Educating communities for a sustainable future – Do large-scale sporting events have a role?

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Being a thesis submitted to the University of Technology, Sydney in partial fulfilment of the requirements for the Doctor of Education, June 2010
Certificate of Authorship and Originality

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of the requirements of a degree and that the work is the original work of the candidate except where sources are acknowledged.

Signature.........................................................................................................................
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<td>ACGA</td>
<td>Australian Commonwealth Games Association</td>
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<td>AOC</td>
<td>Australian Olympic Committee</td>
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<td>ARIES</td>
<td>Australian Research Institute in Education for Sustainability</td>
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<tr>
<td>CG</td>
<td>Commonwealth Games</td>
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<td>CGAC-E</td>
<td>Commonwealth Games Advisory Committee – Environment</td>
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<td>CGEP</td>
<td>Commonwealth Games Education Program</td>
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<td>CGF</td>
<td>Commonwealth Games Federation</td>
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<td>COS</td>
<td>Centre for Olympic Studies</td>
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<td>EAP</td>
<td>Expert Advisory Panel</td>
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<td>EfSD</td>
<td>education for sustainable development</td>
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<td>ENRC</td>
<td>Environment and Natural Resources Committee</td>
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<td>ESF</td>
<td>Environmental Stakeholder Forum</td>
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<td>ETS</td>
<td>Environmental Tender Specification</td>
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<td>FIFA</td>
<td>Fédération Internationale de Football Association</td>
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<td>GGW 2000</td>
<td>Green Games Watch 2000</td>
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<td>HCC</td>
<td>Host City Contract</td>
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<td>HomBERG</td>
<td>Homebush Bay Environmental Reference Group</td>
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<td>IOC</td>
<td>International Olympic Committee</td>
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<td>IUCN</td>
<td>International Union for Conservation of Nature</td>
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<td>LSSE</td>
<td>large-scale sporting event</td>
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<td>M2006</td>
<td>Melbourne 2006 Commonwealth Games Corporation</td>
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<td>MCC</td>
<td>Melbourne City Council</td>
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<td>MCEETYA</td>
<td>Ministerial Council on Education, Employment, Training and Youth Affairs</td>
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<td>MCG</td>
<td>Melbourne 2006 Commonwealth Games</td>
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<td>NGO</td>
<td>non-government organisation</td>
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<td>NOC</td>
<td>National Olympic Committee</td>
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<td>NOEP</td>
<td>National Olympic Education Program</td>
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<td>NZPCE</td>
<td>New Zealand Parliamentary Commissioner for the Environment</td>
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<td>OCA</td>
<td>Olympic Co-ordination Authority</td>
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<td>OCGC</td>
<td>Office of Commonwealth Games Co-ordination</td>
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<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
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<td>OEF</td>
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<td>Olympic Landcare Program</td>
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<td>OSEN</td>
<td>Olympic Sponsors Environment Network</td>
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<td>OYC</td>
<td>Olympic Youth Camp</td>
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<td>SD</td>
<td>sustainable development</td>
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<td>Sport and Environment Commission</td>
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<td>SOCOG</td>
<td>Sydney Organising Committee for the Olympic Games</td>
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<td>SOG</td>
<td>Sydney 2000 Olympic Games</td>
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<td>SOPA</td>
<td>Sydney Olympic park authority</td>
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<td>UNEP</td>
<td>United Nations Environment Program</td>
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<td>UNESCO</td>
<td>United Nations Educational, Scientific and Cultural Organisation</td>
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UTS  University of Technology, Sydney
VSC  Voluntary Sustainability Covenant
WCSE World Conference on Sport and the Environment
WWF  World Wildlife Fund
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Abstract

Educating communities for a sustainable future: Do large-scale sporting events have a role?

This thesis explores the relationship between large-scale sporting events (LSSEs) and education for sustainable development (EfSD) from the perspective of the host communities in which they take place. Over the past decade there has been increasing acknowledgement by both the owners of LSSEs and their host communities that events of this nature offer meaningful opportunities to engage in practices linked to EfSD. This acknowledgement, however, has not been accompanied by any discernable interest by researchers. This exploratory study has sought to go some way towards redressing this situation and in so doing provide a platform upon which future research in this area can be built. Additionally, its findings are intended to be of value to communities who are bidding for, or hosting, LSSEs.

A case study-based explorative research approach was employed in this enquiry utilising two LSSEs deemed by the researcher to represent ‘best practice’ examples of host-community EfSD via LSSEs—the Sydney 2000 Olympic Games (SOG) and the Melbourne 2006 Commonwealth Games (MCG). The intent of examining these cases was to develop insights into the process of leveraging LSSEs for host-community EfSD more generally. This intent was reflected in the enquiry’s research problem:

*How can the hosting of a large-scale sporting event act to progress its host community’s efforts toward education for sustainable development?*

In order to construct a guiding conceptual framework through which this problem could be addressed, literature on stakeholder theory, EfSD, and sustainable development and LSSEs was reviewed. Both secondary and primary data sources were then used to explore the components of this framework, along with the relationships identified by it. Secondary data took the form of reports, technical manuals, newspaper articles, videos, as well as
other relevant materials, while personal interviews (39 in total) of key informants associated with each event provided the study’s primary data.

The enquiry found the process of host-community EfSD in the context of the SOG and MCG to be dominated by state governments; to involve a diverse range of programs and initiatives; to be largely of an informal educational nature; and to have impacted organisations, groups and individuals from all sectors of the two communities concerned. The EfSD process was also found to have been influenced by a number of factors, with some serving to strengthen the process, while others acted as constraints upon it. Additionally, the study identified a number of host-community EfSD legacies resulting from both events, along with the potential for such legacies to extend also to non-hosting communities.

The enquiry’s findings were used to propose a revised conceptual framework that better reflected the EfSD process as it occurred in the context of the two case-study events. Additionally, these findings led to a number of observations and suggestions being made about the effective leveraging of LSSEs by their host communities for EfSD purposes. These included the importance of both acknowledging the pre-existing level of community engagement with the concept of sustainable development and collaborative relationships in the overall EfSD process. In conclusion, the study identified a number of matters that would benefit from future research, specifically: impediments to the effective operation of the EfSD process in LSSE host-community settings, along with mechanisms for overcoming these; the capacity possessed by different sectors of an LSSE’s host community to contribute to the EfSD process; and approaches to ensuring, maximising and measuring LSSE host-community EfSD legacies.
Chapter 1: Understanding the Study Context

1.1 Introduction

The concept of sustainable development emerged in the 1970s and 1980s. Its origins lay in concerns within industrialised nations that patterns of production and consumption were not sustainable in terms of the earth’s capacity to support them. Today, the challenge embodied in the concept of sustainable development represents, as Kofi Annan, former Secretary General of the United Nations, noted, “our biggest challenge in this new century…” (UNESCO, n.d., p. 2). Education plays a central role in humanity’s response to this challenge, as is evidenced by the UN General Assembly’s declaration of the Decade of Education for Sustainable Development (2005–2014). In the Australian context this role has also been acknowledged in various planning documents that have been developed at the federal level (Living Sustainably: the Australian Government's National Action Plan for Education for Sustainability, 2007) and the state level (e.g. Learning to Live Sustainably – Victoria, 2005 (draft); Learning for Sustainability – New South Wales, 2007). These documents explicitly recognise that education for sustainable development (EfSD) can occur in a multitude of non-institutional settings. It is the intent of this study to examine one such setting, specifically large-scale sporting events (LSSEs).

Over the past decade there has been a gradual acknowledgement by both sporting bodies with ownership of LSSEs and the communities which host them that events of this nature can be leveraged for EfSD purposes. This acknowledgement, however, has not been accompanied by any discernable interest by researchers in the process of EfSD through the medium of such events. This exploratory study seeks to go some way towards redressing this situation by providing a platform from which to progress research into this issue. In order to provide this platform, this enquiry employs qualitative research tools to exam two ‘best practice’ case studies in terms of their impact upon EfSD within their respective host communities. These case studies are the Sydney 2000 Olympic Games and the Melbourne 2006 Commonwealth Games. Specifically, these events will be examined with a view to answering the study’s primary research question:
How can the hosting of a large-scale sporting event act to progress its host community’s efforts toward education for sustainable development?

To further focus this enquiry’s endeavours to respond to this question, additional subsidiary questions have been established.

This introductory chapter begins by examining the link between LSSEs, sustainable development (SD), and EfSD, before moving on to discuss the study’s envisaged contribution to the subject area. Key concepts that will be drawn upon in this enquiry are then identified and described. The final section in this chapter provides an overview of each of the study’s six chapters.

1.2 Background

The link between sport and sustainable development has only recently begun to be explored by researchers, with Lenskyj noting that prior to 1998 this association received little attention (1998, p. 341). Since this time, however, a number of writers have sought to discuss various aspects of this relationship, most particularly in the context of LSSEs. These aspects have included: LSSE sustainability planning (e.g. Holden, MacKenzie & VanWynsberghe, 2008); the connection between LSSE and host-community sustainable development reforms (Beyer, 2006); LSSEs and their environmental legacies (e.g. Timashheva, n.d.); the use of sustainable practices by specific types of sporting events (e.g. Berridge, 2004); and the environmental challenges generated by LSSEs (e.g. Roper, 2005). Although many of these writers have acknowledged the value of LSSEs as agents for environmental awareness raising and/or environmental education more generally, this acknowledgement has not been accompanied by any detailed discussion. The reason for this limited discourse concerning LSSEs and practices aligned to EfSD is the subject of conjecture. It may be because this linkage is viewed as being constrained to basic awareness raising and little else, and therefore is regarded as being of little research interest. Or perhaps, as the researcher believes, writers in this area have focused upon the
more obvious and ‘tangible’ sustainable-development issues associated with LSSEs, such as those relating to infrastructure design and construction, operational practices and environmental impact management. This focus in turn may have served to deflect attention away from the more subtle and intangible area of EfSD and the associated areas of awareness raising, knowledge and skills development and attitude and behaviour change.

While researchers may have neglected the relationship between sport and EfSD, and more specifically, LSSEs and EfSD, various organisations, event ‘owners’ and host communities have acknowledged and sought to develop practices that align with it. The United Nations Environment Program (UNEP), for example, has developed a long-term strategy on sport and the environment (‘Michezo’) (UNEP, 2003). This strategy seeks to promote sustainable development, through sport and in so doing leverage the “popularity of sports to promote environmental awareness and respect for the environment amongst the public, especially young people” (UNEP, 2003, p. 1). The Council of Europe’s *Code of Sustainability in Sport* also recognises the power of sport in this area and calls for, amongst other things, the development of curricula and the creation of information packs for environmental education (Council of Europe, 2000, n.p.). Green Cross Spain (an environmental non-government organisation—NGO), provides a further example of a body that has acknowledged sport’s potential to be an agent for EfSD. This body joined with the Spanish Ministry for the Environment, the Spanish Olympic Committee and the Spanish Biodiversity Foundation to produce the *Spanish National Strategy on Sport and Sustainability*. This strategy sought to develop an understanding of sustainable development within sporting bodies, as well as the capacity of sport to raise environmental awareness in the broader community (Green Cross Spain, 2007). Other NGOs are also observed to have been active in seeking to further develop the relationship between sport and EfSD. The Global Sports Alliance, for example, is dedicated to promoting environmental awareness and action through sport. Greenpeace also played an active role in the environmental component of several recent summer Olympic Games, commencing with the Sydney 2000 Games. Given the focus of this study, it is particularly noteworthy that at the most recent of these events in Beijing it acted to leverage the opportunity
presented by the event to raise public environmental awareness and promote an environmentally friendly lifestyle in China (Greenpeace, 2008).

Through their policies, declarations and practices, it is evident that some sporting organisations responsible for specific LSSEs appreciate the relationship between their events and broader societal efforts toward sustainable development. Of particular note from the perspective of this enquiry has been the progressive engagement of the International Olympic Committee (IOC) with the concept. This engagement can arguably be traced back to its signing of the Earth Pledge in 1992, a document which emerged out of the Earth Summit in Rio de Janeiro that same year (Ottinsen, 2003). The involvement of the IOC in this area has become deeper over time, as is reflected in its decision to establish a Sport and Environment Commission, which, since its establishment in 1995, has conducted eleven regional seminars and eight World Conferences (IOC, 2009). It is particularly significant, from the viewpoint of this enquiry, that the final declaration that emerged from the last of these conferences included the following statement:

The (Olympic) Games present a unique opportunity to raise environmental awareness and develop a new environmental approach in a community, and implement a ‘green code’, thereby arriving at a set of new local standards of higher quality (World Conference of Sport and Environment, 2008).

The IOC has not been alone in recognising the potential benefits LSSEs offer for EfSD. The ‘owner’ of the other event discussed in this study, the Commonwealth Games Federation (CGF), has in recent years incorporated into its Candidate City Manual for bidding cities a requirement to provide information on environmental awareness programs that they intend to link to the event (CGF, 2005, p. 47). Yet another major sports body that has been active in this area is the Fédération Internationale de Football Association (FIFA). Beginning in 2006, FIFA introduced an environmentally focused program of actions entitled Green Goal, which they developed in concert with the UNEP. The latest iteration of this program (in association with the 2010 FIFA World Cup in South Africa) includes a component on education and public awareness (City of Cape Town and FIFA, n.d.).
It is also observed that LSSE host communities do not necessarily need to be ‘pushed’ by event owners in order to leverage such events for sustainable-development purposes. The Government of Macao, for example, when hosting the 4th East Asian Games in 2006, faced no requirement by the event’s owner, the East Asian Games Association, to engage in an environmental program; nonetheless, it acted to do so. Significantly, from an EfSD perspective, an aspect of this program involved showcasing environmental best practice and raising environmental awareness in order to encourage a ‘greener’ and healthier lifestyle amongst its citizens (Global Forum for Sports and the Environment, n.d.). This example indicates that some communities now view LSSEs as a vehicle through which they can progress their ongoing efforts at sustainable development and, associated with this, EfSD. The extent to which the LSSE host communities of interest in this study have adopted such a view is a matter that will be explored in this study.

1.3 Contribution to knowledge

From the preceding discussion it can be concluded that the potential role of sport in general, and LSSEs in particular, as agents for community sustainable development has been recognised by a broad range of organisations, including NGOs, sporting bodies, international agencies, and government. Additionally, it is clear that education in the form of awareness and behaviour-change programs, as well as more formal classroom-based learning, is seen by these same bodies as a key component of utilising sport or LSSEs for this purpose. How education in these or other forms can most effectively be woven into the sustainable-development process in these settings is, however, unclear, as to date no research has been conducted specific to this matter. It is the intent of this study to begin the process of addressing this issue.

This enquiry contributes to knowledge through providing an understanding of how LSSEs can be effectively leveraged in order to achieve EfSD outcomes for their respective host communities. This understanding, it is envisaged, will aid these communities in responding to EfSD-linked criteria in LSSE bid documents, in developing EfSD strategies and in general decision making specific to this area. In seeking this outcome, this enquiry
has examined two ‘best practice’ case studies from an EfSD viewpoint; the Sydney 2000 Olympic Games (SOG) and the Melbourne 2006 Commonwealth Games (MCG). These events perform what Stake (1994, p. 237) calls an instrumental function, in that by examining them, findings have been sought that are applicable to LSSEs and the EfSD process more generally. These findings in the context of each case have concerned: stakeholders in the EfSD process, along with their respective roles and locations (in terms of identified societal sectors); the range and nature of EfSD-linked programs and initiatives with which these stakeholders engage, along with the educational form they took (i.e. formal, non-formal and informal) and their associated beneficiary groups; factors with the potential to impact the EfSD process; and the nature of EfSD legacies resulting to host communities from their conduct. The data have been applied in the final chapter of this study to: refine the enquiry’s conceptual framework so that it provides a more detailed and complete understanding of the process of EfSD in LSSE host-community settings; and to make observations and suggestions in relation to the effective leveraging of LSSEs by their host communities for EfSD purposes.

1.4 Key concepts employed in this study

1.4.1 Sustainable development

Societal attitudes toward the natural environment began to be seriously challenged from as early as the 1970s. At this time publications like Limits to Growth (Meadows, et. al., 1972) began to appear, drawing attention to the pressure that world population growth was placing on natural systems. Also at this time at the UN Conference on the Human Environment (United Nations, 1992), for the first time the United Nations placed the relationship between economic development and environmental degradation on the international agenda. Momentum around environmental concerns continued to build through this decade, with the International Union for the Conservation of Nature and Natural Resources producing its World Conservation Strategy in 1980 (Hall, 1995, p. 80). It was in this document that the term sustainable development first appeared, referring to
development that took account of social, ecological and economic considerations both in the short and longer term (Fein, 1997, p. 22; World Conservation Strategy, 1980).

The environment remained a major area of public discussion and debate throughout the 1980s, with the latter part of the decade seeing the publication of the influential report *Our Common Future* (1987), produced on behalf of the World Commission on Environment and Development. It was this document that popularised the concept of sustainable development, defining it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (p. 43). This definition, as Fein (1997, p. 22) notes, is now arguably the most frequently cited; however, it is not without its critics. The various shortcomings identified in connection with this definition include its ambiguous nature; a lack of precision that leaves it open to varying interpretations; and its failure to make clear the centrality of the environment to the concept (IUCN, UNEP & WWF, 1991, p. 10). Indeed, along with varying perspectives on the nature of sustainable development itself, these concerns have given rise to a multitude of definitions and revised ‘labels’, such as ecologically sustainable development¹ (Jacobs, 1999, p. 25).

While acknowledging that the concept of sustainable development is a contested one, it is nonetheless possible to tease out key notions associated with it. Tilbury and Wortman (2004, p. 8) identify these as intergenerational equity, ecological sustainability and a fair distribution of wealth and access to resources. They also note that sustainable development is grounded in the view that society and the economy rely on the capacity of the environment to sustain them through providing ecosystem services. How communities meaningfully engage with these notions as they seek to progress a sustainable development agenda is, however, unclear. Prescott makes this point in his analysis of the quality of life and the environment in countries around the world, stating that:

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¹ Ecologically sustainable development—‘using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased' (Ecologically Sustainable Development Steering Committee, 1992)
… at present no country is sustainable… Nobody knows how to meet these new demands. There is no proven recipe for success. In fact, no one has a clear sense of what success would be. Making progress towards ways of living that are desirable, equitable and sustainable is like going to a country we have never been to before with a sense of geography and the principles of navigation but without a map or compass. We do not know what the destination will be like, we cannot tell how to get there, we are not even sure which direction to take… (2002, p. 2)

In this study the concept of sustainable development will not be defined in a prescriptive sense; instead it will be conceived of in terms of the key notions noted previously by Tilbury and Wortman (op. cit). By dealing with the concept in this way the complex question to which Prescott alludes regarding what sustainable development means in practice can be acknowledged but placed aside.

1.4.2 Education for Sustainable Development

Various writers and bodies (Hesselink et al, 2000; NSW Council for Environmental Education, 2006; New Zealand Parliamentary Commissioner for the Environment, 2004; Tilbury & Cooke, 2005; Fien, 1997) have sought to outline the evolution of the concept of EfSD. The evolutionary pathway they identify begins in the early 1970s with the concept of environmental education, which was essentially apolitical, scientific and confined to the areas of nature studies and natural sciences (Tilbury, 1995, p. 195; Huckle, 1999 cited in Barraza et al, 2003, p. 352). This form of environmental education tended to be what Sterling (1993, p. 74) describes as ‘safe’. By this he means it provided education about and in the environment, but made only a limited contribution to bringing about the social change necessary to move societies towards sustainable development. The New Zealand Parliamentary Commissioner for the Environment is supportive of this view, noting that this approach to education in the environmental area did not make connections between environmental issues and their underlying social, cultural or economic causes, and as a result did not challenge the status quo. Significantly, however, the Commissioner does acknowledge the role of such education in creating an ethic of care towards the environment, which in turn provides a foundation for EfSD (2004, p. 87).
The concept of sustainable development started to gain currency internationally, particularly after the United Nation’s Earth Summit in 1992, which saw 178 nations commit to a sustainable-development action plan (Agenda 21). As this occurred, education became increasingly regarded as fundamental to progress in the area of sustainable development (United Nations Department of Economic and Social Affairs, n.d.). Evidence of this can be found within Agenda 21 itself, which included a chapter entitled *Promoting education, public awareness and training* (United Nations, 1993). This chapter made explicit that education was:

…indispensable to changing people's attitudes so that they have the capacity to assess and address their sustainable development concerns. It is also critical for achieving environmental and ethical awareness, values and attitudes, skills and behaviour consistent with sustainable development and for effective public participation in decision making” (United Nations, 1993, p. 583).

In order to fulfil the role envisaged for it within Agenda 21, environmental education needed to morph into a force for social transformation, and as Fien and Tilbury note, focus “more sharply on developing closer links between environmental quality, ecology and socio-economics and the political threads that underlie these” (1998, p. 3). This point is echoed by Heck (2003, p. 122), who argues that environmental education has tended to focus on knowledge, attitudes and values, and has provided few opportunities to engage individuals in a dialogue around social change for sustainability. This change in approach between what Fien (2001, p. 9) views as the first wave (environmental education) and second wave (education for sustainable development) of education in the environmental field is illustrated in Table 1.1. This change is also reflected in the terminology used at the international level, particularly in United Nations documents, where a number of synonymous terms began to replace the term ‘environmental education’, such as education for sustainable development, sustainability education, education for sustainability, education for a sustainable future, and environmental and sustainability education (McKeown & Hopkins, 2003, p. 124). This multiplicity of terms may reduce as the term EfSD gains greater exposure through the United Nations Decade of Education for Sustainable Development (2005–2014) (UNESCO, n.d.).
### Table 1.1 Shifting emphasis towards education for sustainable development

<table>
<thead>
<tr>
<th>Focus</th>
<th>Earlier approach</th>
<th>Emergent approach</th>
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<tbody>
<tr>
<td>Problem</td>
<td>Pollution/inappropriate land clearing/waste generation</td>
<td>Causes of unsustainable resource use</td>
</tr>
<tr>
<td>Solution</td>
<td>Environmental protection, conservation and regulation</td>
<td>Collaborative solutions for sustainable development</td>
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<tr>
<td>Connectedness</td>
<td>Humans separate from ecosystems</td>
<td>Humans part of ecosystems</td>
</tr>
<tr>
<td>Goals</td>
<td>Individual awareness, knowledge and behaviour</td>
<td>Sustainable lifestyle and societies</td>
</tr>
<tr>
<td>Methods</td>
<td>Predominately information based</td>
<td>Participatory and experimental, community development and capacity building</td>
</tr>
<tr>
<td>Time and scale</td>
<td>Short-term, local and national</td>
<td>Long-term systemic</td>
</tr>
<tr>
<td>Learners</td>
<td>Audience and target groups</td>
<td>Participants, stakeholders and partners</td>
</tr>
<tr>
<td>Implementation</td>
<td>Mainly top and bottom</td>
<td>Through partnerships and networks</td>
</tr>
<tr>
<td>Legitimacy</td>
<td>Technical and scientific expertise</td>
<td>Multiple perspectives; based on different ways of seeing, knowing and doing</td>
</tr>
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</table>


The evolution of education in the environmental field is also reflected in international declarations made in this area since the 1970s. The first of these, the Belgrade Charter, emerged from the *International Conference on Environmental Education* in 1975 (Environment Canada, 2002, p. 16). This charter stated the role of environmental education as:

To develop a world population that is aware of, and concerned about, the environment and its associated problems, and which has the knowledge, skills, attitudes, motivations and commitment to work individually and collectively toward solutions of current problems and the prevention of new ones (UNESCO, 13–22 October, 1975).
Some two years after this event the Intergovernmental Conference on Environmental Education took place, resulting in the Tbilisi Declaration. This document outlined several goals for environmental education, specifically:

- foster clear awareness of, and concern about, economic, social, political and ecological interdependence in urban and rural areas;
- provide every person with opportunities to acquire the knowledge, values, attitudes, commitment and skills needed to protect and improve the environment; and
- create new patterns of behaviour of individuals, groups and society as a whole towards the environment; (UNESCO, 14–26 October, 1977, p. 26).

While the next international declaration in this area did not appear for another 20 years, it nonetheless remained of international interest with the UNESCO–UNEP Conference on Environmental Education and Training that took place in Moscow, USSR, in 1987 (UNESCO–UNEP, 1987), and the World Congress for Education and Communication on Environment and Development conducted in Toronto, Canada, in 1992 (UNESCO, n.d.). The Declaration of Thessaloniki emerged from the International Conference on Environment and Society: Education and Public Awareness for Sustainability in 1997, and went beyond merely seeking greater awareness and concern, as the previous two statements had called for, to acknowledge, amongst other things, that:

In order to achieve sustainability, an enormous co-ordination and integration of efforts is required in a number of crucial sectors and rapid and radical change of behaviours and lifestyles, including changing consumption and production patterns…The concept of sustainability encompasses not only environment but also poverty, population, health, food security, democracy, human rights and peace. Sustainability is, in the final analysis, a moral and ethical imperative… (UNESCO, 1997, p. 1).

The reorientation of education in the environment field toward being more interdisciplinary and holistic, values based and capable of aiding the progress of a sustainable-development paradigm through social change, is reflected in the way this
concept is now being defined by writers and organisations involved in the sustainable
development/education for sustainable development field (see Table 1.2).

