



**LANDCARE RESEARCH**

**LANDCARE RESEARCH ANNUAL REPORT  
2001  
VERIFICATION ASSESSMENT REPORT**

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LANDCARE RESEARCH**

**REPORT PREPARED BY:  
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## **APPENDIX A**

### Composite Benchmark Assessment Checklist



## EXECUTIVE SUMMARY

Tonkin & Taylor Ltd has verified the non-financial elements of “Manaaki Whenua Landcare Research Annual Report 2001 for all dimensions of our performance” and assessed the Report against a benchmark of emerging best practice in Sustainability Reporting.

On the basis of the verification, Tonkin & Taylor has concluded that the Annual Report (non-financial elements) is:

- relevant and complete;
- accurate and reliable; and
- clear and comprehensible for Landcare Research’s stakeholders.

On the basis of the benchmark assessment, Tonkin & Taylor has concluded that Landcare Research is continuing to provide international leadership in Sustainability reporting. The Report is comprehensive in its coverage and insightful and honest in identifying areas of future leadership challenge.

The Report’s structure and content represent a “cutting edge” for comprehensive “Sustainability” reporting, beyond the limited construct of the simple “triple bottom line”.

Environmental and social performance is reported in the context of:

- the nature of Landcare’s research and the approaches taken to research and its application; as well as
- the organisation’s own internal activities and functions (eg its own use of resources, waste generation and human resource management activities).

The Report's presentation of information about Management, its accessibility, the approach to assurance are all to be highly commended and represent excellent reporting when compared with the best practice benchmark.

Future challenges will centre around:

- achieving greater internal alignment between management systems and processes, including stronger and more explicit links with strategic planning and management;
- continuing to develop and understand indicators
- extending tools and including further stakeholder input better to interpret data about indicators to provide an overall picture of environmental and social performance.



## **1.0 Introduction**

Tonkin & Taylor Ltd (T&T) was commissioned by Landcare Research to verify non-financial elements included Landcare's 2001 Annual Report. Terms of reference for the review are set out in a T&T proposal dated 30 May 2001, confirmed by Landcare Research on 5 June 2001.

### **1.1 Objectives**

The objectives of T&T's commission were as follows.

1. To independently and objectively assess whether the information presented in the Annual Report is:
  - relevant and complete in reflecting Landcare Research's activities and services;
  - accurate and reliable; and
  - clear and comprehensible for Landcare Research's stakeholders.
2. To provide a verification letter to include in the Annual Report.
3. To provide recommendations for improvement and to assist Landcare Research to maintain a leadership role in Triple-Bottom-Line (Sustainability) reporting.

### **1.2 Scope and Method**

The verification work involved two separate activities:

- verifying the information presented in the Annual Report; and
- assessing the overall Report and approach against a benchmark of emerging best practice in Sustainability reporting.

The scope of verification for information presented in the Annual Report did not include financial information. Separate verification on financial information was completed and reported by Audit New Zealand.



T&T's method for carrying out the verification was based on relevant international auditing and assessment standards and practice (including ISO 10011, ISO 14010 and ISO 14011, which set out principles, guidelines and procedures for auditing).

T&T has developed a composite benchmark checklist for emerging best practice in Sustainability reporting. The composite checklist draws on the following:

- the Global Reporting Initiative criteria;
- the Global Reporters (SustainAbility) criteria;
- the AA1000 guidelines;
- the New Zealand Business Council for Sustainable Development reporting guidelines; and
- principles of the Crown Research Institutes Act.

T&T has used the composite benchmark checklist as the basis to assess Landcare's overall approach to Sustainability reporting and to provide recommendations to assist Landcare maintain its leadership role in this area.

The verification was carried out during June and July and involved on-site verification (on two separate visits) as well as web and hard-copy document and record reviews. During the verification process we prepared two working draft versions of this verification report – based on drafts of the Annual Report. We presented our initial verification findings to the Landcare Senior Management Team. These findings were based on our review of the first draft of the Report and a one-day verification workshop with key staff. The presentation also presented challenges we identified in the coverage and interpretation of available and reported data.

The verification and assessment were completed by a team comprising:

- Marje Russ (Tonkin & Taylor) **MSc (Hons) Resource Management, MNZPI, MRTPI, QSA Senior Auditor (environment and quality)**
- Joan Baker (Independent Consultant) **MBA, M.Ed, DipEd, B.Ed(Hons)**.

### **1.3 Structure and Content of this Report**

This report records the verification and assessment completed by T&T and the basis for the verification statement included in the Annual Report and recommendations made to Landcare Research.

The report is presented in two main parts:

- Part I presents the verification of the Report content; and
- Part II presents the assessment against the composite benchmark checklist.

The structure of Part I follows the structure of the Annual Report, providing a brief commentary, record of verification completed, conclusions and recommendations (where appropriate) for each component of the Annual Report.

## **PART I: Verification of Report Content**

### **2.0 Introductory Material**

#### **2.1 Our Vision**

##### *Commentary*

This section introduces Landcare – Manaaki Whenua, its vision and mission.

##### *Verification Completed*

We reviewed the description of Landcare and its vision against the relevant provisions of the Landcare Research’s Statement of Corporate Intent for 2000–2001 (SCI).

##### *Conclusions*

- We concluded that the statement of vision “Science making a difference for a truly clean and green New Zealand” is consistent with the strategic intent set in the SCI.
- We concluded that the description of the organisation and its Sustainable Manaaki Whenua mission restate key aspects of the strategic intent and mission set in the SCI (providing leadership through issue-oriented and basic science research and being commercially successful).
- We concluded that the mission reflects Landcare’s wider commitments and focus on Sustainability that have emerged more clearly since the SCI was prepared.

##### *Recommendations*

We recommend that future SCI documents incorporate the Sustainability focus Landcare has adopted and the organisation’s leadership in this area, nationally and internationally.

## **2.2 Highlights**

### *Commentary*

The Report presents nine highlights for the year.

### *Verification Completed*

We reviewed the highlights in the context of the rest of the Report and discussed them with key senior staff.

### *Conclusion*

We concluded that they did represent important highlights in Landcare's achievements over the reporting period.

## **2.3 Guiding Philosophy**

### *Commentary*

The Report presents the guiding philosophy of Landcare Research. Comments are included about how the philosophy was developed and how it is reviewed and maintained.

### *Verification Completed*

- We examined the guiding philosophy and confirmed that it was unchanged from that presented in the Annual Report 2000 & Sustainability Report for period to June 1999.
- We discussed the processes for reviewing the philosophy with key senior staff and concluded that the comments included in the Report reflect the processes that occurred to confirm the philosophy.

### *Conclusion*

We concluded that the guiding philosophy contains an important set of foundation principles and that its inclusion at the start of the Report provides a sound starting point for reporting.



## **2.4 Chairman's Report**

### *Commentary*

The Chairman's report introduces the scope and nature of the Triple Bottom Line Report, restates Landcare's vision and outlines the nature of Landcare's business. The Chairman's report describes the importance and relevance of Sustainability (sustainable development) to Landcare and to New Zealand. It also overviews Landcare's performance over the reporting period and presents some "views" about Government initiatives that are relevant to Landcare.

### *Verification Completed*

We reviewed drafts of the text for the Chairman's report and explored the content with Senior Managers.

### *Conclusion*

We concluded that the Chairman's report provides strong top-level leadership on sustainability and the organisation's vision and purpose.

## **2.5 Chief Executive's Review and Headline Indicators**

### *Commentary*

The Chief Executive's review begins by outlining five key areas of focus for Landcare's research and with a statement about the organisation's intention to lead sustainable development thinking and practice. By referencing the comprehensive information available in the Research Report, the Chief Executive signals the wider information from which the Annual Report has drawn examples.

The review comments on overall performance success, and highlights examples of performance, benchmarked against other Crown Research Institutes (CRIs). It provides a substantial commentary on Landcare's leadership in its science research, highlighting investments in 2001 and planned investments in 2002.

The review also provides a substantial commentary on Landcare's journey to Triple Bottom Line reporting. This sets the context for Landcare's approach based on the CRI Act and draws links to the SCI (which had not signalled this more recently formalised focus for the Company). The context is also set for Landcare's work with clients and leadership role in this area. In addition, the review identifies challenges and initiatives for next year.

The review is accompanied by graphs showing Landcare's performance against 16 "headline indicators" over 3-6 years. Year 2002 targets for six of the headline indicators are also shown.

