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Mr Ian Dundas
 Committee Secretary
 Standing Committee on Environment and Heritage
 House of Representatives
 Parliament House
 CANBERRA ACT 2600

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Dear Mr Dundas

Submission on the Discussion Paper *Inquiry into a Sustainability Charter*

CPA Australia appreciates the opportunity to provide comment to the Committee's Inquiry into the potential development of a national sustainability charter for Australia.

Over recent years, CPA Australia has undertaken significant research and policy development in the areas of sustainability-based business practice and corporate social responsibility. In conjunction with the University of Sydney, CPA Australia is undertaking a three year applied research project, *The Role of Accountants and Accounting in Improved Sustainability Management and Reporting*, which we would be pleased to discuss further with the Committee.

This submission has been prepared jointly with Ms Janice Loftus, Senior Lecturer in Accounting, School of Business, at the University of Sydney. We look forward to contributing to discussions as to the viability, content, and future of a sustainability charter.

For further information, please contact Mr John Purcell (03) 9606 9826 or by email at john.purcell@cpaustralia.com.au.

Yours sincerely

Geoff Rankin FCPA
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**Submission to the Standing Committee on Environment and Heritage
Inquiry into a Sustainability Charter**

from

Janice A. Loftus* and John A. Purcell**

June 2006

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Executive Summary

Recommendations and other Comments

*Should a sustainability charter consist of aspirational statements, set targets (such as measurable water quality) or both? **Both***

What research will be needed to develop and support the sustainability charter?

The use of targets and performance indicators adopted in the sustainability charter should be supported by ongoing research that examines what information is needed by decision makers in the implementation of sustainability policies and how the information is used.

A related research question is: how are the performance indicators that have been selected for assessing progress and outcomes against targets in the sustainability charter and other information, such as voluntarily reported information, used in monitoring performance? This research should be ongoing to incorporate changes in the integration of future developments in performance measurement and users' decision-making models in the continuing review and revision of the sustainability charter.

*Can existing standards (such as the Water Efficiency Labelling and Standards (WELS) Scheme be applied to the sustainability charter? **Yes, this can and should be done***

In the absence of any critical flaw in existing standards for rating and labelling products they should be preferred in developing objectives and targets for a sustainability charter.

*What are they? **Specific recommendations, which should not be considered exhaustive, include Energy Rating Labels and Minimum Energy Performance Standards (MEPS), Water Efficiency Labelling and Standards (WELS), Water Quality Star Rating, Vehicle Emission and Fuel Quality Standards and other more broad-based initiatives for improving air quality, such as the National Environment Protection Measure (NEPM) for Ambient Air Quality, and the NEPM for Air Toxics***

*Can the charter be framed in such a way to ensure that it can be integrated into all levels of government decision making? **Yes, this can and should be done***

Will there be a cost / gain to the economy by introducing the target(s)? While potential net gain to the economy can be achieved by setting and communicating goals and through more informed consumers, the benefits of any such framework must be balanced against the cost of compliance. Towards that end we offer the following recommendations aimed at mitigating associated costs:

- Use of existing frameworks that reflect community concerns, such as air quality and water quality in setting targets
- Use of standards (e.g. WELS) in implementing policies to achieve targets
- Efficiencies in audit and verification through commonality of criteria and specialisation of the audit function, particularly in a public sector context
- Integration of internal financial, social and environmental information systems (in the long term)
- Drawing from existing frameworks, such as the Global Reporting Initiative, and GRI Supplement for Public Agencies, identifying performance indicators and developing techniques and guidelines for their measurement

Could a sustainability charter be incorporated into national State of the Environment reporting?

A critical step in the implementation of a system of public accountability and reporting as a process of monitoring performance against the sustainability charter is the further development of environmental and social information systems necessary for the preparation and assurance of sustainability reports.

The following multi-phased recommendations are offered:

- An interim reporting system should be introduced, drawing on commonly reported types of information including key performance indicators that provide a minimum requirement;
- Entities should be encouraged to experiment with further sustainability disclosures on a voluntary basis;
- As an ongoing process, research should be undertaken to assess the usefulness of the minimum reporting requirements and to determine what lessons might be learned from any experience with voluntary initiatives;
- In the medium to long term the reporting system embodied within the sustainability charter should be extended to provide a richer information set in light of developments in reporting capacity arising from research and innovations in reporting technology, and improvement in our understanding of how information is, and can be used to facilitate decision making that reflects sustainability principles and objectives;
- For public agencies that prepare SoE reports, the goals and targets used in the sustainability charter should be incorporated in the SoE report; and

- For public agencies that prepare SoE reports, reporting for accountability purposes in the implementation of a sustainability charter should draw on the information collected and collated for SoE reporting, to the extent that common purpose are served.

Is National Competition Policy a good template for consideration of incentive payments for sustainable outcomes?

We disagree with the linkage of incentive payments to sustainable outcomes.

How should payments be awarded under the sustainability charter? **Not applicable, given response on incentive payments**

Is it possible to measure cultural and social values in relation to a sustainability charter?

While the cultural, social and environmental values must be identified, it is the derived targets that should be measurable so that performance against targets can be monitored.

Water

How should water quality be measured?

The existing water quality star rating system should be used, incorporating any further developments or refinements of that system over time.

Should targets be focused on reducing water consumption, increasing water re-use or both?

The sustainability charter should include targets for both reduction in water consumption and increase in water re-use as both are major components of water resource management.

How can we measure the health of water catchment areas?

The measurement of the health of water catchment areas for purposes of the sustainability charter should draw on existing measures adopted by water industry entities that manage catchment areas, progressively incorporating future developments in reporting practice. Comparability is currently enhanced by the common practice in the industry to provide information about the health of water catchment areas based on the guidelines issued by the former Australian and New Zealand Environment Conservation Council.

Energy

How should we measure the use of renewable energy?

How do we encourage an increase in renewable energy use?

Can we measure the awareness of the environmental, economic and social benefits of energy efficiency and renewable energy?

Transport

How do we judge the efficiency of transport systems?

A holistic approach, encompassing both positive and negative economic, social and environmental impacts, should be adopted in the assessment of the efficiency of transport systems. The impacts should be identified using a life cycle approach, in which the impacts are not confined to those operations under the direct control of the entity, but extend to the indirect upstream and downstream activities of providing the transport system. Consideration should be given to including infrastructure investment policies into the sustainability charter, particularly with respect to infrastructure decisions that utilise investment vehicles that are not intended to remain under state ownership and control structures.

What transport infrastructure measures will reduce private transport needs?

Infrastructure measures that facilitate public transport services, improve access to public transport, or enhance the comfort and efficiency of public transport are expected to reduce private transport needs.