Table 1.2 Selected definitions of Education for Sustainable Development

<table>
<thead>
<tr>
<th>Definition</th>
<th>Source</th>
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<tbody>
<tr>
<td>We believe that education for sustainability is a process which is relevant to all people and that, like sustainable development itself, it is a process rather than a fixed goal. It may precede—and it will always accompany—the building of relationships between individuals, groups and their environment. All people, we believe, are capable of being educators and learners in pursuit of sustainability’. (Sterling/EDET Group 1992, p. 2)</td>
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<td>Education for sustainable development is about the learning needed to maintain and improve our quality of life and the quality of life of generations to come. It is about equipping individuals, communities, groups, businesses and government to live and act sustainably; as well as giving them an understanding of the environmental, social and economic issues involved. It is about preparing for the world in which we will live in the next century, and making sure that we are not found wanting’. (UK Sustainable Development Education Panel, 1998, n.p.)</td>
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<td>Education for sustainability integrates ecological thinking and the wise use of natural resources—conservation—with the equally important concerns of social, economic and political sustainability. The aim of education for sustainability is to develop skills that can enable all citizens and, through them, our social institutions, to play a role in the transition to sustainability. As such, it encompasses a vision for society that is not only ecologically sustainable but also socially, economically, and politically sustainable. (Fien, 2001, p. 6)</td>
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<td>Although there is a great deal of work required to develop meaningful and workable definitions of Environmental Education for Sustainability, the following elements are important: ethical awareness; shaping values and attitudes; skills and behaviour consistent with sustainable development; effective public participation in decision making; making decisions and taking action; and consideration of future generations. (Department of Environment and Heritage, 2003)</td>
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<td>It aims to empower people of all ages and different backgrounds to contribute to a better future. It encourages people to ask lots of questions, challenge underlying assumptions, and to think for themselves. It looks at individual and systemic changes that are needed to resolve unsustainable practices. Education for sustainability will require people and organisations to see that changes for the better can be made, and that there will need to be a transformation (a redesign of many systems and established ways of doing things) to achieve a good quality of life for people far into the future. (New Zealand Parliamentary Commissioner for the Environment, 2004, p. 15)</td>
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<tr>
<td>Education for sustainability is a process for achieving sustainable development that involves encouraging people to explore the complexity and implications of sustainability, and work towards a sustainable future. Its fundamental aspects include: focusing on values and ability to co-create a sustainable future; building capacity for sustained change and improved quality of life; linking awareness raising and behaviour changes to broader lifestyle choices; developing skills and knowledge for socially critical citizens to deal with complex issues; focusing on sustained social, institutional and organisational change; working to mobilise learning across all levels of society; focusing on triggering fundamental shifts through creative exploration of values and ideas. (IUCN, 2005 cited in NSW Council for Environmental Education, 2006, p. 12)</td>
<td></td>
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<tr>
<td>Education for sustainable development is about learning to: respect, value and preserve the achievements of the past; appreciate the wonders and the peoples of the Earth; live in a world where all people have sufficient food for a healthy and productive life; assess, care for and restore the state of our Planet; create and enjoy a better, safer, more just world; be caring citizens who exercise their rights and responsibilities locally, nationally and globally. (UNESCO, n.d. (d) )</td>
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</table>
In order for EfSD to move forward in a given society, as a number of the definitions cited in Table 1.2 illustrate, it needs to engage all components of that society (Environment Australia, 2000, p. 3). Additionally, it can be implied from many of these definitions that if EfSD is to be effective, it needs to be lifelong and embrace not only formal settings such as schools, universities and TAFE colleges, but also the myriad of non-formal and informal learning contexts (e.g. families, media, workplaces, community education programs, leisure pursuits and social and environment-based networks) where EfSD can also take place. This last point has been emphasised by a number of organisations and writers (e.g. New Zealand Parliamentary Commissioner for the Environment, 2004, p. 47; Sustainable Development Education Panel, 2003, pp. 8 & 15; UNESCO, 2002, p. 4; NSW Council for Environmental Education, 2006, p. 13; Environment Canada, 2002, p. 1; McKeown, 2002, p. 16; Davis & Cooke, 2007, p. 348; Whelan, Martin, Flowers & Guevara, 2004). Indeed, Agenda 21 notes that both formal and non-formal education is “indispensable to changing people's attitudes so that they have the capacity to assess and address their sustainable development concerns” (UNESCO, 2003, p. 4).

The preceding discussion serves to draw attention to a range of EfSD-related matters of significance to this study. Firstly, EfSD is a complex, multi-faceted process that can be engaged with at various levels and in various ways. At a foundational level, it requires awareness, understanding, and a capacity to engage with sustainable practices, as well as attitudes and behaviour conducive to such engagement. At a higher level, it requires citizens to have the skills and knowledge necessary to challenge and reshape their societies in order to make them not only more sustainable environmentally, but also economically and socially. Insights into the level at which host communities connect with EfSD through LSSEs will be provided by this study. Secondly, there is an appreciation that EfSD is not something that should be constrained to educational institutions. Instead it can take place in a range of learning contexts, including, as it is intended to show through this enquiry, LSSEs. Thirdly, EfSD is an ongoing process. LSSEs, however, are ‘one-off’ activities that are planned and delivered over limited timeframes and at specific locations. Understanding how and to what extent (if at all) LSSEs can contribute to the evolving EfSD journey of their host communities will be a key outcome of this study. Lastly, EfSD
needs to connect with all components of a society if it is to be successful. This enquiry identifies and locates in a societal sense both the contributors to, and the beneficiaries of, EfSD practices linked to the two case studies examined here to enable discussion of this issue.

1.4.4 Formal, non-formal and informal education

As noted previously, EfSD takes place through formal, non-formal and informal education. While acknowledging that there are different discourses surrounding these concepts (see Colley, Hodkinson & Malcolm, 2002), for the purposes of this study the definitions proposed by the European Commission in its study *Communication on Lifelong Learning: Formal, non-formal and informal learning* (2001) will be employed. These definitions are:

- **Formal learning**—learning typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leading to certification. Formal learning is intentional from the learner’s perspective.

- **Non-formal learning**—learning that is not provided by an education or training institution and typically does not lead to certification. It is, however, structured (in terms of learning objectives, learning time or learning support). Non-formal learning is intentional from the learner’s perspective.

- **Informal learning**—learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and typically does not lead to certification. Informal learning may be intentional but in most cases it is non-intentional (or incidental/random) (European Commission, 2001, pp. 32–33).

When discussing the EfSD practices associated with the SOG and MCG in this study, consideration will be given to which types of learning are currently in evidence and whether opportunities exist to develop additional practices linked to one or more of these learning areas.
1.4.5 Community

The term ‘community’ has a variety of potential meanings, and as with the other terms previously discussed, it is very much a contested concept (Hogget, 1997, p. 3). Butcher (1993) proposes several approaches to viewing the concept, and of these his notion of ‘descriptive community’ is most relevant to this study. This approach involves conceiving of a community as a group of people who reside in a particular location and who feel connected to one another through shared values. In this enquiry two such geographic LSSE host communities will be referred to: the Australian community (the host nation) and the communities of Victoria and New South Wales (the host states, inclusive of their capital cities—Melbourne and Sydney).

1.4.6 Large-Scale Sporting Event

The term LSSE, while not uncommon in literature relating to sport and sporting events (see Leopkey & Parent, 2009; Allsop, Pascal & Chikritzhs, 2005; Glotzbach, 2006; Hall, 1998; Jones, 2001), is rarely defined. This is not the case with other related terms, specifically mega-event, hallmark event and major event (see Allen et al, 2008, pp. 13–14; Getz, 2005, pp. 16 & 18; Van Der Wagen, 2001, pp. 4–5). In the absence of any precise definition of the term LSSE, and using the previously noted associated concepts as a reference point, this study will use this term to refer to multi or single sports events of sufficient scale to: require significant public and/or private-sector investment in supporting infrastructure; involve national, state and city governments in their organisation and conduct; possess significant potential for economic, social or environmental impact; and require a multi-year planning horizon. Both the case studies described in this study are indicative of such events. Others include the Rugby World Cup, the Asian Games, Formula One and the FIFA World Cup.
1.5 Thesis structure

This first chapter provides an overview of the thesis. It serves to locate the research within the context of broader societal efforts to engage with the concept of sustainable development through education. It also provides a justification for the research and discusses its contribution to knowledge. The chapter also defines and briefly discusses key concepts associated with the study, specifically: sustainable development; education for sustainable development; formal, non-formal and informal education; host community; and large-scale sporting event.

Chapter 2 proposes the conceptual framework that will be used to guide this study. This framework draws heavily upon stakeholder theory, and as such the chapter begins by discussing the relationship between this theory and the matters addressed in this enquiry. It then moves on to overview its origins and the various contexts in which it has been used. Selected key concepts, specifically the notions of ‘stake’ and ‘stakeholder’, are then described, prior to discussing approaches to stakeholder identification, classification and management in general, and then from the specific perspective of this enquiry. Factors potentially influencing the application of stakeholder theory in the context of LSSEs will be identified, before proposing the conceptual framework that will serve to guide the study, along with its constituent elements and their proposed relationships to one another.

Chapter 3 outlines the empirical research design and methodologies used in the study. It begins by stating the primary research question and associated subsidiary questions that serve to focus the enquiry. The rationale for selecting an exploratory research approach is then discussed, before moving on to describe why and how a case-study methodology using two ‘best practice’ LSSEs from an EfSD perspective was employed for this purpose. The methods used for data collection, analysis and presentation in the context of the two case studies are then described. Matters associated with the role of the researcher within the study, and issues surrounding study biases, limitations and validity are then discussed. The final part of the chapter deals with ethical concerns about the enquiry’s conduct.
Chapters 4 and 5 constitute discrete case studies, the first dealing with the SOG and the second with the MCG. Each case study commences with a background section that provides an overview of the event ‘owners’ (the IOC or the CGF) and their associated efforts to engage with sustainable development in general, and EfSD in particular. The subsidiary research questions used to direct the study are then addressed. These questions seek to provide insights into: the organisations and groups who were active stakeholders in the EfSD process; the EfSD-linked practices with which they engaged, the educational form these took, and their associated beneficiaries; factors impacting EfSD practices and the EfSD process more generally; and the nature, extent and location (from a societal sector perspective) of EfSD-related legacies. Key findings are then made in connection with each of these areas.

The final chapter, Chapter 6, draws upon the key findings from the two case studies to inform a discussion of the primary research question and associated subsidiary questions. In particular, this discussion draws out insights emerging from the analysis of the SOG and MCG that have implications for the EfSD process more generally in LSSE settings. The chapter also revisits the original guiding framework for the study, and using the enquiry’s findings proposes a more developed model for use as a starting point for future researchers in the area. The chapter concludes by proposing matters for further research that offer the potential to generate insights that can be used to further refine the EfSD process in LSSE host-community settings.

1.6 Summary

This chapter has sought to position this study as contributing to an understanding of how LSSEs are responding to the challenges posed by the concept of sustainable development, and more specifically EfSD. In performing this role, the chapter pointed to the absence of research specific to the linkage between LSSEs and their host communities’ efforts toward EfSD, and noted the potential for such research to inform future practice in this area. Key concepts associated with the study were also identified and described, specifically: sustainable development; education for sustainable development; community; formal,
informal and non-formal education; and large-scale sporting event. It was acknowledged that some of these terms are contested, or ill-defined, and as a result their specific respective meanings in the context of this study were clarified. The chapter concluded with an overview of the structure of the thesis.
Chapter 2: Towards a Conceptual Framework for Host-Community Education for Sustainable Development through Large-Scale Sporting Events

2.1 Introduction

This chapter presents the conceptual framework that will be used to guide this study. The framework is based upon ideas and concepts associated with stakeholder theory and insights emerging from the limited literature dealing with the link between large-scale sporting events (LSSEs) and education for sustainable development (EfSD), as outlined in Chapter 1.

The chapter commences with a discussion linking the interests of stakeholder theory and the issues explored in this study. It then proceeds to describe the origins of stakeholder theory, the settings in which it has been employed, and the appropriateness of its application in the context of EfSD. The concepts of ‘stake’ and ‘stakeholder’ are contextualised to provide an understanding of how they will be employed in this enquiry. In doing so, the significance of viewing the environment itself as a stakeholder is highlighted. Techniques for stakeholder identification and classification are then addressed, with a view to exploring options in these areas and subsequently identifying the approaches that will be used in this study to undertake these tasks. Issues surrounding stakeholder management and engagement are then described before moving on to examine contextual matters that attach to these activities in project settings, such as LSSEs. Finally, the conceptual framework that has served to guide this study is described, along with its constituent elements and their respective relationships.

2.2 Stakeholder theory and its relationship to this study

Stakeholder theory may be viewed as a “rubric of theoretical approaches rather than a single theory” (Greenwood, 2008, p. 209). Essentially, it holds that in order for an
organisation/endeavour to be successful, particularly in the longer term, the legitimate needs and expectations of those entities (stakeholders) with an actual or potential interest in it need to be understood and engaged with as required (Carroll & Buchholtz, 2000; Mitchell, Agle & Wood cited in Proenca, 2003). Such interests may be purely instrumental in nature or may extend to those of a moral or ethical nature (Greenwood, 2008). Given this focus, literature concerning stakeholder theory has tended to concentrate upon providing insights into: how stakeholders of a particular organisation, or in a particular matter, can be identified and classified; the nature of the interest (stake) they possess (e.g. instrumental, moral/ethical); the opportunities and challenges they present; and how they can be engaged with in order to generate improved outcomes for a specific organisation or in the context of a specific issue (Carroll & Buchholtz, 2000, p. 64). These core considerations parallel those of interest in this study given that it seeks to: identify and classify entities involved in a specific process (EfSD); understand the stake of these entities in this process; identify factors impacting upon their involvement with it; and, ultimately, through the study’s findings, suggest ways in which they can be more effectively engaged with to improve the process’s outcomes (legacies) in the future. This alignment between the concerns of stakeholder theory in a generic sense and the specific needs of this enquiry result in the use of stakeholder theory to inform the conceptual framework that has been developed to guide this study.

2.3 Background and applications

Stakeholder theory can be traced to business-management literature produced in the early 1930s (Clarkson cited in Brugha & Varvasovszky, 2000). However, it was not until more recent times that the concept began to morph into a sophisticated theoretical perspective on decision making. Arguably, Freeman’s seminal work in the area, Strategic Management: A Stakeholder Approach (1984), served as the starting point for this change, with the subsequent decade seeing the publication of over a dozen texts in the field, along with well over 100 refereed articles (Elijido-Ten, 2007, p. 165; Donaldson & Preston, 1995). Interest in stakeholder theory has continued to the present, with books and articles
seeking to further develop or explore the concept published on a regular basis (Roloff, 2007).

Not surprisingly, given its business-management origins, the focus of stakeholder theory has tended to be organisation centric, with its primary concern being the relationship between an organisation and the variety of individuals, groups or other organisations with which it interacts (see Figure 2.1) (Buchholtz, 1999, p. 64; Donaldson & Preston, 1995, p. 70). Nonetheless, stakeholder theory has been applied to a range of other settings in which a specific matter, rather than an organisation, has been the focus. These settings have included tourism planning (e.g. Sautter & Leisen, 1999; Robson & Robson, 1996), issue management (e.g. Friedman, Parent & Mason, 2004), natural resource management (e.g. Prell, Hubacek & Reed, 2009), community health management (e.g. Proenca, 2003) and policy development (e.g. Brugha & Varvasovszky, 2000). The common element in these contexts is the inability of a single entity to deal with the matter concerned, thus necessitating input from multiple stakeholders. These stakeholders, depending upon the issue, problem or process, may be drawn from a variety of areas, including business, civil society, government or supernational organisations (Roloff, 2007, pp. 234-237). When applied in this way, stakeholder theory frequently performs an instrumentalist function, acting to aid in identifying and describing organisations, groups or individuals involved in a particular matter; examining and explaining their association with it; and providing insights with managerial implications in relation to how effective engagement with the issue, problem or process can occur (Reid, 2009, p. 1935). It is the latter use of stakeholder theory that is relevant to this study.
2.4 Key concepts in stakeholder theory: stake and stakeholder

A ‘stake’ may be defined as an interest or share in an undertaking (Carroll cited in Gibson, 2000, p. 248), which in the context of this study is the process of EfSD via the medium of LSSEs. A stake can take one of a number of forms, including a contractual claim, an exchange relationship, an investment or risk, or some other economic, moral or legal right or interest; further, it may be unidirectional or bi-directional in nature (Mitchell, Agle & Wood, 1997, p. 856). In the context of this study, what constitutes a ‘stake’ will be viewed broadly as an interest in the process of host-community EfSD through a specific LSSE. The types of organisations or groups that possess such an interest, and the form such interests may take, are matters that will be explored in this inquiry.

Implicit in this study is the view that the environment itself has stakeholder status. This is far from unusual in the context of stakeholder theory; for example, a number of writers stress the importance of such a view in an organisational context to ensure businesses maintain their community standing or protect their brand image (e.g. Mitchell, Agle &
Wood, 1997; Friedman, Parent & Mason, 2004; Starik, 1993; Robson & Robson, 1994). Additionally, it is apparent that, with the emergence of bodies acting as ‘proxies’ for the environment, most particularly non-government environmental pressure groups (e.g. Greenpeace, World Wildlife Fund), the environment’s stakeholder status has become harder to dismiss. It can also be argued that communities themselves, as reflected in the actions of their governments (at all levels), have increasingly moved to accept the stakeholder status of the environment in decision making, acting to, for example, participate in international agreements and actions plans such as Agenda 21 (see Chapter 1). In the specific context of this study, the efforts of governments to leverage LSSEs for environmental purposes (see Chapter 1) can be viewed as a further example of this acceptance.

2.5 Stakeholder identification and the operation of multi-stakeholder processes

In the context in which stakeholder theory is being employed in this study, it is noteworthy that it is common for a specific organisation, or organisations, to perform a ‘focal’ role. This ‘focal’ role involves the organisation(s) concerned playing a major role in engaging directly with the specific issue, problem or process, as well as acting to identify, collaborate with, and co-ordinate the response of, other organisations or groups with a stake in it (see Figure 2.2) (Pouloundi & Whitley, 1997). Nevertheless, the capacity of focal organisations to exert full control over a given issue, problem or in this case process, is limited. This limitation results from the ability of organisations or groups that perceive that they have a stake in a particular matter to act independently without seeking to engage with focal organisation(s) associated with it (Roloff, 2007).
A focal organisation’s decisions about which bodies, groups or individuals with which it should seek to collaborate or cooperate can be key in achieving progress in the context of a given issue, problem or process. In this regard, stakeholder theory provides a number of insights into how such decisions might be made. Key approaches identified in this literature include: historical analysis of similar issues and organisational contexts; research involving consultation with experts, focus groups, semi-structured interviews, snow-ball sampling, or a combination of these; self selection; and simple ‘top-down’ approaches based upon some explicit or implied criteria (Reid, 2009; Chevalier & Buckles, 2008; Prell, Hubacek & Reed, 2009, p. 502). Other factors may also impact the stakeholder identification process. Mitchell, Agle and Wood (1997, pp. 873-6), for example, cite power, legitimacy and urgency as key factors in this regard. They define ‘power’ as the capacity of a group to impose its will in a relationship, while they see ‘legitimacy’ as the perceived appropriateness or validity of a given stakeholder’s claim to a stake in a specific matter. They view ‘urgency’ as the extent to which a particular stakeholder’s claim calls for immediate attention if the relationship with that stakeholder is not to be affected. Spratlen (cited in Robson & Robson, 1994, p. 535) also draws attention to a range of factors that might be at play in the stakeholder selection process, specifically mutual
benefit; enlightened self-interest; the desire to protect an enterprise’s decision-making autonomy; and the extent to which an organisation possesses an ethical, biblical, moral or social conscience. Yet another factor that might be in evidence in weighing up the attention given to specific stakeholders is that of the past and current economic performance of an organisation. In this regard Ulmann (cited in Elijido-Ten, 2007 p. 174) specifically cites the environment as being susceptible when organisations perform poorly from an economic perspective. Finally, other notable factors that may be influential in this area are management preference, probability of (or potential for) impact, property rights, geographic proximity, dependence and strategic utility (Friedman, Milena & Daniel, 2004, p. 175).

Another consideration relating to stakeholder selection which this inquiry will consider is the potential for some groups to be marginalised through not being included as stakeholders (Reed et al. 2009, p. 1933). This may be an intentional outcome borne of a manipulative intent, or may simply result from a lack of knowledge, skills, resources, or time available to those conducting the analysis (Prell, Hubacek & Reed, 2009; Reid, 2009, p. 1935). It is also possible that pre-existing conflicts between different groups may preclude efforts directed at obtaining representative stakeholders in a particular matter (Prell, Hubacek & Reed, 2009, p. 501). Whatever the reason(s), focal organisations need to ensure that their stakeholder selection process does not result in the marginalisation of particular organisations or groups with the potential to impact their ability to successfully engage with a given matter.

2.6 Stakeholder Classification

In order to suggest mechanisms for improving the way problems, issues or processes involving multiple stakeholders can be more effectively engaged with, it is necessary to understand the potential roles that stakeholders can play. In this regard, stakeholder theory suggests a range of approaches to classifying these roles. While most of these approaches have been developed with organisational settings in mind, they nonetheless provide useful insights into how stakeholder classification can occur in other contexts, most particularly
in process settings, which are of particular interest in this study. Perhaps the means of classifying stakeholders most commonly found in the literature is the distinction between primary and secondary (e.g. Thomlison cited in Polonsky, 1995, p. 35; Clarkson cited in Friedman, Parent & Mason, 2004, p. 176; Elijido-Ten, 2007, p. 174). Primary stakeholders (e.g. shareholders, suppliers, employees, licensing bodies, creditors, customers) are defined as those with which an organisation has some form of formal, official or contractual relationship, while secondary stakeholders (e.g. environmental lobby groups, community groups, regulators, the media, consumer advocacy groups) are viewed as those groups that either influence an organisation by such means as mobilising public opinion, or that are affected by its actions. Larson and Wikstrom (2001, p. 52) propose a similar approach to stakeholder classification, suggesting that stakeholders can be viewed as either central or peripheral to a specific organisational goal. Another two-category approach to grouping stakeholders has been proposed by Freeman (cited in Friedman, Parent & Mason, 2004, p. 176), who makes a distinction between stakeholders who have a direct relationship with managers (internal stakeholders) and stakeholders with whom managers do not interact (external stakeholders). Freeman defines the former as groups who have a formal, official or contractual relationship with an organisation, and as such have a direct influence upon it, while he views the latter as those organisations or groups that, while not being directly involved in an organisation’s pursuit of profit or other primary goals, are nonetheless potentially able to exert some influence upon it as it seeks to achieve such goals. A further approach to stakeholder classification is that suggested by a working group from the 1994 Second Toronto Conference on Stakeholder Theory. This group identified three stakeholder types: core, strategic and environmental (Caroll & Buckholtz, 2000, p. 172). ‘Core’ stakeholders are defined as those essential to the survival of an organisation; ‘strategic’ are those that are central to the specific set of opportunities and threats an organisation faces; and ‘environmental’ are any stakeholders in an organisation’s environment that are not core or strategic. Other approaches to stakeholder classification found in the literature include legitimate and derivative (Phillips, 2004, p. 2), voluntary and involuntary (Sachs cited in Friedman, Parent & Mason, 2004, p. 180), actual and potential (Mitchell, Agle & Wood, 1997, p. 859), and active and passive
As these approaches share much in common with those previously discussed, they have not been expanded upon here.

The previously cited range of approaches to categorising stakeholders presents numerous possible alternatives that may be adapted for the purposes of this inquiry. Drawing upon these various alternatives, and keeping in mind the research questions associated with this study (see Chapter 3), the approach that will be used in this inquiry is Grimble and Wellard’s (cited in Reed, 2009, p. 1934) dichotomy of active and passive. Active stakeholders will be defined here as those organisations or groups that contribute directly to host-community EfSD. This stakeholder type will be broken down into sub-categories, specifically focal, collaborator and independent contributor, in order to better understand the nature of this ‘active’ contribution. Focal organisations, as discussed previously, are those bodies which play the dominant role in addressing a given issue or problem, or within a particular process, that involves multiple stakeholders. This dominant role involves both directly engaging with the specific matter concerned and seeking to identify and collaborate with other stakeholder organisations. Collaborative stakeholders are viewed here as those organisations or groups that agree to work with focal organisation(s) to enhance the EfSD outcomes emerging from the conduct of an LSSE. The nature of these collaborative relationships may be of a formal (e.g. contract, memorandum of association, grant condition) or informal nature (e.g. provision of advice linked to the development of EfSD practices). The final type of active stakeholder in the EfSD process, independent contributors, is defined here as those organisations or groups that have determined that they have a stake in the EfSD process associated with a given LSSE, and have then acted to engage in practices intended to produce EfSD outcomes. These organisations have no formal or informal relationship with focal organisation(s). Passive stakeholders are defined as the beneficiaries of EfSD-linked programs and initiatives engaged in by active stakeholders. These organisations, groups or individuals can be viewed as those that have been changed in some way as a consequence of the activities of active stakeholders. These changes may occur in the areas of behaviour, awareness, knowledge, skills or altered practice.
In addition to the two aforementioned classifications of stakeholders, in this study stakeholders will also be grouped into societal sectors so as to allow commentary on which parts of an LSSE’s host community contribute to, or benefit from, the EfSD process linked to LSSEs. The societal groupings that will be used for this purpose are: Government, Non-Government Organisations, Media, Business and Industry, Schools and Higher Education, and Community. This breakdown is based on that employed in the first major study on environmental education and its contribution to sustainability in Australia (ARIES, 2005) and the most recent major environmental education planning documents prepared by the Commonwealth Government (Department of Environment and Heritage, 2007), and the state governments of New South Wales (NSW Council for Environmental Education, 2006) and Victoria (Department of Sustainability and the Environment, 2005).

2.7 Approaches to stakeholder management and engagement

Once identified, a number of options exist as to how stakeholders may be effectively engaged concerning a specific matter. In the context of this study, understanding these options is significant, as evidence of their use or non-use could contribute to the discussion of factors impacting upon the effectiveness of EfSD-related practices employed in the context of the two events of interest in this study—the Sydney 2000 Olympic Games (SOG) and Melbourne 2006 Commonwealth Games (MCG). As with other aspects of stakeholder theory, various perspectives exist as to how best to undertake this task. MacMillian and Jones (cited in Carroll & Buchholtz, 2000, pp. 83-84), for example, propose a number of generic stakeholder-engagement approaches. These include: direct or indirect engagement; offensive or defensive strategies, accommodation, negotiation, manipulation or resistance; or a combination of these. Savage and colleagues (1991) propose a similar approach based upon the degree to which a potential stakeholder can be seen as supportive or threatening. Depending on where an individual stakeholder sits on this continuum, one of four possible strategies may be appropriate, specifically; involvement, monitoring, defence or collaboration. Involvement should be employed in instances where stakeholders are supportive with the intent of maximising their cooperative potential (Savage et al. 1991). Monitoring requires organisations to maintain a
watching brief on those stakeholders that present a minor threat or offer little potential for cooperation. In these instances, they argue, the interests of stakeholders are likely to be limited to a narrow range of matters and, as such, few resources should be needed in order to engage with them. The defence strategy is invoked when stakeholders present a significant threat but offer little potential for cooperation. If a threat emerges from an organisation’s dependence on the stakeholder concerned for the achievement of its objectives, they suggest reducing this dependence. Finally, they see collaboration as appropriate when stakeholders present both a high-potential threat and strong potential for cooperation. Under these circumstances it is suggested that strong collaborative links are established. Freeman (cited in Polonsky, 1995, pp. 34-40), while also proposing similar strategies, emphasises the importance of ensuring stakeholder needs and expectations are well understood before acting in this area. He also highlights the inherent difficulties of dealing with stakeholders who possess conflicting expectations and goals. Yet another perspective on stakeholder management is that of Reed (2008, p. 2417), who stresses the importance of empowerment, equity and trust in order to build long-term relationships.