### ***Verification Completed***

- We reviewed drafts of the text for the Chief Executive's review in the context of the overall content of the report and wider information and data on which the report is based.
- We discussed the drafts with senior staff and interviewed the Chief Executive, exploring views on the organisation's performance and leadership role.
- We reviewed the data supporting the headline indicators (excluding those on financial viability) as part of our detailed assessment and verification of the main Report text.
- We discussed the selection of "headline" indicators in depth with senior staff, exploring, probing and challenging the basis for their selection from other indicators reported and the wider range of data available.

### ***Conclusions***

- We concluded that the Chief Executive's review provides a balanced and appropriate overview of the organisation's performance and priorities.

- We concluded that the headline indicators reflect the topic areas for performance measures and targets that were set in the SCI (based on the principles of operation for CRIs in the CRI Act).
- We concluded that selecting headline indicators that “sum up” overall Sustainability performance will continue to be a challenge, particularly in the largely uncharted area of social performance.

### *Recommendations*

- We recommend that Landcare continue to provide intellectual and practical leadership on Sustainability reporting by further investigating, exploring, testing and demonstrating approaches to identify and report on key measures and indicators of Sustainability.

## **2.6 Planning & Reporting Framework**

### *Commentary*

This section of the report describes the framework in place (processes and key documents) at Landcare to plan and report on business operations.

### *Verification Completed*

- We reviewed the 2000–2001 SCI, last year’s Annual Report and Landcare’s first Sustainability Report in depth.
- We reviewed parts of the strategic business plan and operational management plans and sighted some example research contract documentation.
- We reviewed management system documentation (environmental, human resource and health and safety).
- We reviewed extracts from reports to the Board.

- We explored the links between formal plans, management systems and reporting in depth, in discussions with senior staff.

### ***Conclusions***

- We concluded that the formal planning and reporting documents were in place.
- We concluded that the SCI does not signal the strong Sustainability focus adopted for the Annual Report. This focus was formally introduced into the organisation through a review of the Environmental Policy that is part of the environmental management system.
- We concluded that this difference in part resulted from:
  - the time elapsed between preparing the SCI and reporting against it; and
  - a lack of alignment between formal statutory planning and reporting requirements, and the policy and planning requirements of formal management systems.

### ***Recommendations***

We recommend that Landcare work to align the formal statutory planning and reporting processes required under the CRI Act and the processes for setting policy and planning that are implemented as part of formal management systems.

## **3.0 What we do with Others - Science**

### **3.1 Introduction**

#### *Commentary*

This section of the Annual Report introduces six main areas of research Landcare is involved in. The introduction provides some brief comments before each area is addressed in more detail. The comments:

- quantify the balance of research effort in the six areas of focus and trends in this balance;
- describe the nature of research activities, from basic research through to supporting policy development, and the proportion of effort in these areas; and
- indicate that the Report presents examples of research and reference sources for more comprehensive information on research.

#### *Verification Completed*

- We reviewed drafts of the text for this section. We examined the data and processes used to determine or calculate the proportions of research involved in the areas described. We briefly reviewed the July 2001 Research Report.
- We confirmed that the six areas of focus for Landcare's research matched those outlined in the SCI.

#### *Conclusion*

We concluded that the introduction to science presented in the Report provides a sound overview of the science research work of Landcare.

### **3.2 Halting the Decline of New Zealand's Indigenous Biodiversity**

#### *Commentary*

This section of the Report describes Landcare's biodiversity work, providing examples and quoting some statistics. The national-level policy drivers for the research are discussed. Two specific research areas are presented in more detail:

- work to map environmental domains or ecosystem types in more detail than previously classified ecological regions and districts; and
- research to examine the importance of species biodiversity to ecosystem health.

#### *Verification Completed*

We reviewed drafts of the text of this section and explored the specific examples cited in discussions with the Landcare Research Manager and in the context of the wider information presented in the Research Report.

#### *Conclusion*

We concluded that this section of the Report provided a brief but sound overview of this area of research with a particularly useful description of how the research programme is directed to provide information to support management strategy and policy needs.

### **3.3 Solving New Zealand's Worst Environmental Pest Problems**

#### *Commentary*

This section of the Report overviews Landcare's work on pest problems. It begins by providing background on the nature and economic significance of these problems and explaining the approach to research. A number of

examples of research work are presented demonstrating the range of research activities and highlighting successes and areas of remaining challenge.

#### *Verification Completed*

- We reviewed drafts of the text for this section and explored the material presented in discussion with the Science Manager, Biodiversity and Ecosystem Processes.
- We confirmed the source of statistics quoted concerning economic significance of the pest problems, the industries affected and government expenditure.

#### *Conclusion*

We concluded that the description in this section of the Report provided a particularly useful overview, placing the research effort in the context of its economic significance.

### **3.4 Sustaining the Quality of our Soils**

#### *Commentary*

This section of the Report briefly overviews the research work on soil quality, including examples that illustrate the range of research activities. Visual Soil Assessment work is profiled in more detail, providing an example of an effective collaborative approach to apply the outcomes of research.

#### *Verification Completed*

We reviewed drafts of text of this section of the Report and briefly explored the information provided in the context of the Research Report and discussion with the Research Manager.

#### *Conclusion*

We concluded that this section provided a good overview of the breadth of research, with a useful example of a very practical application of research to environmental management “on the ground”.

### **3.5 Increasing Carbon Sequestration**

#### *Commentary*

This section of the Report introduces new areas of research (investigating nitrous oxide emissions and sinks) and an innovative project building on longer-term more fundamental research work to address carbon sequestration. The EBEX project is profiled in more detail. The importance of the research to longer-term international environmental management commitments is described.

#### *Verification Completed*

We reviewed drafts of the text for this section and explored the information briefly in discussions with the Science Manager, Sustainable Business & Communities and the Research Manager.

#### *Conclusion*

We concluded that this section of the Report provided a good example of an innovative and business-oriented application of more fundamental research.

### **3.6 Reducing New Zealand's Ecological Footprint**

#### *Commentary*

This section of the Report briefly introduces newer areas of Landcare work focussed on ecological footprints. Some examples are provided, with more referenced in the Partnerships section of the Report. A specific 2002 target for investment in this area of research is set.

#### *Verification Completed*

We reviewed drafts of the text of this section and explored each of the examples provided in discussions with the Science Manager, Sustainable Business & Communities.

### *Conclusion*

We concluded that this section provides a good introduction to this new and emerging focus of research for Landcare.

## **3.7 Reflecting Public Values, Attitudes, Behaviours & Aspirations**

### *Commentary*

This section of the Report briefly overviews work involving social researchers and consultation and involvement with iwi and community groups. One example project is described.

### *Verification Completed*

We reviewed drafts of the text for this section and discussed its content briefly with the Research Manager.

### *Conclusion*

We concluded that this section of the Report provides an initial introduction to this area of work.

## **4.0 What we do with Others – Partnerships**

### **4.1 Introduction**

#### *Commentary*

The Report outlines the importance of Landcare's provision of leadership to ensure research supports policy development and implementation. It emphasises the partnership approach Landcare take to research work. Some examples of secondments and involvement in national and international advisory groups and initiatives are cited. An example outlining the benefits of the partnership approach to work with the Department of Conservation is provided. Two 2002 targets (on developing the alliance with Auckland University through the relocation to Tamaki Campus and secondment of staff) are presented.

#### *Verification Completed*

- We reviewed drafts of the text for this section and explored its content and the specific examples cited in discussions with senior staff.
- We reviewed records of meetings and workshops with the Department of Conservation.

#### *Conclusion*

We concluded that this section provides a brief but useful introduction to approaches that will become an increasingly important feature of more of Landcare's future research.

#### *Recommendation*

We recommend that future reports include more information, or references to sources of information about initiatives that are cited as examples, such as the Global Taxonomy Initiative and the Global Biodiversity Information Facility.

## **4.2 Collaboration with other Research Providers**

### *Commentary*

This section of the Report describes approaches to collaborative work including:

- work subcontracted to or from other parties (AgResearch & Cawthron Institute are specifically identified); and
- collaboration with Universities (co-location, funding support for University staff and students and involvement in research supervision and teaching are discussed).

Data on the proportions of the total Public Good Science & Technology funded work contracted in and out are presented along with statistics about staff involvement with Universities. Sirtrack is profiled in more detail, providing an example of Landcare working to support other research programmes in New Zealand and internationally.