How do we measure these?

The measurement of the efficiency of transport infrastructure is considered in the preceding discussion of measurement of the efficiency of transport systems.

The Built Environment

The questions raised in relation to the Built Environment are not addressed in this submission.

General

Specific Questions for Consideration

Should a sustainability charter consist of aspirational statements, set targets (such as measurable water quality) or both?

For example, the Western Australian State Sustainability Strategy is based on a framework comprising seven foundation principles and four process principles reflecting the core values. The seven foundation principles in the Strategy establish the basis of sustainability through long-term economic health, equity, ecological integrity, efficiency, community, net benefit and common good; while the four process principles emphasise the need for integration, transparency and engagement, precaution and hope.¹ Six sustainability visions are developed from the underlying principles. In turn, six goals are developed, and 42 priorities for action are identified, for achieving, or making progress towards, the Western Australian visions for sustainability.²

What research will be needed to develop and support the sustainability charter?

The recommendations for research needed to develop and support the sustainability charter are based on our responses to the general and thematic questions identified in the *Discussion Paper: Inquiry into a Sustainability Charter*.

One of the obstacles in the development of targets and performance measures is the lack of understanding of how items of information might be used. The use of targets and performance indicators adopted in the sustainability charter should be supported by research that examines what information is needed by decision makers in the implementation of sustainability policies and how the information is used. While research into the use of financial information for internal decision making is well established, the literature is considerably less developed with respect to the use of environmental and social information. The need for this research is necessarily ongoing as the type and use of information changes over time with developments in decision models and innovations in reporting technology. Continuing research into decision-making processes that incorporate sustainability policies can contribute to the development and support of the

¹ Government of Western Australia, 2003, *Hope for the Future: The Western Australian State Sustainability Strategy*, pp. 29-30, Department of the Premier and Cabinet, Perth, <http://www.sustainability.dpc.wa.gov.au/docs/Strategy.htm>, accessed 3 June 2006.

² Ibid.

sustainability charter by facilitating the integration of future developments in sustainability information systems and decision making.

A related research question is: how are the performance indicators that have been selected for assessing progress and outcomes against targets in the sustainability charter and other information, such as voluntarily reported information, used in monitoring performance? This question is similar to the issue raised above but the focus is on the use of information to evaluate performance against targets in the sustainability charter, whereas the previous research question addressed the use of information by decision-makers in the implementation of policies aimed at achieving the sustainability targets. Research into the use of financial information for external performance monitoring and decision making is well established and extends to a range of users, including investors, private and institutional shareholders, bank loan officers and other credit analysts, and decision contexts, such as stock valuation, credit ratings, lending decisions and the prediction of failure. However, research into the use of social and environmental information by external users has been hindered by the limited disclosures and the lack of comparability of information disclosed. Development of an accountability system that forms part of an evolving sustainability charter should be guided by research that enhances our understanding of how various performance indicators and other information items are used. This research should be ongoing to facilitate the integration of future developments in performance measurement and users' decision-making models in the continuing review and revision of the sustainability charter.

Can existing standards (such as the Water Efficiency Labelling and Standards (WELS) Scheme be applied to the sustainability charter?

What are they?

Key qualitative characteristics essential to the usefulness of information for decision making include relevance, reliability, comparability and understandability. These principles underlie the preparation and presentation of financial information³ and are endorsed in leading international guidelines^{4,5} for triple-bottom-line (TBL) reporting, that is, reporting on economic, environmental and social performance. The use of standardised product rating and labelling schemes, such as the Energy Rating labels and the Water Efficiency

³ Australian Accounting Standards Board, 2004, *Framework for the Preparation and Presentation of Financial Statements*, para. 24-42, www.aasb.com.au accessed 3 June 2006.

⁴ Global Reporting Initiative, 2002, *Sustainability Reporting Guidelines*, pp. 23-31.

⁵ Global Reporting Initiative, 2006, *G3 Guidelines*, Part 1: Report Content, Boundary and Quality, <http://www.grig3.org/guidelines/guidance.html> accessed 3 June 2006.

Labelling and Standards (WELS) scheme, that provide information about how goods and services rate on relevant criteria, such as energy consumption and water usage, potentially enhance the reliability, comparability and understandability of information used in decision making. A major application of energy rating and water efficiency product information is in procurement decisions, which can be incorporated into policies aimed at achieving targets in accordance with the principles and aspirations of a sustainability charter. For example, one of the 42 priority areas for action identified by the Government of Western Australia (2003)⁶ is to:

Demonstrate leadership by requiring government agencies to respond to a **Sustainability Code of Practice for Government Agencies** and develop a **Sustainability Action Plan** to address a range of issues including energy use, greenhouse emissions, waste minimisation, community engagement and **sustainability procurement**.

As noted by the Government of Western Australia, action plans should be developed in consultation with key stakeholders to "... describe how the agency will shift to more sustainable day-to-day management of their operations, including the adoption of existing government-wide programs and policies for procurement as well as targets for energy use, water use, waste reduction and recycling, vehicle use, travel reduction and other relevant targets".⁷ The development and implementation of procurement policies for the achievement of sustainability targets, such as energy use and water use, are dependent upon the availability of reliable and understandable information about the social, environmental and cultural effects of alternative products and services.

The implementation of government-wide or nation-wide policies can be facilitated by the use of standards. The need for consistency in developing targets and policies is noted by the Government of Western Australia (2003)⁸:

Agencies will develop a Sustainability Action Plan to respond to the Sustainability Code of Practice and comprehensively address how sustainability will be pursued. This will ensure the operationalisation of sustainability within agencies beyond the State Sustainability Strategy. ...

⁶ Government of Western Australia, *ibid.* p. 4.

⁷ *Ibid.* p. 50.

⁸ *Ibid.* p. 49.

At the same time, it will also ensure consistency in important government-wide policies for procurement and energy efficiency, for example.

Standard product labelling schemes, such as Energy Rating labels and WELS, provide a means of communicating and implementing policies. For example, a procurement policy might specify that all air conditioners acquired must be rated at least “four stars” for energy efficiency, and have a power input of not more than 1.05 kilowatts per hour for cooling and not more than 1.13 kilowatts per hour for heating. Clearly, the implementation of such a policy would be facilitated by the existence of an energy rating system, and the disclosure of ratings and energy consumption about products.

In the absence of standard product labelling schemes, management may be unable to compare alternatives in terms of energy efficiency and other sustainability objectives. For example, information that one air conditioner uses 1 kilowatt per hour for cooling and that another has an energy efficiency ratio of 2.5 (capacity output divided by the power input), would not enable the decision maker to compare the two products in terms of energy use. The existence of energy rating systems combined with the availability of information about the product enable decision makers to compare alternatives and readily determine whether the acquisition of a product is in accordance with the policy, and how it contributes to the entity’s sustainability objectives.