Stakeholder theory also suggests specific techniques that may be employed in order to improve the quality of stakeholder involvement in a specific matter or in an organisational context. Of particular note in this regard, from the perspective of a multi-stakeholder process such as EfSD, is the creation of working groups to: advance shared visions; enhance understanding and awareness of a decision/issue; produce more equitable trade-offs between stakeholders with differing viewpoints; and promote decisions that reflect consensus and shared ownership (Warner cited in Medelros de Araujo & Bramwell, 1999, p. 356).

2.8 Factors conditioning the application of stakeholder theory in LSSE settings

While stakeholder theory offers much to this study, when applied in a project context, such as that of an LSSE, certain issues arise as to its application. These considerations, according to Lunden and Soderholm, concern four key characteristics of projects (1995, pp. 447-8). Firstly, unlike organisations, which have been the primary focus of stakeholder
theorists, projects are not ongoing entities, and as such those bodies charged with their creation and delivery have only limited timeframes in which to identify, engage with and respond to their stakeholders. Secondly, they note that this situation is compounded by the associated need to establish organisational structures from a zero base, which are likely to be populated, to a large extent, by people without an immediate understanding of the task before them, and who must quickly clarify this task and allocate resources appropriately. Thirdly, they argue that the defined life of project-based organisations can mean there is a tendency for them to move from being initially open to external engagement with stakeholders to being increasingly restricted in this area as they move to focus upon project delivery (see Figure 2.3). From the viewpoint of stakeholders, this situation may mean their ability to provide feedback, alter their priorities, or otherwise engage with those body(ies) responsible for a given project, can become more and more constrained. This situation is the opposite of the ideal suggested by some writers who believe that an ongoing, and evolving, involvement by stakeholders at every stage in a project’s lifecycle is key to its success (Fraser et al., 2006; Stringer et al., 2006). In the context of LSSEs, this situation may be made more acute as delivery/completion dates cannot be pushed back due to changing circumstances. Lastly, the limited life of project-based organisations, such as those charged with planning and delivering LSSEs, may also result in potential stakeholders seeing limited value in committing time and/or resources to engaging with them. Indeed, joint initiatives or other outcomes may be seen as too short term in nature and as such not as beneficial as establishing or developing their stake in other ongoing organisations. Related to this is the potential difficulty that stakeholders face in progressing joint programs, or other initiatives, that do emerge from a project once its governing organisation ceases to exist.
2.9 Conceptual Framework

In a general sense, conceptual frameworks act to identify the key factors to be examined in a research-based enquiry, along with the presumed relationships that exist between them (Miles & Huberman, 1994, p. 18). In performing this role, conceptual frameworks provide a focal point for the researcher, make explicit what is being examined and what is not, and more broadly determine the course of the study (Wolcott, 1982, p. 157; Veal, 1997, p. 44). Further, they structure the researcher’s thinking regarding the issue under consideration and give direction in connection with the questions to be asked (Huckabay, 1991, p. 17).

Drawing upon the limited research germane to the area of EfSD (see Chapter 1) and using stakeholder theory and concepts in the manner previously discussed, a conceptual framework has been developed that will serve to structure this enquiry. This framework
has been cast to facilitate a broad exploration of host-community EfSD via the medium of LSSEs, and as such it is intended primarily to offer a platform on which to build future research rather than to generate specific answers to narrowly crafted questions. With this goal in mind, the elements of the framework have been identified as: event owners; host-community societal sectors (i.e. Government, Non-Government Organisations; Business and Industry; Media; School and Higher Education Institutions; and Community); EfSD-linked practices; factors facilitating and inhibiting the development of EfSD-linked practices; and EfSD legacies (see Figure 2.4). An overview of these elements, and their proposed relationships to one another, follows.

Event owners, which are assumed in this study not to be a part of an LSSE host community, require that places seeking to host LSSEs respond to a given set of criteria in their bid documents. If a community is successful in its bid, these criteria become part of the formal agreement between the event owner and the host community’s government. To the extent that these criteria result in practices linked to EfSD, they have the capacity to influence the EfSD process. The societal groups used in the conceptual framework, as noted previously, have been employed in past studies of community EfSD. In this enquiry they play the role of ‘baskets’ into which the presently unknown organisations and groups, engaged as either active (focal, collaborative or independent) or passive stakeholders in the EfSD process, can be placed. By utilising these sectors in this way, it is intended to generate insights into which parts of an LSSE’s host community are involved in EfSD, along with the nature and extent of their involvement in it. The key role of focal organisations in the EfSD process is evidenced by their central placement in the conceptual framework. Who these organisation(s) are, and in which societal sector they are located, is a matter that this study will address. The bi-directional arrows leading from these bodies to the various societal groupings reflect the assumption (to be verified through the enquiry) that a two-way (collaborative) relationship will exist between some of the organisations, groups or individuals in these groupings that are involved in the EfSD process and focal organisations. The bolded arrow connecting focal body(ies) directly to EfSD-linked programs and initiatives represents the assumed dominant role of
such organisations in co-ordinating, developing and implementing EfSD-linked programs and initiatives.

The conceptual framework also allows for bodies (independent contributors) within the various societal sectors to claim a stake in the EfSD process directly by developing their own EfSD-linked programs or initiatives. This is indicated by one-way arrows. Allowance has also been made for factors that may act to shape EfSD practices. For example, in the prior discussion economic issues, as well as the project nature of LSSEs themselves, were identified as possible influences. Additionally, the framework assumes, for analysis purposes, that an EfSD legacy will result to some organisations and groups (passive stakeholders) within each societal grouping.

It is important to reiterate that the conceptual framework proposed for this study is based upon a very limited understanding of how the process of host-community EfSD via the medium of an LSSE might take place. As such, the framework will be reviewed in the light of the findings that emerge from this enquiry, and based upon this review, a revised framework with the capacity to provide a stronger foundation for future research will be proposed.
Figure 2.4 Conceptual framework – the host-community education for sustainable development process via large-scale sporting events
2.10 Summary

This chapter has sought to build an appreciation of the concepts and ideas underpinning the conceptual framework used to guide this study and to describe the framework itself. This framework draws heavily upon stakeholder theory and as such this chapter commenced by discussing how the key concerns of this theory link to the needs of this inquiry. It then discussed the broad nature of stakeholder theory, including the appropriateness of its use in the context of this study. The notions of ‘stake’ and ‘stakeholder’ were then described with a view to clarifying how they will be employed in this enquiry. Discussion then moved to approaches to stakeholder identification, management and engagement to provide a lens through which practices in this area could be viewed in the context of the SOG and MCG. Next, the origins of the approaches used in this study to classify stakeholders were discussed; these approaches are based upon broad societal groups and roles (active/passive, focal, collaborator and independent contributor). Factors potentially conditioning the application of stakeholder theory within a project context, such as that of LSSEs, were also identified. Central amongst these were their limited lifespan and potentially declining ability over time to engage meaningfully with stakeholders. In the final part of the chapter the conceptual framework used to guide this inquiry was discussed, along with its constituent elements and their respective relationships. While serving to guide the study, this framework will be revised in light of the study’s findings.
Chapter 3: Methodology

3.1 Introduction

This chapter begins by reiterating the purpose of this study. It then states the central research question on which it is based, along with associated subsidiary questions that will be used to guide it. The rationale for the use of a case study-based exploratory research approach to address these questions is then provided. The data sources, both primary and secondary, that have been drawn upon to inform this enquiry are then described, before discussing how the data were analysed and presented within the two case-study narratives which appear in Chapters 4 (Sydney 2000 Olympic Games) and 5 (Melbourne 2006 Commonwealth Games). The researcher’s role in the study is then outlined, prior to discussing the potential limitations that attach to the research approach used in this enquiry. Approaches to dealing with issues associated with the study’s validity and practical significance are then addressed. The chapter concludes with a discussion of how ethical matters associated with the adopted research approach have been addressed.

3.2 Study purpose and associated research questions

As discussed in Chapter One, the relationship between large-scale sporting events (LSSE) and education for sustainable development (EfSD), while largely neglected by researchers, has been an area of evolving practice through the agency of international bodies, LSSE event owners and the host communities in which these events take place. The purpose of this study is to use a qualitative research framework to explore this relationship from the perspective of host communities.

In undertaking this exploration the intent is not to generate theory, but to utilise description and analysis to develop insights into the process of EfSD via LSSEs, and associated with this, the potential such events possess to progress their host community’s efforts more generally in the EfSD area.
Given the exploratory nature of this enquiry and the lack of research regarding matters germane to it, the central question used to guide this study has been cast broadly as:

_How can the hosting of a large-scale sporting event act to progress its host community’s efforts toward education for sustainable development?_

In order to build a response to this question, a number of subsidiary questions were established with a view to, firstly, focusing the research by identifying matters that link to the main research question; setting clear boundaries for the study; and suggesting approaches to data gathering (Miles & Hubberman, 1994, p. 25). These questions draw upon concepts and definitions discussed or provided in Chapter 2. The specific subsidiary questions that have been constructed in order to further direct this study are:

1. Who were the active stakeholders (focal, collaborative or independent contributor) in the EfSD process associated with the Sydney 2000 Olympic Games (SOG) and Melbourne 2006 Commonwealth Games (MCG), and in what societal sectors (Government, Non-Government Organisations, Business and Industry, Schools and Higher Education, Media and Community) were they located?

2. What programs or other initiatives aligned with EfSD were undertaken by active stakeholders, what educational form did they take (informal, non-formal or formal) and who were their beneficiaries, both in specific terms and in terms of the societal sectors used in this study?

3. What (if any) factors acted to facilitate or hinder the EfSD linked programs and initiatives identified in question two, or the EfSD process associated with the SOG or MCG more generally?

4. What was the nature and extent of the EfSD legacy emerging from the SOG and the MCG for the societal sectors employed in this study?
3.3 Research Approach

3.3.1 Exploratory inquiry

As was noted in Chapter 1, events in their various forms, including LSSEs, have only recently begun to engage with the concept of sustainable development or, more specifically, the environmental dimension of this concept. Given the relative ‘newness’ of this engagement, it is not surprising that little research has been conducted relating to this issue generally, or aspects of it, particularly the issue of interest in this study. In such circumstances, where research and associated theory concerning a specific phenomenon are lacking, an exploratory research approach has much to commend it (Marshall & Rossman, 1995, p. 41; Morse, 1991, p. 121; and Yin 2003, p. 30). This approach starts at the beginning and aims to generate sufficient insights about a topic, issue or situation to establish a platform for future research (Neuman, 2003, p. 29). In the context of this enquiry it is intended that the pursuit of answers to the previously cited subsidiary research questions will provide such insights. In order for this to occur, a structured approach to addressing these questions, along with the research approach in general, is required. This approach is outlined in Figure 3.

3.3.2 A case study approach

As a strategy of inquiry, case studies can be used for a variety of purposes (Denscombe, 2007, p. 39). In the context of this study, two LSSEs were selected to provide insights into a specific issue—the relationship between LSSEs and EfSD in the context of the communities in which they take place. Case studies used for such a purpose can be classified as ‘instrumental’ in nature in that the cases themselves are of secondary interest, with their examination serving to advance understanding of a broader issue (Stake, 1994, p. 237). More specifically, they can also, as is the case here, improve the reasoning of those intending to achieve outcomes in a given area in similar contexts (Stenhouse, 1985, p. 49). This capacity lies in their ability to be used to disseminate innovative practice, as well as to provide critical and comparative analysis (OECD, 1999, p. 23).
In this thesis, the case study method of inquiry is employed in the context of two events; the Sydney Olympic Games (SOG) and the Melbourne Commonwealth Games (MCG). The selection of these cases was based upon their information-rich nature and what Stake (1994, p. 243) describes as the “opportunity to learn”, which they presented in the context of the phenomena of interest. This “opportunity to learn” comes from the fact that the SOG and MCG are the largest events (sporting or otherwise) to have taken place in Australia that have sought to formally engage with the concept of sustainable development or, more specifically, the environmental dimension of this concept. In the cases of both the SOG and MCG, this formal engagement resulted in the allocation of resources and the development of practices specific to this area, including practices that can be linked to EfSD (see Chapters 4 & 5).

The decision to employ two cases in this study was made in order to generate more compelling and robust findings (Herriot & Firestone cited in Yin, 2003, p. 46), enhance generalisability and deepen understanding of the phenomenon being studied (Miles & Hubberman, 1994, p. 173). Related to this is the capacity for multiple cases to enable cross-case analysis (Yin, 2003, p. 133). While acknowledging these benefits, if the research process is not to be compromised, each case study still needs to be appropriately dealt with (Patton, 2002, p. 449; Eisenhardt, 1999, p. 145). Central to ensuring this, as Eisenhardt (1999, p. 145) points out, is the use of a uniform research approach that will allow case study comparison (see Figure 3.1). Other considerations of which the researcher will be mindful are: the need to display sufficient evidence so that readers can make their own judgement as to how findings may have relevance to other cases; rigour in data collection and analysis; and the requirement that each case study be engaging from the reader’s perspective (Yin, 2003, pp. 161-165; Denscombe, 2007, p. 43).
3.3.3 Data sources

In seeking to learn from the two case studies used in this enquiry, multiple sources of information or interpretations will be engaged with. This enables, as Liddell (2002, p. 61) notes,

a wide range of issues to be addressed and ensures the development of converging lines of inquiry, hence methodological triangulation….This means the research findings are likely to be more convincing and accurate, thereby increasing its validity as the research has been based on several different sources of information.

Other researchers (Stake, 1998, p. 87; Patton, 2002, p. 247; Denzin, 1989, pp. 25-6; Yin, 2003, p. 98) make similar claims as to the value of this process of ‘triangulation’.

However, it is Boje (1995, p. 999) who makes this point most eloquently, noting the need to embrace a multitude of ‘stories’ and ‘story tellers’ in order to produce a more balanced view of the subject being researched. In this study, in order to generate such a view, both secondary and primary data sources have been used.

3.3.3.1 Secondary data sources

Documentary, audio-visual and archival records were used in this enquiry, providing a rich source of information about each case (see Figure 3.1). In most instances these data sources were in the public domain and were able to be accessed via libraries, websites or online databases. Access to some secondary sources, however, needed to be negotiated with selected individuals (commonly interviewees). This was so either because material that had once been publically accessible had not been archived in the previously noted repositories, or because the material concerned had never been made publicly available (i.e. internal reports/evaluations). In the latter case, formal permission was sought to include this material in the study.

For the purposes of this study secondary data sources were used to: provide insights into the origins of the involvement of both the SOG and MCG with the concept of sustainable development and EfSD; identify active stakeholders in the EfSD process; identify and
describe programs and other initiatives linked to the EfSD process, along with their beneficiaries; suggest factors that might impact positively or negatively upon the EfSD process; identify possible EfSD legacies resulting to the host communities in which the SOG and MCG took place. Additionally, as Patton (2002, p. 294) suggests, secondary data were employed to stimulate paths of inquiry that were later explored in the personal interview phase of the study.

3.3.3.2 Primary data source

Due to the previously noted lack of prior research, and published material more generally, concerning the link between LSSEs and EfSD, personal face-to-face interviews contributed significantly to this investigation. This data-gathering process served to expand upon documentary evidence, gauge its ‘truth’ and provide a critical perspective of it (Gillham, 2000, p. 62). Additionally, interviews were used to identify other sources of information beyond those that had previously been drawn upon.

The approach used to select interviewees may be classified as what Gilchrist (1999, p. 355) calls “purposeful, strategic or judgement based”, with the aim of interviewing individuals with the best capacity to inform the study. In the first instance these individuals were identified using the data sources noted previously. Later, informants themselves were asked to suggest other individuals that they believed could inform the research, a technique Patton (2002, p. 194) describes as ‘snowballing’. While this technique often resulted in those already identified being named, it nonetheless contributed a further four interviewees to the lists generated from secondary sources. In total, thirty-nine (39) individuals were interviewed; nineteen (19) in connection with the SOG and twenty (20) in the context of the MCG. The final list of interviewees and their titles/positions at the time of each event is provided in Table 3.1 and Table 3.2.
Figure 3.1 Case Study Research Approach

- Development of Research Questions
- Case Study Identification
- Data Collection

Secondary Data:
- Annual reports
- Evaluation reports
- Strategy, planning, policy, bid documents
- Manuals
- Archived and current websites
- Media accounts
- Press releases
- Codes of practice
- Electronic presentations
- Workshop/seminar/conference proceedings
- Tender documents
- Brochures/fact sheets
- Newsletters/magazines
- Videos/CD ROMS

Initial secondary data review

Primary Data:
- Development of interview instrument
- Selection of case study interviewees
- Conduct of face-to-face interviews

Data analysis framed by research questions

- Analyse of secondary data
- Interview transcripts coded and analysed

Case study narratives developed and findings made

Case study comparison
- Identification of lessons learnt
- Suggestions re changes to current practice
- Modest speculations re how LSSEs in general might leverage LSSEs for EISD
### Table 3.1 Sydney 2000 Olympic Games interview list

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at time of Sydney Olympic Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jeff Angel</td>
<td>Chief Executive Officer, Total Environment Centre</td>
</tr>
<tr>
<td>Maria Atkinson</td>
<td>Environmental Manager for the Olympic Village, Lend Lease Corporation</td>
</tr>
<tr>
<td>Simon Balderstone</td>
<td>General Manager, Executive Office and Board Support, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Karla Bell</td>
<td>Environmental Consultant</td>
</tr>
<tr>
<td>Michael Bland</td>
<td>Greenpeace Campaigner</td>
</tr>
<tr>
<td>David Chernushenko</td>
<td>Director, Green and Gold Inc</td>
</tr>
<tr>
<td>David Churches</td>
<td>Senior Director Games Planning, Olympic Co-ordination Authority</td>
</tr>
<tr>
<td>Peter Cotton</td>
<td>Design Manager, Sydney Olympic Village</td>
</tr>
<tr>
<td>Susan Crawford</td>
<td>Manager, Olympic 2000 National Education Program, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Jacqueline Hellyer</td>
<td>Manager, Environmental Communications at Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Sandy Hollway</td>
<td>Chief Executive Officer, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Peggy James</td>
<td>Executive Officer, Green Games Watch 2000</td>
</tr>
<tr>
<td>Con Lampas</td>
<td>Manager Pollution Control, Olympic Co-ordination Authority</td>
</tr>
<tr>
<td>Craig Lovett</td>
<td>Chief Executive Office, Clean Event</td>
</tr>
<tr>
<td>Peter Ottesen</td>
<td>Manager, Environment Program, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Blair Palese</td>
<td>Global Communications Manager (Olympics), Greenpeace</td>
</tr>
<tr>
<td>Deo Prasad</td>
<td>Professor, Faculty of the Built Environment, University of NSW</td>
</tr>
<tr>
<td>Jim Sloman</td>
<td>Chief Operating Officer, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>David Stubbs</td>
<td>Environment Program Volunteer, Sydney Organising Committee for the Olympic Games</td>
</tr>
<tr>
<td>Fiona Wilson-Jones</td>
<td>Director of Visitor Services, Olympic Co-ordination Authority</td>
</tr>
</tbody>
</table>

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2 Positions given in this table are those interviewees held at the time of the Sydney 2000 Olympic Games
Table 3.2 Melbourne 2006 Commonwealth Games interview list

<table>
<thead>
<tr>
<th>Name</th>
<th>Position at time of Melbourne Commonwealth Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cheryl Batagol</td>
<td>Member, Environment Committee, Melbourne Commonwealth Games and Chair, Melbourne Water</td>
</tr>
<tr>
<td>Sheridan Blunt</td>
<td>Savings in the City: Green Hotel Program Project Co-ordinator, City of Melbourne</td>
</tr>
<tr>
<td>Dr Michael Buxton</td>
<td>Member, Environment Committee, Melbourne Commonwealth Games and Associate Professor Environment and Planning, RMIT</td>
</tr>
<tr>
<td>Lucy Callaghan</td>
<td>Program Manager for Environment, Office of Commonwealth Games Co-ordination</td>
</tr>
<tr>
<td>Karen Cosson</td>
<td>Litter Champion, Victorian Litter Action Alliance</td>
</tr>
<tr>
<td>Christine Forster (AM)</td>
<td>Member (Chair), Environment Committee, Melbourne Commonwealth Games, and Deputy Chair, Victorian Water Trust Advisory Council</td>
</tr>
<tr>
<td>Rob Gell</td>
<td>Environment Ambassador, Commonwealth Games and Executive Chairman of Access Environmental Pty Ltd</td>
</tr>
<tr>
<td>Marcus Godhino</td>
<td>Member, Environment Committee, Melbourne Commonwealth Games and Executive Director, Environment Victoria</td>
</tr>
<tr>
<td>Debra Gonsalvez</td>
<td>Manager Renewable Energy, Department of Sustainability, State Government of Victoria</td>
</tr>
<tr>
<td>James Holgate</td>
<td>Manager Communications, Toyota, Port Melbourne</td>
</tr>
<tr>
<td>Naomi Lind</td>
<td>Program Development Officer, Commonwealth Games, Department of Education</td>
</tr>
<tr>
<td>Gillian McDonald</td>
<td>Co-ordinator, Our River Our Games Program, Melbourne Water</td>
</tr>
<tr>
<td>Kate McKeand</td>
<td>Project Officer, Environment Program, Office of Commonwealth Games Co-ordination</td>
</tr>
<tr>
<td>David Meiklejohn</td>
<td>Manager TravelSmart, Dept. of Infrastructure, Victoria</td>
</tr>
<tr>
<td>Patrick Ness</td>
<td>Architect and Design Director, Cox Architects</td>
</tr>
<tr>
<td>Kendrea Pope</td>
<td>Manager, Education Program, Office of Commonwealth Games Co-ordination</td>
</tr>
<tr>
<td>Rose Read</td>
<td>Team Leader Community Programs, Sustainability Victoria</td>
</tr>
<tr>
<td>Jenny Sams</td>
<td>Director, Office of Commonwealth Games Co-ordination</td>
</tr>
<tr>
<td>Adrienne Stephens</td>
<td>Executive Officer, ECO-Buy, Victoria</td>
</tr>
<tr>
<td>Hugh Wareham</td>
<td>Director, Office of Victorian Commissioner for Environmental Sustainability</td>
</tr>
</tbody>
</table>

3 Positions given in this table are those interviewees held at the time of the Melbourne 2006 Commonwealth Games
A modified form of what Patton (2002, p. 349) describes as the standardised open-ended interview was employed as the basis for key informant interviews. As the name suggests, this interview structure requires the sequence and wording of questions to be determined prior to the commencement of the interviewing process. The benefits of such a strategy lie primarily in facilitating the comparison of interviewee responses and the organisation and analysis of data. These benefits, however, were somewhat mitigated in this study by the decision to allow responses to be probed by supplementary questions in order to develop deeper insights into the answers provided. These supplementary questions were sometimes drawn from the responses of other interviewees. As regards the sequencing of questions, this was done with a view to moving from factual responses to responses requiring opinions or reflection, often in relation to facts that had previously been provided. Interview questions were framed in order to inform the research questions, and were developed from a review of secondary data (see Figure 3.1). Additionally, the outcomes flowing from two semi-structured interviews of one key informant from each case (both of whom were later interviewed as part of this study) were drawn upon to further shape the final set of interview questions.

By way of process, the contact details of each potential interviewee were obtained by a combination of web-based searches, working through professional networks or by referral from interviewees themselves. After obtaining a means of contacting (usually a phone number or email address) a potential interviewee, they were approached and asked if they would be willing to participate in the study. As part of this initial contact the nature of the research project was explained, along with matters attached to their participation (e.g. time commitment, ethics-related concerns). Some basic screening questions were also asked at this time to assure the researcher that his assessment of the potential interviewee’s capacity to contribute to the inquiry was correct (Yin, 2003, p. 78). As a result of this process, three potential interviewees were eliminated. Once a verbal agreement to participate in the study was reached, a tentative interview time and location was set, and a permissions letter (see Appendix 1), along with a list of interview questions (see Appendix 2), was mailed/faxed/email. This approach conforms to the criteria for informed consent proposed by Silverman (1997, p. 201), and directly aligns with that outlined in the
researcher’s ethics application. As regards interview locations, the majority took place in the offices of informants or in restaurants/cafes in Sydney or Melbourne. However, due to logistical issues, such as a respondent having moved overseas or residing outside of a reasonable travelling distance from Sydney or Melbourne, it was necessary to interview some respondents by telephone. It is noteworthy that all interviewees agreed ‘to go on the record’ with their responses, which meant the data gathered could be viewed in the context of the interviewees’ respective positions and roles at the time of each event.

Interviewees were each advised that the questions provided to them would serve to guide the interview, that some questions may not be relevant to them, and that it was likely that additional questions linked to their responses would be asked. In order to ensure interviewees had a clear understanding of the purpose of the study and its potential outcomes, a preamble explaining these aspects was included on the cover sheet of the list of questions that was provided. This preamble also gave definitions of the terms sustainable development and EfSD to ensure respondents understood how these terms were being used. Additionally, prior to the commencement of each interview, respondents were asked if any further clarification was needed in connection with matters associated with the study or their role in it. The researcher sought to establish a rapport with each interviewee, to maintain a neutral position in relation to the content of responses, and allow each participant the opportunity to have the final say by asking them if they would like to contribute anything further (Patton, 2003, p. 365). Completed interviews ranged from twenty (20) minutes to one and a half hours, and were all conducted by the researcher over the period June 2006 – February 2007. Interviews were digitally recorded and then transcribed as rich text Word documents by a professional transcriber.