### *Verification Completed*

- We reviewed drafts of the text for this section and discussed it with the Research Manager and Phil Hart.
- We examined the data sources and calculation methods used to provide the reported information on collaborative research.

### *Conclusion*

We concluded that this section of the report provides useful information about collaborative approaches. It includes data showing the beginnings of a trend of an increasing proportion of collaborative research that will be interesting to track in future reports.

### **4.3 Promoting our Science in Professional Organisations**

#### *Commentary*

This short section provides data over two years for staff holding directorships, editorial positions and formal advisory positions.

#### *Verification Completed*

We verified the data for directorships, editorial positions and formal advisory positions reported. This data is supplied in full on the Landcare website, detailing the names, positions, periodicals and formal advisory roles.

#### *Conclusion*

We concluded that the staff of Manaaki Whenua make a very large contribution, quantitatively and qualitatively, to the promotion of science across a very wide range of professional organisations. The data of formal advisory positions shows the beginning of a trend in providing an increasing amount of advisory input.

### **4.4 Biological Collections & Natural Resource Databases**

#### *Commentary*

This section of the Report outlines the collections and databases managed by Landcare and how they are used in environmental management. Reference is made to additional data on use of the databases and those that can be accessed via the Internet.

#### *Verification Completed*

- We reviewed drafts of text for this section and discussed the programme to improve the quality and accessibility of the databases with the Operations Manager.
- We accessed all the databases available on the Internet and examined the nature and accessibility of the data.

- We reviewed the data presented on use of the databases but did not access and confirm data sources.

### *Conclusion*

We concluded that the description of the databases, their use and programme to improve is useful and accurate. The additional information about use of the databases and the review of the information available in the databases on the Internet demonstrates the utility and value of these databases and the additional benefits that can be expected from further work to improve accessibility.

## **4.5 Partnerships for Sustainable Business**

### *Commentary*

The Report describes Landcare's involvement in a range of initiatives, including:

- New Zealand Business Council for Sustainable Development;
- Natural Capitalism and Redefining Resources;
- the Natural Step;
- Target Zero;
- EBEX21; and
- EnviroMark.

Internet homepage addresses are provided for more information about each of these initiatives.

### *Verification Completed*

- We reviewed drafts of the text for this section and discussed each of the initiatives with the Science Manager, Sustainable Business and Communities and with staff involved directly in the initiatives.
- We completed a detailed review of EnviroMark programme and software (Beta Test).

### *Conclusion*

We concluded that the Report provides an initial introduction to this new area of work and to the initiatives Landcare is involved in. The Internet homepages provide additional information about the programmes and initiatives. However, information about specific outcomes, progress and achievements from Landcare's involvement is not reported.

### *Recommendation*

We recommend that future Annual Reports include information about the outcomes, progress and achievements from Landcare's involvement in initiatives associated with sustainable business and communities.

## **4.6 Helping Sustainable Development through Partnerships in Aid Projects**

### *Commentary*

This section of the report briefly introduces the activities of Landcare's International Business Group. It overviews the consultancy work Landcare is involved in, identifying the number of projects, countries involved and main funders. It describes two examples of projects in China.

### *Verification Completed*

- We reviewed a draft of the text for this section and examined the list of 22 consultancy projects.

- We discussed the international work and its links to Landcare’s vision briefly with the Strategy and Development Manager.
- We did not access or review more detailed information about these projects.

### ***Conclusion***

We concluded that Landcare was involved in 22 international projects but were not able to draw conclusions about the nature or success of these projects.

### ***Recommendation***

We recommend that future Annual Reports include:

- more information to describe and the overall programme of international programme of projects; and
- information about how the international projects fit within and support (or expand) Landcare’s vision of science making a difference for a truly clean, green New Zealand.

## **4.7 Partnerships with Maori**

### ***Commentary***

This section provides a brief commentary on how Landcare involves Maori in research work. It reports that a company-wide approach has been developed to increase Maori involvement in research and to help build Maori science capability. Two example projects are described and a brief update on the Waitangi Tribunal Claim on indigenous fauna and flora is also provided.

### ***Verification Completed***

- We reviewed drafts of the text of this section and discussed its content, (including the two examples) in detail with the Treaty Responsibilities Manager.

- We examined information, records and materials produced as part of the two examples and other projects (including the Motueka catchment project reported elsewhere in the Report).
- We reviewed and explored the company-wide strategy with the Treaty Responsibilities Manager.

### ***Conclusion***

We concluded that the Report accurately presented partnership work Landcare is involved in with Maori and that the strategy outlines a means that should help Landcare to increase Maori involvement in research and to build Maori science capacity.

### ***Recommendation***

We recommend that Landcare work to develop and report quantitative measure for Maori partnership projects so that progress and success implementing the new strategy can be tracked and reported in future reports.

## **4.8 Partnerships with the Community**

### ***Commentary***

This section describes the responsibility Landcare has to share information and expertise with the community. It reports that Landcare does not have a formal strategy to guide activities in this area and outlines examples of initiatives Landcare is involved in. Data on media coverage of Landcare activities are presented. Three year 2002 targets for media coverage are presented.

### ***Verification Completed***

- We reviewed drafts of the text for this section and discussed its content with the Strategy and Development Manager, including the specific examples cited.

- We reviewed some media information but did not access or review source data reported on media coverage.

### *Conclusion*

We concluded that this section of the Report accurately presents Landcare's activities and initiatives in partnership with the community.

## **4.9 Promoting Science through the Web**

### *Commentary*

This section of the Report presents data on visitor activity on Landcare's website and reports organisations for which Landcare hosts websites.

### *Verification Completed*

- We reviewed a draft of this section.
- We accessed and reviewed the Landcare website, including all sites reported as hosted by Landcare.
- We did not access, review or confirm source data on web activity.

### *Conclusion*

We concluded that Landcare has an effective website with a significant volume of information easily accessible, including information on hosted websites.

## **4.10 Manaaki Whenua Press**

### *Commentary*

This section reports the new titles published.

### *Verification Completed*

We did not access publication data to confirm the accuracy of the reported publications list.

## **4.11 Advocacy**

### *Commentary*

The section reports that Landcare did not adopt an advocacy role on any issue over the reporting period but did prepare a submission to the Royal Commission on Genetic Modification.

### *Verification Completed*

We discussed advocacy briefly with the Chief Executive and the Strategy and Development Manager.

### *Conclusion*

We found no evidence during our assessment to suggest an advocacy role had been taken on any issue.

## **5.0 What We Do Ourselves - Environment**

### **5.1 Introduction & How We Do It**

#### *Commentary*

This section introduces Landcare's intention to lead by example with its environmental performance. It outlines four broad goals, describes staff commitment and briefly outlines Landcare's environmental management system. It reports the number of incidents and explains their nature and significance in terms of environmental damage. More information about the environmental policy and management system is available on the webpage.

#### *Verification Completed*

- We confirmed Landcare's ISO 14001 certification (including scope) was current on Telarc Ltd's web database.
- We examined the current controlled copy of the environmental policy (dated April 2001) and confirmed this was the version to be included on the website.
- We sighted the current controlled environmental management system documentation and discussed planned further development of procedures documents with the Environmental Management Co-ordinator.
- We examined the most recent external (Telarc 22/3/00 & August 00) audit reports and most recent internal site and project audit reports.
- We examined "management review" reports, including the report reviewing the Environmental Policy, April 2001 and on Sustainability issues for Landcare, March 2001.
- We sighted Audit and Risk Management Committee reports on compliance with statutory requirements and examined two dated 16/2/1 and 31/12/00.

- We interviewed the Environmental Management Co-ordinator and discussed current work on a new Standard Operating Procedures to incorporate new HSNO requirements and proposals to add this to the scope of site audits.
- We sighted environmental incident records.

### *Conclusion*

We concluded that Landcare has accurately reported on the organisation's environmental management system.

## **5.2 Resource Use & Waste Production**

### *Commentary*

This section presents Landcare's overall goals of zero waste, zero net emissions and optimal use of resources. It describes resources used, wastes and emissions, including compliance with relevant regulatory requirements. Data are presented for some topics in the report and further data is referenced and available on the website.

The section covers Landcare's research laboratories, fieldwork, offices and general activities, electricity use and savings, motor vehicle travel, air travel and solid waste. Four year 2002 and two year 2005 targets are presented.

### *Verification Completed*

- We reviewed and discussed two drafts of text for this section with the Environmental Management Co-ordinator.
- We explored the means of disposal reported for wastes and effluents and confirmed applicable trade waste bylaws and consents were in place.