Further to providing a common unit of measure, the use of a product-labelling scheme standardises the assumptions used in the measurement of product information. Differences in assumptions, such as climate and hours of usage, can distort estimates of measures such as annual energy consumption. Only by standardising both the type of information provided, including key product performance measures, and the procedures employed in their measurement, can comparability of product information be achieved.

In the absence of any critical flaw in existing standards for rating and labelling products they should be preferred in developing objectives and targets for a sustainability charter. Developing unique standards may create dual product rating and labelling schemes, potentially generating confusion among decision makers in public agencies and other users of product information. Moreover, applying existing standards, such as the WELS scheme, rather than developing alternatives, provides a more efficient solution and avoids imposing additional information and product testing costs on suppliers.

To the extent that they are effectively regulated, standard schemes offer additional assurance of sustainability disclosures provided about products and services. For instance, all products within the scope of energy labelling or Minimum Energy Performance Standards require registration and applications must include test reports or data relevant to the Standard, demonstrate that relevant performance requirements are met in addition to measuring energy consumption, and include a sample label.⁹ The regulatory authority may cancel registration subject to reasonable grounds. The regulation of standard schemes, particularly if supported by ongoing monitoring, provides additional assurance of the reliability of sustainability disclosures about products. More reliable information, in turn, enhances the capacity to make choices that contribute to sustainable operations and outcomes.

Existing standards that are suggested for incorporation into a sustainability charter include:

- Energy Rating Labels and Minimum Energy Performance Standards (MEPS) scheme, which is a joint initiative of the federal, state and territory governments providing for regulated and standardised product disclosures about domestic electrical appliances, such as refrigerators and air conditioners, many of which are also used in commercial applications, such as office and retail outlets;
- Water Efficiency Labelling and Standards (WELS) Scheme, which provides for regulated and standardised product information disclosures and about the efficiency and effectiveness of water-use and water-saving products, such as dishwashing machines, lavatory equipment and specified tap equipment;
- Water Quality Star Rating framework¹⁰, which describes effluent in terms of the extent of treatment that it has received and the purposes for which it may safely be used;
- Vehicle Emission and Fuel Quality Standards, supported by supplementary documents such as the *Green Vehicle Guide*, which enhance air quality by, for example, restricting sulphur content in fuel, thereby reducing tailpipe emissions (sulphur dioxide, reactive organic compounds, nitrogen oxide and carbon monoxide); and
- Other more broad-based initiatives for improving air quality, such as the National Environment Protection Measure (NEPM) for Ambient Air Quality, and the NEPM

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<http://www.energyrating.gov.au/reg.html>

¹⁰

The Water Quality Star Rating framework is further discussed in response to questions on water.

for Air Toxics, which establish national benchmarks for a range of pollutants, as applicable to entities implementing a sustainability charter.

The preceding recommendations for the use of standards are not intended to be exhaustive. Other existing product-rating and labelling systems, based on sustainability criteria, may facilitate the development and communication of policies implemented in pursuit of objectives contained within a sustainability charter, and enhance the reliability, comparability and understandability of information used in the implementation of those policies. Further, consideration should be given to extending the scope of the suggested product rating and labelling systems to capture a great range of products, particularly with regard to commercial applications.

Can the charter be framed in such a way to ensure that it can be integrated into all levels of government decision making?

Will there be a cost / gain to the economy by introducing the target(s)?

As noted in the immediately preceding discussion, economic gain is potentially achieved by the introduction of targets by directing economic effort towards long-term objectives reflecting the need to maintain and enhance the quality of life for current and future generations. Thus, any criteria for assessing economic performance should necessarily be tempered by the consideration of trade-offs between long-term and short-term objectives.

Turning to the means by which the introduction of targets might generate sustainable economic gain, though not necessarily contemporaneously, a critical component is the provision of information with which decision makers can implement policies for the achievement of sustainability targets. While at this point in the discussion we will focus on decisions made by the community, that is, consumer decisions, the principles apply equally to procurement decisions made by business and government agencies. The theory of consumer sovereignty holds that “through their actions in the market consumers oblige companies to produce the goods they require in the largest quantities at the lowest possible price”.¹¹ Notwithstanding the limitations arising from the assumptions the theory makes about the efficiency of consumer markets and the weakness or absence of producer power, it does provide a basis for the need for sustainability information at a level

¹¹ Parkinson, J.E., (1993), *Corporate Power and Responsibility*, Oxford: Clarendon Press, p. 12.

of aggregation relevant to consumers' decisions. As noted by Parkinson¹², "... even on the unrealistic assumption that that consumers acting through the market are able to force managements to produce at the lowest possible cost, companies nevertheless retain a discretion within that constraint over such issues as plant location, appropriate levels of automation, and policies on research and development, since these and other delegated questions do not yield *unique* least-cost solutions". The 'discretionary' questions referred to by Parkinson potentially generate significant differences between alternatives in terms of social, environmental and cultural impact. While information about price enables comparisons of economic impacts of alternatives, information about their sustainability impacts, such as travel by private vehicle or by bus, empowers consumers to make choices in accordance with established community sustainability targets.

The economic benefits of establishing and monitoring targets, as discussed above, must be weighed against the cost of the implicit regulation. The economic costs of introducing targets can be categorised as follows:

- Costs incurred in developing targets;
- Information costs associated with the implement of policies in decision-making processes;
- Costs of monitoring compliance with policy guidelines; and
- Costs of monitoring and evaluating performance against objectives established in the sustainability charter.

Each of these categories is discussed below, with recommendations as to how they can be mitigated so as to enhance the potential net economic gain from the introduction of targets in a sustainability charter.

Costs incurred in developing targets: While the specification of targets is costly, as in any planning and budgeting exercise, the costs are magnified by the multi-dimensional nature of sustainability considerations, potentially incorporating, but by no means confined to, specification of water usage, energy usage, biodiversity impacts, emissions, and various social and cultural impacts. The costs of developing constructs for the specification of targets can be mitigated by drawing on existing frameworks that reflect community concerns on issues such as, for example, air and water quality.

¹² Parkinson, *ibid.* p. 15.