3.4 Data Analysis and presentation of outcomes

Collectively, information gathered in the context of each case served as its case record (Patton, 2002, p. 449). Each case record contained material drawn from primary and secondary data sources (see Figure 3.1). The researcher sought to construct each case record so that a chain of evidence would exist to link the research questions, the data
collected and the study’s conclusions (Yin, 2003, p. 105). This process involved taking large amounts of information and making sense of it in terms of its meaning within the context of the study. To achieve this outcome deductive analysis was employed, whereby data were interpreted using the study’s research questions as the framework (Patton, 2002, p. 453; Miles & Hubberman, 1994, p. 58). This process required placing the information that was collected into one of four major categories: active EfSD stakeholders (focal, collaborative or independent contributors) and beneficiaries; EfSD programs and initiatives; EfSD limiting or facilitating factors; and EfSD legacies.

In order to analyse primary and secondary sources of case material, the case material was first de-contextualised so that it could later be re-contextualised in a way that would allow an understanding of the issues central to the study to emerge (Tesch, 1990, p. 97). This re-contextualisation process involved the creation of a number of sub-categories under each of the four main areas of research concern. These sub-categories emerged through inductive analysis, which involved an engagement with the case record material. This engagement in turn required: multiple readings of the case material; the making of notes and summaries; continual movement between the categories into which data were initially placed and the data; the creation, deletion and refinement of data categories; and what Spiro (cited in Stake, 1994, p. 242) describes as “criss-crossed reflection” between data sources. The data categories that emerged through this process are provided in Appendix 3. The researcher’s imagination, intuition and prior knowledge, as Dey (1993, p. 100) noted, also came into play during this stage of the research process.

In the context of secondary data sources, data analysis was undertaken manually. This process involved the creation of documents identifying the data source, and providing a summary of its relevant contents (Miles & Hubberman, 1994, p. 54). This information was then categorised using the research questions as a frame before drawing upon it to aid in the creation of each case study’s narrative. Given the voluminous nature of primary data (interview transcripts) associated with the study, and the time-consuming task of coding, recoding and generally working with the data, the Nvivo software package was

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4 Nvivo—Qualitative research software developed by QSR International Pty Ltd
employed. This program was selected due to its ability, along with other similar programs, to interrogate data by allowing information provided in transcripts to be coded into nodes (categories) and to link stored data to these nodes (Bazeley & Richards, 2000). By way of process, text from each interview was prepared in rich text format Microsoft Word files and loaded into Nvivo. As no interviewee chose to remain anonymous, there was no need to employ a coding system identifying the interviewees themselves in order to provide an audit trail back to the original data. Each transcript was read several times to reduce the possibility of meanings being misunderstood, or of important information being overlooked, before its contents were coded. In undertaking this task the researcher was seeking to identify ‘substantive statements’, which Gillham (2000, p. 71) defines as those that are meaningful in the context of study, and to reduce the data by selecting and simplifying (Miles & Hubberman, 1994, pp.10).

Emerging from the analysis of interview and secondary data were two case-study narratives framed by the study’s research questions. Each case is dealt with in a separate chapter, each of which concludes with a series of findings linked to the study’s subsidiary research questions. These case study narratives are followed by a chapter providing a comparative analysis of the outcomes of both case studies that seeks to: establish major similarities and differences between SOG and MCG in the context of EfSD; identify what Lincoln and Guba (cited in Creswell, 1998, p. 63) call “lessons learnt”; suggest changes to practice; and make modest speculations concerning how LSSEs in general might effectively be leveraged by their host communities for EfSD purposes.

Tables and matrices are used in each case-study chapter as tools to aid understanding of the analysis provided (Miles & Hubberman, 1994, p. 93).

3.5 Role of the researcher

The qualitative nature of this enquiry requires that the researcher both describes its context so that the characteristics of exactly what is being researched are clear (Creswell, 2003, p. 184) and provides an account that is sufficient for readers to judge for themselves the
veracity of the findings made (Mitchell, 1999, p. 196). Additionally, the researcher needs to convince the reader that the procedures followed, and the methodological decisions made, are reasonable in terms of the study’s intent (Descombe, 2007, p. 299).

The researcher acknowledges that value-free interpretative research is impossible and that as such a range of factors may colour how data are analysed and findings are drawn (Denzen & Lincoln, 2003, p. 9). These factors include beliefs, preconceptions, values and prior knowledge (Descombe, 2007, p. 300; Denzen cited in Patton, 2002, p. 570). As regards this last point, it should be stated that the researcher in this instance has a background in the area of sustainable development, having edited several books5, written a number of journal articles and book chapters, as well as having taught several subjects that have dealt with the concept. This background in turn has brought to the study certain viewpoints on sustainable development as a framework for development, as well as perspectives on its nature and application. Specifically, in the context of this study, such prior knowledge has led the researcher to the view that the role of events as educative devices for progressing a society’s engagement with sustainable development is poorly understood, and potentially more significant than is currently recognised. While such ‘personal lenses’ have the potential to distort and bias research findings (Creswell, 2003, p. 182), they can also serve to, as is the researcher’s contention in this instance, aid awareness and understanding of the issues involved in a study (Miller, cited in Creswell, 1994, pp. 163-164). Given this situation, the researcher has sought to draw upon his background in the area of sustainable development while at the same time remaining conscious of the need to be sensitive and attentive to viewpoints that do not align with those he presently holds.

3.6 Research limitations and biases

A number of potential limitations attach to this study, as they do to all research-based enquiries. The first of these relates to secondary data. In the context of both cases it was

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not possible to gain access to all identified secondary data sources. Specifically, a small number of documents were either unable to be accessed for confidentiality reasons or were not traceable. Additionally, in several other instances, only sections or extracts from documents were made available. This limitation, however, is not viewed by the researcher as significant, as the information contained in these sources was either included in summary form in other documents, or did not concern matters that were core to the study.

Another potential limitation of this enquiry is that many secondary data sources were prepared, or commissioned, by the event organisers of SOG and MCG, or associated government departments or agencies. This being the case, there is a risk that an analysis of such material may result in a very limited reading of each event’s “story” (Boje, 1995, p. 999; Yin, 2003, p. 86; Denscombe, 2007, p. 232). This issue is further compounded by the study’s need to draw a number of interviewees from these same sources. In response to this, the researcher, to the extent possible, has sought to include material and interviewees not associated with these entities.

Several potential concerns attach to the personal interview component of this study. Firstly, there is the issue of the capacity of interviewees to accurately recall relevant matters. In the context of the MCG this limitation was not found to be particularly significant, as interviews occurred within six months of the event having taken place. However, given that up to ten years may have passed in the context of some matters addressed by interview questions in the context of the SOG, the matter of accurate recall had the potential to present a significant problem. Nevertheless, this did not prove to be the case, as interviewee memories of the event, and their respective roles in relation to it, were found to be surprisingly strong. The reasons for this may lie in the significance of the event itself in the lives of interviewees, along with, in most instances, their multi-year involvement with it. Secondly, the more general issue that arises with all personal interviewees is interviewees providing responses that align with what they believe the interviewer wants to hear, or that reflect their own self interest (Yin, 2003, p. 86, Miles & Hubberman 1994, p. 264). In order to address such practices, the researcher acted to: employ probing questions when such actions were suspected; compare interview
transcripts against documents and other written evidence; and contrast perspectives amongst interviewees (Pattern, 2002, p. 563; p. 559). Thirdly, the use of personal interviews raised the ontological issue of multiple realities. This issue was addressed by providing quotes reflecting convergent and divergent views when such situations were encountered (Creswell, 1998, p. 76). Lastly, interview results can be biased by differences in the capacity of individuals to articulate their responses (Creswell, 2003, p. 186). In recognition of this, the researcher sought to put respondents at ease before each interview commenced by first engaging in general discussion around their family and/or their career since the time of the event. This rapport was later leveraged during the interview itself to try and gain deeper insights, as appropriate, into the responses provided.

Other concerns attaching to this study are the possibility of de-contextualising data and the generalisability of the findings. Given the volume of material analysed for this enquiry and the need to categorise it for analysis purposes, it was possible for meaning to be de-contextualised (Descombe, 2007, p. 313). In acknowledgement of this, the researcher sought to ensure sufficient text was copied and moved during the coding process for the context to remain apparent. Additionally, the use of Nvivo allowed text to be easily linked back to its original source document when any issues of context and associated meaning arose. Regarding the applicability of the study’s findings in other contexts, it needs to be acknowledged that there are difficulties in generalising from case studies due to their lack of representativeness (Stoecker, cited in Neuman, 2003, p. 33). However, a number of researchers (e.g. Platt, 1999, p. 167; Stake, 2005, p. 461; Conbach et al. cited in Patton, 2002, p. 584) argue that it is possible to draw lessons/perspectives from cases that can refine action in similar circumstances and/or result in the capacity to make ‘modest speculations’ as to the likely applicability of their findings to other similar cases. It is this latter view to which the researcher subscribes.

3.7 Validity and action orientation

According to Silverman (1997, p. 25), in order to determine whether a qualitative research study is of value, two key questions must be answered in the affirmative. Firstly, has the
researcher(s) demonstrated why they should be believed? Secondly, does the research problem tackled have theoretical and/or practical significance? The issue of validity is key in answering the first of these questions. Validity refers to “…the extent to which the information collected by the researcher truly reflects the phenomenon being studied” (Veal, 1997, p. 35). Various researchers have proposed approaches to dealing with validity within the context of qualitative studies (e.g. Miles & Hubberman 1994; Creswell, 2003; Stake, 2005; Yin, 2003). While not all the techniques suggested by these authors are appropriate in the context of this particular enquiry, given its exploratory nature and use of the case-study method, a number of them are instructive. In addressing these, a range of practices have been utilised, specifically:

- a clear link has been established between the research questions and the selection of an exploratory case-study design;
- triangulation has been employed in order to provide converging lines of inquiry;
- ‘thick description’ has been used in each case narrative in order to make clear to the reader how findings were arrived at;
- a case record has been established for each case so as to create an ‘audit trail’ of research methods and procedures;
- data collection and analysis strategies have been made explicit so as to ensure that any person reading the study will be aware of how these processes occurred;
- sources of bias and other factors impacting upon the study have been identified along with approaches to limiting their effect; and
- the same research method has been employed for each case so as to facilitate comparison, allow the drawing of common conclusions (where appropriate) and strengthen the possibility that ‘lessons learnt’ may have application beyond the SOG and MCG to LSSEs more generally.

In answering the second question posed by Silverman, the issue Kvale (cited in Miles & Hubberman, 1994, p. 280) calls “pragmatic validity” arises. This issue relates to the utility of the study’s conclusions to its consumers. In this instance these ‘consumers’ are those individuals, groups or organisations located within an LSSE hosting community that view
themselves as having a stake in the leveraging of LSSEs for EfSD purposes. Given this desired outcome, and drawing on the work of Miles and Hubberman (1994, p. 280), this study has framed its conclusions in ways that are: intellectually accessible to its potential users; capable of generating working hypothesis as the basis for future research germane to the area; and able to provide insights that will serve to guide future practice.

3.8 Ethical considerations

This study required the gathering of information from a variety of sources. The vast majority of documentary evidence, archival and audio-visual material drawn upon for this research was in the public domain, and its use therefore does not raise issues in relation to confidentiality, consent, storage and disposal. In the few instances in which this was not the case and access had to be sought directly from authoring organisations/individuals, no conditions were imposed upon the use or storage of the information provided. The significant reliance of this study on data gathered through the use of personal interviews, however, did raise a number of ethical issues. These issues have been highlighted by a number of researchers, including Patton (2002), Creswell (2003) and Stake (2005). In order to ensure the researcher adequately identified and addressed these issues, for the study to proceed the University of Technology, Sydney required a formal application to be made to its Human Research Ethics Committee. This application was necessary to demonstrate that the proposed research adhered to the university's own guidelines in this area, as well as the Australian Vice-Chancellors' Committee's Joint NHMRC/AV-CC Statement and Guidelines on Research Practice, the Commonwealth Privacy Act 1988, and the National Health and Medical Research Council's National Statement on Ethical Conduct in Research Involving Humans (University of Technology, Sydney, 2009). Included within this application are details concerning: the interview recruitment process; the impact of the research on participants; approaches to gaining participant consent; methods used to collect, interpret, analyse, store and dispose of data; use and publication of data; and privacy and confidentiality. The application was approved on 30 June 2006 (Ref No. UTS HREC 2006-177A) and the research did not deviate from the ethics approval granted.
This chapter identified the research purpose of this study and asserted that the focus of the study is not upon generating theory but upon exploring a process, specifically the process of EfSD through the medium of LSSEs. The limited research conducted in relation to this issue, it was argued, supported the use of an exploratory research approach, and associated with this approach, the use of ‘instrumental’ case studies with the capacity to advance understanding of the study’s main research question. In order to perform this role, a range of data sources (primary and secondary) were identified as being of value in both informing the study and in generating a balanced view of the matters to which it seeks answers. Like all research studies, biases and limitations potentially impact upon its findings, including some associated with the researcher themselves. These have been identified and approaches to dealing with them described. Additionally, approaches to ensuring the study’s validity and its value from the perspective of those that may seek to make use of its findings were acknowledged and discussed. Finally, ethical considerations attached to the study were recognised and the practices used to deal with them described.
Chapter 4: The Sydney 2000 Olympic Games

4.1 Introduction

This chapter begins with an overview of the relationship between the Olympic Games, sustainable development, and education for sustainable development (EfSD). This overview provides a context for the following case study of the Sydney 2000 Olympic Games (SOG) and its relationship to education for sustainable development within its host community. Discussion then addresses the four sub-questions posed in Chapter 3 in the context of the SOG through an engagement with primary and secondary data sources, specifically archival records, audio-visual material, relevant documents and personal interviews.

The first of these questions concerns the identification and classification of organisations or groups that played an active part in the EfSD process associated with the SOG. Two approaches to classifying these active stakeholders are used. The first is function based (focal, collaborative or independent contributor—see Chapter 2), and is intended to clarify the specific role of organisations and groups in the EfSD process. The second involves the use of broad-based societal sectors—Government, Non-Government Organisations, Business and Industry, Schools and Higher Education Institutions, Media and Community—and is intended to provide insights into the degree of involvement of different components of the SOG’s host community in the EfSD process. The second question seeks to identify programs or other initiatives aligned with EfSD undertaken by active stakeholders, their educational form (informal, non-formal or formal) and their beneficiaries. In identifying the latter, the issue of their location within the board societal sectors noted earlier is addressed. This is intended to establish which parts of the SOG’s host community have benefited most from these programs and initiatives. The third question entails the identification of those factors that might have acted to inhibit or facilitate the effectiveness of the host-community EfSD process linked to the SOG.

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6 In the first instance interviewees will be referred to using their title/position at the time of the SOG. Subsequent mentions will involve their surname only.
Through addressing this issue, factors affecting specific EfSD-linked programs and initiatives, as well as the EfSD process itself, are identified and discussed. The final question concerns the nature and extent of the EfSD legacy resulting from the SOG, as perceived through the lens of the previously cited host-community societal sectors.

4.2 Background

The summer Olympic Games is the world’s largest multi-sport event and is held every four years. The event is governed by the International Olympic Committee (IOC)\(^7\). In order for a city to host this event it must first engage in a competitive bidding process based upon a given set of criteria. Until relatively recent times, these criteria did not include a requirement to engage with environmental issues attached to the Games. Indeed, given general trends in relation to environmental awareness, it can be observed that the IOC was rather slow to acknowledge the need to require bidders to embrace environmental considerations. This lag is evidenced by the lengthy period (18 years) between the rejection on environmental grounds (by referendum) by the citizens of the City of Denver, Colorado, of their city’s successful bid for the Winter Olympic Games in 1974 and the IOC’s first formal acknowledgement of the importance of environmental protection when conducting both summer and winter Olympic Games in 1992 (one year before Sydney’s successful bid for the summer Olympics) (Lenskyj, 1998). This belated acknowledgement took the form of the ratification of the *Earth Pledge*, an agreement that resulted from the Earth Summit in Rio de Janeiro held in the same year, and that committed its signatories to both recognising the importance of the environment to the future of humankind, and taking action to protect it. The pledge was signed by all International Sporting Federations and National Olympic Committees (NOCs) (Ottinsen, 2003; Planet Drum, 2004a).

Two years after the signing of the Earth Pledge the IOC took its next major step in embracing an environmental agenda. It instituted a cooperation agreement with the *United

\(^7\) The body with ultimate authority over the Olympic Games is the International Olympic Committee (IOC). This non-governmental, not-for-profit organisation acts as the umbrella organisation for the Olympic Movement, and its primary function is overseeing the bidding process and the conduct of both the summer and winter Olympic Games (IOC, 2005a).
Nations Environment Program (UNEP) – Agreement of Cooperation to Incorporate Environmental Issues in Olympic Games (UNEP, 2008). Contained within this agreement were several requirements of note from an education for sustainable development perspective (EfSD). These conditions required the IOC to:

- conduct regional seminars with the intent of familiarising National Olympic Committees (NOCs) with environmental matters;
- encourage NOCs to create sport and environment commissions; and
- create networks comprised of high-profile people involved in sport that would act as role models for responsible conduct vis-à-vis the environment.

(IOC, 2004)

The IOC’s engagement with environmental matters took a further significant step forward in 1994 with its Centennial Olympic Congress. At this meeting the environment was proposed as the third ‘pillar’ of Olympism, the other two being sport and culture. This meeting also saw the linkage between the environment and sport discussed for the first time in a dedicated conference session. This session generated five conclusions and recommendations which have subsequently impacted, directly or indirectly, on the involvement of the Olympic Movement\(^8\) in EfSD. Specifically, these conclusions/recommendations suggested that the Olympic Movement:

- incorporate environment awareness into the Olympic Charter;
- extend the Olympic Movement’s involvement in the environment beyond merely the two-week period of the Games’ duration. To facilitate this, it was recommended that a Sport and Environment Commission be established;
- adopt an environmental educational policy;

\(^8\) The Olympic Movement is the collective term used to describe those sporting bodies that firstly agree to be guided by the Olympic Charter, and secondly, recognise the authority of the IOC. Specifically, these organisations are: International Federations of Sports (IFS) conducted at the Olympic Games; National Olympic Committees (NOCs), Organising Committees of the Olympic Games (OCOGs), athletes, judges and referees, associations and clubs, as well as all the organisations and institutions recognised by the IOC (IOC, 2005).
• ensure sport was conducted in ways consistent with sustainable development practices; and
• include the environment as a major criterion for the selection of Olympic Games host cities (Neeb, n.d., p. 165).

The year after the Centennial Congress, the IOC acted to convene, in association with the UNEP, the first World Conference on Sport and the Environment (WCSE), an event that has since been conducted biannually. At this event a number of actions were taken, including the endorsement of the Congress’s decision to make the environment the third pillar of Olympism and acceptance of its recommendation to create a Sport and Environment Commission (SEC). The IOC acted to create an SEC that same year, charging it with advising the IOC Executive Board on its policy in relation to protection of the environment. The SEC’s brief also extended to:

• having the whole Olympic Movement embrace environmental considerations;
• strengthening environmental guidelines for host cities;
• creating educational material concerning sport and the environment;
• sponsoring conferences and seminars concerning the environment;
• sponsoring a national clean-up day with NOCs from around the world;
• working with other sport and environment organisations in promoting environmental issues;
• utilising national and international athletes as environmental ambassadors; and
• establishing the environment as a major issue for the Olympic Movement by working in conjunction with the media. (Neeb, n.d., p. 166)

This expanded environmental focus of the IOC saw its charter amended in 1996 at the 105th IOC Session in Atlanta, USA, to formally acknowledge environmental concerns. Specifically, Rule 2, paragraph 10 was inserted, which stated that:
... the IOC sees that the Olympic Games are held in conditions which demonstrate a responsible concern for environmental issues and encourages the Olympic Movement to demonstrate a responsible concern for environmental issues, takes measures to reflect such concern in its activities and educates all those connected with the Olympic Movement as to the importance of sustainable development. (IOC, 2004a, p. 1)

The IOC’s next major action in relation to its evolving engagement with environmental matters associated with the summer and winter Olympic Games was its decision to alter the bidding criteria for these events to require cities to embrace environmental concerns in their bid documents, and if successful, in their subsequent efforts at event planning and delivery. The first Olympic event to be impacted by this decision was the 2002 Winter Olympic Games in Salt Lake City. Since then, these criteria have been developed and refined, with the current version being endorsed in 2004. One criterion is of particular note from an EfSD perspective, as it requires bidding cities to “[s]tate whether an environmental awareness program has been created by the candidature committee, and likewise, indicate plans for the Olympic Committee Organising Group” (Planet Drum, 2004b).

Still further evidence of the strengthening engagement of the Olympic Movement with environmental awareness is evident in recommendations and actions connected with the IOC’s Sport and Environment Commission’s WCSE events. The second such event was conducted in Kuwait City, Kuwait, in 1997, and made a range of recommendations, three of which relate directly to EfSD, specifically:

- environmental awareness and concern, as well as environmentally sound practices, be encouraged among athletes and sports participants and used generally to contribute to increasing public awareness and promoting environmentally friendly behaviour and practices;
- the IOC be urged to further encourage the organisation of ‘sport and environment days’ and to assist NOCs in conducting such days, as well as other environmental activities for the purpose of promoting environmental education and awareness; and
• that the IOC initiate the creation of an ‘idea bank’ for environmental information and resource sharing, in order to facilitate communication (Stivachtis, 1998, p. 64).

At the subsequent WCSE in 1999, the year before the Sydney 2000 Olympic Games, the IOC proposed that the Olympic Movement adopt its own version of Agenda 21 (see 1.3.1). This document committed the Olympic Movement to, amongst other things, encouraging environmental education (IOC, 2004b). The proposal was endorsed and a statement (*the Rio Statement*) devised describing how the Olympic Movement, and the sports community more broadly, should pursue this agenda (Athens Environmental Foundation, 2004). From an EfSD viewpoint, point five of this document is particularly noteworthy, as it states that “[p]articular emphasis should be placed on awareness raising, education and training in environmental protection” (IOC, 2004b, p. 25). A review of the programs of the three most recent WCSEs (Nairobi, 2005; Beijing, 2007; and Vancouver, 2009) undertaken as part of this study revealed that these events have continued to explore approaches to progressing the Olympic Movement’s Agenda 21, including matters relating to environmental education.

The IOC has not been alone in acknowledging the desirability of conducting the Olympic Games in observance of environmental considerations, as some host communities have expressed a similar desire. For example, in the absence of any formal IOC environmental guidelines, the organisers of the 1994 Lillehammer Winter Olympics undertook a range of environmentally proactive actions, which resulted in this event being described as the first ‘green’ Olympic Games (Neeb, n.d.). A similar host-community mindset was evident in the context of the SOG’s successful 1993 bid, which included a comprehensive set of environmental guidelines based on principles (Agenda 21) established at the United Nations Earth Summit in 1992. Indeed, it was these guidelines that underpinned many of the practices identified later in this chapter as key to the SOG’s contribution to EfSD within its host community.
4.3 Active stakeholders in the EfSD process

This section draws upon a review of the secondary data sources described in Chapter 3 in order to identify those organisations that were active stakeholders in the EfSD process implemented in the SOG. These stakeholders have been grouped in terms of their respective societal sectors—Government, Non-Government Organisations, Schools and Higher Education Institutions, Business and Industry, Media and Community. Additionally, the stakeholders’ roles in the EfSD process (focal, collaborator or independent contributor) have been identified. In the interests of clarity, collaborative stakeholders will be discussed (here and in later sections) in concert with the focal stakeholders with whom they had a relationship.

4.3.1 Government

4.3.1.1 Olympic Co-ordination Authority

The Olympic Co-ordination Authority (OCA) was one of two focal organisations identified as being involved in the EfSD process linked to the SOG, the other being the Sydney Organising Committee for the Olympic Games (SOCOG). The OCA was established in 1995 by an act of the NSW Parliament (*The Olympic Co-ordination Authority Bill*), and dissolved on 30 June 2002 (Hansard, 31 May 1995; OCA, 2002). The OCA was charged with three primary tasks:

1. providing sporting venues and facilities for the SOG that reflected best practice in environmental sustainability;
2. redeveloping the Homebush Bay area; and
3. meeting the longer-term social, cultural and sporting needs of the people of NSW. (Stubbs, 2001)

Additionally, due to financial difficulties experienced by SOCOG, from February 2000 the OCA took over SOCOG’s responsibilities for venue acquisition, event overlay, look, spectator services, catering, cleaning and waste management for all venues other than the
Olympic Village, and, importantly from the viewpoint of this study, environmental operations for the entire Games (‘Sydney 2000’, 2001).

In the area of the environment, the OCA’s actions, including those of an EfSD nature, were driven by the NSW Government’s desire to ensure the set of environmental guidelines included in the SOG bid document were embraced by the organisations it had established for the purpose of developing infrastructure for and staging the event. This desire was given extra weight by including these guidelines in legislation (*State Environmental Planning Policy No. 38 for the Olympic Games*) (Earth Council, 2001). The OCA’s response to this legislation took the form of an *Environment Strategy*, which detailed over 100 commitments in five key areas: energy conservation, water conservation, waste avoidance and minimisation, pollution management and protection of significant natural and cultural environments (‘Sydney 2000’, 2001). It was in progressing this strategy that the OCA developed practices, discussed later in this chapter, that served to contribute to its host community’s efforts in the area of EfSD.

