to protect confidential information (Section 7).</li> <li>• Processes to assess applications and supervise licences are documented with information and copies of licence conditions available on request (Section 7). Testing methods required checked to ensure they are readily available in New Zealand (Section 9).</li> <li>• Information sighted by reviewer on process for development of specifications (Section 2.2, ECNZ Procedures Manual). This is available on request (R Taylor, comm.). An example of the application of this process also sighted including a completed Specification Evaluation Form and draft specification for EC-04-11 Wool and Wool-rich Pile Carpets (prepublication version, November 2011).</li> </ul>	<ul style="list-style-type: none"> <li>• Procedures allow for information to be made available to interested parties for inspection and comment on all aspects eg. selection of product categories, testing and verification methods etc (pg. 24).</li> </ul>	<p>methods set out eg. pg. 17 for VOCs.</p> <ul style="list-style-type: none"> <li>• Product category restricted to carpets. Product function characteristics (technical features) set out (pg. 4).</li> <li>• Certification and award procedures, including two options for achievement of Level 4, set out pg. 20.</li> </ul>
	<p><b>Assessment Reasoning:</b> Methodology for assessment is transparent with specifications for products freely available on the ECNZ website. <i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Product standard freely available on submission of a licence request. Procedures in place to facilitate transparency and controls for confidentiality. <i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b> No information found on procedures for handling confidentiality during assessment process. <i>Does not meet additional criteria</i></p>
Conflict Resolution	<ul style="list-style-type: none"> <li>• Procedures to select product categories cover potential conflicts of interest. Certification carried out by an independent contractor, subject to peer review and final approval by the General Manager and formally approved by Trustees . Assessors sign and observe a Code of Ethics (Section 10).</li> <li>• Dispute resolution process is set out in the Application and Licence Conditions (November 2002) available on the website. This includes an appeal process to the Board.</li> </ul>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p><b>Assessment Reasoning:</b> The scheme has a well documented conflict resolution process which has been sighted.</p> <p><i>Meets criteria</i></p>		
Robustness of Evidence Base	<ul style="list-style-type: none"> <li>• Scheme requires that the CEO of an applying company signs a Statement of Compliance (Section 6).</li> <li>• Testing methods required are indicated in specifications and are checked to ensure they are readily available in New Zealand.</li> </ul>	<ul style="list-style-type: none"> <li>• Product assessments last for one year. Each year, prior to renewal of an existing licence, a signed declaration from the Director or Principal of a company must be provided stating there have been no changes to the product's design, specification or composition (pg. 26).</li> <li>• Requires submitting companies to provide third party laboratory testing or other audits<sup>4</sup> to demonstrate key product claims or compliance (pg 25).</li> </ul>	<ul style="list-style-type: none"> <li>• Applicants required to provide relevant testing information and a declaration of compliance eg. pg. 22. Testing requirements in accordance with GBCA Framework.</li> </ul>
	<p><b>Assessment Reasoning:</b> Verification requirements clearly set out in product specifications, including product test reports and other supporting information, where required.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Verification requirements clearly set out in the standard.</p> <p><i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b> Requires declaration of compliance and testing evidence.</p> <p><i>Meets additional criteria</i></p>
ISO 14024	<ul style="list-style-type: none"> <li>• The scheme is independently audited by GEN Assessors under the general principle of GENICES<sup>5</sup>. ECNZ was last</li> </ul>	<ul style="list-style-type: none"> <li>• Internal audits on procedures carried out (pg. 33).</li> </ul>	<ul style="list-style-type: none"> <li>• No information on ISO 14024 conformance.</li> </ul>

<sup>4</sup> Only testing by laboratories registered by the Australian National Association of Testing Authorities (NATA) or approved by a member of the International Laboratory Accreditation Cooperation (ILAC) or the Asia Pacific Laboratory Accreditation Cooperation (APLAC) are recognised (pg. 31, ecospecifier; 2010).

<sup>5</sup> Global Ecolabel Network Internationally Co-ordinated Ecolabelling System

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
Compliance	<ul style="list-style-type: none"> <li>audited in February 2012 (GENICES Audit Report sighted) and found no items requiring immediate corrective action.</li> <li>Audit report (sighted) is available to interested parties (R Taylor, comm.)</li> </ul>	<ul style="list-style-type: none"> <li>Independent audit for compliance with GBCA Framework</li> <li>No apparent independent audit to ISO 14024 requirements</li> </ul>	<ul style="list-style-type: none"> <li>No audit information available for ISO 14024 compliance.</li> </ul>
	<p><b>Assessment Reasoning:</b></p> <p>As well as using independent auditors to evaluate products against specification requirements, the scheme itself is independently audited by GEN Assessors, against GENICES requirements.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>Internal audits have been and are carried out on various aspects of the scheme but no apparent independent audit against ISO 14024 requirements.</p> <p><i>Does not meet additional criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>Scheme developed to meet GBCA Framework and does not specifically reference ISO 14024.</p> <p><i>Does not meet additional criteria</i></p>
Accessibility	<ul style="list-style-type: none"> <li>Fees and charges published on website and have been designed to ensure that all types and sizes of manufacturers can afford to apply for a licence. Annual fees geared to turnover of licensed products (Section 11).</li> <li>The programme is voluntary.</li> <li>Specifications designed to ensure no unnecessary obstacles to international trade (Section 14).</li> <li>No differences in requirements between foreign and domestic applicants (Section 8.)</li> </ul>	<ul style="list-style-type: none"> <li>Open to all suppliers with products that successfully achieve the product environmental criteria (pg. 24).</li> <li>Programme is voluntary (pg. 16).</li> <li>Procedures and requirements not developed to create unnecessary obstacles to international trade (pg. 24).</li> </ul>	<ul style="list-style-type: none"> <li>Program operated by CIAL representing 95% of production.</li> <li>The environmental program is voluntary.</li> <li>No mention of foreign applicants.</li> </ul>
	<p><b>Assessment Reasoning:</b></p> <p>Consistent requirements for all applicants and fees/charges geared to turnover.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>Scheme is accessible according to listed criteria.</p> <p><i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>No information on accessibility of the environmental scheme to overseas applicants.</p> <p><i>Does not meet additional criteria</i></p>
Avoidance of Conflict of Interest	<ul style="list-style-type: none"> <li>Since 1992, the programme has received NZ\$1.35 million in direct and indirect Government support (Section 4.9.2, ERM, 2008). No further funding since 2009.</li> <li>Operated as an independent, not-for-profit Trust (Section 1.2).</li> </ul>	<ul style="list-style-type: none"> <li>Will ensure process is free from undue influence and sources of funding will not create a conflict of interest (pg. 24).</li> <li>Analyses relationships with related</li> </ul>	<ul style="list-style-type: none"> <li>No information provided on procedures to avoid conflict of interest.</li> <li>No information about funding sources for development of the environmental</li> </ul>