Information costs associated with the implement of policies in decision-making processes: As discussed above in the context of product rating and labelling standards, policies need to be developed and implemented for the achievement of sustainability targets. While the costs of establishing policies are incurred within the entity, the incidence of information costs necessary for their implementation is much wider. Entities operating within the supply chain may be required to incur additional costs to enable their products and services to be evaluated in terms of the multi-dimensional criteria imbedded in sustainability policies. The ambit of information costs is further extended if a product life cycle approach is adopted, in which all upstream economic, social and environmental effects, as well as downstream effects, such as waste disposal, are considered.¹³

Clearly, the effectiveness of the consideration of sustainability criteria in decision making is dependent upon the completeness and reliability of information available to the decision maker. Such information is necessarily costly but efficiencies can be achieved through the use of existing standards and product labelling schemes.

While the opportunities for cost savings and efficiencies in information gathering and analysis through the use of standardised labelling schemes are readily identifiable, the assessment of the potential benefits of items of information is a much more arduous task. A major obstacle is the lack of understanding of how items of information might be used. As suggested above, this is an area in which research can contribute to the development and support of the sustainability charter. Thus, two further recommendations, as long-term considerations, are offered: that research be undertaken to enhance our understanding of what information is needed and how it is used in the implementation of sustainability policies; and that entities seek to integrate internal financial, social and environmental information systems as a means of enhancing the reliability, timeliness and efficiency of information provided.¹⁴

Costs of monitoring compliance with policy guidelines: Monitoring compliance with policy guidelines is an essential component of corporate governance mechanisms

¹³ The ability of the entity and other stakeholders, such as consumers, to analyse the sustainability dimension at the product level is subject to the level of transparency of environmental and social effects throughout the supply chain.

¹⁴ The University of Sydney, in partnership with CPA Australia, has obtained funding through the Australian Research Council Linkage Projects Scheme for a multi-disciplinary research project, "The Role of Accountants and Accounting in Improved Sustainability Management and Reporting", the objectives of which include the development of internal sustainability information gathering and

including internal control. The monitoring process, which includes the audit of green office procurement and sustainable business practices, is complicated and the monitoring costs, increased, by the multi-dimensional nature of sustainability decisions, and the need to understand the trade-offs that may have been made, such as reduced energy consumption at the expense of financial costs, or lower water usage at the expense of higher energy consumption. In addition to increased information gathering costs, additional auditing and verification costs may be incurred. Further to the efficiency considerations recommended above in regard to the implementation of policies in decision-making processes, efficiencies in audit and verification may be achieved through commonality of criteria and specialisation of the audit function, particularly in a public sector context.

Costs of monitoring and evaluating performance against objectives established in the sustainability charter: Finally, an essential component of a national sustainability charter is a system of public reporting. While this encompasses reporting at the national level, the focus of this discussion is on accountability of reporting entities subject to the aspirations and targets embodied in the sustainability charter. Much of the information used for individual decisions (such as which motor vehicle to purchase, and which water treatment technology to invest in) may involve sustainability information specific to products or processes. However, the accountability of senior management and the evaluation of performance by entities bound by the sustainability charter, require reporting to be aggregated at the entity level. Furthermore, most sustainability reporting is entity-focused; this approach is also implicit in international frameworks such as the *Global Reporting Initiative (GRI) Guidelines*¹⁵, which have been developed through extensive consultative processes, and State of the Environment Reporting by entities such as local government authorities.

Effective performance reporting serving an accountability function should reflect performance objectives and the extent of managerial control over achievement of those objectives. Within that context, measurable performance indicators should be identified that communicate performance relative to key objectives in the sustainability strategy. For example, an entity might report on performance against an objective of high-level urban air

reporting processes, by analysing how accounting systems can be extended to incorporate such data.
Refer n. 4 and n. 5.

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quality by reporting on its greenhouse gas emissions for the year compared with current period performance targets and prior period performance.

While sustainability reporting practices are still in a state of relative infancy, particularly when compared with the formality of financial reporting, considerable efficiencies in identifying performance indicators and developing techniques and guidelines for their measurement can be achieved by drawing from existing frameworks, such as the *GRI Guidelines*¹⁶, to the extent that the criteria and scope of such frameworks is consistent with the objectives specified in the sustainability charter. The use of the *GRI Guidelines* in Australia has been encouraged by and supported through initiatives of the Department of the Environment and Heritage, including the publication of *TBL Reporting in Australia: A Guide to Reporting Against Environmental Indicators* in 2003.

The GRI also produced the *GRI Sector Supplement for Public Agencies* in March 2005. The *Supplement* (p. 10) recommends that sustainability reports of public agencies should “explain how the agency’s vision and strategy fit into the larger sustainability context”, which could be a national sustainability charter and may form part of a country’s commitment to global initiatives such as Agenda 21. In addition to augmenting the components of the *GRI Guidelines* (vision and strategy, profile, governance structure and management systems, and performance indicators) with sector-specific details, the *Supplement* recommends that public agencies provide disclosures about public policies and implementation measures. In the latter context, the recommendations are include¹⁷:

- Identify the aspects for which the organisation has established sustainable development policies;
- Identify the specific goals for each aspect;
- For each goal, provide information on implementation measures, prior assessments of the effectiveness of information measures, targets and key indicators for monitoring outcomes, progress measured against the goals and targets and actions taken to achieve continuous improvement towards the goals and targets, and post-implementation assessments of future targets; and
- The role of stakeholders in the items reported on.

¹⁶ It is noted without endorsing as the ideal model, the framework contained in the Global Reporting Initiative has emerged as a preferred framework amongst many adopters both here and overseas, and that further, the third ‘generation’ of the GRI and its constituent indicators is due for release in October 2006.

New performance indicators are also provided in the *Supplement*. The relevance of these indicators to a public reporting system incorporated in the sustainability charter must be considered in light of the goals and targets that constitute the charter. Further, ongoing development of the reporting system that forms part of an evolving sustainability charter should be guided by an understanding, informed by research, of how various performance indicators and other information items are used.

As will be discussed below, reporting by entities against objectives identified in a sustainability charter can and should be incorporated into State of the Environment reporting to achieve information and reporting efficiencies. Building on existing reporting structures and processes lowers the costs of monitoring progress towards sustainability targets, thus enhancing the potential net economic gain achieved by their introduction in a sustainability charter.

Could a sustainability charter be incorporated into national State of the Environment reporting?

While the national State of the Environment (SoE) reporting framework is concerned with issues relevant to sustainability, it differs in focus and scope from the objectives and key areas identified in the *Discussion Paper: Inquiry into a Sustainability Charter*. The major themes identified for inclusion in the 2006 SoE Report¹⁸ are atmosphere, land, inland waters, coasts and oceans, biodiversity, human settlements, and natural and cultural heritage, while the key areas addressed in the *Discussion Paper* are water quality, water usage, cultural and social values, the built environment, energy and transport. Further, while both a national SoE report and the envisaged sustainability charter would likely include goals and objectives, the focus of the SoE report is on the status of various aspects of the natural and cultural environment; while a reporting system forming part of the accountability component of a sustainability charter, to be effective, would necessarily focus on contributions of various responsibility centres toward the resulting status of the natural, cultural and social aspects contained within the charter.