While the OCA largely acted independently in terms of its practices that have been linked in this study to EfSD, it did in some instances reach out to other bodies and organisations (collaborative stakeholders). It did this for organisational learning purposes, acting to access external expertise to enhance its own understanding of environmental matters linked to the Games, and to allow input into its environmental strategy by selected organisations. Linking the development of specific EfSD programs or initiatives to the input provided by participating organisations or individuals in the settings created for these purposes (expert panels, reference groups and forums) proved impractical. As a result, it is the contributions of these collaborative settings to EfSD that have been discussed later in this study rather than those of their individual participants (see 4.1.1.1).
4.3.1.2 Sydney Organising Committee for the Olympic Games

SOCOG was constituted by the NSW Government under the *Sydney Organising Committee for the Olympic Games Act 1993* and dissolved on 31 October 2001 (New South Wales Auditor General, 2002). SOCOG’s responsibilities lay with:

- the sports program, including preparing and operating all venues and facilities for the SOG;
- organisation of the cultural program;
- establishment of a marketing program in consultation with the IOC and the Australian Olympic Committee (AOC); and

Like the OCA, SOCOG was required to embrace the environmental guidelines enshrined in law by the NSW Government. In response, SOCOG developed an environmental policy whereby it committed to: adhere to the environmental guidelines; have no significant environmental impact; set new standards of environmental excellence; and leave an environmental legacy for Sydney, Australia and the Olympic Movement. In order to advance this policy SOCOG sought to: make clear its organisational commitment to the environment; integrate environmental considerations into the way it conducted business; and significantly from the perspective of this study, build partnerships, communicate and educate and train (SOCOG, 1999). To ensure it delivered on these commitments, in 1996 SOCOG created an environmental program (*ibid*). In seeking to progress this program as the OCA had done, SOCOG developed formal relationships with selected collaborative stakeholders (see Table 4.1).
Table 4.1 Sydney Organising Committee for the Olympic Games EfSD collaborating stakeholders

<table>
<thead>
<tr>
<th>Societal sectors</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
<td></td>
</tr>
<tr>
<td>Commonwealth Government</td>
<td>SOCOG linked to the Commonwealth Government’s Greenhouse Challenge and National Landcare Programs in order to create its Olympic Greenhouse Challenge and Olympic Landcare initiatives (see 4.4.1.1.2). In implementing these program SOCOG also partnered with Green Corps, a Commonwealth Government initiative that engages young Australians in programs linked to environmental and heritage protection, such as tree planting (Green Corps, 2010)</td>
</tr>
<tr>
<td><strong>Non-Government Organisations</strong></td>
<td></td>
</tr>
<tr>
<td>Landcare Australia</td>
<td>Landcare Australia is a partnership between the community, government and business that seeks to protect and repair the Australian environment. It comprises more than 4,000 volunteer community groups across Australia. Landcare is supported by government (federal, state and local) and the private sector. It operates through a not-for-profit company (Landcare Australia, 2009)</td>
</tr>
<tr>
<td>Australian Trust for Conservation Volunteers</td>
<td>Australian Trust for Conversation Volunteers (now Conservation Volunteers Australia) completes conservation projects across Australia and internationally. It is Australia’s largest applied conservation body with over 30 offices (Conservation Volunteers Australia, 2010)</td>
</tr>
<tr>
<td>Greening Australia</td>
<td>A not-for-profit non-government organisation that operates on an Australia-wide basis. Greening Australia’s primary role lies in vegetation protection and restoration, a role that it pursues via the creation of partnerships with local communities, landholders, government and business (Greening Australia, 2007)</td>
</tr>
<tr>
<td><strong>Schools and Higher Education Institutions</strong></td>
<td></td>
</tr>
<tr>
<td>State Departments of School Education</td>
<td>Government departments responsible for school-based education in Australian states and territories</td>
</tr>
</tbody>
</table>

4.3.1.3 ‘Sydney 2000’

‘Sydney 2000’ was created in early 2000 and involved the bringing together of the three major agencies associated with the SOG—the OCA, SOCOG and Olympic Roads and Traffic Authority (ORTA) under a single management structure. This structure comprised the senior management of the four organisations and its members reported to the position of Director General ‘Sydney 2000’ (‘Sydney 2000’, 2001). In terms of its role in the EfSD process, ‘Sydney 2000’ has been classified in this study as an independent stakeholder. This classification may seem at odds with its central organisational role in the final period
leading up to the SOG, but ‘Sydney 2000’s actions in the EfSD area were essentially
limited to the appointment of an Environmental Communications Manager, along with
three support staff, and the publishing of the event’s final report (ibid) (see 4.4.1.1.4).

4.3.1.4 Olympic Roads and Transport Authority

The Olympic Roads and Transport Authority (ORTA) was established by an act of the
NSW Parliament in 1997 and dissolved in September 2001. It was charged with planning,
co-ordinating and providing integrated road and transport services for the SOG, and
associated test events (NSW Government, 1998). A key aspect of this role involved
communicating with a range of audiences such as businesses, clubs, government agencies
and the general community, in order to change community travel behaviour during the
period of the Games so as to increase demand for public transport and so reduce Games-
related private-transport use (ORTA, 2000). It is this behaviour-changing role that resulted
in ORTA being viewed as an independent contributor to the EfSD process in this study.

4.3.1.5 Environment Australia

At the time of the SOG, Environment Australia was the Australian Government
Department responsible for “advising on and implementing policies and programs for the
protection and conservation of the environment” (Environmental Australia, 2002, n.p). In
the context of the Games, this department undertook actions that have caused it to be
classified here as an independent contributor to EfSD. Specifically, these actions related to
increasing general community awareness of the environmental achievements of the event
and drawing attention to Australian innovation and enterprise in the environment area.

4.3.2 Non-government organisations

4.3.2.1 Greenpeace

Greenpeace defines itself as “an independent global campaigning organisation that acts to
change attitudes and behaviour, to protect and conserve the environment and to promote
peace” (Greenpeace, 2007). Greenpeace’s involvement with SOG stemmed from its participation in a competition to design the event’s Athlete’s Village. Arising from this involvement was an opportunity for Greenpeace to develop a set of environmental guidelines—Greenpeace Australia Guidelines for the Olympic Village. Shortly after developing these guidelines Greenpeace was asked to join the environmental sub-committee of the organisation responsible for the Sydney 2000 Olympics bid (Sydney Olympics 2000 Bid Limited). Through the agency of this sub-committee these guidelines were developed further to embrace the entire event, ultimately becoming The Environmental Guidelines for the Summer Olympic Games (hereafter referred to as the Guidelines). This document, along with appended additional principles that Sydney Olympics 2000 Bid Limited proposed to adopt to guide the event’s environmental program, was submitted as part of the City of Sydney’s successful bid to the IOC (Prasad, 1999).

Once Sydney was awarded the summer Olympics, Greenpeace decided to continue its association with the event by maintaining a watching brief on the extent to which the Guidelines were embraced in practice (Stubbs, 2001). As part of this watching brief, Greenpeace agreed to OCA’s request to be part of its environmental advisory body (Olympic Environment Forum) (Sydney Olympic Park Authority, 2007a). Greenpeace saw its role as an opportunity to find, develop and use environmental solutions for the SOG, as well as “educate Business and Industry to put the environment first” (Greenpeace, 1999a). While acknowledging Greenpeace’s participation in formal vehicles established to facilitate stakeholder input into the SOG’s environment program, specifically the Olympic Environment Forum, the inability to link the development of any significant EfSD programs or initiatives to this involvement has resulted in Greenpeace being viewed in this study as essentially an independent contributor to the EfSD process.

### 4.3.2.2 Green Games Watch 2000

Green Games Watch 2000 (GGW 2000) was a community initiative, partly modelled on the Project Environmentally Friendly Olympics organisation, which had been involved in
the planning of the Lillehammer Winter Olympics in 1994 (GGW 2000, 2001a). Established in 1995, GGW 2000 comprised five non-government environment-based agencies; the Australian Conservation Fund, the National Parks Association, the National Toxics Network, the Nature Conservation Council of New South Wales and the Total Environment Centre (‘Sydney 2000’, n.d.a). In addition to these full members, GGW 2000 also had a number of associate members, specifically, Greening Australia, Bicycle New South Wales, Action for Public Transport and the Australian Marine Conservation Society (Kearins & Pavlovich, 2002). Although it was an independent organisation, funding for GGW 2000 was provided by both the Commonwealth Government (until the end of 1999) and the NSW Government (until the end of 2000) (SOCOG, 1999). The goals of GGW 2000 were to ensure:

- environmentally sustainable development and coordinated planning in the provision and management of Olympic facilities;
- Government and industry accountability and adherence to the Guidelines through GGW 2000’s annual performance audits;
- use of international best practice to showcase Australia’s environment industries;
- mainstream application of ecologically sustainable development principles, stimulated by the Olympics, to ensure long-term benefits to NSW; and
- representation of community concerns resulting in long-term benefits for local communities and New South Wales in general. (GGW 2000, 2001a)

It was in pursuit of these goals that GGW 2000 undertook a number of EfSD-linked actions.

As was the case with Greenpeace, GGW 2000 did participate in OCA’s Olympic Environment Forum, with this involvement resulting in the same negligible outcomes in terms of generating collaborative EfSD programs or initiatives. This being the case, GGW 2000 has been classified in this study as an independent contributor to the EfSD process.
4.3.3 Schools and Higher Education Institutions

4.3.3.1 Centre for Olympic Studies, University of New South Wales

The Centre for Olympic Studies (COS) was established at the University of New South Wales in 1996. COS’s objectives were to:

- co-ordinate and enhance university research on the Games and related issues;
- be involved in the documentation of the Games after 2000;
- co-ordinate and enhance university research on the Games and related issues;
- participate in public debate and policy formation on the Olympics;
- contribute to the success of the Games by involving university personnel (both staff and students) in the event; and
- enhance links between the university and the community (Ausport, 1998).

The pursuit of these objectives resulted in a number of actions, discussed later in this chapter, that saw the COS classified as an independent contributor to the EfSD process.

4.3.4 Business and Industry

Although substantial, the role of organisations in the Business and Industry sector in the EfSD process (as discussed later in this chapter), emerged from a need to respond to the demands placed upon them by focal stakeholders (e.g. tender specifications) or their desire to increase their marketplace visibility (e.g. sponsorship of environmental initiatives such as Olympic Landcare). Given this situation, organisations within this sector proved not to be active stakeholders in the EfSD process. The only exception to this was found to be a small consultancy firm, as discussed below.
4.3.4.1 Green and Gold Inc.

Green and Gold Inc is a small-scale Canadian consultancy firm with a focus on developing environmental strategies for sporting events. This firm acted as an independent contributor to the EfSD process during the SOG, collecting, presenting and distributing material associated with the environmental aspects of the event (Green and Gold Inc, 2001).

4.3.5 Media

The potential of mass media, particularly newspapers, television and radio, to act as independent contributors to host-community EfSD within the context of LSSEs has been noted by a number of writers and organisations (e.g. Bird, Lutz & Warwick, 2008; UNESCO, 2002; ENRC, 2005). This potential emerges from the ability of organisations in this societal sector to: raise public awareness around specific issues; share information and knowledge quickly across large distances; change attitudes and mobilise support around issues; and influence policy decisions (Environmental Information System, n.d; NZPCE, 2005; Director-General on The United Nations Decade of Education for Sustainable Development, 2005). The degree to which these capacities were in evidence in the context of the SOG has proven difficult to determine. It has, nonetheless, been established that there was media reporting of the environmental dimension of the Games and as a result it can reasonably be argued that some potential existed for the previously cited abilities of the media to find expression through the event.

4.4 Programs and initiatives linked to host-community EfSD and their associated beneficiaries

The following section focuses upon identifying and describing the formal, non-formal and informal educational practices engaged in by the previously noted active stakeholders in the EfSD process. Additionally, potential beneficiaries of these practices are identified
with the intent of providing insights into the extent to which each of the societal sectors employed in this study was impacted upon from an EfSD perspective by the SOG.

### 4.4.1 EFSD-linked programs and initiatives

#### 4.4.1.1 Government

##### 4.4.1.1.1 Olympic Co-ordination Authority

The OCA, as noted previously, was legally required to engage with the Guidelines established by the NSW Government for the SOG. This requirement resulted in a number of programs and initiatives, some of which had host community EfSD implications. While the OCA was directly responsible for these programs and initiatives, it also sought input into their development and implementation by means such as forums and panels.

**Environmental Tender Specification**

The *Environmental Tender Specification* (ETS) was included in all tender documents issued to organisations seeking contracts for Games-related infrastructure design, construction, project management and general service provision (OCA, 1999a). This requirement was not overly prescriptive in nature, but required that tendering firms engage with the Guidelines when developing their tender submissions. The intent of the ETS was to stimulate innovation in the environmental area, along with an enhanced interest in environmental design and ecologically sustainable development (Greenpeace, n.d.a; Prasad, 1998). The impact of this requirement proved to be significant from an EfSD perspective, as David Churches, Senior Director Games Planning (SOG, 2005) notes:

There was no precedent for that (Environmental Tender Specification) in government tendering in NSW at that time and I think it had big impacts on everyone involved in the chain of activity. It impacted the builders, the contractors, the architects, engineers, everybody, so it was education. I guess you would say subconscious education.
Con Lampus, Manager Pollution Control, Olympic Co-ordination Authority (Lampus, SOG, 2005) makes a similar point:

…education by default I suppose because we’re talking about development times when people weren’t quite sure what this whole establishing green buildings and ESD (ecologically sustainable development) principles were about and by default it happened because the architects and the designers were out there seeking information how to comply with the environmental guidelines…. you’re dead right in saying it helped to educate them because they had to address environment criteria.

It should be noted also that the educational benefits of the ETS were not confined to winning tenderers only, but impacted all organisations that engaged in the tendering process (Grant, 1998).

A specific example of the ETS’s educative effect can be seen in the context of manufacturers that were seeking to supply building materials to the OCA. Due to an aspect of the ETS, this group needed to, in most instances for the first time, research and respond to the requirement of Life Cycle Costing\(^9\). This meant they needed to take into account matters such as greenhouse gas emissions resulting from the production, transport and disposal of their products (Greenpeace, 2000a). It was also the case that the organisational learning process did not necessarily stop once a tender had been accepted.

Peter Cotton, Design Manager, Sydney Olympic Village (Cotton, SOG, 2005) and Maria Atkinson, Environmental Manager for the Olympic Village, Lend Lease Corporation (Atkinson, SOG, 2005) both make this point in reference to the Olympic Village, with Cotton stating that firms “learnt how to build in these (environmental) initiatives into housing, and over time developed their ways of doing it so (that) there was continual improvement…over those years of construction”.

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\(^9\) A tool for assessing the environmental impacts associated with a product, process or service throughout its life cycle, from the extraction of the raw materials through to processing, transport, use, reuse, recycling or disposal (Department of Environment and Water Resources, 2007)
Environmental groups also acknowledged the educational benefits of including environmental requirements within tender documents. Greenpeace was of the view that such an approach had “an educational value across the construction industry with environmental consultants brought in to join the design teams, raising environmental awareness generally” (n.d.a). GGW 2000 were of the same opinion, stating that ETSs had “a strong educational value across the (construction) industry” (Angel & Symington, 2001).

Training, education and behaviour-change programs

To ensure a level of understanding among its staff and contractors in relation to its requirements under the Guidelines, the OCA introduced two training programs. The first of these, the Environmental Awareness and Due Diligence Training Program, sought to make site and construction staff aware of their legal responsibilities, the principles of due diligence and venue-specific environmental issues. The second and much larger program was entitled Working Greener and was designed to promote “environmental awareness in contractors and construction workers involved in the delivery of Olympic facilities and venues” (OCA, 1998, p. 8). The number of participants in the first program in 1999 appears to have been relatively small, with only 200 being involved^{10} (OCA, 1999a); however, the second program provided training for over 13,000 workers (Campbell, 2001).

In addition to the previously cited training programs, the OCA also acted to develop an education and behaviour-change program in the area of waste management that was designed to enhance the effectiveness of its waste-management strategy. This program involved “a letter mail-out to 1500 schools, signs, waste messages on scoreboards, video boards in buses, brochures, other printed material and staff training” (OCA, 2001a, p. 12). A waste-management training video was also produced and distributed to approximately 140 contractors involved in cleaning and catering as part of this program. These contractors employed some 38,000 staff (ibid).

^{10} Note: Participation figures prior to or post this time were not able to be established.
**EfSD-linked communication practices**

The OCA produced a number of publications, along with electronic and audio-visual resources, with a view to communicating aspects of its environmental program to various audiences. It undertook other actions with a similar purpose, specifically: participation in, or conduct of, events; site tours; the establishment of a Sydney Olympic Park visitor centre; participation in environmental awards; and media liaison (see Tables 4.2-4). Viewed collectively, from an EfSD perspective these efforts can reasonably be argued to have played an awareness-raising and/or knowledge-enhancing role for various groups (see Table 4.12).
Table 4.2 Olympic Co-ordination Authority EfSD-linked publications

<table>
<thead>
<tr>
<th><strong>Compendium of Ecologically Sustainable Development – Initiatives and Outcomes</strong></th>
<th>This publication, updated annually, served to collate and document environmental initiatives associated with the development of Olympic venues and facilities. The intended audiences for this document were “designers, consultants, public authorities and the construction industry in general to assist in the practical implementation of ESD (ecologically sustainable development) into their projects” (OCA, 1999b).</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State of the Environment Reports</strong></td>
<td>These public reports (produced annually) provided an analysis of the OCA’s environmental performance, and overviewed how environmental issues were managed in areas such as biodiversity, aquatic ecosystems, open space and parklands, waste and energy and water conservation (OCA, 1997; OCA, 1998).</td>
</tr>
<tr>
<td><strong>Environmental Practices Code</strong></td>
<td>This brief document presented the hierarchy from vision to outcomes associated with OCA’s efforts to deliver on the promises made in the Guidelines (OCA, n.d a).</td>
</tr>
<tr>
<td><strong>Quarterly Environmental Performance Reports</strong></td>
<td>These reports, of which 12 were published, were produced for the NSW Environment Protection Authority, but they were also made available to the broader community. They served to document the OCA’s ongoing performance in the environmental area (Campbell, 1999).</td>
</tr>
<tr>
<td><strong>Post-Games Environment Report</strong></td>
<td>This report overviewed the environmental achievements of the SOG from the perspective of both SOCOG and OCA, along with the environmental legacies these resulted in. Of the four major legacies cited in this document, one relates specifically to the area of EfSD – greater community awareness and education about environmental issues (‘Sydney 2000’, 2001d).</td>
</tr>
<tr>
<td><strong>Sydney 2000 Olympic and Paralympic Games Guidelines, Achievements and Lessons for Environmentally Sustainable Building and Events</strong></td>
<td>This document, co-authored by members of the Olympic Environment Forum, restates the Guidelines for the SOG and details the OCA’s achievements in relation to these in the construction and operation of Olympic venues, along with the lessons learnt (OCA, n.d. b).</td>
</tr>
<tr>
<td><strong>Homebush Bay Ecological Studies</strong></td>
<td>The OCA funded and published two volumes of this journal, which sought to place in the public domain the outcomes of a number of studies dealing with the ecology of the Homebush Bay area that it undertook in partnership with the Department of Defence (OCA, 1996b).</td>
</tr>
<tr>
<td><strong>Breaking New Ground: Environmental Strategy for the New Sydney Showground</strong></td>
<td>This publication provided an overview of the environmentally sustainable development approaches used in the construction of the new Sydney Showgrounds, the first of the major programs commenced at SOP (OCA, 1996a).</td>
</tr>
<tr>
<td><strong>External Reviews (x4)</strong></td>
<td>The Earth Council was commissioned by the OCA to conduct four external reviews of the performance of the OCA against the Guidelines. The last of these publically available reports was delivered in February 2001 (Campbell, 2001). These reviews, amongst other things, sought to reflect on the lessons learnt from the event, and suggest how these might be “shared and promoted nationally and internationally” (Earth Council 2001a, p. 2).</td>
</tr>
<tr>
<td><strong>Brochures</strong></td>
<td>A number of environment-related brochures were produced by the OCA and made available to the general public, specifically: Five Sentinel Species: Restoration Ecology at Millennium Parklands; Common Ground: An Urban Catchment and its People; All the Usual Suspects: A Citizens’ Guide to Pollution Monitoring at Millennium Parklands, Sydney; The Big OCA Clean Up; Recycled Water at Home (for Newington residents); Recycled Water at Sydney Olympic Park; Olympic Explorer Bus Tour – the explorer guide to ESD; Homebush Bay Self-Guided Eco-Discovery Walk – Sydney Olympic Park and Millennium Parklands Solar &amp; Water Discovery Walk; The Weedeck – a series of 20 cards to assist bush regenerators and Landcare community groups identify introduced weeds in the Parramatta River catchment (OCA, 2001a).</td>
</tr>
</tbody>
</table>
Table 4.3 Olympic Co-ordination Authority EfSD-linked electronic and audio-visual resources

| Oral Histories                                                                 | A number of oral histories were commissioned by the OCA and made publically available online and via CD-ROM. Of these oral histories several are noteworthy from an EfSD perspective, specifically: *The Big Clean-Up: Remediation at Homebush Bay*; *Wilson Park – A Story of Bioremediation*; *The Union Carbide Story: Rhodes Peninsula and Homebush Bay*; *Society and the Environment: Seventy Years’ Experience of a Changing Industrial Age* (OCA, 2001a). |
| CD-ROM – Lifecycle of a Landfill                                                 | This CD ROM, which was made available for public distribution, explains the nature of the OCA’s land remediation efforts at the SOP site and Homebush Bay area (OCA, 2001a). |
| OCA Website                                                                    | OCA’s website was launched in March 1998, and was significantly revised in September 2000. In its first iteration it contained material such as: project updates; annual reports; general environmental information on the Games; media releases; and planning and background material. When relaunched, its functionality was improved by the provision of links to government, Olympic and other sites, and new features were added, including environmental educational material designed for use in school-based projects (‘Sydney 2000’, 2001) |
| Waste-Management Video (Title not stated)                                      | A training video produced and distributed to approximately 140 contractors in the cleaning and catering areas (OCA, 2001a) |
Table 4.4: Other Olympic Co-ordination Authority EfSD-linked communication practices

| Events                                                                 | OCA participated in, or conducted, a number of events designed to draw the attention of the broader community, school children and local government to the environmental dimension of the SOG. These events were: conduct of World Environment Day activities at SOP; ..Science Week displays focusing on the remediation strategies used at SOP and the areas of ecological significance at the site; “Trees for Homebush Bay” – a tree planting program conducted in association with students from schools in the areas around SOP; and conduct of a seminar for local government dealing with environmental management, and the implementation of ecologically sustainable development, at Olympic sites (Campbell, 1999; OCA, 2001). In addition to these events the OCA sought to ensure communities beyond Sydney had an understanding of the Olympic construction program, the plans for Sydney Olympic Park (SOP) and the environmental dimensions of the event by conducting a travelling exhibition - *The Olympic Legacy: Benefits to the Community*. This event was conducted in 1997, 1998 and 1999 and involved stopovers at all major regional centres in rural New South Wales (‘Sydney 2000’, 2001). |
| Visitors Centre                                                                 | A Homebush Bay Visitors Centre at SOP was operated by OCA prior to and post the SOG, but was not open to the general public during the event, serving instead at this time as the location for the Guests of Government Program. The Centre acted to distribute information to visitors on, amongst other things, the environmental aspects of the SOG (OCA, 2001a). Between January 1997 and August 2000 over 1.2 million people visited this facility (‘Sydney 2000’, 2001c). |
| Site Tours                                                                 | Site tours (scheduled or on demand) were conducted at SOP to showcase specifically, or as part of a more broad ranging tours, environmental aspects of the site including: water reclamation collection and management systems; the Olympic Village; and approaches to incorporating natural lighting and ventilation into buildings (Stubbs 2001). In aggregate terms, the number of people undertaking such tours was almost 6000 between January 1997 and August 2000 (‘Sydney 2000’, 2001c). According to Fiona Wilson-Jones Director of Visitor Services, Olympic Co-ordination Authority (Wilson-Jones, SOG, 2005), various groups participated in these tours including IOC delegates, school and university students, international delegations, heads of state and political leaders, and members of the general public. It is also noteworthy that individual venues and components of SOP were the subject of ad hoc visits by these same groups (Atkinson: SOG, 2005.). |
| Staff and Consultant/ Advisor Presentations | OCA staff presented regularly at national and international conferences (Campbell, 2001). Some of these staff were scientists involved in the OCA’s Ecology Program who delivered presentations with a view to telling “the story of the Olympic Site clean-up, enhancing public understanding of pollution and remediation issues, and providing a feedback mechanism for people with an interest in pollution and remediation activities” (Stubbs, 2001, p.31). There is also some evidence that consultants and advisors to the OCA shared their insights concerning the environmental aspect of the event with selected audiences. Professor Deo Prasad, a member of the Experts Advisory Panel of OCA (Prasad, SOG, 2005), for example, used his Games experience in making presentations to University students, fellow academics, and practitioners in Australia and overseas both during and post the Games. |
| Award Submissions                                                                 | OCA participated in several environmental award programs, winning an Environmental Engineering Excellence Award from the Master Builders Association in 1999; three Banksia Foundation Environment Awards, and a United Nations Environmental Program 500 award for Environmental Excellence (OCA 2001a; ‘Sydney 2000’, 2001c). The recognition OCA received through participation in these programs, it can be argued, served to raise awareness, and perhaps understanding, of ‘best practice’ amongst selected groups such as the building industry, engineers and environmental scientists. |
| Media Liaison                                                                 | While acknowledging the OCA was active in the area of media liaison, it proved difficult to separate the activities of the OCA, SOCOG and “Sydney 2000” in this area. For this reason the media liaison efforts of all three organisations have been dealt with collectively in the section dealing with SOCOG’s EfSD practices (see 4.4.2). |
Collaborative practices:

Expert Panels, Olympic Environment Forum and the Homebush Bay Environmental Reference Group

To inform its efforts to engage with the Guidelines, along with the other environmental tasks with which it had been charged, in 1995 the OCA established a number of Expert Advisory Panels (EAPs). These panels specialised in the areas of construction materials, ecology, energy, landscape/open space, waste management and water/wastewater (Ottesen, SOG, 2005). The EAPs were dissolved in 1997, after being deemed to have fulfilled their purpose, and were replaced with a single entity, the Olympic Environment Forum (OEF) (Prasad, 1999). This entity comprised Greenpeace, GGW2000, the NSW Environment Protection Authority, SOCOG and the OCA. Its role was to provide advice and external input into the OCA’s programs and initiatives in the environmental area in a similar way to that of the EAPs (Sydney Olympic Park Authority, 2007a). Whilst this group had limited direct influence on EfSD practices associated with the Games, as will be discussed later in this chapter, it did produce one significant publically available document: Sydney 2000 Olympic and Paralympic Games Guidelines, Achievements and Lessons for Environmentally Sustainable Building and Events examined the OCA’s achievements in the context of the Guidelines and proposed lessons resulting from the construction and operation of Games venues (OCA, n.d. b).