- We reviewed annual report indicator sheets for skip audits (solid waste), paper use and recycling, electricity use, motor vehicle travel, air travel and SMT travel.
- We reviewed data sources, probed on methods used to calculate or derive reported data, including confirming reasons for changes to previously reported data (due to different calculation basis).
- We sighted the prompt included on travel booking forms to encourage staff to consider alternatives to travel.
- We discussed the proposed future data gathering and reporting on chemical use with the Environmental Management Co-ordinator.
- We interviewed the Science Manager, Biodiversity and Ecosystem Processes and other relevant staff about impacts of field research and reported data.
- We reviewed supporting compilation data tables for 2000 use of hip chain cotton.

### *Conclusions*

- We concluded that the report accurately presents available data on resource use and waste production. This data is presented in the context of information about the research and other activities that produce waste and use resources. In most instances it is presented with information about the scale and significance of the resulting impacts.
- We concluded that there were further opportunities to interpret and present information and data about environmental performance, by exploring the links between indicators and examining trends in data over time.

### ***Recommendation***

We recommend that Landcare continue to review, investigate and explore appropriate indicators of environmental performance.

## **5.3 Environmental Performance: Our Eco-balance**

### ***Commentary***

This section of the Report introduces the concept of Landcare's carbon emissions Eco-balance. It presents data on imputed carbon dioxide emissions from Landcare's travel and electricity use. It reports that a five-year strategy has been adopted by Landcare to achieve zero net emissions through native forest planting to offset emissions.

### ***Verification Completed***

- We reviewed the annual report indicator sheet for imputed carbon emissions and discussed the basis of calculations with the Environmental Management Co-ordinator.
- We did not review the five-year strategy for native forest restoration to offset emissions.

### ***Conclusion***

We concluded that the imputed carbon calculations were being carried out carefully and consistently. Progress towards the zero net emissions target will require future reporting on the implementation of the restoration strategy and its effectiveness in providing offsets.

### ***Recommendation***

We recommend that the next Annual Report include details of the five-year strategy to achieve zero emissions and include quantitative data to demonstrate progress towards the target.

## **5.4 Animals in Research and Animal Ethics**

### *Commentary*

This section includes information about why and how animals are used in research. It describes the role and activities of the Animal Ethics Committee and presents data about the number of projects and total numbers of animals used in research, explaining the variation in numbers that can occur from year to year. Reference is made to additional data on the website.

The section reports two noncompliances and action taken in response to these incidents. It includes information about a new, humane trap for possums. A year 2002 target on animal welfare is presented.

### *Verification Completed*

- We reviewed drafts of text for this section and discussed these in interviews with the Science Manager, Biodiversity and Ecosystem Processes and other key staff.
- We interviewed Dave Morgan, Chair of the Animal Ethics Committee (AEC). We reviewed the minutes of AEC meeting on 6 April 2001 and sighted extracts of minutes of meetings on 30 March 2000 and 21 August 2000.
- We reviewed in detail, application documents, AEC approval forms and related correspondence & file notes for an example project, No 00/2/3 Ferret Neophobia to traps.
- We examined the data on animals used that is included in the Report and the additional data proposed to be presented on the web.
- We compared data reported for years 1996-98 with data previously reported and found this to be consistent.
- We confirmed all data reported for 2000 against Animal Use Figure sheets (reported to MAF) and tracked data on 4 of the 13 animals to original project final return forms.

### *Conclusions*

- We concluded that the information included in the report provides a good explanation about why and how animals are used in research and that data presented is accurate.
- We concluded that the activities of the Animal Ethics Committee were accurately reported and that the Committee is operating effectively.

## **5.5 Animal Bycatch in the Field**

### *Commentary*

This section of the Report outlines Landcare policy and procedures to minimise and manage bycatch. Data on bycatch from 1998–2000 are presented and interpreted in the context of nature of the research carried out. Additional data is referenced on the website. A year 2002 target to reduce bycatch is presented.

### *Verification Completed*

- We compared data included in this Report with data previously reported and found this to be consistent.
- We interviewed Wayne Fraser who compiled data on bycatch.
- We reviewed compiled data tables and summary of main findings; and confirmed sources for data included in the draft annual report table for 2000 figures.
- We interviewed Oliver Sutherland and explored the selection, presentation and interpretation of data.

### ***Conclusion***

We concluded that information in the Report about Bycatch is accurate and clear.

## **5.6 Use of Genetic Modification in Research**

### ***Commentary***

This section of the Report describes the nature and scale of research involving genetic modification (GM) and how research is relevant to environmental management. Work to survey and understand public attitudes to GM research (and in particular the research Landcare is carrying out on possum fertility control), and Landcare's position on GM work are presented. Reference is made to more information available on the website about the public attitudes survey.

Data on formal approvals from ERMA to import and/or develop new or genetically modified organisms are reported and details are provided of approved transitional and containment facilities. Procedures and systems in place to manage compliance with the Hazardous Substance and New Organisms Act are described.

The section reports that Landcare made a submission to the Royal Commission on GM and references a copy of the submission available on the website. A year 2002 target on compliance is presented.

### ***Verification Completed***

- We reviewed drafts of text for this section and discussed these with senior staff.
- We interviewed the Lincoln Biological Safety Officer exploring roles, responsibilities and processes for GM approvals as well as the data presented.
- We reviewed the following documents and records:

- Notice of delegation to conduct rapid assessments of applications for low risk developments of genetically modified organisms (dated 15 March 2001 and valid through to 31 December 2005);
- March 2001 Institutional Biological Safety Committee (IBSC) activity report for the joint Lincoln Landcare/Crop & Food IBSC. This reported one new approval on 7 Feb 2001 to import new organism into containment (Form 2) and three existing approvals to develop GMOs (Form 3).

### ***Conclusion***

We concluded that the Report accurately and sensitively presents information about Landcare's activities in this publicly controversial area of research.

## **6.0 What we do Ourselves – Our People**

### **6.1 Introduction**

#### *Commentary*

This section of the report opens with a statement of Manaaki Whenua's philosophy of the management of people and their knowledge. This section notes there are regulatory requirements that apply to the organisation but also indicates that Manaaki Whenua tries to go beyond compliance and has its focus on the enhancement of human capital.

#### *Verification Completed*

- We confirmed that Landcare complies with the provisions of CRI Act as a good employer, ie, has and implements policies in the areas of diversity, EEO, Balance, Flexibility, Health and Safety.
- We confirmed the Headline Indicators measuring EEO Opportunities, Staff Satisfaction, and Safety included in The Chief Executive's Review (p9).

#### *Conclusion*

We concluded that Manaaki Whenua complies with its obligations and on several dimensions exceeds expectations.

#### *Recommendation*

A more integrated framework encompassing vision, values, human capital philosophy and management practice with more explicit linkage to priorities and process is the logical next development.

## **6.2 Investing in Knowledge, Skills & Networks**

### *Commentary*

This section describes the importance placed on investment in the ongoing development of knowledge, skills and networks of Manaaki Whenua staff. Investment in post-doctoral fellowships, networks and sabbaticals are recorded, as is expenditure on staff development and training.

### *Verification Completed*

- We discussed the policy and practices of Manaaki Whenua in approaching investment in people and their knowledge with Michael Johnson, Human Resources Manager.
- We reviewed the relevant policies as detailed in the policy manual.
- We confirmed from the areas covered in the staff survey that there is satisfaction overall with the organisation's direction and performance in this area.

### *Conclusion*

We concluded that Manaaki Whenua understands and values investment in knowledge, skills and networks.

### *Recommendations*

A further development in this area would be work clarifying critical future capabilities at organisational level, which would drive investment in people and knowledge development.

## **6.3 Recognition & Reputation of Our Staff**

### *Commentary*

This section details the extent of the professional recognition awarded to Manaaki Whenua staff. It includes information from an external benchmarking study of the publication rate of Manaaki Whenua as compared

to other CRIs and provided details of some of the more frequently cited papers of the organisation. (It is useful to read this section in conjunction with **Promoting our Science in Professional Organisations**)

#### *Verification Completed*

- We discussed the importance of professional recognition and reputation as a key indicator for the organisation. Scientific publications remain one of the most useful benchmarks for research organisations.
- We confirmed that a complete list of the awards and invited contributions is available on the Landcare website.