There are several approaches that could potentially be adopted in incorporating the sustainability charter into SoE reporting:

¹⁷ Global Reporting Initiative. (2005), *GRI Sector Supplement for Public Agencies*, pp. 13, 33-34.
¹⁸ <http://www.deh.gov.au/soe/2006/index.html> accessed 17 June 2006.

- Inclusion of goals and targets used in the sustainability charter in the national SoE report to the extent that they cover common themes, such as the national SoE inland waters theme and water quality goals and targets, if any, incorporated in the charter;
- Inclusion of all goals and targets used in the sustainability charter in the national SoE report;
- Inclusion of all goals and targets used in the sustainability charter in the national SoE report and drawing on the information collected and collated for the national SoE report for the reporting and accountability component of the sustainability charter, to the extent that a common purpose is served; and
- Incorporation of all goals and targets used in the sustainability charter in the national SoE report, and the use of the national and other SoE reports as the public reporting and accountability component of the sustainability charter.

The first approach incorporates a relatively low level of integration of the sustainability charter with SoE reporting. It provides consistency of goals between the SoE report and the sustainability charter, to the extent that they relate to common themes, thus avoiding directly contradictory guidance in decision making. However, differences in objectives in relation to challenges that are not common can potentially give rise to conflicting accountabilities, particularly in multi-dimensional contexts. For instance, while objectives of reducing water consumption may be common to the SoE reporting framework and the sustainability charter, conflict may arise where the SoE goals provide a balance with other themes, such as atmosphere and biodiversity, while the objectives of a sustainability charter may favour increased use of renewable energy and transport efficiencies. This can generate uncertainty in decision making and the implementation of policy.

The second alternative, incorporating all of the goals and targets of the sustainability charter improves upon the preceding approach by reducing the propensity for conflicting trade-offs in decision making. It may, however, necessitate a broadening of the ambit of the SoE report.

The third alternative, which in our view is the preferred approach, builds on the second approach by providing consistency, where appropriate, in the assessment of performance between the SoE report and the reporting system embodied in the sustainability charter.

While commenting on circumstances that prevailed in the late 1970s, Engel¹⁹ makes several observations regarding disclosure, at least two of which are still highly pertinent:

- whilst a widening scope of disclosure as a social good may seem intuitively appealing, its collection and dissemination comes at an often considerable cost, and
- there exists a very real risk of ‘drowning the recipient in information’.

There are considerable information efficiencies, from both the perspectives of preparers and users, to be gained by drawing, where applicable, from the information used for the preparation of the SoE report, for input into the SoE report. Further, consistency in reporting on performance reduces the risk of inconsistent evaluation of performance of management and the entities they manage, which, if allowed to persist, may provide incentives for decisions outside of policy objectives. Moreover, consistency of information disclosed in the SoE report with that used in a reporting system tailored to the accountability objectives of the sustainability charter also reduces potential confusion among users.

The last approach is full integration of the sustainability reporting system in the SoE report by extending the SoE report to serve the accountability function of the sustainability charter. A major limitation of this approach is that it does not reflect the different objectives of the SoE report and an accountability role that might appropriately be served by a reporting system that is a component of a sustainability charter.²⁰ As stated above, the SoE report provides information about the status of certain aspects of the environment, and is useful for identifying pressures (or problems and challenges) and responses to those pressures. It serves as a public policy planning tool. The accountability functions of a reporting system of the sustainability charter would be, in our view, better served by a report that focuses on how various responsibility centres have contributed to the state of the specified aspects of the environment, against entity-specific targets derived from the aspirations and targets contained within the charter.

While the question for consideration specifically addresses whether a sustainability charter could be incorporated into national SoE reporting, some discussion is provided below on

¹⁹ Engel, D.L., (1979-1980), “An Approach to Corporate Social Responsibility”, 32 *Stanford Law Review* 1, p. 81.

²⁰ Further discussion of the nature of SoE reporting is provided below. Refer “Lessons learned from State of the Environment reporting”.

issues pertaining to reporting by entities, such as public agencies, on their performance in relation to the sustainability charter. First, the benefits of sustainability reporting are considered, followed by a discussion of conceptual and practical implementation issues including approaches to defining report boundaries. Australian experience with SoE reporting is reviewed. The discussion concludes with a series of recommendations, both short and medium term, reflecting the present limitations of sustainability reporting capacity.

Benefits of sustainability reporting: National reporting on sustainability performance is essential to monitoring progress towards goals, discharging public accountability and as input into the ongoing review and revision of the sustainability charter. Further, as discussed above, sustainability reporting by entities subject to the sustainability charter is essential for purposes of accountability and the identification of challenges and opportunities in achieving specific targets and furthering the sustainability principles embodied in the charter.

As noted above, comprehensive sustainability reporting is not widely practised in Australia and the absence of applied frameworks through which non-financial information is gathered, analysed and assimilated impedes both wider adoption and essential verifiability. Thus a critical step in the implementation of a system of public accountability and reporting as a process of monitoring performance against the sustainability charter is the further development of environmental and social information systems necessary for the preparation and assurance of sustainability reports.²¹

Conceptual and implementation issues in sustainability reporting: An important application issue that arises in public sustainability reporting by individual entities is the identification of the 'boundary' of the report. Life cycle costing acknowledges that the reach and consequences of commercial activity extend beyond the immediate physical and ownership and control structures. Thus, by "regarding the life cycle of a product from raw material extraction through production processes and use to end-of-life recycling"²² a wider range of effects can be identified and thus coordinated towards a continuous

²¹ In an initiative aimed at addressing the need for developing capacity in public sector sustainability reporting, the GRI has collaborated with ICLEI: Local Governments for Sustainability, the State of Victoria and the City of Melbourne to create the Centre for Public Agency Sustainability Reporting.

²² Pflieger, J., M. Fischer, T. Kupfer and P. Eyerer, "The contribution of life cycle assessment to global sustainability reporting of organizations" (2005), *Management of Environmental Quality: An International Journal* 16(2), pp. 167-179.

improvement process. Moreover, by introducing the notion of measurable indirect economic, social and environmental impacts throughout the supply chain, identified by way of the product derived life cycle assessment, the externalities of economic activity can be better recognised – and thus, in turn, enabling better assessment to be made around public-policy responses.