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<ul style="list-style-type: none"> <li>Procedures in place to cover potential conflict of interest arising from selection of product categories (Section 2.3 of Procedures Manual).</li> <li>Certification carried out by independent auditor subject to peer review from General Manager and then formally approved by Trustees (Section 10).</li> </ul>	<p>bodies to determine possibility of conflict of interest with respect to employees, subcontractors, clients and partners (pg. 28).</p> <ul style="list-style-type: none"> <li>Contracts with subcontractors cover confidentiality and conflict of interest (pg. 32).</li> <li>Fees coverage set out (pg. 24) and can provide information on funding sources for programme development and fees charged on request (pg. 34). Fees are not based on turnover.</li> </ul>	<p>certification programme and fees and charges applied.</p>
	<p><b>Assessment Reasoning:</b> Procedures in place to avoid conflict of interest. Sources of funding and fee structure clear. <i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Based on information about the scheme (which has not been separately audited), the scheme meets requirements. <i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> No information available to assist with transparency of the program. <i>Does not meet additional criteria</i></p>
Mutual Recognition	<p>Accepts processes and information (that are the same as ECNZ requirements) as part of a multilateral Mutual Recognition Arrangement (MRA) with other organisations that have completed the GENICES process (Section 13) – 11 in total (from website).</p>	<ul style="list-style-type: none"> <li>Mutual recognition welcomed and encouraged.</li> <li>Information on existing mutual recognition arrangements with other eco-labelling bodies shall be made available as appropriate (pg. 25).</li> </ul>	<ul style="list-style-type: none"> <li>Recognises test results supplied and (technical) grading assigned by the Woolmark/Woolmark Blend Scheme (pg.6).</li> <li>No information on recognition of environmental criteria from other schemes.</li> </ul>
	<p><b>Assessment Reasoning:</b> Has MRAs where processes and information requirements in other recognised ecolabel schemes are the same.</p>	<p><b>Assessment Reasoning:</b> Open to mutual recognition and information can be made available if requested (not requested for this study).</p>	<p><b>Assessment Reasoning:</b> No apparent Mutual Recognition Arrangements with ecolabel schemes certifying environmental</p>

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IA REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<i>Meets criteria</i>	<i>Meets criteria</i>	requirements/criteria. <i>Does not meet additional criteria</i>
Quality Management	Quality management system is documented in the ECNZ Procedures Manual (Section 17) and references Section 1.1 (Principles), 1.2 (Roles and Responsibilities) and 1.4 (Programme Documents and Document Control), all sighted.	The Program is operated under an externally certified ISO 9001 Quality Management System. First certification received in 2010 (comm. David Baggs).	No information about a documented scheme quality management system.
	<b>Assessment Reasoning:</b> ECNZ has a documented quality management system in place. <i>Meets criteria</i>	<b>Assessment Reasoning:</b> Operates an independently certified ISO 9001 quality system. <i>Meets additional criteria</i>	<b>Assessment Reasoning:</b> No information on whether the scheme has a quality management system. <i>Does not meet additional criteria</i>

**Table B2. Scheme Level Comparison - Standard Development Criteria**

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
<i>Version</i>	2012	3.1	1.2
<i>Source references</i>	<a href="http://www.enviro-choice.org.nz/">http://www.enviro-choice.org.nz/</a> NZET; 2012a	<a href="http://www.globalgreentag.com">http://www.globalgreentag.com</a> Ecospecifier Global; 2010	<a href="http://www.carpetinstitute.com.au/environment/">http://www.carpetinstitute.com.au/environment/</a> CIAL; 2010
LCA-based <sup>6</sup>	<ul style="list-style-type: none"> <li>Criteria in New Zealand tend to be developed from existing specifications prepared by other labelling programmes, with modifications where required to meet New Zealand requirements.</li> <li>Where several specifications are available, a comparison is undertaken to ascertain what appears to be “best current practice” around the world (Section 4).</li> <li>Scheme develops criteria based on sound principles and sets targets, limits or benchmarks accordingly</li> <li>Multiple criteria used considering significant environmental impacts across the life cycle. Consideration of environmental criteria and potential for transfer of impacts is part of specification setting process (Specification Evaluation Form for EC-47-11 Wool Scouring Services, EC-04-11 Wool and Wool-Rich Pile Carpets and EC-31-12 Textiles, Skins and Leather sighted).</li> <li>Product function characteristics based on fitness for purpose and product requirements expressed in terms of performance rather than description (above Specification Evaluation sighted).</li> </ul>	<ul style="list-style-type: none"> <li>Uses a multiple criteria based approach that considers key environmental impacts across the life cycle.</li> <li>Life cycle issues set out in each supplementary standard eg. pg. 72, per GBCA Framework.</li> <li>Uses a life cycle approach – detail of processes used to consider product function characteristics not investigated.</li> </ul>	<ul style="list-style-type: none"> <li>Scheme considers multiple criteria across the life cycle, consistent with the GBCA Framework.</li> <li>Technical product function characteristics set out, levels of performance etc (pg. 8). Environmental performance characteristics per GBCA Framework (pg. 17).</li> </ul>

<sup>6</sup> The GBCA Framework includes a requirement that ecolabel schemes are “LCA-based”. LCA or Life Cycle Assessment is a rigorous, quantitative, systematic process that models the supply chain of a product or material across the life cycle (or part of the life cycle). Its outputs are numerical, reflected as resources used (usually in units of kg), emissions to air, water and land (usually in units of g) and impacts (in a range of units depending on impacts being calculated), for example. Ecolabel schemes do not generally base their requirements and criteria on outputs of LCA and therefore reference to “LCA-based” is potentially misleading. Instead, ecolabel schemes base criteria on “life cycle considerations” (ISO; 1999b), in which key stages with environmental impacts in the life cycle of a product or material are identified, and this provides the basis for setting criteria. In this study the use of the term “LCA-based” is retained to maintain consistency with GBCA terminology.