The OCA also sought access to specialist knowledge to aid in its remediation efforts at Homebush Bay, and for this purpose established the Homebush Bay Environmental Reference Group (known as HomBERG). Members of this body included professional environmental organisations, academics and remediation specialists. Formed in June 1998, the terms of reference of HomBERG emerged from a community forum series on pollution and remediation that took place over a three-week period in March of that year. These terms of reference acknowledged the need for various actions linked to the rehabilitation of the area, some of which had host community EfSD implications, specifically:
• current and post-Games reporting;
• documenting the rationale for remediation processes as well as the history of the remediation process; and
• development of an education centre (SOPA, 2009).

4.4.1.1.2 Sydney Organising Committee for the Olympic Games

As the other major organisation responsible for the SOG, SOCOG was also required to engage with *the Guidelines*. To this end it established an environmental department comprising four staff members (GGW2000, 2000a). From an EfSD perspective, there are many similarities between SOCOG’s response to *the Guidelines* and that of OCA, with both acting to: push organisations supplying services and products to the SOG to educate themselves about ecologically sustainable development practices; produce a number of environment-based publications and electronic resources; engage in training associated with the environmental dimension of the event; and carry information concerning the event and its environmental program to the broader community. They differ, however, in two key areas. The first of these is the beneficiary groups (passive stakeholders) that each sought to affect through their EfSD-linked actions, with SOCOG being less concerned with organisations associated with the construction and development of Olympic sites, and more so with volunteers, sponsors, merchandise licensees, schools and the general community. The second concerns the nature of the collaborative relationships with which SOCOG was involved in the EfSD area, with these relationships taking the form of co-developed initiatives rather than the development of mechanisms (e.g. panels) through which advice could be sought or input into decision making could be facilitated.

*Training and Education Programs*

All SOCOG staff and volunteers were briefed on the organisation’s environmental responsibilities (Ottesen, 1998). Given that SOCOG staff numbers totalled 2337 (June, 2000) and volunteers numbered approximately 47,000 at Games time, this was not an easy
task (SOCOG, 2001). The orientation manual of SOCOG’s full-time employees contained a five-page *Environmental Awareness* section that:

- overviewed the origins of the concept of sustainable development;
- discussed the link between sport and the environment, and the environment and Sydney’s bid;
- identified major developments in relation to the IOC’s approach to environmental matters since the bid had been won;
- described how SOCOG was responding to its responsibilities under *the Guidelines* and how its performance in this area would be monitored;
- overviewed the environmental office program within SOCOG, including its structure and role; and
- identified environmental areas of which SOCOG staff should be conscious, including being accused of acting too late on matters concerning the Games and the environment and ‘greenwashing’, which it defined as using “alleged environmental practices or an association with the ‘Green Games’ to illegitimately claim green credentials” (SOCOG, 1996, n.p).

In the first of their two-hour compulsory volunteer induction sessions, volunteers also received information about the environmental component of the SOG. It appears, however, as will be discussed later in this chapter, that this information was very limited (Myer, 2001).

*Sponsorship and Licensing Agreements*

SOCOG was responsible for SOG sponsorship and product licensing agreements, both of which made reference to *the Guidelines* and, according to Ottesen (1998), provided businesses with an opportunity to engage more deeply with environmental concerns and enhance their capacities in, and understanding of, the area. In regards to licensees, every manufacturer who signed a license agreement for the purpose of producing official Games merchandise should have been assessed against *the Guidelines* requiring their products to:
meet the best possible environmental standards in the way they are made, used and disposed of; avoid unnecessary waste and packaging; not be made of materials sourced from threatened species or environments; be made from natural fibres wherever possible; and embody an educational message about the environment in their design or packaging wherever possible (Sydney Olympics 2000 Bid Limited, 1993). Information that needed to be supplied by manufacturers for this assessment to take place included: type and source of materials used; whether PVC is proposed to be used; recyclability; nature of packaging; disposal safety; company environmental policy, practices and audits; and environmental marketing efforts (‘Sydney 2000’, 1999c). For many organisations the requirement to address environmental considerations was something they had not previously encountered, and as such it can reasonably be assumed that they needed to undertake research and appropriate education before seeking licensee status. In this regard Ottesen (SOG, 2005) notes:

I had had a number of companies say to me, ‘Wow, this is the first time a customer’s asked us what our environmental credentials are and what our environmental policy is.’ Big corporates were doing it but for the little companies this was new to them and they basically thought, ‘Gee the writing’s on the wall, I better start doing this now because we know it’s happening.’

EfSD-linked communication practices

SOCOG was found to have undertaken a more limited range of EfSD-linked communication practices than the OCA. These practices, like those identified in the context of the OCA, can be viewed as performing an awareness-raising and/or knowledge-enhancing role. Tables 4.5–4.7 provide an overview of these communication practices.
Table 4.5 Sydney Organising Committee for the Olympic Games EfSD-linked publications

| Turning Green into Gold: Making an Environmental Vision a Reality | This publicly available document outlines SOCOG’s vision for a ‘green’ Olympics, its strategy for achieving this goal and its progress up until the time of the document’s publication (SOCOG, 1999a) |
| Olympic Greenhouse Reports | These publications, all of which were made publically available, overviewed the actions taken at the SOG to address greenhouse gas emissions, along with progress in connection with these efforts up until the time of each report (SOCOG, 1998a). |
| The Sydney 2000 Olympic Games Integrated Waste-Management Solution | This document outlined the waste-management strategy to be employed at SOG. Underpinning this publication were the 16 actions relating to waste minimisation and management given in the Guidelines (SOCOG, 1998b). This publication noted that the efforts of Games organisers in this area were designed to set a “new standard in waste management for future Games and at large-scale events in general” (ibid, p. 27). |

Table 4.6 Sydney Organising Committee for the Olympic Games EfSD-linked electronic and audio-visual resources

| Video: Our Environment – Our Olympic Legacy | This video overviewed the environmental issues faced by the SOG, specifically waste management, transport, merchandise, vegetation, land remediation, and venue construction and design. Additionally, it featured a case study of the environmental aspects of the Olympic Village (SOCOG 1998c). It was made available upon request to members of the public and was included within the package of material developed for the National Olympic Environment Program (NOEP) (see later discussion) distributed to schools across Australia. |
| Website | SOCOG’s website included a section devoted to the ‘Green Games’ that provided information on: green design; the history of the ‘green’ Games; recycling; flora and fauna of Sydney Olympic Park (SOP) and Australia (including the three Australian animals (echidna, platypus and kookaburra) chosen as Olympic mascots; and how to be a green spectator. The site also included an interactive map of the environmental features of SOP and downloadable versions of reports produced by SOCOG relating to the environment. Additionally, it contained the web component of the NOEP. Downloadable press releases relating to the environmental component of the Games were also available to the media from this site (SOCOG, 1999b). |
Table 4.7 Other Sydney Organising Committee for the Olympic Games EFSD-linked communication practices

| Presentations | Members of the SOCOG environment team on a number of occasions gave presentations concerning the environmental aspects of the SOG. SOCOG’s report *Turning Green into Gold: Making an Environmental Vision a Reality* (1999a), for example, lists 11 papers given by staff over the two-year period 1997 – 1998. These presentations focused upon overviewing SOCOG’s response to the challenges posed by the ‘Green Games’, and were presented at IOC conferences and seminars, academic and industry conferences, and at GGW2000 seminars. Audiences for these presentations were community groups, industry, academia and schools (*ibid*). SOCOG’s Environment Program Manager recognised the value of communicating the ‘green’ dimension of the Games through this means and adopted a policy of always saying yes to such invitations (Ottesen, SOG, 2005). |
| Media Activities | SOCOG, OCA and ‘Sydney 2000’, according to Jacqui Hellyer, Director, Education, Sydney Organising Committee for the Olympic Games (SOG, 2005) sought to showcase to both national and international media the environmental aspects of the SOG by: making their staff available to journalists for interviews; providing video footage; and conducting press conferences and site tours for journalists. Additionally, during the Olympic Games at the Main Press Centre SOCOG and the OCA maintained an environment information centre. Although small in size, according to Ottesen (SOG, 2005), this facility played a meaningful role in SOCOG’s communication of environmental efforts to the media. Press releases that dealt with environmental aspects of the Games were also, from time to time, issued by both the OCA and SOCOG (GamesInfo, 2001; National Library of Australia, 2001) Articles were also written by SOCOG staff dealing with the environmental aspects of the event, and these appeared in: *Sydney Spirit* (a monthly SOCOG publication); publications SOCOG produced for the Olympic Club; *Insight 2000*, a weekly column written by SOCOG for Fairfax newspapers; *The Olympic Message* an IOC publication; and various industry and environmental journals and newsletters (Palfreyman, 1998). |
| Olympic Mascots | Three native Australian animals were selected as Olympic mascots by SOCOG; a kookaburra (Olly), Echidna (Millie) and Platypus (Syd). Syd was attributed the role as the environmental mascot for SOG (SOCOG, 1999b). Syd, along with the other mascots, appeared on the SOCOG website with a factual description of his characteristics and behaviour. He also acted as the ‘guide’ for the interactive map featuring environmental developments at SOP that appeared there. It is noteworthy that some of the NOEP’s licensed resources were based on its three mascots, with three books (*Syd’s Platypus Book, Olly’s Kookaburra Book* and *Millie’s Echidna Book*) published by Scholastic Australia Pty Limited, providing information of an educational nature concerning those animals (‘Sydney 2000’, 2000d). A range of ‘Sydney 2000’ environmental pins were also produced, featuring Syd in a number of situations, such as being involved in tree planting, recycling and embracing solar energy. The intent of these pins was, according to their designer, to assist in making “people aware of environmental issues” (Edwards, 2000). |
| SOP Static Displays | A number (5) of wall-mounted static displays featuring environmental issues linked to the Games were placed in locations used by the media and athletes at SOP as a way of reminding these groups of the environmental dimension of the SOG (OCA, 2001b). |
| Worm Farms | Worm farms were installed in the SOCOG (later Sydney 2000 Headquarters) Media Press Centre (MPC) and the International Broadcasting Centre (IBC) at SOP. Their function, in addition to aiding in waste-reduction efforts, was to remind staff, volunteers and the media about the issue of recycling (‘Sydney 2000’, 2001c). This initiative was the subject of a fact sheet included on the SOCOG website (‘Sydney 2000’, 2000d) and was discussed in several SOCOG reports (SOCOG, 1999a). |
**Olympic Sponsors Environment Network**

The Olympic Sponsors Environment Network (OSEN) was established by SOCOG with the aim of creating a context within which sponsors could engage with one another in order to share ideas and initiatives, discuss problems and collaborate in addressing environmental issues (‘Sydney 2000’ n.d.a). This group met on five occasions leading up to the Games and discussed various issues including packaging, waste management, lifecycle analysis and environmental marketing and communications. Site tours and guest presentations were also a feature of these meetings (SOCOG, 1999). Commonly, approximately 50 representatives from some 20-25 sponsor organisations attended these gatherings, which were hosted by a specific sponsor so as to allow that firm to showcase its approach to dealing with environmental matters (Environment Australia, 2000).

**Olympic Youth Camp**

SOCOG was charged with the conduct of the Olympic Youth Camp (OYC), which constitutes a part of each Olympic Games. Participants in this camp are youths between the ages of 16–18 from countries participating in the Games, with a maximum of two participants being able to attend from each country (Ottesen, SOG, 2005.). The purpose of the camp is to: educate young people through sport; promote cultural exchange; and foster international cooperation. The Sydney OYC was attended by 420 young people from 187 countries. It is noteworthy in the context of this study that the theme chosen for this camp was that of the environment, and in line with this, its participants were involved in activities that can be linked to EfSD, specifically tree planting, ecotours and an environmental forum (‘Sydney 2000’, n.d.b).

Given the origins of the participants in the OYC program, any EfSD impacts resulting from OYC were more likely to be felt outside of the SOG’s host community. This issue of the SOG generating EfSD outcomes external to its host community will be addressed when discussing EfSD legacies later in this chapter.
Collaborative practices:

National Olympic Education Program

SOCOG, in association with the NSW Department of School Education, approached the Ministerial Council on Education, Employment, Training and Youth Affairs11 (MCEETYA) in June 1997 with a proposal to establish a National Olympic Education Program (NOEP). This proposal was agreed to and subsequently an organisational structure (the National Olympic Education Council) was established to develop and run the program. This body comprised representatives from all Australian school systems as well as SOCOG (MCEETYA, 1997). According to Susan Crawford, Manager, Olympic 2000 National Education Program (Crawford, SOG, 2005), funding assistance for this initiative was provided by IBM, Westpac and Fairfax Pty Ltd.

NOEP was launched in August, 1998, with the dual roles of encouraging “the youth of Australia to understand and embrace the spirit of the Sydney 2000 Olympic Games” and building “in all young Australians a sense of ownership and an enthusiasm for the Games” (‘Sydney 2000’, 2000d). In performing these functions the program sought to leverage the interest surrounding the event in order to further enliven selected areas within the primary and secondary school curriculum through the inclusion of Olympic themes (ibid). One of these themes was ‘the environment’ (Crawford, SOG, 2005). In order to create material germane to this theme, staff involved in SOCOG’s environmental program worked with education professionals charged with developing the NOEP program (Crawford, n.d.).

The NOEP had three key elements:

- **O-News.** Five editions of this student newspaper were published. In order to provide every student in years 3 to 12 in Australia with an individual copy, each edition had a print run of some three million. Featured in this publication were topical articles on the Olympics, including the environment, as well as activities for children to complete. *O-news* was also

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11 A body comprising State, Territory, Commonwealth and New Zealand Ministers with responsibility for Education, Employment, Training and Youth Affairs.
linked, though activities and exercises, to the NOEP program’s web presence on the SOCOG website (Crawford, n.d).

- **Aspire.** Aspire was an educational learning kit distributed to all schools across Australia. It comprised an interactive learning environment and a resource file of teaching and learning activities stored on a CD-ROM. This electronic resource included a section entitled *Environmentally Friendly Games* (Crawford n.d). It also included a *Teacher Guidebook*, set of three posters; video (*Our Environment - Our Olympic Legacy*) and complementary Internet activities. One of the key learning contexts of this resource was entitled *Greening the Games*. It was the intention of the NOEP that this resource would be used beyond the 2000 Games (‘Sydney 2000’, 2000d).

- **Website.** In September 1999, a component entitled *Kids* was added to the ‘Sydney 2000’ website. An element of this section was entitled *Greenzone*, which contained: environment-based games (the recycling game); projects (building worm farms, frog ponds, compost bins); a survey on home recycling practices; environment-based short stories (e.g. *Flora and Fauna at Sydney Olympic Park, Green and Golden Bell Frogs*); and information on the environment at SOP. This site also included a teacher’s section that provided activities, teachers’ notes, resources and links to other useful websites, all of which were somehow linked to the environmental aspect of the SOG. (‘Sydney 2000’, 2000d).

The NOEC hosted several National Olympic Education Contacts Conferences to assist in ensuring information concerning the NOEP was communicated to each state’s education system. Additionally, the manager of the NOEP conducted briefings and workshops in each capital city to key stakeholders, specifically each state’s Olympic Council and representatives from state school systems. At the school level, principals were encouraged to appoint an Olympic Co-ordinator to aid the take-up of the program (Crawford, n.d).
Greenhouse Challenge and Olympic Landcare

The Greenhouse Challenge Program was a voluntary Commonwealth Government program operated through Environment Australia. It commenced in 1996 and involved cooperative agreements between industry and government designed to reduce Australia’s greenhouse gas emissions (Environment Australia, n.d.). SOCOG viewed this program as an opportunity to fulfil an aspect of its obligations under the Guidelines and sought to engage with it, signing an agreement with the Commonwealth in 1997. One of the key aspects of SOCOG’s efforts to progress its obligations under this agreement was its Olympic Landcare Program (OLP), which had a goal of planting some 2 million trees to assist in offsetting the carbon footprint of the SOG (‘Sydney 2000’, n.d.). This program was funded by the Commonwealth Government’s National Landcare Program of the Natural Heritage Trust, and selected SOG sponsors (Fuji Xerox, BHP, Westpac, Telstra and Channel Seven). The program was managed by Landcare Australia and implemented in partnership with SOCOG, Greening Australia, Australian Trust for Conservation Volunteers, Green Corp teams, community groups, business and individuals (SOCOG, 1999a). Some 10,000 volunteers drawn from across Australia were engaged in this project, along with a number of Olympians. In addition to tree-planting efforts, a symbolic ‘Gold Tree’ (a dead tree painted gold) was placed in each catchment area involved in the program. In the case of Sydney, this tree was placed in a prominent position near the entrance to Sydney’s Chinatown (where it still remains). Combined, the level of business and community involvement in the OLP, along with the ‘Gold Tree’ initiative, could reasonably be argued to have aided SOCOG in its efforts to bring attention to the issue of global warming amongst participating businesses as well as the broader community.

SOCOG’s connection with the Greenhouse Challenge Program spanned a three-year period from 1998-2000, and represented SOCOG’s only community-based environmental project (Department of Environment and Heritage, 2004). During this time, as previously noted, SOCOG produced three Olympic Greenhouse Challenge reports that not only drew public attention to its Olympic Landcare Program efforts, but also the various other actions the Games organisers were taking to
reduce greenhouse gas emissions in the construction of Olympic facilities and the staging of the Games themselves (‘Sydney 2000’, 2001c). Providing input into these publications were Energy Australia, which measured emissions for 60 days over the Games period in the areas of waste, transport and energy use; and BHP, which conducted a lifecycle analysis of materials used in construction at the event (Environment Australia, n.d.). These publications served to highlight practices and technologies Games organisers were using to reduce their carbon footprint and enhance community awareness of the issue of climate change itself and the ways in which this issue could be addressed (Ottesen, 1998).

4.4.1.1.3 Olympic Road and Transport Authority

During the period of the Games, from an EfSD perspective, ORTA acted to effect a change in travel behaviour within SOG’s host community by growing public transport usage through a range of communication methods and other practices, such as integrated ticketing. The effect of these efforts was to decrease traffic congestion by 15% – 24% during the period of the Games, while at the same time doubling the number of public transport passenger trips to approximately 29.5 million (Cashman, 2006). No evidence was found, however, to suggest that efforts were made to build on these changes in community travel behaviour post Games.

4.4.1.4 ‘Sydney 2000’

‘Sydney 2000’, as discussed previously, was established late in the operational cycle of the SOG and as such had only a relatively minor involvement in the area of interest to this study, with the exception being its decision to establish the position of Environmental Communications Manager. This role primarily involved media liaison around the environmental dimensions of the Games (Hellyer, SOG, 2005). It has been difficult, however, to clearly isolate ‘Sydney 2000’s activities in this area from those of the OCA and SOCOG. For this reason, while ‘Sydney 2000’s role in carrying an environmental message linked to the SOG is acknowledged, its actions have been bracketed with those of the OCA and SOCOG discussed previously. Regarding other practices with which
'Sydney 2000’ engaged that can be linked to EfSD, its publication of the *Official Report of the XXVI Olympiad*, which contained a chapter dealing specifically with the environment, appears to have been its only other contribution in this area. This chapter provided an overview of: the environmental principles under which the Games took place; remediation efforts at Homebush Bay; environmental features of Olympic sites and venues; waste-management practices; transport planning; approaches to stakeholder communication; and evaluation (‘Sydney 2000’, 2001a).

### 4.4.1.1.4 Environment Australia

In addition to collaborating with SOCOG to develop an Olympic component for its Greenhouse Challenge Program, the Commonwealth Government department Environment Australia also undertook various practices designed to communicate aspects of the SOG’s environment program. Specifically, it released a special report, *Greening the Games—Australia Creating Sustainable Solutions for a New Millennium*, which sought to leverage the opportunity provided by the SOG to showcase Australia’s environmental industry’s capabilities (Environment Australia, 2000). Additionally, it also acted to leverage the high profile and community standing of Australian Olympic athletes to convey an environmental message to the broader Australian community in a short publication it commissioned, entitled *The Green Games 2000—Uniting Sport and the Environment* (*ibid*). This department also developed a section within its website called *Green Games 2000*, which provided an overview of both the environmental aspects of the SOG and the Commonwealth Government-supported programs linked to it, specifically Landcare and Greenhouse Challenge (Department of Environment and Water Resources, 2007).
4.4.1.2 Non-Government Organisations

4.4.1.2.1 Greenpeace

Greenpeace, according to Blair Palese, Greenpeace International Program Co-ordinator for the Sydney Olympics (Palese, SOG, 2005), produced and distributed newsletters, report cards and summative assessments of the environmental performance of the SOG and its organisers. Palese further notes that Greenpeace sought to focus community attention on specific environmental issues associated with the Games, and to leverage the opportunity to place pressure on government, OCA, SOCOG, Olympic sponsors and licensees to bring about changes in their respective environmental practices. Greenpeace was also concerned with teasing out lessons from the Games relevant to future Olympic Games, as well as large-scale events in general, government, industry, and the broader community. In Table 4.8 Greenpeace’s practices identified here as potentially contributing to host-community EfSD are listed and described.
Table 4.8 Greenpeace EfSD-linked programs and initiatives

| The Greenpeace Olympic Environmental Guidelines – A Guide to Sustainable Events | Using the Guidelines developed for the SOG as a base, and drawing upon its experiences with this event, Greenpeace developed a revised set of Olympic environmental guidelines, which it presented to the IOC with the aim of them being incorporated into future Olympic Games and at other large-scale sporting events (Greenpeace, 2000b). |
| How Green Are The Games: Greenpeace’s Environmental Assessment Of The Sydney 2000 Olympics | This report evaluated the performance of the SOG in terms of world’s best practice in the seven major areas listed in the Guidelines, specifically: toxic contamination; energy use; refrigeration and air-conditioning; alternatives to PVC; timber use; water; and transport. This evaluation was then used as the basis for developing a series of lessons applicable not only to future bidding and host Olympic cities, but also to communities in general seeking to move down the path of sustainable development (Greenpeace, 2000a). |
| 100 day reports | From 1995 to 2000, every 100 days Greenpeace released a report on the environmental performance of the SOG (Greenpeace n.d.a). A reading of these reports shows that they performed a variety of functions, including: educating the general public regarding environmentally friendly technologies being used in the development of SOP (e.g. solar energy technologies); drawing attention to examples of non-compliance with the Guidelines (e.g. PVC use in construction); and focusing community attention on broader environmental issues (e.g. use of ozone-depleting refrigerant gases) by using the SOG as an example of good/bad practice. |
| Fact Sheets | Available in hard and soft copy, these publications provided summary information on matters associated with aspects of Greenpeace’s Olympic campaign (Greenpeace, 1999b) |
| Technical Publications | The role of these documents was to “stimulate discussion, in other words educate…professionals mainly in relation to key technical areas in the construction sector” (Ottesen, SOG, 2005). The two areas dealt with in these publications were refrigeration and air-conditioning (Greenpeace, 1999c). |
| Website | Greenpeace maintained a web presence leading up to, during, and for a short period after the Games. Its site contained downloadable press releases, reports and fact sheets, and also featured interviews with Olympic athletes and members of the Olympic Movement concerning their perspective on environmental issues (Greenpeace, n.d.a). |
| Media Campaigns | Greenpeace employed two forms of media campaign. The first involved non-violent direct actions designed to draw public attention (via media coverage) to SOG-specific environmental issues with the intent of pressuring decision makers to take action concerning the matters raised. One of the issues highlighted by this means was the dioxin contamination of Homebush Bay (Greenpeace, n.d.a). The other form of campaign was to be ongoing in nature and designed more to leverage the SOG to focus attention on, and to educate the broader community about, selected environmental issues of national and international significance. The two major campaigns of this nature conducted by Greenpeace dealt with the dangers inherent in the manufacture, use and disposal of PVC-based products and the problems arising from the continued use of ozone-depleting refrigerant gases (Greenpeace, 1998). Of particular note regarding the latter was the Coke Challenge campaign, which saw Coca-Cola, an Olympic sponsor, change its refrigeration policy in order to reduce its impact on global climate change (Greenpeace, n.d.a). |
4.4.1.2.2 Green Games Watch 2000

GGW2000 played largely an external reviewing and critiquing role in the context of the environmental component of the SOG, and as a consequence produced a range of reports and other material that performed an awareness-raising and knowledge-enhancing function for a range of potential beneficiaries (see Tables 4.9–10). It is also evident that GGW2000 undertook other practices linked to EfSD, specifically events and media-linked activities. While GGW2000 did engage with the broader community through its various EfSD-linked practices, the primary groups it sought to influence were government, OCA, SOCOG, and the many private-sector firms associated with designing and developing Olympic sites and delivering the Games. This point was made clear by its Chair, Jeff Angel, who noted that “…personally I was always more about educating industry and government stakeholders than educating the community” (Angel, SOG, 2005).

4.4.1.3 Media

Media coverage, both internationally and nationally, of the environmental aspects of SOG had the potential to impact awareness and/or understanding of those environmental issues, technologies and practices associated with the Games. This potential is reflected in the fact that some 5300 journalists and photographers were granted official accreditation for the Games, and the broadcast audience during the event was approximately 3 billion (‘Sydney 2000’, 2001). This level of media involvement presented significant opportunities to convey messages about, and to showcase, the environmental dimension of the SOG. SOCOG, OCA, and later ‘Sydney 2000’, identified this opportunity and gave approximately 200 interviews to local and international journalists, the majority of whom were from international news agencies or were freelance reporters (OCA, 2001d). It was also the case, as noted earlier, that SOCOG and ‘Sydney 2000’ appointed staff to engage with the media on environmental matters associated with the Games.