The incorporation of upstream and downstream social and environmental effects of an entity's operations, that is, the effects of processes in the product life cycle that are outside the ownership and control structure of the entity, is addressed in the GRI Boundary Protocol, which recommends the determination of report boundaries based on control, significant influence and significant impact. A three-tiered reporting approach is adopted, reflecting the practical difficulties of accessing information from entities over which the reporting entity does not exercise control²³:

- At minimum, the reporting organization should cover the following entities in its report in the ways specified:
 - Entities over which the organization exercises control should be covered by indicators of operational performance
 - Entities over which the organization exercises significant influence should be covered by indicators of management performance
- The boundaries for narrative disclosures should include entities over which the organization does not exercise control/significant influence, but which are associated with key challenges for the organization because their impacts are significant.

To determine those entities to be included within the reporting boundary, the GRI suggests the use of a mapping process which combines on respective vertical and horizontal axes, thresholds of high / low significance of related entity sustainability impact, and in turn, influence / control - the influence measure further disaggregated to a threshold of significant versus non-significant. This entity analysis, or categorisation, is then applied to a 'scale' of reporting ranging from the inclusion of operating data for high impact / high control entities, down to narrative (by exception) information for low impact / low influence entities.

²³ Global Reporting Initiative, *G3 Version for Public Comment*, January, 2006, p. 10.

The approach recommended by the GRI acknowledges divergence in reporting from ownership and investment structure along with the alluded mixed form of quantitative non-financial and narrative techniques suggests why, at least for the foreseeable future, development of sustainability and TBL reporting should evolve via NGO and professional guidance, rather than through government or regulator-mandated practice.

Notwithstanding our reservations regarding the capacity for comprehensive sustainability reporting in the short term, in the absence of an overarching applied framework through which non-financial information is gathered, analysed and assimilated, it is noted that the difficulty encountered in the private sector in relation to the transparency of sustainability information along the supply chain may be less of an impediment in the public sector. To the extent that entities in the public sector form part of the same supply chain and are within a common jurisdiction, a greater level of communication of sustainability information might be expected. This is illustrated by way of an example from the Victorian water industry. Melbourne Water Corporation manages water catchment, storage, and bulk distribution to, and wastewater treatment services for, the three water retail businesses in Melbourne, which, in turn, provide water and sewerage services to residential, commercial and industrial properties within the Melbourne metropolitan area. An assessment of the environmental and social effects of a water retail operation, such as City West Water, that considered only those operations undertaken by the retailer would be distorted by a reporting boundary reflecting a control structure, through which the upstream catchment, storage and bulk distribution, and downstream waste treatment operations are managed by a separate entity. This problem is addressed through the cooperation of the entities in providing water and sewerage services in the measurement of sustainability effects; City West Water calculates its ecological footprint in collaboration with Melbourne Water in accordance with its Sustainability Covenant with the Environment Protection Authority.²⁴

Lessons learned from State of the Environment reporting: The *National Strategy for Ecologically Sustainable Development*, issued in 1992, calls for national SoE Reporting, resulting in Australia's first SoE in 1996, followed by the second report in 2001, with preparations continuing for the third report in 2006. As noted above, the focus of SoE reports is on problems and challenges, often referred to as pressures, on key areas, including atmosphere, coasts and oceans, land, inland waters, biodiversity, natural and cultural heritage, and human settlements. Key performance indicators measure the status

²⁴ As noted by City West Water in its *Sustainability Report 2005*, p. 23, upstream impacts contribute approximately 18% of its ecological footprint.

quo on various dimensions, such as annual carbon dioxide emissions, maximum four-hour ozone concentration in selected cities and per capita waste recovery, supported by comparative information and commentary.

SoE reports are also produced for each state and the Australian Capital Territory. In NSW the Local Government Act 1993, s 428 (2c) requires preparation of SOE reports by local government authorities. The issue of report boundaries arises in SoE reporting, particularly where the reporting requirements cannot be met with reference only to the geographical boundaries of the local government authority. In such cases information pertaining to a broader region must be included in the report. The NSW Department of Local Government (NSW DLG) issued guidelines²⁵ in 1999 to provide assistance to local government authorities in applying the reporting requirements and to enhance the consistency of SOE reports.

Notwithstanding the mandatory status of the reporting requirements and the provision of reporting guidelines, Mladenovic and Van Der Laan (2006) found considerable variation within a sample of 136 SoE reports by local government authorities in New South Wales.²⁶ Their research focuses on key requirements and recommendations: the first SoE for a reporting period following an election must be comprehensive, addressing land, air, water, biodiversity, waste, noise, Aboriginal heritage and non-Aboriginal heritage; and the NSW DLG Guidelines encourage local government authorities to prepare the SoE reports using the pressure-state-response model²⁷ and to report on a regional basis. Mladenovic and Van Der Laan found that only 66% of the sample adopted the recommended pressure-state-response model and only 63% provided regional data. Further inconsistencies were observed among those adopting the pressure-state-response reporting model and in the provision of comparative data. The following observations are made using data reported by Mladenovic and Van Der Laan²⁸: the incidence of reporting varied across key areas, land (96%), waste (96%), biodiversity (95%) and water (92%), air (83%), noise (74%), Aboriginal heritage (69%) and non-Aboriginal heritage (86%); and the greatest incidence

²⁵ New South Wales Department of Local Government, (1999), *Environmental Guidelines - State of the Environment Reporting by Local Government- Promoting Ecologically Sustainable Development*.

²⁶ Mladenovic, R. and S. Van Der Laan, S., (2006), "State of the Environment Reporting by Local Government: Australian Evidence on Compliance and Content", *British Accounting Association Conference, Portsmouth*, April 11 - 13.

²⁷ The pressure-state-response model requires identification of issues (pressures), reporting on the current status (state) and description of the management plan in relation to the issues identified (response).

²⁸ Mladenovic and Van Der Laan, *ibid.* p. 18.

of reporting comparative data was in relation to waste (66%)²⁹ with less than 50% of reports including comparative data for biodiversity, Aboriginal heritage and non-Aboriginal heritage. As noted by Mladenovic and Van der Laan³⁰, more work is required to identify appropriate tools and metrics to facilitate consistent and comparable reporting by Councils in discharging their accountability for environmental activities and responsibilities.

It is reasonable to assert that these problems can, to a substantial degree, be progressively redressed within the various non-financial information reporting frameworks, such as the GRI, that have emerged and will continue to evolve.