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p><b>Assessment Reasoning:</b> When developing specifications, comparisons with other specifications are made and adapted where necessary for new Zealand conditions. Multiple criteria are set across the life cycle. Documented procedures in place for development of specifications. <i>Meets criteria.</i></p>	<p><b>Assessment Reasoning:</b> Standard is based on a life cycle approach and uses multiple criteria, as defined in GBCA Framework.  <i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b> Scheme is based on a life cycle approach per requirements of GBCA Framework.  <i>Meets additional criteria</i></p>
Stakeholder Representation	<ul style="list-style-type: none"> <li>• Relevant trade associations contacted plus other key stakeholders in New Zealand. Some stakeholders in Australia may also be contacted, depending on the specification (R Taylor, comm.).</li> <li>• ECNZ has a consultative process for development of specifications and a process for dealing with comments which are responded to and a recommendation is given.</li> <li>• ECNZ has established links to stakeholder groups (R Taylor, comm.).</li> <li>• Does not specifically reference ISEAL or ABSDO, but does meet GENICES requirements for consultation.</li> </ul> <p><b>Assessment Reasoning:</b> ECNZ has links with stakeholder groups who are informed when a specification is being developed. This more “informal” approach is facilitated by the size of the New Zealand market. <i>Meets criteria.</i></p>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment
Decision Making	<ul style="list-style-type: none"> <li>• ECNZ uses a consultative process to specification setting and responds to comments received. From this process, a recommendation is made to the General Manager.</li> <li>• There is a disputes and complaints process set out in the Terms &amp; Conditions (available on the website) which includes an appeals process.</li> </ul> <p><b>Assessment Reasoning:</b></p>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>Documented disputes and complaints process including an appeal process.</p> <p><i>Meets criteria.</i></p>		
Public Comment	<ul style="list-style-type: none"> <li>All proposed specifications are notified for a period of 60 days for comment from interested parties, as set out in the Procedures Manual (Section 5).</li> <li>Summary of comments produced (example for textiles, skins and leather sighted) together with a response and a recommendation to the General Manager. Responses to comments sent to individual or organisation submitting a comment. Comments remain confidential but can be made available if requested by interested parties (R Taylor, comm.)</li> </ul> <p><b>Assessment Reasoning:</b>  Comment period provided exceeds GBCA requirements. Responses are provided to comments received. Comments available on request from interested parties.</p> <p><i>Meets criteria.</i></p>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment
Stated Objectives	<ul style="list-style-type: none"> <li>Objective of Synthetic Carpet specification explicitly stated in Section 1 (NZET; 2012b).</li> <li>Overall objectives of the programme provided on the website.</li> </ul> <p><b>Assessment Reasoning:</b>  Objectives set out in synthetic carpet standard and objectives of programme provided on the website.</p> <p><i>Meets criteria (based on examination of the Synthetic Carpet specification)</i></p>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment



	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
Criteria	<ul style="list-style-type: none"> <li>Standards expressed in terms of environmental criteria (defined as processes, management and performance criteria) and product characteristics (eg. Section 5, NZET, 2012b).</li> <li>Standards generally not written to favour a particular technology, instead, citing measures of performance eg. Section 5.5, NZET, 2012b. However, the standard on long steel products is based on a specific technology (electric arc furnace) available in New Zealand (NZET; 2008).</li> <li>Compliance requirements clearly articulated in each section under <i>Verification Required</i> (eg. Section 5, NZET; 2012b).</li> <li>Require legal compliance with provisions of all relevant laws and regulations applicable during the product's life cycle (eg. Section 5.1, NZET, 2012b).</li> <li>Specifications set out test method(s) and calculations that should be used eg. Section 5.7, NZET, 2012b). Standards seek to identify issues on which products can be differentiated on environmental grounds from others in the New Zealand market. This level must be measurable and verifiable (eg. Section 1, NZET, 2008).</li> <li>Product environmental criteria aspects eg. recycled content and waste minimisation (Sections 5.2, 5.3 and 5.5, NZET, 2012b) instead of non-renewable resource depletion impact and VOC emissions (Section 5.7, NZET, 2012b) instead of air quality impacts eg. photochemical oxidant formation.</li> <li>Numerical values are assigned to criteria – these may be minimum values eg. Section 5.3, NZET, 2012b, or thresholds eg. Section 5.7, NZET, 2012b.</li> </ul>	<ul style="list-style-type: none"> <li>Requires compliance with relevant social and environmental legislation (pg. 25).</li> <li>Specifies relevant standards and any other requirements such as sampling, testing and inspection requirements (pg. 32).</li> <li>Recognises laboratories registered by NATA or approved by a member of ILAC or APLAC (pg. 32).</li> <li>Product environmental criteria defined by environmental aspects. Assigns numerical criteria where required by GBCA Framework eg. pg. 81 for VOCs, and further criteria eg. post consumer recycled materials or components (pg. 48).</li> </ul>	<ul style="list-style-type: none"> <li>Must be graded by the ACCS according to suitability for use in residential and contract installations (pg. 23).</li> <li>Requires meeting of VOC emission limits (pg. 21), thermal and acoustic performance. Also requires licensees and key suppliers to meet all relevant social and environmental legal obligations in which floor coverings and major materials inputs are produced (ECS Level 4, Path A only) (pg. 27 and pg. 20).</li> <li>Expressed as environmental aspects eg. VOC pg. 25.</li> <li>Numerical values for environmental criteria assigned per GBCA Framework requirements eg. VOC pg. 25. Also for insulation and acoustic performance properties (pg. 18, 19).</li> </ul>
	<b>Assessment Reasoning:</b> ECNZ shows evidence of setting criteria according to provisions	<b>Assessment Reasoning:</b> Requires compliance with relevant	<b>Assessment Reasoning:</b> Requires compliance with all

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>in the framework.</p> <p><i>Meets criteria</i></p>	<p>legislation and has procedures in place for recognition of competent laboratories.</p> <p>Sets numerical criteria, based on thresholds, minimum values etc</p> <p><i>Meets additional criteria</i></p>	<p>relevant social and environmental legislation, but only for ECS Level 4 (Path A).</p> <p>Numerical values for technical properties and environmental properties per GBCA Framework. Others beyond this eg. recycled content, not set out.</p> <p><i>Almost meets additional criteria – would benefit from requiring compliance with relevant social and environmental legislation and setting more numerical criteria.</i></p>
Representative of Best Practice	<ul style="list-style-type: none"> <li>• In its criteria development process, ECNZ undertakes a comparison of “best current practice” around the world (Section 4). Example sighted in pre-publication specification for EC-04-10 Wool and Wool-rich Pile Carpets (October 2011) eg. COD levels, page 31.</li> <li>• Specifications are based on existing international specifications, with modifications where required to meet the New Zealand market.</li> <li>• Aims to set criteria in order to differentiate environmentally preferable products from others in the product category, based on measurable differences in environmental impact.</li> <li>• Independent audit of ECNZ stated that ECNZ’s criteria development processes represent “environmental leadership” (GENICES; 2012).</li> </ul>	<p>Development and selection of criteria based on scientific, life cycle impact assessment and engineering principles. Criteria are derived from data that support the claim of environmental preferability (pg. 24).</p> <p>Some criteria set beyond that required by GBCA Framework eg. sourcing of rapidly renewable resources, waste in production targets pg. 48.</p>	<p>Environmental criteria based on GBCA Framework requirements. Further, technical criteria set eg. minimum thermal and acoustic performance targets set, which also have environmental implications (pg. 18, 19).</p>
	<p><b>Assessment Reasoning:</b> ECNZ standard development process represents</p>	<p><b>Assessment Reasoning:</b> Uses life cycle impact assessment and</p>	<p><b>Assessment Reasoning:</b> Minimum technical requirements</p>