While it is difficult to determine with any degree of accuracy the true extent of media coverage related to the environmental aspects of the SOG, it is nonetheless possible, at
Table 4.9 Green Games Watch 2000 EfSD-linked publications and electronic resources

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<tr>
<td>Eyes on the Olympic Green: Sydney’s Environmental Performance for the 2000 Summer Olympics</td>
<td>This document took the form of a booklet that was distributed to high schools across NSW, and to other schools and individuals on request. It had multiple objectives, including informing students about the processes and issues involved in achieving an environmentally friendly SOG and encouraging debate about sustainable development. The primary audience for this publication was senior students in Australian high schools, with its content being deemed relevant for subjects in the areas of technology, studies of society and the environment, science, the arts and health and physical exercise (GGW2000, 1999).</td>
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<tr>
<td>Environmental Performance Review Reports</td>
<td>These publicly available reports sought to assess the degree of environmental compliance with the Guidelines exhibited by the OCA, SOCOG and selected Olympic venues (James, 1997).</td>
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<tr>
<td>Waste Management for the Olympics</td>
<td>This publication provided an overview of waste-management issues at Homebush Bay in general and the staging of the SOG in particular, and made recommendations regarding further planning and development in this area (Denlay, 1996).</td>
</tr>
<tr>
<td>Energy Management and the Olympic Sponsors</td>
<td>This study compared sponsor energy-management performance against the various stages in an energy-management system (commitment and policy, planning, implementation, measurement and evaluation and review and improvement). The goal of this enquiry was to assist Olympic sponsors to assess their relative performance against best practice, and in this way, potentially establish the extent to which they needed to undertake action in this area in order to reduce their energy usage (Myer, 1998).</td>
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<tr>
<td>Integrated Pest Management Strategy for Sydney Olympic Venues</td>
<td>This document sought to provide those firms charged with indoor and outdoor pest control at Olympic venues with an understanding of how to approach this task in an environmentally responsible manner (Immij, 1998).</td>
</tr>
<tr>
<td>Review of the Environmental Merchandising Policies of SOCOG: The Missed Opportunity</td>
<td>This report critiqued SOCOG’s approach to merchandising and concluded that environmental best practice had not been employed, and that SOCOG’s actions in this area were flawed (EcoDesign Foundation, 1999).</td>
</tr>
<tr>
<td>The Green Building Legacy</td>
<td>This publication examined design and construction practices and technologies in the context of the Sydney International Shooting Centre, Sydney Showground, Stadium Australia, Sydney SuperDome, Dunc Gray Velodrome, and Athletes Village. Its primary aim was to assist in “disseminating ecologically sustainable development practices and lessons learnt from the Games” (GGW2000, 2000a, p. 1).</td>
</tr>
<tr>
<td>Indoor Air Quality Guidelines for Sydney Olympic Facilities</td>
<td>The intent of these guidelines was to provide a “starting point for architects, designers, specifiers, builders, building managers and the users of facilities to address indoor air quality as an integral part of facility design” (Immig &amp; Rish, 1997, p.1).</td>
</tr>
<tr>
<td>Quarterly Newsletter</td>
<td>This electronic publication, available through the GGW2000 website, as well as being distributed to a database of interested organisations and individuals, commonly focused on either a specific issue (e.g. toxic chemical management at Homebush Bay) or sought to overview several current GGW2000 activities, such as the contents of a newly released report or the outcomes of a seminar/workshop (GGW2000, 2000b).</td>
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<tr>
<td>Website</td>
<td>The GGW2000 website contained a range of downloadable information, including details of GGW2000 projects, information on green issues associated with the SOG, press releases, a section dealing with frequently asked questions and a library of downloadable GGW2000 reports (GGW2000, 2000b).</td>
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</table>
### Table 4.10 Other Green Games Watch 2000 EfSD-linked activities

| **Media activities**                                                                 | Via media releases GGW2000 sought to raise community understanding and awareness concerning environmental issues related to the Games. These releases dealt with issues such as the failure to use environmentally friendly vehicles at the SOG, the lack of compliance of Olympic merchandise with the Guidelines, the importance of using timber from sustainable sources and the dangers inherent in PVC use (GGW2000, 2000b). Additionally, GGW2000 developed several media campaigns focusing upon: Sydney Olympic venues; the SOP water catchment; the SOG legacy for Western Sydney; and the ecologically sustainable development legacy of the Games (GGW2000, 2000b). It also sought to stimulate public debate around the issue of ecologically sustainable development by proposing a new State Environment Planning Policy (SEPP) for ecologically sustainable development in the Greater Metropolitan Region of Sydney based on lessons learnt from the Games. As part of this awareness-raising exercise it also placed an advertisement in the SMH in order to seek public communication before submitting its proposal to the State Government (GGW2000, 1999c). |
| **Events**                                                                               | GGW2000 conducted a number of workshops and seminars, including:  
*The Sydney Olympics – Green enough for the next millennium?*  
This workshop was attended by residents living nearby to SOP, and environment and community groups. Its intent was to develop a community vision for environmental management of the SOG.  
*Environmental Performance for the Sydney Olympics – What should business be doing?*  
This seminar sought to explain the Guidelines to business and to discuss how they could maximise the ‘green’ business opportunities arising from the event.  
*Green Products in Detailed Design – opportunities and issues.*  
Attended by Olympic sponsors and other businesses, this workshop dealt with the development and supply of environmentally responsible products.  
*Olympic Waste-Minimisation Workshop.*  
Targeted at the broader community, this workshop sought to explore approaches to minimising waste associated with the conduct of the SOG (GGW2000, 2001a).  
*Auburn Environment Expo*  
GGW2000 participated in the Auburn (a suburb in Western Sydney) Environment Expo on several occasions, primarily with the intent of informing school-aged children and the general community about the ‘green’ dimension of the SOG and sustainable development in general (James, SOG, 2005). |
least in the Australian context, to support the contention that media reporting of this aspect of the Games did occur, as evidenced in the archives of the two largest Australian newspaper publishers, Fairfax Media Ltd and News Limited. A review of these archives from 1993, the year Sydney was granted the Games, and ending in 2001, the year after the Games, identified that 224 articles dealing with some aspect of the environment and the Games had been published during this time (32 articles per year on average). While not overwhelming, this level of coverage is far from insignificant. In terms of the major topics dealt with in these articles, it is noteworthy that independent assessments of the SOG conducted by Greenpeace, GGW2000 and the Earth Council\textsuperscript{12} feature prominently, perhaps reflecting the ease with which such assessments can be translated into stories of ‘good’ or ‘bad’ performance with appropriate headlines. The ‘showcasing’ role of the SOG also featured, with a number of articles including discussion of environmentally friendly design/technology/products/practices. The efforts of Greenpeace and GGW2000 to raise community awareness and/or understanding of environmental issues, particularly those associated with land remediation and dioxin at Homebush Bay and PVC and CFC usage, also received moderate coverage.

4.4.1.4 Schools and Higher Education Institutions

4.4.1.4.1 Centre for Olympic Studies, University of New South Wales

The Centre for Olympic Studies (COS) played a relatively minor, but not insignificant, role in the EfSD process. It acted both to publish material critiquing the environmental aspects of the Games in the book *Staging the Olympics: The Event and its Impacts*, and encourage discussion and debate around this dimension of the event by conducting a conference (*The Green Games: A Golden Opportunity*) and subsequently publishing its proceedings. The COS also developed a repository of reports, articles and other material relating to the Games, which now resides, along with the renamed Centre (Australian Centre for Olympic Studies) at the University of Technology, Sydney. At the time of the
Games, and at present, this repository acted as a significant resource for researchers and others interested in various aspects of the event, as well as the Olympics in general.

4.4.1.5 Industry and Business

4.4.15.1 Green and Gold Inc

In the year after the Games, this small consultancy firm produced a CD-ROM with the “intention of sharing with a wide and global audience the many valuable lessons in sustainable development that can be gleaned from the process of planning for and running the Sydney 2000 Olympic Games” (Green and Gold Inc, 2001). This electronic resource contained many of the major reports and documents associated with the environmental dimension of the SOG. Additionally, it contained the proceedings of a seminar Green and Gold Inc had conducted in association with Sydney’s Macquarie University, which involved many of the key individuals from government, environmental groups, OCA, SOCOG, and industry that were involved with the environmental aspects of the SOG (ibid).
Table 4.11 Articles in Fairfax\textsuperscript{13} and News Limited\textsuperscript{14} Publications 1993-2001 concerning environmental aspects of the Sydney 2000 Olympic Games

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequency</th>
<th>Fairfax</th>
<th>News Limited</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Guidelines</td>
<td></td>
<td>1</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Land Remediation/Dioxin Contamination at Homebush Bay</td>
<td></td>
<td>14</td>
<td>7</td>
<td>21</td>
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<tr>
<td>Assessments of SOG’s ‘Green’ Performance</td>
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<td>20</td>
<td>42</td>
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<tr>
<td>SOG and Its Role As a Showcase for Environmentally Friendly Design/Technology/products/practices</td>
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<td>7</td>
<td>32</td>
<td>39</td>
</tr>
<tr>
<td>Input of professions into the ‘Green Games’.</td>
<td></td>
<td>1</td>
<td>-</td>
<td>1</td>
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<tr>
<td>Greenhouse gas reduction/tree planting</td>
<td></td>
<td>-</td>
<td>2</td>
<td>-</td>
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<tr>
<td>Air Quality</td>
<td></td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Use of polyvinylchloride at Sydney Olympic Park</td>
<td></td>
<td>3</td>
<td>9</td>
<td>12</td>
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<tr>
<td>Protection of the Green and Golden Bell Frog at Sydney Olympic Park</td>
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<td>4</td>
<td>3</td>
<td>7</td>
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<tr>
<td>Environmental legacy</td>
<td></td>
<td>3</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Public transport usage</td>
<td></td>
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<td>7</td>
</tr>
<tr>
<td>Construction impacts on bushland</td>
<td></td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Funding for GGW2000</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Waste management and processing</td>
<td></td>
<td>2</td>
<td>3</td>
<td>5</td>
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<tr>
<td>Wetlands at Homebush Bay</td>
<td></td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Environmental Tender Specification</td>
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<td>11</td>
<td>3</td>
<td>14</td>
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<tr>
<td>Chlorofluorocarbons</td>
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<td>11</td>
<td>4</td>
<td>15</td>
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<tr>
<td>Corporate leveraging of the ‘Green Games’</td>
<td></td>
<td>11</td>
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<td>11</td>
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<tr>
<td>Construction of a permanent environmental exhibition at Sydney Olympic Park</td>
<td></td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Organisational structure associated with delivering the ‘Green Games’</td>
<td></td>
<td>11</td>
<td>4</td>
<td>15</td>
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<tr>
<td>Sydney Olympic Park environmental management</td>
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<tr>
<td>Environmental features of the Olympic Village</td>
<td></td>
<td>3</td>
<td>-</td>
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<tr>
<td>Environmental awards received by the OCA</td>
<td></td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>113</td>
<td>111</td>
<td>224</td>
</tr>
</tbody>
</table>


\textsuperscript{13} Sydney Morning Herald, Age, Central Coast Herald, Fairfax Community Newspapers NSW, Fairfax Community Newspapers Victoria, Illawarra Mercury, Newcastle Herald, Sun Herald, Sunday Age.

\textsuperscript{14} The Australian and Weekend Australian (05/95), Australian Magazine (01/97), Daily Telegraph (07/95), Sunday Telegraph (08/95), Sunday Telegraph Magazine (12/99), Herald Sun (10/90), Sunday Herald Sun (04/91), Sun (09/89 – 3/91), Courier-Mail (01/84), Sunday Mail (08/84)
4.4.2 Informal, formal and non-formal EfSD

When viewed collectively, the previously described EfSD-linked practices connected to the SOG are observed to have provided a range of opportunities for formal, non-formal and informal learning. In an organisational context, the potential for informal education existed in: the ‘self-education’ necessary before a response could be made to the Guidelines or to tender and sponsorship criteria; engagement with environmental material generated as a result of the Games (e.g. reports, studies and technical manuals); participation in environment-linked networks; and attendance at events and presentations. At the level of the individual, such opportunities were present in: workplace practice; exposure to media reports/articles; voluntary participation in environment-linked programs; tours of facilities; exposure to static displays and environmental design features of Games’ infrastructure and the SOP site; and engagement with visitor information centres. The Games also provided informal EfSD learning opportunities, which took the form of environmental elements within training programs for SOCOG and OCA staff, volunteers and contractors. Formal learning linked to EfSD also took place through the inclusion of curriculum material relating to the Games and the environment in the NOEP program.

4.4.3 Passive beneficiaries of EfSD-linked programs and initiatives

It can be argued that a number of organisations and groups potentially experienced EfSD benefits as a result of the aforementioned practices. These groups, as noted earlier, have been classified in this study as passive stakeholders in the EfSD process. In the following tables an effort has been made, drawing upon insights from the previous discussion, to associate EfSD-linked programs and initiatives with their beneficiary group(s), and to place these groups within their respective societal sectors. The first of these tables (Table 4.12) outlines the programs and initiatives directly engaged in by the event’s focal organisations, the OCA and SOCOG, while the second (Table 4.13) concerns those of a joint nature involving these same focal organisations and their respective collaborative
stakeholders. Table 4.14 deals with those programs and initiatives engaged in by independent stakeholders in the EfSD process associated with the SOG.

These tables illustrate that in terms of the six broad societal sectors used in this study, the groupings that were impacted were: Government—focal organisation staff, public authorities and local government; Industry and Business—unsuccessful and successful tendering firms and their staff, sponsors, merchandising firms, and professionals and consultants; Schools and Higher Education Institutions—primary school, high school and university students, teachers and academics; Media—electronic and print journalists; and the General Community—Australian residents, primarily from Sydney and New South Wales and host-community athletes and team officials and spectators. In addition to these groups, other potential passive stakeholders were identified that fell outside the host-community context of this study. Specifically, these were: overseas athletes, team officials, volunteers and spectators; visiting dignitaries, IOC delegates, individuals associated with the Olympic Movement, members of international delegations; overseas print and electronic media audiences and non-host community participants in the Olympic Youth Camp.
### Table 4.12 EfSD-linked programs and initiatives by passive stakeholder beneficiary – Focal organisations

<table>
<thead>
<tr>
<th>Stakeholder beneficiaries</th>
<th>Environmental tender specification</th>
<th>Training and education programs</th>
<th>EfSD-linked communication practices</th>
<th>Sponsorship and licensing agreements</th>
<th>Olympic Youth Camp</th>
<th>Sponsors Network</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Government</strong></td>
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<tr>
<td>OCA and SOCOG Staff</td>
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<tr>
<td>Local Government</td>
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<td>Public Authorities</td>
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<tr>
<td><strong>Business and Industry</strong></td>
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<tr>
<td>Tendering and Contracting Private Sector Firms and Their Staff</td>
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<td>Sponsors</td>
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<td>Merchandising Firms</td>
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<td>Professionals/ Consultants</td>
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<td><strong>Schools and Higher Education Institutions</strong></td>
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<td>School Students</td>
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<td>University Students</td>
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<td><strong>Media</strong></td>
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<td>Print and Electronic Media Journalists</td>
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<td><strong>Community</strong></td>
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<td>OCA and SOCOG Volunteers</td>
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<tr>
<td>Host-community Athletes and Team Officials</td>
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<tr>
<td>Spectators</td>
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<tr>
<td>Host-community Residents, Primarily of Sydney and the State of New South Wales</td>
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<tr>
<td><strong>External beneficiaries</strong></td>
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<tr>
<td>Non-host Community Athletes and Team Officials</td>
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<td>Non- Host Community Volunteers</td>
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<tr>
<td>Overseas Electronic and Print Media Audiences</td>
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<tr>
<td>Non-Host Community Participants in OYC</td>
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<tr>
<td>Other – Members of the Olympic Movement/ IOC Delegates/ International Delegations/ Visiting Dignitaries</td>
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</tbody>
</table>
Table 4.13 EfSD-linked programs and initiatives by passive stakeholder beneficiary – Focal organisations and their collaborative stakeholders

<table>
<thead>
<tr>
<th>Stakeholder beneficiary</th>
<th>EfSD-linked programs and initiatives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Expert panels, Olympic Environment Forum and Homebush Bay Environmental Reference Group</td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td>◊</td>
</tr>
<tr>
<td>Local government</td>
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<tr>
<td><strong>Business and Industry</strong></td>
<td>◊</td>
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<td>Professionals/Consultants</td>
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<td><strong>Schools and Higher Education</strong></td>
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<tr>
<td>Primary and high-school students</td>
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<td>Primary and high school teachers</td>
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<td><strong>Community</strong></td>
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<tr>
<td>Volunteers in collaborative programs</td>
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</table>
### Table 4.14 EfSD-linked programs and initiatives by passive stakeholder beneficiary – Independent stakeholders

<table>
<thead>
<tr>
<th>Stakeholder beneficiary</th>
<th>Travel behaviour change program</th>
<th>EfSD-linked communication practices</th>
<th>Electronic and print media reporting</th>
<th>Resource repository of documents and other material associated with the SOG</th>
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<tbody>
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<td><strong>Government</strong></td>
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<td>Academics</td>
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<td><strong>Community</strong></td>
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<td>Host-community Residents, Primarily Of Sydney And The State Of New South Wales</td>
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<tr>
<td>Overseas Electronic And Print Media Audiences</td>
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</table>

**4.5 Factors serving to facilitate or inhibit EfSD**

This study identified various influences on the ability of the SOG to perform an EfSD role in the context of its host community. These influences are discussed in this section under the headings of facilitating and inhibiting factors.
4.5.1 Facilitating factors

4.5.1.1 Environmental Guidelines for the Summer Olympic Games and associated NSW Government Legislation

*The Guidelines*, the origins of which were discussed earlier in this chapter, provided the basis for the environmental component of the SOG, inclusive of those practices linked in this study to EfSD. The power of *the Guidelines* to influence the actions of Games organisers flowed directly from their incorporation into the Sydney bid, and their subsequent inclusion as a component of the Host City Contract (HCC) between the IOC, City of Sydney and the Australian Olympic Committee (OCA, 1999a). The legal status of *the Guidelines* was further strengthened, as previously discussed, by their enshrinement in law by the NSW Government. This decision was significant, with the Earth Council noting in their final report on the SOG that: “When a commitment to sustainable development is given legal status, it becomes very difficult for affected parties to hedge or renege on their promises/obligations” (2001a, p.22). A number of interviewees were also of this view, with Sandy Holway, Chief Executive Officer, SOCOG (SOG, 2005) noting that through legislation the Government was making it clear that *the Guidelines* were not merely “flim flam” and that “…government policy was a rock-solid item”.

Hellyer (SOG, 2005) saw *the Guidelines* in a similar light, stating that they were a way “to make sure the Olympic organisers were honest, did what they said they would do”, while Churches (SOG, 2005) viewed *the Guidelines* in legislative form as being “more than…a policy, they were a legal obligation”. By legislating, the NSW Government was acting to ensure the stakeholder status of the environment in the Games.

The OCA’s response to *the Guidelines* was first to develop an environmental strategy setting out principles for the implementation of ecologically sustainable development. These principles dealt with conservation of species, conservation of resources and pollution control. In addition, from an EfSD perspective, they committed the OCA to:
• implementing practices for its sites that promote ecologically sustainable development and that involve and communicate with interested parties; and
• sharing its knowledge and experience with others through liaison with key stakeholders to promote and achieve positive environmental values and outcomes (Earth Council, 2001)

SOCOG reacted to the Guidelines by developing an environmental policy (see Figure 4.1) which contained a number of objectives, some of which can be seen as linked directly to host-community EfSD. Specifically, these objectives required SOCOG to: promote ecologically sustainable development practices and technologies; pass on environmental lessons; embrace environmental considerations in its training activities; work co-operatively with stakeholder groups; learn through practice; and engage in reporting (Ottesen, 1998). Holway summed up his organisation’s commitment to the environment, stating:

SOCOG is taking its environmental responsibilities seriously….our goal is to make the Sydney 2000 Olympic Games a model of environmental best practice…and to leave an environmental legacy that will set a new standard for the next millennium (cited in SOCOG, 1999a, p. 8).

4.5.1.2 Societal readiness

The SOG was awarded and delivered at a time when there was mounting global and national concern about environmental issues; “hence the promise to deliver the Green Games was very timely, opportunistc and globally significant as a model” (Prasad, 1999, p. 83). Blair Palese, Global Communications Manager (Olympics), Greenpeace (Palese, SOG, 2005) and Holway (SOG, 2005) also note that at the time of the Sydney bid, the IOC itself had started to take the issue of the environment more seriously. Evidence for this, as noted earlier in this chapter, can be found in the IOC’s decision to sign the Earth Pledge in 1992, the year before Sydney was awarded the Games. Many of the environmental challenges leading to this rising level of community and IOC concern are
noted in the introductory section of the Guidelines, specifically: threats to biodiversity; the greenhouse effect; ozone depletion; air, water and soil pollution; and over-consumption of resources (Sydney Olympic 2000 Bid Limited, 1993). In the Australian context, as was noted in Chapter 1, the extent of public discourse in relation to these and other environmental issues prior to the success of the SOG bid is perhaps best reflected in the movement by Australian State Governments in 1992 to develop a National Strategy for Ecologically Sustainable Development (ibid). Given this situation, it is not surprising that Murray Hogarth, the environmental editor of the Sydney Morning Herald during the SOG, noted, “…in a world full of environmental concerns, the green (Games) concept grew” (Hogarth, 1998, p. 102).

Figure 4.1 SOCOG Environment Policy

<table>
<thead>
<tr>
<th>SOCOG ENVIRONMENT POLICY</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCOG’s mission is to deliver to the Athletes of the world and the Olympic Movement, on behalf of all Australians, the most harmonious, athlete oriented, technically excellent and culturally enhancing Olympic Games of the modern era.</td>
</tr>
<tr>
<td>SOCOG will use the best endeavours to set a new standard of environmental excellence for organising and staging an Olympic Games or any large-scale sporting event and to leave an environmental legacy that will mark the beginning of the new millennium.</td>
</tr>
<tr>
<td>To this end, SOCOG will:</td>
</tr>
<tr>
<td>• Be committed to, and will promote to others, the Environmental Guidelines for the 2000 Olympic Games;</td>
</tr>
<tr>
<td>• Be guided by the principles of ecologically sustainable development;</td>
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<tr>
<td>• Support and promote the International Olympic Committee’s commitment to protection of the environment and its belief that sporting opportunities and excellence depend on a healthy environment;</td>
</tr>
<tr>
<td>• Be committed to achieving a smoking free environment for the Games;</td>
</tr>
<tr>
<td>• Work co-operatively with the public, community groups, businesses and government agencies to achieve its environmental objectives;</td>
</tr>
<tr>
<td>• Promote and encourage the use of environmental technology and environmentally friendly products and services through purchasing, facilities fitout, Games operations, sponsorship and merchandising programs;</td>
</tr>
<tr>
<td>• Integrate environmental considerations and a culture of continuous improvement into all aspects of its work and have policies, programs and resources in place to implement this policy and to maximise environmental performance;</td>
</tr>
<tr>
<td>• Assist, train and empower SOCOG staff and volunteers to conduct their activities in accordance with this policy;</td>
</tr>
<tr>
<td>• Share its environmental experience with the Olympic Movement; and</td>
</tr>
<tr>
<td>• Monitor progress and periodically report on its environmental performance.</td>
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Source: Ottesen, 1998, p. 36
The importance of the wider societal context from the perspective of the initial decision to conduct a ‘green’ Games cannot be understated, with Holway (SOG, 2005) noting that we’re on this path anyway as a society…we want to be on this path of sustainability …the Games is an obvious way of giving that a boost and nudging it to a new level. If you took the wider context away I don’t know how long it would last frankly.

Further evidence of the importance of this link between the societal context and the environmental outcomes flowing from an LSSE can be found in the Athens Olympic Games. There was a poor assessment of the event’s actions in this area by several major environmental organisations/ initiatives, specifically Greenpeace, the Worldwide Wildlife Fund and the United Nations Environment Program (Llanps, 2004). Contrasting this outcome against the more favourable reviews received by the SOG, West (2004) argues that this difference was due, in part, to the pre-existing environmental ethos within Australian society—something that was not present to the same degree in Greece. This pre-existing ethos is also reflected in programs such as the Greenhouse Challenge and Landcare, which were linked to by SOCOG for, in part, EfSD purposes.

4.5.1.3 Level of external review

Greenpeace, GGW2000 and the Earth Council played a significant external reviewing function in the context of the SOG. In performing this function, these NGOs undertook a range of practices that can be seen as supportive of EfSD. Specifically, as noted earlier, they produced a range of publications and electronic resources intended to enhance awareness and/or understanding of environmental matters linked to the Games amongst a variety of audiences. Two of these NGOs, Greenpeace and GGW2000, also sought to leverage the media in order to inform and stimulate discussion and debate in connection with environmental issues specific to the Games (e.g. PVC usage in Games venues) as well as broader environmental issues that could be linked to it (e.g. climate change).
The reviewing function performed by environment-oriented NGOs also resulted in the capturing of environmental lessons flowing from the event and the subsequent transmission of these to the broader community, industry and future bidding and host cities (Earth Council, 2001). As Peggy James, Executive Officer, GGW2000 (SOG, 2005) and Ottesen (SOG, 2005) note, it is also the case that these groups played an important role in enhancing understanding of the OCA, SOCOG and the event’s contractors in relation to specific environmental issues associated with the Games by connecting them to international and local expertise in the environmental field. Finally, it has been argued that the external reviewing role played by these bodies served to keep the ‘Green Games’ concept alive as SOCOG’s and OCA’s attention shifted to matters associated with final preparations and delivery as the event approached (Kearins & Pavlovich, 2002). The tendency for focal organisations within a project context, such as LSSEs, to act in this way is not unusual, as discussed in Chapter 2 (see 2.8).

4.5.1.4 Collaborative relationships

From an EfSD perspective, SOCOG’s and OCA’s decision to seek out collaborative stakeholders in developing their environmental programs was significant. These relationships were primarily developed with organisations from the Government and Non-Government sectors. Through these linkages these bodies were able to: connect to existing environment-based programs or initiatives with EfSD elements (e.g. Landcare, Greenhouse Challenge); gain access to expertise in areas such as environmental design, toxic waste management, community-based environmental programs (e.g. Australian Trust for Conservation Volunteers, National Toxic Network, NSW Environmental Protection Authority, Greenpeace, GGW 2000); and co-develop new programs with environmental elements (e.g. NOEP). The absence of such relationships would likely have significantly comprised the EfSD impact of the SOG. In this regard the NOEP program makes this argument most strongly, given its national footprint and its substantial EfSD component.
4.5.2 Inhibiting factors

4.5.2.1 Non-core nature of environmental considerations to event delivery

Notwithstanding the formal commitments of SOCOG and OCA to the environmental dimension of the SOG, the primary function of both organisations lay with the successful delivery of a complex and large-scale sporting event. Richard Palfreyman, SOCOG’s Group Manager Media Relations, made this point when he stated that his organisation’s primary responsibility was to stage the Olympic Games, and that the environmental dimension of the SOG was only one aspect of that commitment. He further stated that SOCOG was concerned to make the SOG the small ‘g’ Green Games, rather than the capital ‘G’ Green Games, as a way of trying to alter community expectations of the Games’ environmental programs and associated outcomes (Palfreyman, 1998). Further evidence of the desire of the SOG’s focal organisations to downplay the environmental dimension of the event can be found in the development by the OCA of a revised version of the Guidelines. This revised document, amongst other things, did not include quantifiable targets upon which to determine success or failure regarding the environmental dimensions with which it dealt (Cashman, 2006).