Recommendations for a reporting system embodied in the sustainability charter

Entities in both the public and private sectors are experimenting with innovations aimed at enhancing sustainability management and reporting. There is still much work to be done in building reporting capacity, guided by an improved understanding of what types and items of information are needed and how they might be used. Nevertheless, a sustainability charter, to be effective, must incorporate a system of reporting to provide accountability and feedback for review of progress and the setting of new targets. Thus, the following multi-phased recommendations are offered:

- An interim reporting system should be introduced, drawing on commonly reported types of information including key performance indicators that provide a minimum requirement;
- Entities should be encouraged to experiment with further sustainability disclosures on a voluntary basis;
- As an ongoing process, research should be undertaken to assess the usefulness of the minimum reporting requirements and to determine what lessons might be learned from any experience with voluntary initiatives;
- In the medium to long term the reporting system embodied within the sustainability charter should be extended to provide a richer information set in light of developments in reporting capacity arising from research and innovations in reporting technology, and improvement in our understanding of how information is, and might be, used to facilitate decision making that reflects sustainability principles and objectives;

²⁹ Calculated as a percentage of SoE reports that provided information on the item.
³⁰ Mladenovic and Van Der Laan, *ibid.* p. 21.

- For public agencies that prepare SoE reports, the goals and targets used in the sustainability charter should be incorporated in the SoE report; and
- For public agencies that prepare SoE reports, reporting for accountability purposes in the implementation of a sustainability charter should draw on the information collected and collated for SoE reporting, to the extent that common purpose are served.

Is National Competition Policy a good template for consideration of incentive payments for sustainable outcomes?

We disagree with the linkage of incentive payments to sustainable outcomes. As noted in the *Discussion Paper: Inquiry into a Sustainability Charter*³¹, responsibility should be linked to accountability and funding. The appropriate linkage, in our view, is that policy objectives and priorities should drive funding. In turn, specific targets should reflect achievable outcome within a time frame in light of the level of funding, against which management are accountable for their area of responsibility. However, under the suggested scheme of incentive payments for achieving or exceeding sustainability performance targets, sustainability outcomes would drive funding.

The suggested incentive payments potentially directs funding away from areas of need, from a sustainability perspective, towards areas which are under less environmental / social pressure, as a result of past successful sustainability strategies. The suspension or permanent reduction in payments to state governments for failure to meet targets is contradictory to promoting good behaviour and results in less funding available to address the ongoing social and environmental challenges. Thus areas with greater need for investment in sustainable alternatives, such as more advanced wastewater treatment facilities, would, *ceteris paribus*, have less funding, thus perpetuating their lower performance against sustainability targets.

While providing extrinsic motivation towards achievement of targets in the short term, the incentive payments scheme may be counterproductive in terms of long-term sustainability policy.

How should payments be awarded under the sustainability charter?

³¹

This question is not applicable in light of our response to the immediately preceding question.

Is it possible to measure cultural and social values in relation to a sustainability charter?

Our response on this issue is integrated with our response to the first question regarding the inclusion of aspirational statements and targets in the sustainability charter. As noted above, the aspirational statements in the sustainability charter should reflect cultural and social values, similar to the approach adopted in the Western Australian State Sustainability Strategy. The sustainability targets should be derived from the aspirational statements, or principles. While the cultural, social and environmental values must be identified, it is the derived targets that should be measurable so that performance against targets can be monitored.

Cultural and social values need to be identified so that the underlying principles embodied in sustainability charter reflect community values in relation to culture and society, as well as to the environment. Information about community values can be obtained by survey-based research and consultative processes and may also be inferred from the outcomes of democratic processes.

The Built Environment

Specific Questions for Consideration

The questions raised in relation to the Built Environment are not addressed in this submission.

Water

Specific Questions for Consideration

How should water quality be measured?

The quality of water is critical to its potential utility. We are not aware of any more suitable water quality measurement system than the existing water quality star-rating framework, which describes the quality of water in terms of the degree of treatment that effluent has received³²:

No stars Wastewater

³² Australian Water Association, *We All Use Water: A User's Guide to Water and Wastewater Management*, AWA, Artarmon, NSW.

| | |
|-------------|---|
| One star | After primary screening, grit removal and primary settling the effluent has a one-star rating, and is not suitable for discharge |
| Two stars | After treatment for one star rating and reduction of nutrients in effluent |
| Three stars | Effluent that has been further processed from two-star rating to reduce nutrients sufficiently to render it suitable for discharge to sensitive waterways and use in restricted irrigation applications |
| Four stars | Reclaimed water that is suitable for a wider range of applications including irrigation of food crops that might be eaten raw and which may be tailored to a quality suited to certain industrial recycling options |
| Five stars | Suitable for drinking |
| Six stars | Purified water suitable for use in special medical and pharmaceutical applications. |

The use of the water quality star-rating framework in the sustainability charter should evolve with any ongoing developments in that framework.³³

As discussed in our response on general questions there are considerable benefits to be gained by drawing on existing standards and product classification systems in terms of the efficiency, reliability and understandability of information used for decision making and monitoring in relation to the sustainability charter.

Should targets be focused on reducing water consumption, increasing water re-use or both?

The sustainability charter should include targets for both reduction in water consumption and increase in water re-use. Two major components of water resource management are the availability of water supplies and the type and quantity of water consumed. A holistic approach to management of this critical natural resource requires consideration of both the supply and demand sides of the water industry.

Entities operating in the water industry, including government business enterprises and local government authorities that provide water and sewerage services, are both suppliers and consumers of water. Water providers consume water in the process of water

³³ In responding to this question, we have focused on the star-rating approach, which provides a non-technical indicator of water quality that captures more technical information on a range of features, such as phosphorus concentration and suspended solids.

treatment and delivering water to consumers, including transmission losses and releases for environmental flows. Water providers can work towards targets for increasing water re-use through strategies for provision of more reclaimable water to agricultural and industrial properties. This may involve investment in more advanced wastewater treatment infrastructure to provide water of a more usable quality, thus increasing the range of potential customers. Water suppliers can also work towards targets for reducing water consumption in their own operations through, for example, reducing transmission losses by replacing open channels with pipelines.

All entities, and members of the community in general, are consumers of water. Strategies to work towards targets for reduced water consumption may involve daily operations, as well as procurement and investment policies. Consumers may also be able to implement strategies for increased re-use of water, through on-site arrangements, such as sewer mining for irrigation purposes³⁴ and, subject to local supply and how the entity uses water, the purchase of reclaimed water.

How can we measure the health of water catchment areas?

The measurement of the health of water catchment areas for purposes of the sustainability charter should draw on existing measures adopted by water industry entities that manage catchment areas. Many water utilities provide information about the health of water catchment areas based on the guidelines³⁵ issued by the Australian and New Zealand Environment Conservation Council (ANZECC).³⁶ While specific targets may differ from the ANZECC guidelines, the use of existing and accepted performance indicators in the sustainability charter enhances comparability and understandability of reported information and reduces the problems associated with multiple and potentially conflicting, performance indicators.³⁷ The performance indicators used in the industry capture measures of lands, streams, storages and biodiversity. Commonly used indicators include physio-chemical measures, such as dissolved oxygen (DO) % saturation, DO mg per litre, E. coli organisms

³⁴ For example, the Sydney Olympic Park Authority's Water Reclamation and Management Scheme sources wastewater through sewer mining for irrigation and residential non-drinking uses at Sydney Olympic Park and the Newington Estate.