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>“environmental leadership” with standards that aim to reflect best practice.</p> <p><i>Meets criteria</i></p>	<p>engineering principles to differentiate products. Sets targets beyond that required by GBCA Framework.</p> <p><i>Meets additional criteria</i></p>	<p>set out, but no additional criteria beyond GBCA Framework to differentiate environmentally preferable products.</p> <p><i>Does not meet additional criteria</i></p>
Publicly Available	<ul style="list-style-type: none"> <li>All approved standards, and standards in development, are available on the ECNZ website.</li> <li>Standard setting procedures and summaries of work programmes are available on request (R Taylor, comm.).</li> <li>Contact point available through website. Specific assessor allocated to new applications and contact details provided (ECNZ; 2010).</li> <li>Certified products available on the website.</li> </ul>	<p>Certified products (and the rating) are available on the website.</p>	<p>Certified products are available on the website (as a downloadable spreadsheet).</p>
	<p><b>Assessment Reasoning:</b></p> <p>Information about the scheme, specifications and certified products publicly available on the ECNZ website.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>Product rating available publicly</p> <p><i>Meets additional criteria</i></p>	<p><b>Assessment Reasoning:</b></p> <p>Product rating available publicly</p> <p><i>Meets additional criteria</i></p>
Procedures	<ul style="list-style-type: none"> <li>Procedures for standard development and the certification process are documented in the Procedures Manual which is available on request. Certification process also set out in guidelines for new applicants (ECNZ; 2010).</li> <li>Disputes and complaints process set out in Terms &amp; Conditions in Application and Licence Conditions (sighted) available on website.</li> <li>A Merit Score Card (one for Gym Services sighted) and New Product Specification Feasibility Profile Form are completed and evaluated by the Trustees before work commences. Processes used to select product categories</li> </ul>	<p>Documented procedures available from bona fide stakeholders on request from the Program Director (Section 1.08).</p>	<p>Environmental certification scheme is an extension to the ACCS, and based on the GBCA Framework.</p>

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>are in the Procedures Manual (Section 2.2 Procedures Manual, sighted) and a Specification Development Brief is followed (example for Gyms sighted).</p> <ul style="list-style-type: none"> <li>A Specification Evaluation Form is used to set out the Principles for Specifications and how a draft specification meets these principles (example sighted for EC-47-11 Wool Scouring Services, EC-04-11 Wool and Wool-rich Pile Carpets and EC-31-12 Textiles, Skins and Leather (January 2012)).</li> </ul>		
	<p><b>Assessment Reasoning:</b> ECNZ has documented procedures in place which are available to interested parties, including a disputes and complaints process. Documented process for selection of product categories.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Procedures not set out in the standard but available on request.</p> <p><i>Unable to assess if criteria met due to lack of information.</i></p>	<p><b>Assessment Reasoning:</b> Industry specific scheme based directly on GBCA Framework requirements.</p> <p><i>Additional criteria of less relevance in the context of this scheme.</i></p>
Harmonisation	<ul style="list-style-type: none"> <li>ECNZ states harmonisation is an objective of the scheme on its website.</li> <li>Undertakes comparison with other standards – examples available on the ECNZ website.</li> </ul> <p><b>Assessment Reasoning:</b> ECNZ uses other standards, where available, to form the basis for its own standards setting procedures. Comparisons with other standards available on the website.</p> <p><i>Meets criteria</i></p>	No criteria added to GBCA Framework therefore not required for assessment	No criteria added to GBCA Framework therefore not required for assessment
Review and Update	<ul style="list-style-type: none"> <li>Specification is valid for up to five years (NZET, 2012b).</li> <li>Independent audit found no corrective actions necessary</li> </ul>	<ul style="list-style-type: none"> <li>Period of review for the standard is three years although product</li> </ul>	<ul style="list-style-type: none"> <li>Period of product environmental criteria not</li> </ul>

	GLOBAL ECOLABEL NETWORK (GEN)	GBCA FRAMEWORK	
PART IB REQUIREMENTS	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>although a suggestion was to formalise the procedure for revising specifications in order to make it clearer why a standard is selected for revision. The auditors commented that NZET “is doing a good job of maintaining standards and keeping them up to date”.</p> <ul style="list-style-type: none"> <li>• Specifications updated periodically (usually every five years) or if a specific issue requires earlier modification to a specification. Requirements set out in Application and Licence Conditions available on the website.</li> <li>• Procedures in place for implementation of modifications to product environmental criteria – companies typically allowed one year to achieve modified criteria before re-evaluation.</li> </ul>	<p>assessment criteria may be reviewed within this period (pg. 23).</p> <ul style="list-style-type: none"> <li>• Open consultative process used for updating standards (pg. 23).</li> </ul>	<p>clearly stated. Whilst a publicly communicated schedule of regular review is not provided, it is likely that environmental criteria would be updated were there a change to the requirements and/or criteria in the GBCA Framework.</p> <ul style="list-style-type: none"> <li>• If ACCS grading is more than 2 years old, licensee must demonstrate construction parameters within 5% tolerance of original specification.</li> </ul>
	<p><b>Assessment Reasoning:</b> Specifications available for period up to 5 years and procedures in place for modifications to environmental criteria. Formal schedule of review used internally for planning although not publicly communicated.</p> <p><i>Meets criteria except for provision of a publicly available schedule of review.</i></p>	<p><b>Assessment Reasoning:</b> Standards have a defined period which is publicly available. Procedures are in place for updating standards.</p> <p><i>Meets criteria</i></p>	<p><b>Assessment Reasoning:</b> Environmental scheme designed around GBCA requirements. Clarity on procedures for any modifications to environmental criteria (based on potential changes to the GBCA Framework) would be beneficial.</p> <p><i>Review and update procedures not provided so does not meet additional criteria.</i></p>

## APPENDIX C SPECIFICATION LEVEL PAC COMPLIANCE REQUIREMENTS AND ADDITIONAL GUIDANCE

Table C1. Summary of PAC Requirements taken from the GBCA Framework (GBCA; 2009a)