#### *Conclusion*

We concluded that Manaaki Whenua staff are recognised widely and continue to grow their international reputation.

## **6.4 Recruitment & Retention**

#### *Commentary*

This section details Landcare's approach to Recruitment and Retention, including its effort to help increase diversity in the workplace. Some demographic data is included. A brief commentary is provided on trends and data.

#### *Verification Completed*

- We discussed the overall policies, processes and practices of Manaaki Whenua in attracting and retaining the people it needs to deliver on its mission. Some of the difficulties, including remuneration, are discussed in the report.

- We reviewed the policies and procedures that pertain to recruitment, promoting diversity and EEO and confirmed that policies and procedures exist to manage these key activities.
- We examined the statistical data maintained by the organisation – staff composition, turnover, etc.
- We confirmed that Manaaki Whenua has been innovative in promoting diversity through bursaries and fellowships for Maori students.

### ***Conclusion***

We concluded from the evidence presented in the staff survey that there is satisfaction overall with the direction and performance of the organisation in this area.

### ***Recommendation***

Given the criticality of recruitment and retention to Manaaki Whenua, this is an area that could be enhanced by particular strategic focus and integration. Many of the other indicators which are reported have an interrelationship with these (eg, development, work/life balance). It could be worthwhile to look at the entire ‘employment proposition’ as an area worthy of focus and measurement. Much of the material already exists at a greater or lesser stage of development.

## **6.5 Rewarding Staff**

### ***Commentary***

Landcare Research’s performance based rewards system is briefly described in this section of the Report.

### *Verification Completed*

- We explored how employees are rewarded. We sought and confirmed evidence of congruence of messages and measures on reward through related processes – position descriptions, performance objectives, appraisal, remuneration structures, etc.
- We viewed research on the market relativities within the science sector.
- We discussed the approach to sharing returns from innovation.

### *Conclusion*

We concluded that Manaaki Whenua has a professional approach to the administration of reward and continues to underpin this competence with considerable research.

### *Recommendation*

Manaaki Whenua has indicated an interesting approach to the sharing of reward from innovation. This is worthy of further refinement and the development of some indicators.

## **6.6 Health & Safety**

### *Commentary*

This section of the Report describes the ACC accreditation and auditing processes in place at Landcare. A number of specific initiatives to improve safety are described. Statistics on lost time are to be added and income continuance benefits data is presented.

### *Verification Completed*

- We confirmed that policies exist and are up-to-date.
- We viewed evidence of promulgation and implementation of policy.

- Employees are surveyed in this area and the responses are very positive towards the management of safety.
- We viewed statistics on incidents of lost time and minor incidents.
- We discussed trends in this area and noted that while the increase in sick leave per FTE was currently inexplicable it was an indicator worth of monitoring closely.
- We found evidence of innovative approaches to build awareness and competence, eg the “Hi-Viz” calendar

### ***Conclusion***

We concluded from evidence presented in the staff survey results that there is satisfaction overall with the direction and performance of the organisation in this area.

### ***Recommendation***

Manaaki Whenua has already provided leadership in this area – and the initiative shown by staff deserves ongoing renewal. Reporting from ACC needs alignment with Manaaki Whenua timelines.

## **6.7 What is it Like to Work for Manaaki Whenua**

### ***Commentary***

This section details the results from an independent and comprehensive survey of staff opinions. It is especially useful in that it builds on similar surveys in 1996 and 1999 and so can provide trend data.

### ***Verification Completed***

- We viewed the survey undertaken by staff. It was independently conducted, professionally structured and comprehensive in scope.

- We explored the results and questioned the Human Resources Manager concerning several of the underlying issues and trends revealed by survey.
- We confirmed that policy exists to promote work/life balance and other related areas that are a considerable focus of the survey.
- We confirmed that the reported results are supported by the data.

### ***Conclusion***

We concluded that Manaaki Whenua had effectively and successfully surveyed its staff over a number of years. There is a commendable commitment to addressing the issues raised and it will be interesting to track these developments in future reports.

### ***Recommendation***

There is some indication that areas surveyed by the PSA that are not covered in the organisation's survey may be of interest. While the survey needs to maintain a consistent approach for statistical purposes, there may be value in exploring some other areas and/or conducting some interim mini-surveys.

## **6.8 PSA Contribution to the Annual Report**

### ***Commentary***

The PSA were invited to make a contribution to the report and the response is included. We did not seek to verify any aspects of the statement and draw no conclusions from the comments made.

## **7.0 Performance Against Targets**

### **7.1 2000/01 Statement of Corporate Intent**

#### *Commentary*

This section of the Report tabulates performance against the non-financial and financial targets that were set in the 2000/01 SCI. Cross-references are provided to the main body of the Report text.

#### *Verification Completed*

- We reviewed the non-financial targets reported on page 59 against the text of the SCI to confirm targets identified.
- We reviewed the SCI, in detail to identify additional non-quantitative targets set or implied.
- We confirmed that the table on page 59 has reported on all the quantitative targets set and that the Report, as a whole has addressed the additional non-quantitative targets set in the SCI.
- We confirmed the reported 2000/01 achievements and the cross-referenced information presented in the Report. We noted that some numbers differed (eg where the main text includes data for 10 months for media coverage and WWW use) but noted that this had been explained. We noted that some data in the table (staff numbers) were presented graphically rather than as numbers in the main text.
- We did not review and verify the financial targets summarised on Page 59.

#### *Conclusion*

We concluded that the Report and the summary table provided a comprehensive report on the quantitative and non-quantitative targets set in the SCI.

## **7.2 Report on Sustainable Development**

### *Commentary*

The first Landcare Sustainability Report (for period to June 1999) identified a number of initiatives for 1999/2001. This section of the 2001 Annual Report presents progress on these initiatives. Cross-references are provided to information in the body of the Report text for most initiatives.

### *Verification Completed*

- We confirmed that the initiatives identified and reported on were consistent with those identified in the previous Sustainability Report.
- We confirmed the information presented in the summary table was consistent with information presented in the body of the Report text and verified as part of the main Report verification.
- We discussed the initiatives identified in the previous Sustainability Report and progress with these with senior staff, prior to the summary table being prepared and confirmed the broad performance achievements that were to be reported.
- We noted that some items reported were not cross-referenced to more detailed supporting information in the main Report text or data we had already reviewed. Accordingly, we did not verify these specific details.

### *Conclusion*

We concluded that the summary of performance against targets on page 60 of the Report presents a fair and accurate report.

### *Recommendation*

We recommend that in future reports, all summary items be supported by text in the main Report or by supporting information that is identified as available on the website.

## **8.0 Part II: Assessment Against Composite Benchmark**

### **8.1 Introduction**

T&T has developed a composite benchmark checklist for emerging best practice in Sustainability reporting. The composite checklist draws on the following:

- the Global Reporting Initiative criteria;
- the Global Reporters (SustainAbility) criteria;
- the AA1000 guidelines;
- the New Zealand Business Council for Sustainable Development reporting guidelines; and
- principles of the Crown Research Institutes Act.

T&T has used the composite benchmark checklist as the basis to assess Landcare's overall approach to Sustainability reporting and to provide recommendations to assist Landcare maintain its leadership role in this area.

The assessment against the checklist is included as Appendix A.

### **8.2 Conclusions**

We have reached the following conclusions, based on the assessment presented in Appendix A.

#### ***Scope of Report***

1. Landcare has reported very comprehensively against the items that emerging best practice indicate should be included in a Sustainability Report. The structure of the report, as well as its content, has gone beyond the simple construct of a "triple bottom line" report (as the Report is titled) "for all dimensions of our performance".

2. There are some very specific items that are not reported (for example: water use, financial costs associated with environmental performance, intangible assets, child and forced labour). Many of these are not relevant, or are of limited relevance to Landcare's current operations.
3. There are some areas where Landcare has reported, but not as comprehensively or in as much depth as suggested by emerging best practice (for example: alignment of internal management systems, supplier and customer relationships, overall environmental performance and continual improvement, organisation growth and renewal, and human rights). In the most important of these areas, the Landcare Report has identified intentions to expand activities and reporting (for example stakeholder engagement).

### ***Management***

4. The Report's coverage of Management is excellent. The main area of challenge for Landcare is more effectively to align management processes and systems that have been introduced and implemented in the organisation over time. Existing processes and systems that need to be aligned include, for example, statutory planning and reporting requirements under the CRI Act and management system processes such as those introduced using the ISO 14001 model. New management tools that may be required to address new areas (such as stakeholder engagement) will also need to be aligned with existing and emerging management processes and systems.