³⁵ Australian and New Zealand Environment Conservation Council (ANZECC), (2000) *Guidelines for Protection of Aquatic Ecosystems* and ANZECC (2000) *Australian Guidelines for Water Quality Monitoring and Reporting*.

³⁶ The ANZECC was replaced in 2001 by the Natural Resource Management Ministerial Council and the Environment Protection and Heritage Council, the latter being since renamed as the Environmental Protection and Heritage Council of Australia and New Zealand in 2003.

³⁷ The efficiencies that may be achieved through drawing on existing information systems, standards and performance measures are discussed with broader application in our response to General questions.

(Escherichia coli) per 100 ml, lead mg per litre, nitrogen mg per litre, phosphorus mg per litre, zinc mg per litre, suspended solids mg per litre and the presence of pathogens.

The sustainability charter should be considered as an evolving document; future developments in practice in the measurement and monitoring of the health of water catchment areas should be reflected in the setting of targets and reporting system component of the charter.

Energy

Specific Questions for Consideration

How should we measure the use of renewable energy?

How do we encourage an increase in renewable energy use?

Can we measure the awareness of the environmental, economic and social benefits of energy efficiency and renewable energy?

Transport

Specific Questions for Consideration

How do we judge the efficiency of transport systems?

A holistic approach, encompassing economic, social and environmental impacts, should be adopted in the assessment of the efficiency of transport systems. The impacts should be identified using a life cycle approach, in which the impacts are not confined to those operations under the direct control of the entity, but extend to the indirect upstream³⁸ and downstream³⁹ activities of providing the transport system. By adopting a life cycle assessment a wider range of effects can be identified and thus coordinated towards a continuous improvement process.⁴⁰

³⁸ An example of an upstream activity of a bus service is the manufacture of the bus, and further upstream are the mining operations for the metals used.

³⁹ An example of a downstream activity in a bus service is the disposal of waste, which may be part of regular operations, such as a disposal of materials used by cleaning subcontractors, or over a longer term, such as the re-use of parts, recycling and waste disposal by a scrap metal dealer when the bus is retired from use.

⁴⁰ A parallel development is an entity's sustainability or ecological footprint. While applications of this concept vary, in its more comprehensive form the sustainability footprint of an entity captures social and environmental effects such as consumption of energy and materials, expressed as the area required to sustain its operations. Life cycle assessment focuses on the economic, social and environmental impacts of the product, rather than the reporting entity. The entity focus is useful for

A life cycle assessment of transport systems should include the environmental, social and economic impacts of building the vehicles, such as buses, trains, trucks, ferries and trams, used in the provision of transport services, as well as the impacts (such as energy, materials and water used and gases emitted) in operating, maintaining and cleaning them. The allocation of economic, environmental and social effects of engineering and maintenance activities in the application of life cycle assessment poses additional complexities where operations performed in one period, such as the overhaul of an engine, pertain to the provision of transport over multiple periods. This is an area in which there is scope for further development of sustainability information systems and reporting capacity.

Transport systems also vary in the terms of the infrastructure, such as railway lines, signalling systems, tram tracks, vehicle repair workshops and roads, required to operate and support the transport services. Consideration of the sustainability effects of construction, maintenance and eventual disposal necessarily involves a multi-period horizon.

The final stage in life cycle assessment is the identification of environmental, economic and social effects of the treatment of waste, encompassing waste from regular operations, such as used tickets, routine maintenance and overhauls, and the retirement of assets including infrastructure assets. Waste can be classified by destination, that is, the method by which it is treated⁴¹, including composting, re-use, recycling, recovery, incineration and use for landfill.⁴² The treatment of waste may include further processing, such as disassembly, cleaning and heating in the course of recycling, or decontamination and crushing for use in landfill. Thus the measurement of the environmental, economic and social effects of waste disposal may be complicated by the potential deferral of decisions and actions. For instance, recycling may occur many years after a railway line has ceased operation.

assessing the performance of an entity, while the product focus provides potentially useful information to consumers about the sustainability impacts of alternative products.

⁴¹ Global Reporting Initiative, (2002), GRI Guidelines, Environmental Performance Indicator EN11, <http://www.globalreporting.org/guidelines/2002/c48.asp>

⁴² Some categories are not mutually exclusive over the long term. For instance, a reused item may eventually reach the end of its useful life and a different treatment applied, such as landfill or recycling.

The economic, environmental and social effects may be benefits and this is critical to the assessment of the efficiency of a transport system. Social benefits include the transportation of people and goods, in turn, producing potential economic benefits, such as the growth in trade and employment. In particular, one of the potential social benefits of an effective transport system is access to employment opportunities that would otherwise be too remote from residential areas, particularly those with higher levels of unemployment.

A critical element in life cycle assessment is that it acknowledges that the reach and consequences of commercial activity extend beyond the immediate ownership and control structures. Consideration of product-related decisions, such as outsourcing, based exclusively on financial / economic factors may have considerable environmental and social consequences that are inconsistent with sustainability objectives. This is particularly applicable in the transport industry where outsourcing, or partial outsourcing, such as public-private partnerships, is used for long-term infrastructure investments, as well as for regular operating activities. There is the potential for privately operated infrastructure projects to detract from long-term public policy objectives, particularly with respect to sustainability goals.⁴³ Accordingly, consideration should be given to including infrastructure investment policies into the sustainability charter, particularly with respect to infrastructure decisions that utilise investment vehicles that are not intended to remain under state ownership and control structures.

What transport infrastructure measures will reduce private transport needs?

How do we measure these?

Infrastructure measures that facilitate public transport services, improve access to public transport, or enhance the comfort and efficiency of public transport are expected to reduce private transport needs. The measurement of the efficiency of transport infrastructure is considered in the preceding discussion of measurement of the efficiency of transport systems. Assessment of the social, environmental and economic effects of infrastructure assets should not be confined to their construction but should also encompass the sustainability costs and benefits of their ongoing operation, and subsequent disposal. Life cycle assessment of the transport services supported by infrastructure assets provides a comprehensive basis for comparing alternatives from a sustainability perspective.

⁴³ For instance, operators of infrastructure assets that cater for private transport needs may benefit from increased use of private transport which may be contradictory to sustainability goals for reduced use of private vehicles in cities.