PAC	Compliance Requirements and Additional Guidance
1 Greenhouse Gases (GHG)	<p><b>Greenhouse Gas Accounting</b> – The standard shall require public reporting of the comprehensive product life cycle greenhouse gas footprint. Reporting to be based on a ‘per functional unit’ basis.</p> <p>Additional Guidance:</p> <p>Greenhouse gas footprints shall be generated in accordance with ISO 14064:2006 (Part 1: Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals) or PAS 2050 - Specification for the assessment of the life cycle greenhouse gas emissions of goods and services (BSI; 2008)<sup>7</sup>.</p> <p>Internationally applicable LCA techniques are specified in ISO 14040:2006 (Environmental management - Life cycle assessment - Principles and framework) and ISO 14044:2006 (Environmental management - Life cycle assessment - Requirements and guidelines).</p> <p>Functional unit, boundary conditions and methodologies applied are to be defined through the adoption of established ‘Product Category Rules’ (PCRs) for select product, or the creation of new PCRs. PCRs set the LCA-rules for data collection, methodology, calculations and presentation of the results. Refer to GEDNet Guidebook for more information (<a href="http://www.gednet.org/?page_id=8">http://www.gednet.org/?page_id=8</a>), in particular section 8.2.3.</p> <p>The GBCA recognises that new international standards are currently being developed for (GHG) footprint calculations. Schemes may therefore lodge a request to the IAP for recognition of an alternative GHG footprint standard as they become available. The IAP will rely on expert advice in its decision to accept or reject requests to recognise other GHG footprint standards.</p>
2 Toxicity	<p><b>Carcinogens – Part II Mandatory Requirement</b> – The standard shall restrict user exposure to substances recognised as carcinogenic to less than the NOAEL (No Observable Adverse Effect Level) or zero if the NOAEL is unknown.</p> <p><b>Acutely Toxic Substances</b> – The standard shall address all acutely toxic substances that are relevant to the products covered by the scope of the standard, in accordance with Additional Guidance below. The Acutely Toxic Substances</p>

<sup>7</sup> An updated version of PAS 2050 was published by BSI in 2011.

PAC	Compliance Requirements and Additional Guidance
	<p>criterion of the Toxicity PAC is comprised of two parts:</p> <ul style="list-style-type: none"> <li>• <i>Exposure to Toxic Substances</i> – The standard shall require limitation of end user exposure (worth 50% of points available for this criterion); AND/OR</li> <li>• <i>Content of Toxic Substances</i> – The standard shall require manufacturer to meet a well documented and justifiable industry specific benchmark for material toxicity (worth 50% of points available for this criterion).</li> </ul> <p><b>Heavy Metals</b> – The standard shall restrict or set justifiable limits on the use of heavy metals. As a minimum: arsenic, cadmium, chromium, copper, lead, tin, mercury and antimony. The scheme must submit justification for limits implemented or allowances made.</p> <p><b>Hazardous Chemicals</b> – The standard shall restrict the use of the following hazardous chemicals as they apply to the standard’s relevant product group: endocrine disrupters, mutagens and teratogens, irritants and sensitising agents, persistent organic pollutants (POPs) and bio-accumulative chemicals. The scheme must justify which of these hazardous chemical classifications are applicable to the product group relevant to the standard under assessment.</p> <p>Additional Guidance:</p> <p><b>Carcinogens</b> – The standard shall refer to the following lists and classifications of carcinogens:</p> <ul style="list-style-type: none"> <li>• The International Agency for Research on Cancer (IARC) of the World Health Organisation (WHO) class 1 and 2a;</li> <li>• EU Consolidated list of C/M/R Substances Category 1 and Category 2; and</li> <li>• Appropriate R phases: (e.g. R45- R49).</li> </ul> <p><b>Exemption for formaldehyde</b> – In the case of engineered wood products (e.g. composite wood products) the emissions of free formaldehyde from such products must be in conformance to limits listed in Appendix A [of GBCA Framework (GBCA; 2009a)].</p> <p><b>Acutely toxic substances</b> – The standard shall:</p> <ul style="list-style-type: none"> <li>• expressly prohibit the use of agents listed in Annex III of the Rotterdam Convention;</li> <li>• either prohibit or provide appropriate restrictions on relevant agents listed in the OSHA List of Highly Hazardous Chemicals, Toxics and Reactives; and</li> <li>• Either prohibit or provide appropriate restrictions on the release of agents carrying the following Risk Phrases:</li> </ul>

PAC	Compliance Requirements and Additional Guidance
	<ul style="list-style-type: none"> <li>• <u>R26 – 28 inclusive</u>: (Highly Toxic): R26 Very toxic by inhalation, R27 Very toxic in contact with skin and R28 Very toxic if swallowed</li> <li>• <u>R50 – 59 inclusive</u>: (Environmental Toxins): R50 Very toxic to aquatic organisms, R51 Toxic to aquatic organisms, R52 Harmful to aquatic organisms, R53 May cause long-term adverse effects in the aquatic environment, R54 Toxic to flora, R55 Toxic to fauna, R56 Toxic to soil organisms, R57 Toxic to bees, R58 May cause long-term adverse effects in the environment and R59 Dangerous to the ozone layer.</li> </ul> <p><b>Industry-specific benchmarks</b> – The applicant scheme is required to demonstrate that the relevant aspect of their standard(s) either exceeds industry-accepted benchmarks for the relevant product category, or establishes aspirational or best practice industry-specific benchmarks. If no industry-agreed benchmark exists then the scheme is expected to create a justifiable aspirational benchmark deemed achievable by the industry affected.</p> <p><b>Justification of limits</b> – For this criterion the emphasis is on the applicant to provide justification as to why an otherwise prohibited chemical should be allowed, and at what level, by the certification standard. Otherwise, complete prohibition is considered appropriate.</p> <p>Justifications shall be based on peer-reviewed international best practice science. This and other such justification must generate IAP confidence that sufficient rationale exists for limits applied.</p>
3 Resource Extraction	<p><b>Resource Efficiency</b> – The standard shall require manufacturers to gather data on material usage and waste generation of raw materials in a format that allows optimisation of the production process, along with a commitment to optimise the production process in accordance with the criteria set out below.</p> <p>Manufacturers shall optimise materials sourcing and production processes in accordance with resource and materials efficiency measures that reduce negative environmental impacts. Such measures shall address impacts from materials sourcing, use and disposal, as they apply to the product group that is applicable to the standard, and may include but are not limited to:</p> <ul style="list-style-type: none"> <li>• use of recycled materials or components;</li> <li>• sourcing of materials from rapidly-renewable resources;</li> <li>• reduction of waste generated in the manufacturing process or incorporation of waste back into the production process;</li> <li>• dematerialisation; and</li> </ul>