### ***Stakeholders***

5. The Report has presented clear information on stakeholders. Stakeholder views from "customers" and a separate statement by the Public Service Association are included. Detailed coverage, mainly through examples, of Landcare's collaborative work with its "customers" is provided. A key example presented is work to understand public attitudes to work involving genetic modification.

No customer satisfaction information is reported in this Annual Report (but has been previously reported). The Report has signalled further work that is planned with suppliers and stakeholders.

### ***Accessibility and Assurance***

6. Accessibility of the Report is excellent. The physical report is well presented with effective use of graphics and pictures. The language and content is appropriate for the audience. The Report and supporting information referenced in the Report are available on the Internet.
  
7. The Report has been independently verified and financial elements independently audited. Verifier and auditor statements are included in the Report and the detailed Verification Report is also available on the Internet.

### ***Environmental Performance***

8. Environmental performance is reported in the context of the research work and outcomes as well as in terms of Landcare's own internal activities. Ongoing challenges for Landcare will include expanding, when appropriate, the range of indicators used to track and report performance and work to further interpret what the data and indicators mean (including understanding the links between indicators).

### ***Financial Performance***

9. Financial performance has been reported and audited by Audit New Zealand. Combined and comprehensive independent verification/auditing of Annual Reports will be a challenge for the future.

### ***Social Performance -Internal***

10. Internal social performance is reported under the heading "sustaining our people and their knowledge". Landcare has a professional

approach to managing and enhancing the organisation's human capital. The policies, processes and practices that are required to ensure sound stewardship in this area are in place and Landcare has established a robust foundation for future development of its human capital and intellectual property.

11. Future challenges will include developing and reporting against a more explicit framework to lead, engage and develop people in the organisation. More clearly and explicitly describing the link between the specific initiatives reported and Landcare's mission and human resource facility will be an important part of this challenge.

#### *Social Performance - External*

12. Landcare's social performance is clearly and appropriately reported in the context of the research work the organisation carries out and its application. Overview information and examples are provided in the descriptions of science and partnerships. Details are report of ethical issues that are particularly relevant to Landcare's research, including animal ethics and genetic modification.

## 9.0 References

Landcare Research New Zealand Ltd, 2000. Statement of Corporate Intent for 2000-2001: Making a difference for a truly clean and green New Zealand.

Landcare Research, 2000. Annual Report

Landcare Research, 2000. Making a difference for a truly clean green New Zealand: Manaaki Whenua Landcare Research: Our report on Sustainable Development for period to June 1999.

## 10.0 Applicability

This report has been prepared for the benefit of Landcare Research with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement.

TONKIN & TAYLOR LTD  
Environmental and Engineering Consultants

Report prepared by:



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Marje Russ & Joan Baker

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Gerard Bird  
PROJECT DIRECTOR

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9 October, 2001  
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## **APPENDIX A**

### COMPOSITE BENCHMARK ASSESSMENT CHECKLIST



## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<b>A. MANAGEMENT</b>		
<b>Chief Executive/Chair Statement(s)</b>  Do they: <ul style="list-style-type: none"> <li>- show commitment by top management</li> <li>- identify the organisation's goals (<i>for Landcare – Research should benefit NZ &amp; Pursue excellence</i>)</li> <li>- highlight performance successes &amp; challenges?</li> </ul>	Yes	Reports from Chief Executive and the Chairman. Clearly address organisations goals and performance highlights. Very clearly demonstrate commitment at Board and senior management level.
<b>Sustainable Development Vision</b>  Is a business case for sustainable development presented? Does the report identify <ul style="list-style-type: none"> <li>- key economic, social &amp; environmental issues relevant to the organisation and its products &amp; services</li> <li>- issues for sustainability reporting &amp; challenges</li> <li>- implications on current &amp; future business direction?</li> </ul>	Yes	All very clearly set out in the Chief Executive's report. More detail on specific initiatives in "Partnerships for sustainable business".
<b>Executive Summary</b>  Is a summary presented covering: <ul style="list-style-type: none"> <li>- key indicators &amp; performance</li> <li>- objectives?</li> </ul> Does this present a balanced overview of the organisation's performance?	Yes  Yes	Highlights section at front of report provides brief overview of highpoints.  Chief Executive's review provides an overview and is presented alongside at set of "headline indicators" are reported on, that are based on the principles and objectives for a CRI under the CRI Act.  Overall, these give a balanced overview of the Landcare's performance.
<b>Organisation Profile</b>  Is there a profile of the organisation explaining: <ul style="list-style-type: none"> <li>- the nature &amp; scope of its activities</li> <li>- the products and services provided by the organisation (including brands)</li> <li>- the countries and locations the organisation operates in</li> <li>- the scale of the organisation and its activities</li> <li>- the organisation's industry and markets sectors</li> <li>- the entity covered by the report</li> <li>- contact details</li> <li>- ownership</li> <li>- the organisation's overall structure?</li> </ul>	Yes	The organisation's profile is well presented. Profile information is provided on the inside cover (ownership, size). A brief explanation of nature of activities is also provided on inside cover. More detail is in Chief Executive's review (references separate science reporting) and in the sections of the report "What we do with Others..". These substantial sections in the report also include overall information about scale of research work. Information about off-shore work is provided in the printed report and in the referenced internet information.







## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<b>Customers</b>		
<p>Does the report provide information about the organisation's customers, for example:</p> <ul style="list-style-type: none"> <li>- the number, size and nature of customers</li> <li>- frequency of repeat orders?</li> </ul>	Yes, in Part	Major customers are identified in the Chief Executive's Review.
<p>Does the report describe how the organisation manages its customer relationships for example:</p> <ul style="list-style-type: none"> <li>- dealing with customer enquiries</li> <li>- communication through product labelling standards and advertising standards</li> <li>- training in product use</li> <li>- monitoring for proper product use?</li> </ul>	Yes, in part	Processes to work with customers and users of research are described by way of science project examples in the "What we do with Others -Science" section and in more detail in "What we do with Others -Partnerships."
<p>Is the organisation's performance and customer satisfaction reported, for example:</p> <ul style="list-style-type: none"> <li>- number or level of compliments,</li> <li>- average time to respond to queries</li> <li>- perception of ease of contact &amp; staff professional awards and accolades received?</li> </ul>	Yes in part	No customer satisfaction information is reported as there has been no further survey from that completed and reported in the 2000 Sustainability Report.
<b>C. ACCESSIBILITY &amp; ASSURANCE</b>		
<p>Is the organisation's commitment and policy on reporting described, including:</p> <ul style="list-style-type: none"> <li>- the scope and geographic coverage</li> <li>- frequency or reporting</li> <li>- use of audits and verification?</li> </ul>	Yes	Chief Executive's review sets out commitment. More detail on reporting processes is provided in "Planning and reporting framework".
<p>Is information presented in the report:</p> <ul style="list-style-type: none"> <li>- comparable</li> <li>- reliable</li> <li>- relevant</li> <li>- understandable?</li> </ul>	Yes	Data is presented to compare results with previous years and with other benchmarking agencies. Extensive use is made of graphs to present data clearly.
<p>How accessible and available is the report to stakeholders?</p>	Yes	Presentation, language and style make the report accessible and easy to understand. Effective use is made of the internet to provide additional information.
<p>Has the report and/or information in the report been independently verified or audited?</p>	Yes	Audit and verification statements are included in the report, with more a detailed verification assessment report available on the internet.



## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
D. ENVIRONMENTAL PERFORMANCE		
<p><b>General</b></p> <p>Does the report demonstrate or provide a basis to demonstrate continual improvement in the organisation's environmental performance?</p> <p>Is environmental performance reported against:</p> <ul style="list-style-type: none"> <li>- the organisation's mission &amp; values</li> <li>- stakeholder indicators (with their comments and comparison with previous) as well as</li> <li>- societal benchmarks (legal requirements see compliance below)?</li> </ul>	In Part	<p>Key environmental performance indicators are reported with information to show trends over years. Development and selection of indicators themselves is likely to be an opportunity for continual improvement. Performance is reported in the context of the organisation's mission &amp; values but data are not available/presented to benchmark and show leadership position. Stakeholder interests (outside those of shareholding Ministers and "clients") have not been comprehensively identified. Legal compliance performance is reported.</p>
<p><b>Inputs</b></p> <p>Has the organisation reported on its <b>energy</b> use, for example:</p> <ul style="list-style-type: none"> <li>- total energy use</li> <li>- use related to production</li> <li>- types and amounts of energy used (including renewable and non-renewable sources)</li> <li>- energy efficiency initiatives and performance?</li> </ul> <p>Has the organisation reported on its use of <b>materials</b>, for example:</p> <ul style="list-style-type: none"> <li>- total materials use</li> <li>- use related to production</li> <li>- types and amounts of materials used (including recycled materials, packaging, hazardous chemicals, natural resources such as plants or animals)</li> <li>- materials replacement or reduction programmes and performance?</li> </ul> <p>Has the organisation reported on its use of <b>water</b>, for example:</p> <ul style="list-style-type: none"> <li>- total water use</li> <li>- use related to production</li> <li>- water sources</li> <li>- water use reduction/efficiency programmes and performance?</li> </ul> <p>Has the organisation reported on the sustainability of its use of resources based on:</p> <ul style="list-style-type: none"> <li>- biophysical limits</li> </ul>	<p>Yes</p> <p>Yes</p> <p>No</p> <p>No</p>	<p>Data on electricity use is reported. Commitments to measure and report on other energy sources in future are made. Energy efficiency programmes (audits) and a contract with EECA to achieve further energy use reductions are reported.</p> <p>Use of chemicals and radioactive materials is reported in "our research laboratories". A commitment to quantify chemical use is identified as a target for 2002. Data is presented on paper use and recycling in "From our offices and general activities".</p> <p>Water use is not reported. However, water use in Landcare facilities is not likely to be high.</p> <p>Ecobalance analysis has not addressed resource use at this stage.</p>

## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
- human health impacts?		
<p><b>Outputs</b></p> <p>Has the organisation reported on its effluent discharges, for example:</p> <ul style="list-style-type: none"> <li>- sources and volumes</li> <li>- quality (COD &amp; BOD, pH, metals, persistent organic compounds etc)</li> </ul> <p>Has the organisation reported its emissions to air, for example:</p> <ul style="list-style-type: none"> <li>- sources and volumes</li> <li>- nature (greenhouse gases, ozone depleting substances)</li> <li>- quality (sulphur dioxide, nitrogen oxides, volatile organic compounds etc)?</li> </ul> <p>Has the organisation reported on its solid wastes, for example:</p> <ul style="list-style-type: none"> <li>- sources and volumes</li> <li>- types (hazardous, non-hazardous)</li> <li>- total waste</li> <li>- destination (reuse, landfill, recycled, energy recovery etc)</li> </ul> <p>Has the organisation reported on the sustainability of its emissions based on:</p> <ul style="list-style-type: none"> <li>- biophysical limits</li> <li>- human health impacts?</li> </ul>	<p>Yes, in part</p> <p>Yes</p> <p>Yes</p> <p>In part</p>	<p>Disposal of wastes to the tradewaste sewer is reported in “Our research laboratories” but is not quantified. A commitment is made to quantify toxic chemical wastes in the future.</p> <p>Emissions to air from travel activities are reported and quantified</p> <p>Data on solid waste generation and disposal are reported and related to staff numbers. Projects to reduce waste are also reported in “Solid waste”.</p> <p>Sustainability of carbon dioxide emissions are reported under “Our ecobalance” Most other outputs are reported as of low environmental or health impact.</p>
<p><b>Activities</b></p> <p>Has the organisation reported on its transportation activities, for example:</p> <ul style="list-style-type: none"> <li>- kilometres travelled and by mode (air etc)</li> <li>- programmes and objectives?</li> </ul> <p>Has the organisation reported on its land use, for example:</p> <ul style="list-style-type: none"> <li>- areas of land leased or owned &amp; locations</li> <li>- areas of impermeable surfaces?</li> <li>-</li> </ul> <p>Has the organisation reported on biodiversity and habitat stewardship, for example the effects of its activities on:</p> <ul style="list-style-type: none"> <li>- areas of habitat affected</li> <li>- habitat changes (including restoration)</li> <li>- habitat or biodiversity programmes</li> </ul>	<p>Yes</p> <p>Yes</p> <p>Yes</p>	<p>Detailed reporting on emissions of carbon dioxide associated with travel is provided, including motor vehicle, and air travel data. Performance in reducing domestic air travel is reported and objectives for managing international travel are reported.</p> <p>A project to demonstrate minimal footprint housing development on Landcare land at Lincoln is reported in “Reducing New Zealand’s ecological footprint”.</p> <p>Impacts of fieldwork (with data) are reported, including use of hip cotton in “Field work” and animal bycatch in “Animal bycatch in the field”. A commitment to identify and measure other impacts of fieldwork is made as</p>

## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<ul style="list-style-type: none"> <li>- impacts on protected areas?</li> </ul>		a target for 2002. A project on a new humane kill trap for possums is reported.
<p><b>Eco-efficiency measures:</b></p> <p>Has the organisation reported on its use of eco-efficiency tools and measures, for example:</p> <ul style="list-style-type: none"> <li>- ecobalance</li> <li>- the Natural Step</li> <li>- life cycle analysis?</li> </ul>	Yes	<p>Landcare's ecobalance project – looking at sustainability of carbon dioxide emissions from travel is reported in detail, along with proposed measures to achieve zero net emissions in “Our ecobalance”.</p> <p>Landcare's involvement in the Natural Step is referenced in the report.</p>
<p><b>Costs</b></p> <p>Has the organisation reported on costs associated with its environmental performance, for example:</p> <ul style="list-style-type: none"> <li>- externalised costs of emissions</li> <li>- environmental costs incurred or investments made</li> <li>- future costs and investment needs</li> <li>- environmental cost accounting?</li> </ul>	No	
<p><b>Compliance and Risk</b></p> <p>Has the organisation reported on its regulatory compliance performance and risks, for example:</p> <ul style="list-style-type: none"> <li>- occurrence and magnitude of noncompliances (including incidents of permit exceedances)</li> <li>- internally reported spills</li> <li>- compliance fines</li> <li>- economic penalties or incentives made by Government</li> <li>- environmental liabilities and risks in current operations</li> <li>- environmental liabilities and risks in acquisitions or disposals?</li> </ul>	Yes	<p>Environmental incidents are reported in “Our environmental management system”</p> <p>Two noncompliances with the Code of Ethical Conduct for Use of Life Animals, and action taken in response are reported in “High regard to animal ethics”</p>
<p><b>FINANCIAL PERFORMANCE</b> (Verification and auditing of financial performance and reporting was completed by Audit New Zealand and was outside the scope of the T&amp;T assessment. However, some limited comments are provided against the checklist requirements)</p>		
<p><b>General</b></p> <p>Does the report demonstrate or provide a basis to demonstrate the organisation is financially sound and operating as a successful going concern?</p> <p>Is financial performance reported against:</p> <ul style="list-style-type: none"> <li>- the organisation's mission &amp; values</li> </ul>	Yes	<p>Based on Audit New Zealand auditor's report.</p>



## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<ul style="list-style-type: none"> <li>- stakeholder indicators (with their comments and comparison with previous) as well as</li> <li>- societal benchmarks (legal requirements)?</li> </ul>		
<p><b>Profit</b></p> <p>Has the organisation reported on its profit and growth, for example:</p> <ul style="list-style-type: none"> <li>- yearly profit/loss</li> <li>- net profit/income</li> <li>- gross margin</li> <li>- turnover or sales revenue</li> <li>- labour productivity</li> <li>- EBIT?</li> </ul>	Yes	Dividends/Surplus etc are reported
<p><b>Intangible Assets</b></p> <p>Has the organisation reported on its intangible assets, for example:</p> <ul style="list-style-type: none"> <li>- ratio of capitalisation to book value</li> <li>- balance sheet total assets</li> <li>- market share?</li> </ul>	No	Accounting policy 8 provides that no value is assigned to intellectual property.
<p><b>Investments and Payments</b></p> <p>Has the organisation reported on its investments, for example:</p> <ul style="list-style-type: none"> <li>- human capital</li> <li>- research &amp; development</li> <li>- other capital investments</li> </ul> <p>debt/equity?</p> <p>Has the organisation reported on wages and benefits paid, for example:</p> <ul style="list-style-type: none"> <li>- total wage/country</li> </ul> <p>total benefits/country?</p> <p>Has the organisation reported taxes paid?</p>	Yes	
<p><b>Shareholders</b></p> <p>Has the organisation reported on shareholder interests, for example:</p> <ul style="list-style-type: none"> <li>- share price</li> <li>- total shareholder value</li> <li>- shareholder equity</li> <li>- shareholder returns on investment (earning per share)</li> <li>- dividend payment (dividend per share)</li> </ul>	Yes	



## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<ul style="list-style-type: none"> <li>- employee ownership?</li> </ul> <p><i>For Landcare Research, has the report covered:</i></p> <ul style="list-style-type: none"> <li>- ratio of consolidated funds to total assets</li> <li>- accounting policies</li> <li>- dividends &amp; tax</li> <li>- activities for which seeking compensation from Crown?</li> </ul>		
<b>F. SOCIAL PERFORMANCE – INTERNAL</b>		
<p><b>General</b></p> <p>Does the report demonstrate or provide a basis to demonstrate that the organisation is fostering the means of its own renewal and growth?</p> <p>Is internal social performance reported against:</p> <ul style="list-style-type: none"> <li>- the organisation's mission &amp; values</li> <li>- stakeholder indicators (with their comments and comparison with previous) as well as</li> <li>- societal benchmarks (legal requirements)?</li> </ul>	Yes	<p>Social performance is addressed in the context of the organisation's world. Manaaki Whenua has been tracking performance in a number of key areas for years so there are some sound bases for comparison. A noteworthy aspect is the comprehensive reporting of employee satisfaction indicators.</p>
<p><b>Staff Profile</b></p> <p>Does the organisation report basic staff statistics, for example:</p> <ul style="list-style-type: none"> <li>- staff numbers</li> <li>- ethnic, gender age distribution</li> <li>- employee retention &amp; staff turnover</li> <li>- turnover in professional staff</li> <li>- jobs offered/accepted</li> <li>- internal promotions % of recruitment</li> <li>- redundancies &amp; terminations?</li> </ul>	Yes	<p>The organisation collects and reports on comprehensive information in this area. Manaaki Whenua can show that it is successfully addressing its stated aims of increasing the diversity of its workforce, including the proportion of scientists who are Maori and also the proportion who are female. The funding of bursaries for Maori students is reported.</p>
<p><b>Health &amp; Safety</b></p> <p>Does the organisation report on its health and safety management and performance, for example:</p> <ul style="list-style-type: none"> <li>- health &amp; safety management processes (including audits)</li> <li>- training</li> <li>- investment in providing safe work conditions</li> <li>- injury incidence (including reportable injury cases and lost days)</li> <li>- worker compensation losses?</li> </ul>	Yes	<p>The reporting in this area is thorough. Understandably it has special emphasis considering the huge amount of fieldwork required. Manaaki Whenua has an excellent safety record. The targeted ACC claims level was unable to be confirmed in time for the report. The involvement and commitment of staff in the health and safety effort is well documented.</p>

## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<p><b>Wages &amp; Benefits</b></p> <p>Does the organisation report on wages and the benefits it provides to employees, for example:</p> <ul style="list-style-type: none"> <li>- lowest wage paid compared with legal minimum</li> <li>- lowest wage paid compared to cost of living</li> <li>- ratio of highest paid to lowest paid</li> <li>- remuneration (comparisons within and outside the organisation)</li> <li>- health &amp; pension benefits</li> </ul> <p>assistance for displaced workers?</p>	Yes	The organization provides evidence of considerable work done including the balanced rewarding of individual and organisational effort, the addressing of relativities in the science marketplace, and the beginnings of an approach to sharing the rewards of innovation.
<p><b>Management Processes</b></p> <p>Does the organisation report on human resource management processes, for example:</p> <ul style="list-style-type: none"> <li>- processes and frequency of performance appraisals (<i>for Landcare, specifically, opportunities to enhance abilities of employees</i>)</li> <li>- programme for equal employment opportunities and impartial selection *</li> <li>- mentoring or programmes for minorities</li> </ul> <p><i>For Landcare Research, this should specifically cover processes to recognise:</i></p> <ul style="list-style-type: none"> <li>- <i>aims, aspirations, employment requirements and greater involvement of Maori</i></li> <li>- <i>aims, aspirations &amp; cultural differences of minority groups</i></li> <li>- employment requirements of women</li> <li>- employment needs of disabled.</li> </ul>	Yes	A comprehensive performance appraisal system is in place though this is not explicitly reported on. The organisation reports in some detail on specific initiatives to attract and retain Maori. The achievements in employing female scientists are also recorded. The employment of a person with disability is reported as is the recognition of Manaaki Whenua with Mainstream Employer of the Year Runner-Up Award.
<p><b>People Development</b></p> <p>Does the organisation report on its strategies and activities to develop people, for example:</p> <ul style="list-style-type: none"> <li>- for performance improvement</li> <li>- training and development linked to the organisational plan (mission etc)</li> <li>- for people to be involved in planning for their own development</li> <li>- equality of opportunity for development</li> <li>- induction</li> <li>- career planning</li> <li>- life planning (retirement)</li> <li>- succession planning?</li> </ul> <p>Does the organisation report basic statistics on training and development, for example:</p> <ul style="list-style-type: none"> <li>- time &amp; money spent in training and development</li> </ul>	Yes	The organisation reports on proactive approaches and considerable spend in the area of people development. The report highlights the increasing involvement of employees in their own development planning. Manaaki Whenua's addressing of its particular needs in the area of professional development are reported in "Investing in Networks" and "Investing in Networks" and "Investing in Sabbatical Fellowships". Numbers of staff with post-graduate qualifications are reported.

## Sustainability Reporting: Composite Benchmark Checklist Landcare Research

Component of Report	Included	Quality of Coverage
<ul style="list-style-type: none"> <li>- expenditure related to revenue/profit</li> <li>- employee education levels?</li> </ul>		
<p><b>Organisation Growth &amp; Renewal</b></p> <p>Does the organisation report on activities to manage and increase its organisational knowledge and intellectual capital, for example:</p> <ul style="list-style-type: none"> <li>- investment in research &amp; development</li> <li>- investment in IT</li> <li>- processes to apply research results and technological developments</li> <li>- alliances with other enterprises?</li> </ul> <p>Does the organisation report on performance statistics or indicators for organisational knowledge and intellectual capital, for example:</p> <ul style="list-style-type: none"> <li>- numbers of patents generated</li> <li>- % revenue generated by products less than 2 months old</li> <li>- % workforce at graduate level</li> <li>- rookie ratio (long serving to new staff)?</li> </ul>	In Part	The section “Recognition and Reputation of our Staff” reports on the publications of Manaaki Whenua including data from external benchmarking. Statistics on professional recognition as measured by the conferring of awards and medals are also reported. Further details are available on the website.
<p><b>Freedom of Association</b></p> <p>Does the organisation report its position, processes and performance on freedom of association, for example:</p> <ul style="list-style-type: none"> <li>- staff forums</li> <li>- grievance procedures</li> <li>- interaction with unions</li> <li>- legal actions?</li> </ul>	Yes	The organisation reports both the input of PSA union (which conducted its own survey of members) and comprehensive data from and independently conducted Employee Survey.
<p><b>Child &amp; Forced Labour</b></p> <p>Does the organisation report its position, processes and performance on child and forced labour, for example:</p> <ul style="list-style-type: none"> <li>- legal noncompliances</li> <li>- awards received or recognition given of good practice?</li> </ul>	NA	
<p><b>Staff Satisfaction and Involvement</b></p> <p>Does the organisation report on staff satisfaction, for example:</p> <ul style="list-style-type: none"> <li>- internal or external surveys results</li> <li>- job satisfaction levels</li> <li>- employee attitude</li> <li>- balance of work and life</li> <li>- flexible employment?</li> </ul>	Yes	The organisation reports comprehensively in this area. This is enabled by periodic independent surveys of employee satisfaction which allow the reporting of shifts in attitude over time.





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Component of Report	Included	Quality of Coverage
involvement in community or industry organisations, for example: <ul style="list-style-type: none"> <li>- leadership of industry fora</li> <li>- contribution of expertise to national/international bodies</li> <li>- contribution to sustainability dialogue?</li> </ul>		science and research organisations is reported in “promoting our science in professional organisations”. Landcare’s leadership role in triple bottom line reporting is reported in the Chief Executive’s Review and in “Partnerships for sustainable business”. A research project on “public acceptability of GM possum control” is reported and the fact that Landcare made a submission to the Royal Commission on Genetic Modification.