PAC	Compliance Requirements and Additional Guidance
	<ul style="list-style-type: none"> <li>• minimisation of harmful sourcing, farming or habitat destroying practices and use of practices that have a minimal or neutral impact on land use, biodiversity and soil erosion.</li> </ul>
4 Water	<p><b>Water Use Accounting</b> – The standard shall require public reporting of the comprehensive product life cycle water footprint. Reporting shall be based on a ‘per functional unit’ basis.</p> <p>Additional Guidance:</p> <p>Water footprints are to be generated in accordance with LCA methodologies ISO 14040:2006 (Environmental management - Life cycle assessment - Principles and framework) and ISO 14044:2006 (Environmental management - Life cycle assessment - Requirements and guidelines).</p> <p>Functional unit, boundary conditions and methodologies applied are to be defined through the adoption of established ‘Product Category Rules’ (PCRs) for select product, or the creation of new PCR’s. PCR’s set the LCA-rules for data collection, methodology, calculations and presentation of the results. Refer to GEDNet Guidebook for more information (<a href="http://www.gednet.org/?page_id=8">http://www.gednet.org/?page_id=8</a>), in particular section 8.2.3.</p> <p>The GBCA recognises that specific water footprint standards are yet to reach international acceptance. Protocols and standards are in the process of development specific to water footprint accounting.</p>
5 Social and Environmental Compliance	<p><b>Legal Compliance – Part II Mandatory Requirement</b> – The standard shall require manufacturers to comply with relevant social and environmental legislation or other legal requirements of the countries in which they operate.</p> <p><b>Compliant Supply Chain</b> – The standard shall require manufacturers to seek external independent assurance from suppliers of whole of enterprise social compliance to International Labour Organisation (ILO) conventions.</p> <p><b>Public Reporting</b> – The standard shall require manufacturers to conduct external independent public reporting in accordance with the Global Reporting Initiative (GRI) on the following topics as a minimum: environment, human rights and labour.</p> <p><b>Environmental Claims</b> – The standard shall require public claims made by manufacturers regarding the product’s environmental performance to be verified by the scheme as compliant with ISO 14021 ‘Environmental Labels and Declarations - Self-Declared Environmental Claims’ (Type II Environmental Labelling) requirements, OR the Global Reporting Initiative’s ‘Sustainability Reporting Guidelines’.</p>

PAC	Compliance Requirements and Additional Guidance
	<p>OR</p> <p><b>Compliance to Social/Ethical Guidelines</b> – The standard shall require whole-of-enterprise compliance with SA 8000.3 (SAI; 2008).</p> <p>Additional Guidance:</p> <p>There are two options available for documenting compliance with the three criteria in this PAC (i.e. Legal Compliance, Compliant Supply Chain, Public Reporting and Environmental Claims). First, the scheme can demonstrate that the standard requires compliance with the criteria (or part thereof). Alternatively the scheme can require compliance to SA 8000.</p> <p><b>ILO Conventions</b> – Refers (at a minimum) to:</p> <ul style="list-style-type: none"> <li>• Freedom of Association and Collective Bargaining (Conventions 87 and 98);</li> <li>• Elimination of Forced and Compulsory Labour (Conventions 29 and 105);</li> <li>• Elimination of Discrimination in respect of employment and occupation (Conventions 100 and 111);</li> <li>• Convention 155 - Occupational Safety and Health and its accompanying Recommendation No. 164; and</li> <li>• Convention 161 - Occupational Health Services and its accompanying Recommendation No.171.</li> </ul> <p><b>Whole of Enterprise</b> – Refers to all entities involved in the supply chain representing the entire product and its material components.</p>
6 Durability	<p><b>Fitness for Purpose</b> – The standard shall require products to comply with relevant national fitness for purpose standards.</p> <p>Additional Guidance:</p> <p><b>National fitness for purpose standards</b> – In Australia examples include, but may not be limited to, Australian Standards (denoted AS-NZS), the Australasian Furnishings Research &amp; Development Institute (AFRDI) Blue Tick Product Certification (furniture), and the Carpet Institute of Australia Limited Australian Carpet Classification Scheme (ACCS).</p>

PAC	Compliance Requirements and Additional Guidance
7 End of Life	<p><b>Product Stewardship Program</b> – The standards shall require manufacturers and/or suppliers of certified products or materials to have a product stewardship program in place. This program shall be publicly available and entail providing contractual arrangements with their customers to take products back at the end of the product’s in-use phase for some form of refurbishment, reuse or recycling as determined appropriate by the standard.</p> <p><b>Verification of Product Stewardship Program Arrangements</b> – The standards shall require verification that the necessary arrangements are in place to deliver the claims of the product stewardship program. This may include, but is not limited to, demonstration that contractual agreements exist between the manufacturer and / or supplier, wholesaler or retailer with third party recyclers, transport companies, charities, second-hand retailers and refurbishment companies.</p> <p><b>Design for Disassembly</b> – The standards shall include guidance on design for disassembly that requires manufacturers to design products in ways that enable their easy separation into base constituent materials to improve end of life reuse or recycling.</p> <p>Additional Guidance:</p> <p><b>Product Stewardship</b> – Is a product-centred approach to environmental protection that requires the associated parties involved in the product’s life cycle (e.g. manufacturers, retailers, users) to share responsibility for reducing the product’s environmental impact.</p> <p><b>Design for Disassembly</b> – Applies to product streams containing distinct components (e.g. furniture, partitions, storage) and implies products are designed so that components are easily disassembled. The processes which are required in product removal from site and component separation must not involve specialist tools, so that a future recycler, manufacturer or other third party might easily direct the different materials into the appropriate reuse or recycling streams. Flooring product standards may allow for the use of specialist tools to facilitate product component disassembly.</p>
8 Product Emissions	<p><b>Low VOC Emissions</b> – The standard shall require certified products with applications in interior fitouts (e.g. furniture, floor coverings) to comply with the Total Volatile Organic Compound (TVOC) emission limit benchmarks stated in Appendix B [in the GBCA Framework (GBCA; 2009a)].</p> <p>Additional Guidance:</p> <p>In the event that VOC test protocols not listed in Appendix B [of the GBCA Framework] are referenced by the scheme, the scheme shall provide evidence of the compatibility of such test protocols to the protocols and benchmarks listed in Appendix B. Justification shall be supported by a recognised indoor environmental quality expert.</p>

## **APPENDIX D SPECIFICATION LEVEL COMPARISON FOR SYNTHETIC CARPET**

This assessment has been undertaken by reviewing the website and publicly available documentation from ECNZ. Further information was also made available by ECNZ during a site visit in May 2012.

The assessment has been carried out by reviewing product criteria for carpets against requirements in the eight PACs in the GBCA Framework (Part II).

On the basis of this evaluation, the following colour coding is used in Table D1:

ECNZ excludes criteria for the area represented by the PAC.

ECNZ includes criteria but has different compliance criteria in the area covered by the PAC

ECNZ includes criteria and meets or exceeds the compliance criteria required by the PAC

Global GreenTag<sup>Cert™</sup> and CIALECS are not assessed and therefore not colour coded as they have already been assessed onto the GBCA Framework. The purpose of this study is not to reproduce this work, nor is this a formal assessment of ECNZ onto the GBCA Framework. Requirements for these schemes are provided for information only, and are based solely on information provided in their documentation and standards, which has not been audited for this work.

Page or section number references in the table refer to the listed reference at the top of each column in the Source References row.

**Table D1. Comparison of Criteria for Synthetic Carpet in Assessed Ecolabels against PAC Compliance Requirements (from GBCA Framework)**

	GLOBAL ECOLABELLING NETWORK	GBCA FRAMEWORK	
PART II PACs	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
<i>Version</i>	<i>March 2012</i>	<i>3.1</i>	<i>1.2</i>
<i>Source references</i>	<a href="http://www.enviro-choice.org.nz/">http://www.enviro-choice.org.nz/</a> NZET; 2012b	<a href="http://www.globalgreentag.com">http://www.globalgreentag.com</a> Ecospecifier Global; 2010	<a href="http://www.carpetinstitute.com.au/environment/">http://www.carpetinstitute.com.au/environment/</a> CIAL; 2010
1 Greenhouse Gases (GHG)	<p>Requires licence holder to report annually to ECNZ on energy management including initiatives taken to calculate and reduce carbon dioxide emissions (Section 5.10).</p> <p><b>Assessment Reasoning:</b> Does not require public reporting of product life cycle GHG emissions on a functional unit basis, required by PAC 1.</p> <p><i>Has related requirement but does not strictly meet PAC 1 Compliance</i></p>	Requires measurement of greenhouse gas footprints to ISO 14064 (ISO; 2006d) or PAS 2050 (BSi; 2008). Requires public reporting on a functional unit basis using established PCRs where available (pg. 46).	Licensees required to provide a product declaration to ISO 14025 (ISO; 2006a) and may use PAS 2050 (BSi; 2008) or ISO 14064 (ISO; 2006d). Functional unit is 1m <sup>2</sup> of finished textile floor covering. PCRs for floor coverings shall be followed (p. 26).
2 Toxicity	<p>Does not allow use of azo-based dyes that shed carcinogenic aryl amines (Section 5.6c)</p> <p>States product must not be manufactured using substances on the IARC Group 1 list of known carcinogens.</p> <p>Inorganic ammonium phosphates, boron compounds or polybrominated diphenyl ethers must not be used as flame retardants. Antimony oxides must not be used in manufacture (Section 5.9).</p> <p><b>Assessment Reasoning:</b> Does not refer to EU Consolidated list of C/M/R Substances Category 1 and 2 and does not reference appropriate R phases. Does not refer to IARC class 2a substances.</p>	All toxicity and health impacts are assessed in accordance with the ES CAP process <sup>8</sup> . Suppliers required to provide evidence from a credible third party confirming an ISO 14001 environmental management system or equivalent, demonstrating the gathering of data on toxics usage and generation in a format that allows for tracking of all toxics purchased or generated with the aim of eliminating toxics	Requires substances with an adverse health effect are kept below the No Observable Adverse Effect Level during the useful life and at end of life. Guidance on evaluation of raw material toxicity provided. Lists of banned chemicals and dyestuffs, and controlled or restricted use chemicals, provided. Maximum levels for toxic heavy metals restricted to below the NOAEL and monomer residue limit provided. ACCS take random samples of ECS

<sup>8</sup> Ecospecifier Cautionary Assessment Process (v.10)

	GLOBAL ECOLABELLING NETWORK	GBCA FRAMEWORK	
PART II PACs	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<i>Has related requirement but does not strictly meet PAC 2 Compliance</i>	in the production process, and a commitment to continuous improvement (pg. 47).	certified carpets and subject them to chemical analysis by a NATA registered laboratory (p 20 – 22).
3 Resource Extraction	<p>Sets minimum requirement for recycled content of face fibre (10% by weight), excluding non-solution dyed/white nylon fibre.</p> <p>Sets minimum recycled content of PVC and non-PVC carpet tile backing of 20% by weight (Section 5.2).</p> <p>Requires take back scheme for refurbishment or downcycling (Section 5.4).</p> <p>Requires manufacturing production waste to be less than 10% of total production volume and other waste minimisation criteria (Section 5.5).</p> <p>Applicant company required to submit evidence supporting the above, including a statement signed by the CEO (Sections 5.2 – 5.5).</p> <p><b>Assessment Reasoning:</b> Sets criteria relating to resources across life cycle from manufacture (recycled content, waste) to end of life (take back scheme). Submitting company required to provide evidence to confirm achievement of criteria. <i>Meets PAC 3 requirements</i></p>	<p>Required to gather data on material usage and waste generation that allows optimisation of the production process.</p> <p>Optimise materials sourcing and production processes to reduce negative environmental impacts from material sourcing, use and disposal.</p> <p>Sets minimum targets for recycled material, renewable resources, waste reduction etc as a percentage threshold according to level (A, B, C) (pg. 48).</p>	<p>Requires licensees to collect data with a view to optimising production processes and mitigating any adverse environmental impacts, including material usage and waste generation.</p> <p>Licensees must apply the waste management hierarchy to all waste streams in manufacture (p 22-23).</p>
4 Water	<p>Requires manufacturers to have formal processes in place to minimise water use in dyeing processes.</p> <p>Requires monitoring and checking of water inputs and wastewater outputs (Section 5.6).</p> <p><b>Assessment Reasoning:</b> Requires monitoring of water and water efficiency in the dyeing process, but does not require public reporting of a product life cycle water footprint, based on a functional unit. <i>Has related requirement but does not strictly meet PAC 4 Compliance</i></p>	<p>Public reporting of product life cycle water footprint on a functional unit basis, according to ISO 14040 (ISO; 2006b) and ISO 14044 (ISO; 2006c) (pg. 48).</p>	<p>Required to use ISO 14040 and relevant PCRs, and express results per 1m<sup>2</sup> finished textile floor covering (the functional unit).</p> <p>Need independent assessment of compliance with ISO 14040 (p 26-27).</p>

	GLOBAL ECOLABELLING NETWORK	GBCA FRAMEWORK	
PART II PACs	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
5 Social and Environmental Compliance	<p>Requires compliance with provisions of all relevant laws and regulations applicable during the life cycle of the product (Section 5.1). Documentation may include procedures for approving and monitoring of suppliers, although external assurance of compliance with ILO conventions not specifically mentioned.</p> <p>Access to documentation such as ISO 14001 required (Section 7), and reports on specific environmental issues may be provided as evidence eg. Section 5.5 on waste.</p> <p><b>Assessment Reasoning:</b> Has related requirements but misses some aspects, particularly requirements for Type II environmental claims or compliance with social/ethical guidelines. No requirement for public reporting to GRI.</p> <p><i>Has related requirement but does not strictly meet PAC 5 Compliance</i></p>	<p>Required to demonstrate compliance with relevant social and environmental legislative or other legal requirements.</p> <p>May also be required to demonstrate a compliant supply chain, public reporting or environmental claims or compliance with social/ethical guidelines across the whole enterprise to SA 8000. Evidence required set out in the standard (pg. 49).</p>	<p>Must comply with all relevant social and environmental legal obligations in the countries in which textile floor coverings and major materials inputs are produced (and Australian laws and regulations).</p> <p>May choose independent verification of compliance with SA 8000 or three ILO Conventions (p 27).</p> <p>Public reporting to GRI Standards on environment, human rights and labour required as a minimum (p 28).</p> <p>Environmental claims must meet ISO 14021 or GRI Sustainable Reporting Guidelines requirements, and be independently assessed (p 28).</p>
6 Durability	<p>Requires conformance with relevant product performance standards. Modular tile carpets and broadloom commercial carpets must carry a 12 year warranty, and residential broadloom carpets a 5 year warranty (Section 6).</p> <p><b>Assessment Reasoning:</b> Sets criteria that meet PAC 6 requirements, using local fitness for purpose standards.</p> <p><i>Meets PAC 6 requirements</i></p>	<p>Required to demonstrate compliance with relevant national fitness for purpose standards.</p> <p>Replacement parts must be available, where relevant (pg. 50).</p>	<p>Must be graded by the ACCS (p 23).</p>
7 End of Life	<p>Requires that carpet products are recyclable into new carpet products, other nylon based products or incinerated for process energy, or sold on as second hand carpet.</p> <p>Modular carpet tiles required to be removable, either using a peel and stick system, a water based adhesive or no adhesive.</p> <p>Verification includes service offering contracts and marketing material</p>	<p>Requires a product stewardship program to be in place, verification of the product stewardship program and design for disassembly strategies (pg. 50).</p>	<p>Product stewardship programme required - it must be publicly available and include contractual arrangements with customers to take back product at end of life.</p> <p>Independent verification of the product</p>

	GLOBAL ECOLABELLING NETWORK	GBCA FRAMEWORK	
PART II PACs	Environmental Choice New Zealand (ECNZ)	Global GreenTag <sup>Cert™</sup> (Australia)	CIALECS (Australia)
	<p>stating terms of take back scheme and ultimate destination of recovered products (Section 5.5).</p> <p><b>Assessment Reasoning:</b> Has related requirements but does not require that a product stewardship program is publicly available and verification arrangements are in place. Requires that modular carpet tiles are removable and sold with a service offering to customers including rotation and replacement of worn tiles.</p> <p><i>Has related requirement but does not strictly meet PAC 7 Compliance</i></p>		<p>stewardship programme required. Advice on installation and maintenance required (p 28 – 29).</p>
8 Product Emissions	<p>Sets maximum limits for concentrations of VOCs in air supported by emission test reports (based on cited test method) and calculations (Section 5.7). Sets VOC content limits for adhesives, requiring VOC emission test reports from a competent laboratory (Section 5.8).</p> <p><b>Assessment Reasoning:</b> Sets limit based ASTM testing method.</p> <p><i>Meets PAC 8 requirements</i></p>	<p>Requires compliance with VOC emission limit benchmarks as stated in Green Star Technical Manuals and additional guidance (pg. 50).</p>	<p>Emissions of VOCs must be below criteria set out in the guidance, using testing method as set out in ISO DIS 10580.</p>



## APPENDIX E COMMENTS RECEIVED FROM ECNZ ABOUT THE REPORT

- Makes an assumption that GBCA process reflects ‘Best Practice’. This assumption is not tested or explored.
- Environmental Choice New Zealand has willingly ‘opened its books’ to detailed scrutiny by BRANZ – there has not been a similar robust assessment of the details of the GBCA approved ‘ecolabels’ or indeed the GBCA process which appears less than totally transparent.
- There is a comment that the approved ‘ecolabels’ are required to comply with ISO 14024 in the GBCA process– It would be interesting to understand how this process took place.
- The GBCA process has a requirement for transparency. If a consumer/user wishes to understand what a product has had to comply with this is readily available on the ECNZ website. This is not the case with Ecospecifier. Information is only available after signing a very restrictive licence agreement<sup>9</sup>.
- Type 1 ecolabels comply with the principles outlined in ISO 14020/24. Criteria are developed on lifecycle principles aiming to reduce major environmental impacts for specific products in specific situations. PAC’s may or may not be relevant.
- Not only may PAC’s be irrelevant for specific products but they can also be manipulated as the weighting can be changed or ignored.
- PAC’s have what in some cases are aspirational objectives – this does not fulfil the requirements of ISO 14024.
- Type 1 ecolabels developed in New Zealand are developed specifically for New Zealand conditions and requirements.
- The GBCA scheme by its own declaration is geared to Australian Companies and Australian needs not New Zealand.
- The GBCA scheme by its nature does tend to favour larger organisations – this may well not operate in the interests of smaller New Zealand operations
- Automatically accepting products from GBCA approved ecolabels means they are not operating on a level playing field with New Zealand ecolabels e.g. Are their distributors compliant with local environmental legal requirements - they may have a ‘take back’ programme in Australia – do they have one in New Zealand?

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<sup>9</sup> ecospecifier have commented on this point from ECNZ stating that their licence is a three paragraph one page licence that binds them to keep versions updated for recipients and requires that ecospecifier’s intellectual property is not used inappropriately. The standard is made freely available, is supplied at no cost and the process is open and transparent, therefore meets ISO 14024 requirements.

- The Synthetic Carpet specification is in the process of review – perhaps a more interesting example would have been the recently reviewed and updated Wool and wool rich carpet criteria. Interestingly in its current form it is judged to be likely to attract an A status.
- Environmental Choice New Zealand has not applied for recognition by GBCA
  - [a] Cost
  - [b] Requirements that are either aspirational or irrelevant to a particular product category and the ability of others to ‘game’ or manipulate the criteria.
  - [c] There is a requirement for criteria developed in New Zealand for New Zealand conditions to be approved by an anonymous Australian Committee and may not be considered appropriate for Australia [a process which lacks transparency]. This non-transparent process would not meet the requirements of ISO 14024 or ISO 14020.
- The New Zealand Green Building Council is a New Zealand based organisation – it is arguable that it should be supporting New Zealand based companies.
- The reason that the Australian ecolabelled products were introduced was ostensibly that there were insufficient products available to specifiers. There is now a wide range of Environmental Choice New Zealand licensed products available – remembering that not all products will comply with the requirement to be ‘environmentally preferable’. By widening the base there is a danger of undermining the whole ‘raison d’etre’ of products for green buildings.