When a desire to deliver a small ‘g’ Green Games is combined with the non-core nature of the environment to the conduct of the SOG, it is not surprising that as the event approached, its environmental aspects—and any associated practices linked to EfSD—became increasingly marginalised and vulnerable to budgetary and deadline concerns (Cashman, 2006; Kearins & Pavlovich, 2002). In this regard, Hellyer (SOG, 2005) states, “In terms of general public education and awareness (as regards the environment), one of the challenges was that we had no money. It was shocking what little money we had.” This lack of resources is further reflected in Cotton’s (SOG, 2005) observation that there was a failure to engage in any form of meaningful communication concerning the environmental dimension of the event while it was being conducted. This situation, according to Palese (SOG, 2005) was a “blind spot, a massive blind spot” in efforts to leverage the Games in order to enhance community environmental awareness, and was
indicative of SOCOG’s and OCA’s failure to prioritise efforts at telling the story of the ‘Green Games’. Compounding this situation, at least in the context of SOCOG, was that the environmental program, as Holway notes, “was one of our smaller programs” (Holway, SOG, 2005).

Further evidence of the declining focus on the SOG’s environmental program as the event approached can be found in the decision by ‘Sydney 2000’ to delay the implementation of an environmental communication plan (originally developed by SOCOG) and in so doing restrict the projection of a “strong environmental message in the lead up to the event when the media were likely to be most interested in running them” (Stubbs, 2001, p. 27). ‘Sydney 2000’s key communication priorities in the period just before, during and post the Games further reflect this limited focus, with the environment appearing only once in the list of priorities (see Table 4.15).

There is further support for the view that focal organisations did not exploit the full potential of the SOG for EfSD purposes. Specifically, in the compulsory induction sessions conducted by SOCOG for its 47,000 volunteers, limited attention was devoted to the environmental aspects of the Games. According to Myer (2001), this resulted in no meaningful environmental legacy emerging from the Games for this group. Additionally, the capacity of sponsorship and product license agreements (both of which made reference to the Guidelines and encouraged engagement with them) to drive organisational learning about environmental matters was not fully exploited. According to Myer (2001), this was a result of a failure by SOCOG to promote this agenda. The reasons for this, Myer argues, were a fear of restricting its capacity to obtain sponsorship, and in the case of licensees, a concern that companies providing merchandise were small and needed a longer time period than that provided by the Games to engage meaningfully with environmental considerations associated with their products.
The reduced engagement with the ‘Green Games’ agenda by SOCOG and OCA discussed above would seem to be at odds with the climate of expectation created in the general community leading up to the Games. This receptive climate emerged from initial public statements made by Sydney 2000 Olympic Bid Limited, presentations made by them to the IOC, advertisements placed during the bidding process emphasising this aspect of the Games, and subsequent actions undertaken by Games organisers designed to communicate the environmental program of the event after the bid was won (Earth Council, 2001). From an EfSD perspective, the failure to capitalise on this receptive mindset could be seen as a missed opportunity to leverage the Games for a more sustained effort to enhance environmental awareness, understanding and knowledge in its host community.
4.5.2.2 Level of understanding of, and experience in, the use of LSSEs for EfSD purposes

In 1993, when Sydney was appointed as the host city for the 2000 Olympic Games, there existed a very limited understanding of how an LSSE could engage with a sustainable development agenda (Angel & Simington, 2000). SOCOG acknowledged this, noting that it was commencing a process that would take the combined experience of successive Organising Committees to perfect the process (SOCOG, 1999). Many of this study’s interviewees, as can be seen from the following quotes, were also of this view:

- “We had no idea whether you could actually deliver on the things (the Guidelines)” (Palese, SOG, 2005)
- “…everyone was learning from scratch” (Stubbs, SOG, 2005)
- “we were really path breakers, we were well ahead of the game” (Lampus, SOG, 2005)
- “…no one really understood how to interpret them (the Guidelines), that’s internationally as well. We were working in a space, particularly for the construction sector, where there was no data…” (Atkinson, SOG, 2005)
- “We were making it up as we went along” (Cotton, SOG, 2005)
- “We were very much pioneers in developing what we did” (Ottesen, SOG, 2005).
- “…a lot of it was experimental, it hadn’t been done on that scale before within Australia so it was a bit hard to know what the lessons were unless you’d done it” (Angel, SOG, 2005).

The absence of models for the engagement of LSSEs with a sustainable-development agenda, (inclusive of EfSD elements), while likely creating space for innovation and creativity, did not provide any lessons or insights upon which SOCOG, OCA, green groups, construction firms and other organisations associated with the environmental dimension of the SOG could build. In the specific context of EfSD, for example, no other Olympic host city had attempted a national education program on the same scale as the NOEP, nor had any made a serious effort to include an environmental theme within such
a program (Toohey, Crawford & Halbwirth, 2000). In a more general sense, and also from an EfSD perspective, the absence of experience with the application of sustainable development practices, combined with a legislative and/or contractual requirement to engage with them, meant that focal organisations and contracting firms needed to spend considerable time educating themselves and learning through doing and reflecting on practice rather than being able to draw on an existing platform of ideas and knowledge (Angel, 2005). This situation, when combined with the limited timeframe in which an LSSE such as the SOG must be planned and delivered, could arguably be seen as restricting the emergence of, as well as the capacity to benefit from, practices linked to EfSD.

4.5.7 Relationships between active stakeholders in the EfSD process

A lack of knowledge, as previously discussed, existed during the planning phase of the SOG concerning technologies and practices that could be used to progress a sustainable development agenda. In response to this, focal organisations (specifically the OCA) acted to establish collaborative relations with other organisations to access what information did exist in this area, and to allow potential stakeholders to have input in any decisions that were made. For this purpose the OCA employed expert panels, forums and reference groups. Such an approach, as noted in Chapter 2 (see 2.7), offers a range of potential benefits from a stakeholder management perspective, including advancing shared visions, enhancing understanding and awareness of a decision/issue and promoting decisions that reflect consensus. Benefits of this nature are particularly valuable in a multi-stakeholder process such as host-community EfSD through the medium of an LSSE where no single body possesses total control over it.

While acknowledging the many benefits that potentially attach to the development of relationships between focal bodies and other active stakeholders, it would nonetheless appear that efforts directed at accessing these were limited. Prasad (1999), for example, is of the view that while some input from OCA’s Expert Advisory Panels found its way into OCA’s initial planning and strategy documents, its replacement body, the Olympic
Advisory Forum, had little impact. The Albany Consulting Group, a consulting firm employed by GGW2000, was also of this view, arguing that the OCA was largely ineffective in “drawing into the Olympics preparation process the range of expertise that was available” (Albany Consulting Group 1997, p. 64), as was the OCA’s external reviewing agency, the Earth Council\textsuperscript{15}. This latter body argued that
closer attention could also have been paid to the information and advice that was elicited/ offered through early consultation and through reports submitted by groups such as Green Games Watch 2000 and Greenpeace (2001, p. 8).

Further, the Earth Council was of the view that the relationship between the OCA and environmental NGOs in general had not matured to the point where it could be seen as constructive (Cashman, 2006). This outcome is perhaps not surprising given the differences in viewpoints held by focal organisations and environmental NGOs as to the centrality of environmental aspects of the event to its success. Indeed, this lack of congruence in multi-stakeholder situations, as several writers have argued, is a common source of tension among stakeholders (Donaldson & Preston, 1995; Sautter & Leisen, 1999).

While it is difficult to identify with any precision the impact on EfSD of the lack of engagement by SOG’s focal organisations with other active stakeholders, or of the lack of a constructive relationship between them, this situation nonetheless must be viewed as far from ideal in fostering a climate in which EfSD outcomes could be maximised.

\subsection*{4.5.8 Level of involvement by the International Olympic Committee and the Australian Olympic Committee in the environmental agenda of the SOG}

In 1993, when Sydney successfully bid for the 2000 Olympics, the IOC, as discussed at the outset of this chapter, was only just beginning to engage with a sustainable

\textsuperscript{15} The Earth Council (now Earth Council Alliance) is an environmental NGO founded in 1992 with the intent of aiding citizen groups, NGOs, and other organisations committed to achieving the goals of the United Nations Conference on the Environment and Development (Earth Council Alliance, 2010)
development agenda. This situation had altered significantly, as discussed at the outset of this chapter, by the time the Games were delivered some seven years later. As a result, the environmental advisor appointment by the IOC to monitor Sydney’s performance against the Guidelines might have been expected to play a more meaningful role in the SOG than appears to be the case (Ottesen, SOG, 2005). Indeed, there is no evidence to suggest that the IOC intervened in the delivery of the event’s environmental program. This ‘hands off’ stance in connection with the ‘green’ dimension of the SOG, according to Greenpeace, is further reflected in the limited and superficial assessment of this aspect of the event that was undertaken by the IOC (2000a). Additionally, it is noteworthy that this lack of involvement by them in the environmental component of the SOG appears to have continued at least until the Athens summer Olympics in 2004, with Greenpeace observing in the context of this event that the IOC “bears responsibility for treating the environment extremely superficially and not as a true third pillar of Olympism” (Greenpeace 2004, p. 3). The Australian Olympic Committee (AOC) also appears not to have played a meaningful role in connection with the environmental component of the Games, a trait that Kearins and Pavlovich (2002) argue is common to National Olympic Committees (NOC) in general. Thus, the question arises in the context of the SOG of the extent to which a more engaged IOC and/or AOC might have served to intensify the focus of the OCA and SOCOG on their environmental commitments, including those linked to EfSD, as well as perhaps generating other opportunities in this area.

4.6 EfSD legacies

Assessing EfSD legacies post the Sydney 2000 Olympic Games is a difficult task given no specific studies have been undertaken concerning this issue. Crawford (SOG, 2005), for example, notes in connection with the NOEP program that time pressures and lack of resources prevented any meaningful evaluation of the program, or of specific elements of it such as those relating to the environment and the SOG. Hellyer (SOG, 2005) also cites these same reasons for a lack of any final assessment of SOCOG’s and OCA’s environment-related communication efforts. Indeed, there appears to have been no significant effort post Games to assess the role of SOG as an agent of societal change in
any area (Cashman, 2006). While acknowledging this limitation, this section seeks to identify those EfSD-related legacies for which some evidence exists, and to suggest the societal sectors to which these legacies can be attributed. Additionally, some discussion of possible EfSD legacies beyond the SOG’s host community has been included here.

4.6.1 Government

The SOG, it can reasonably be argued, acted as a stimulus for the further engagement of the NSW Government with the concept of sustainable development. This is most evident in the area of construction and building, where, according to Ekstein and Palese (n.d), the deeper understanding of how to design and build environmentally friendly housing that emerged from the Games ultimately flowed on to the construction of all residential housing in the state. Specifically, they trace the origins of the NSW Government’s Building Sustainability Index (BASIX) to the SOG. This index, which became mandatory on 1 July 2005, requires that all new residential developments meet specific standards of sustainability in terms of water and energy usage (ibid). Little (2001) also notes that discussion surrounding the incorporation of the OCA’s Environmental Management System into the NSW Government’s policies in connection with the construction of the state’s assets was well underway shortly after the Olympics. The outcome of these deliberations was that by 2003 all government agencies were required to incorporate environmental considerations into the design of their buildings (Department of Public Works and Services, 2007).

The time lag between the Games and the taking of concrete actions by government in the broad sustainability area, as is evidenced in the previous discussion, was commented upon by several interviewees (Angel, SOG, 2005; Bell, SOG, 2005; Bland, SOG, 2005). Churches (SOG, 2005) sums up these views, arguing that he saw no immediate engagement with sustainable development initiatives associated with the event by government at any level, with innovations in this area being placed in the “too hard basket”. Greenpeace (2000a) also argues that the OCA and SOCOG failed to adopt a formal system of gathering, verifying and recording data which in turn may have
restricted industry’s capacity to immediately make use of what had been learnt through the Games. Further limiting the short-term environmental impacts of the event was the failure to establish mechanisms for the handing over of initiatives linked to the Games to ongoing entities such as government departments or industry bodies. For example, the Sponsors Environment Network, which according to Myer (2001) had a potential life beyond the Games, simply ceased to exist immediately after the event.

4.6.2 Business and Industry

Emerging from the requirements imposed by the Guidelines, as many study participants, environmental groups and others involved with the Games have noted (see Figure 4.2), was a significantly increased applied understanding of practices linked to sustainable building design and construction amongst the building and allied industries, and associated professions. This understanding in turn was aided by the substantial volume of technical manuals, documents, environmental strategies/guidelines and reports that had been generated as a result of the event (Prasad cited in Cashman, 2006, p. 208). Amongst other things, this enhanced knowledge base meant firms were able to: use their new skills in sustainable design to bid for future work; offer clients improved energy and resource use outcomes in new buildings; and employ new technologies and materials (Earth Council, 2001). Some two years after the Games, this new understanding found a voice in the newly established Green Building Council16 and its Green Star Environmental Rating System for Buildings17, both of which, according to Lampus (SOG, 2005), can trace their origins to the Games.

While acknowledging the role the SOG played in growing the capacity of many firms in the area of sustainable development, assessing the degree to which this enhanced capability served to change practice in the absence of any specific studies, as noted earlier, is difficult. Nonetheless, certain meaningful observations can be made. In the

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16 Established in 2002, the Green Building Council is a national, not-for-profit organisation that aims to develop a sustainable property industry for Australia and encourage the adoption of green building practices (Green Building Council, 2007).

17 A ‘Green’ rating system for commercial buildings which involves rating buildings against eight environmental-impact categories (Green Building Council, 2007)
specific area of solar energy technology usage in the construction field, Prasad and Snow of SOLARCH at the University of NSW argued in the same year the Games was delivered that “knowledge gained from the solar village (at Sydney Olympic Park) thus far has already facilitated a rapid increase in the number of developments proposing to integrate solar energy” (cited in Cashman 2006, p. 209). Writing some four years later, they further stated that the solar innovations at the Olympic village “are capturing the imagination of individual homeowners through government support programs such as (the) PV (photo voltaic) rebate program” (ibid).

The potential influence on the construction industry, sponsors, licensees, suppliers—and, for that matter, the community more broadly—of the presence of large numbers of people who had both a direct involvement in practices linked to sustainable development, as well as, in some instances, having undertaken some measure of formal training in the area, should also be noted. Arguably, as these individuals moved back into their respective organisations and communities, the ‘stock’ of understanding concerning sustainable development practices and/or the issues surrounding the concept would have grown. Campbell (2001), for example, identifies a number of areas where she believes this knowledge may have been able to have been applied, including: waste management; transportation; public- and private-sector infrastructure/housing design and construction; sustainable product design; and the general enhancement of community environmental awareness. The Earth Council (2001) is also of the opinion that as a result of the SOG there would have been a greater adoption of environmental practices in the home and workplace.

While acknowledging the potential for change created by the SOG, particularly in the construction and allied industries, several impediments to the immediate post-Games adoption of these changes need to be noted. Cotton (SOG, 2005) argues that the market was not particularly interested in the environmental initiatives showcased in the Olympic Village, and states that as a result the housing construction industry saw little value in continuing to employ the skills it had learnt. There is also the issue of ‘industrial inertia’ that would likely have influenced the speed with which practice altered as a result of
green building practices learnt through the SOG. Peter Carter, Director of Prestige Building Services, a company that was contracted to build 100 of the permanent houses within the Olympic Village, is of the view that while the SOG may have stimulated the construction industry’s interest in green building practices “it will take time and education to make ‘green’ construction common place” (cited in Greenpeace, 1999c). This view is even more understandable when it is remembered that The Director of the Master Builders Association in New South Wales noted some four years out from the SOG that it was debatable if the green dimension of the SOG would result in new practices in the building industry (Vass, 1996). The apparent lack of thought given to progressing initiatives linked to host-community EfSD post Games also likely accounts for the slowness attached to leveraging Games outcomes in this area, or in other cases, such as with the Sponsors Environment Network noted previously, the failure to progress them at all.

4.6.3 Schools and Higher Education Institutions

The EfSD impact of the NOEP, in the absence of any formal evaluation, can only be inferred. In this regard its national rollout, combined with the substantial supporting resources developed for it, inclusive of material regarding the environmental dimension of the Games, can be reasonably argued to have had some impact on enhancing the level of environmental awareness and/or understanding in school-aged children. However, the defined lifecycle of an LSSE, such as the SOG, is likely to constrain such outcomes to the period leading up to and shortly after the event concerned. Indeed, Crawford (SOG, 2005) notes that when a book, Share the Spirit: The Involvement of School Students in the 2000 Olympic and Paralympic Games, was distributed to schools in Australia in 2002, there was a feeling amongst those schools she spoke to that had received this publication that they were “over it”.

While the capacity of educational material prepared for the Olympic Games may have had limited currency, Sydney Olympic Park itself has continued to offer meaningful environmental educational opportunities for school children. These include site excursion
packages based around environmental education, biology, geography, science and technology; and teacher professional development workshops dealing with environmental issues. Approximately 20,000 schoolchildren took part in organised programs at SOP in 2004, many of which featured a strong environmental component (Wilson-Jones, SOG, 2005).

In the context of universities and TAFE colleges, there is limited evidence of practices linked to EfSD being specifically directed at students at these educational institutions. Some initiatives, however, would likely have included academics as a key audience, most particularly seminars conducted by the Centre for Olympic Studies and Green and Gold Inc (see 4.4.1.4 & 5), which dealt with the environmental elements of the Games. In terms of ongoing university-based research emerging from the event that can be linked to its many environmental initiatives, while this may have taken place, no specific evidence was identified. It is noteworthy, however, that Atkinson (SOG, 2005) is of the view that the establishment of the Cooperative Research Centre for Construction Innovation in 2001 would not have been possible without the ‘trellis’ provided by the SOG.

### 4.6.4 Community

A number of interviewees, writers and organisations associated with SOG believe that the Games acted to stimulate public debate and understanding of sustainable development practices and issues, and so left a legacy of a more informed community regarding these matters (Cashman & Hughes, 1998; Cashman, 2006; Balderstone, SOG, 2005; Angel, SOG, 2005; Ottesen, SOG, 2005; SOCOG, 1999a; Earth Council, 2001). Given the previous analysis of EfSD practices and their likely beneficiary groups, this is not an unreasonable view.
There were thousands and thousands of people, workers, architects, engineers, they were all touched by "I guess you'd probably say the biggest legacy was the training of anyone who had an housing." (Cotton, knowledgeable groups 
…we went from a knowledge base I guess of zero, literally zero before the Olympics, to probably being at the e Director, Green and Gold Inc, developments to architectural services to refrigeration of soft drinks and ice cream to recycling of materials." (David Chernoshenko, 
"The Games are clearly acting as an agent of change in a number of ways. The introduction of the ‘green’ criteria in building projects has helped bring a change in thinking which should be a legacy. The release of information on processes, environmental strategies/guide benchmarks, and environmental measurement and reporting will be of great value to the professions and industry.” (Prasad (1999, p. 92) "I'm personally inclined to think still….probably the most substantial impact and probably the most lasting impact has really been in the construction sector and I hear consistently from architectural and engineering companies how much the Olympic process has changed the way they work.” (Churches, SOG, 2005). "A considerable amount of research seems to have been called for in most facilities, and lessons have been learnt in discovering just how much investigation is needed to ensure workable ESD (ecologically sustainable development) solutions.” (GGW2000, 2000a) "While the Olympic Games gives us the focus to do something positive, with good management and planning the new applications that are developed and implemented will have practical applications for all future developments. We are working to ensure that any future development—whether it be for housing, industrial or recreational—will have to comply with these new benchmarks.” (Michael Knight, State Minister for the Olympics, GGW2000, 2000b) "The Olympic Village design was so successful, there were enquiries from all over the world—most of them nothing to do with the 

Figure 4.2 Selected quotes reflecting the impact of the Sydney 2000 Olympic Games on the Business and Industry sector

“The Green Games have increased the level of recognition within mainstream businesses that there is such a thing as an environmental industry and that it can help them improve both their environmental performance and their bottom line.” (Fiona Williams, CEO Environment Business Australia, cited in G-Force, n.d.) “The Greenpeace Olympic campaign….is about educating Business and Industry to put the environment first. Through the Olympic Guidelines town planners, designers, builders—an entire industry—have been pushed into finding and using innovative solutions to the environmental conundrums of modern life.” (Greenpeace, 1999a) "The Greenpeace Olympic campaign….is about educating Business and Industry to put the environment first. Through the Olympic Guidelines town planners, designers, builders—an entire industry—have been pushed into finding and using innovative solutions to the environmental conundrums of modern life.” (Greenpeace, 1999a)

"The Games are clearly acting as an agent of change in a number of ways. The introduction of the ‘green’ criteria in building projects has helped bring a change in thinking which should be a legacy. The release of information on processes, environmental strategies/guide benchmarks, and environmental measurement and reporting will be of great value to the professions and industry.” (Prasad (1999, p. 92)

"I'm personally inclined to think still….probably the most substantial impact and probably the most lasting impact has really been in the construction sector and I hear consistently from architectural and engineering companies how much the Olympic process has changed the way they work.” (Churches, SOG, 2005).

“A considerable amount of research seems to have been called for in most facilities, and lessons have been learnt in discovering just how much investigation is needed to ensure workable ESD (ecologically sustainable development) solutions.” (GGW2000, 2000a)

“While the Olympic Games gives us the focus to do something positive, with good management and planning the new applications that are developed and implemented will have practical applications for all future developments. We are working to ensure that any future development—whether it be for housing, industrial or recreational—will have to comply with these new benchmarks.” (Michael Knight, State Minister for the Olympics, GGW2000, 2000b)

“The Olympic Village design was so successful, there were enquiries from all over the world—most of them nothing to do with the Olympics. Developers from everywhere asked for the designs. The Village came to be regarded as state-of-the-art living for the next century; how people will build and live, taking into account environmental concerns.” (Rod McGeoch, McGeoch & Korporaal, 1994, p. 140)

“Mirvac Lend Lease Village Consortium is not in the business of building or selling modular homes and if there was a change it would be left holding 352 environmentally innovative but unsalable homes. It reduced the risk by teaming up with the existing modular home industry and, through that, a whole new workforce came into contact with the Green Guidelines. An education process in the resourcing and use of materials began—low off-gassing paints, PVC-free pipes, sustainable timber—in the waste separation necessary for reuse and recycling. Many existing practices had to be changed and as a result some contractors have permanently changed their business practices.” (Greenpeace, 1999c, p. 5)

“For the OCA, ESD (ecologically sustainable development) is not just a promise, it’s an action. The planning and development of Olympic venues and facilities provides a practical demonstration of how to implement ESD initiatives. This is a significant legacy of the 2000 Games.” (Jo Moss, Senior Director, Environment, OCA, Environment Australia, 2000, p. 57)

“Whether those tendering on major construction projects right through to suppliers of relatively small-scale materials, they were all forced to think about sustainability and the final aspects of their products and services, many of them for the first time. A number of them came up with some quite innovative solutions and that I saw as being quite far reaching. I saw a number of firms after the games going out and touting as one of their strengths the fact that they were now a green supplier of everything from suburban housing developments to architectural services to refrigeration of soft drinks and ice cream to recycling of materials.” (David Chernoshenko, Director, Green and Gold Inc, SOG, 2006)

“…we went from a knowledge base I guess of zero, literally zero before the Olympics, to probably being at the end one of the more knowledgeable groups—property groups—in Australia, about how to apply successfully environmental issues into residential housing.” (Cotton, SOG, 2005).

“I guess you’d probably say the biggest legacy was the training of anyone who had anything to do with the actual building of our site. There were thousands and thousands of people, workers, architects, engineers, they were all touched by the Guidelines.” (Palese, SOG, 2005)
While the SOG did in all probability have some unquantifiable impact on its host community’s awareness and understanding regarding sustainable development, it can nonetheless be argued that this was an area of underachievement. Indicative of this was SOCOG’s and the OCA’s decision not to honour a commitment to construct an environmental pavilion onsite to showcase SOP’s environmental technologies and design features, and overall environmental management of SOP. This failure meant that “despite seven years of effort, Sydney’s Green Games project will be largely unheralded…” (Greenpeace 2000a, p. 10). The absence of a physical focus for the environmental achievements of the Games was compounded by the previously discussed lack of emphasis and support for communicating the environmental message of the Games, which meant, according to Little, that the community’s perception was that they “did not hear all the environmental ‘story’ of the Olympic Games” and that “…some people even wondered what happened to the ‘green’ Olympics” (2001, p.11). This situation was made worse by the absence of “an extra (environmental communication) strategy that would allow organisations including the government…to make hay after the Olympics” (Bland, SOG, 2005).

Another factor likely to have influenced the post-games EfSD legacy to SOG’s host community was that of the accessibility—and to a lesser extent, quality—of environment-related print and electronic resources that remained available in the public domain. Regarding this last point, Balderstone (SOG, 2005) draws attention to the limitations of the SOG final report itself, noting that

… our post games report was rushed and wasn’t comprehensive…we could have done a far better report…We had some real interesting data on some issues we could have put together but we just didn’t have the time.

There also appears to have been only a limited effort to collect, and make publicly accessible, documents, reports and technical manuals, and so forth. Karla Bell, Environmental Consultant (SOG, 2005), for example, states that a great deal of published material that could have been placed in a central repository was “shredded…it’s book
burning…sacilege”. Bland (SOG, 2005) makes this same point, but in the specific context of Greenpeace, noting that after going back to Greenpeace to try and obtain some of their material on the Games, he found that they had “tossed it all out”. That is not to say that nothing remains of material associated with the environmental dimension of the SOG. Indeed, a substantial quantity of information concerning this topic can still be found in archived electronic collections held by bodies such as the State Library of New South Wales (http://www.gamesinfo.com.au/home.html), the National Library of Australia (http://pandora.nla.gov.au), Greenpeace Archives (http://sites.greenpeace.org.au/archives) and the Australian Centre for Olympic Studies (http://www.business.uts.edu.au/olympic/archives.html). The Centre for Olympic Studies also maintained a physical repository of SOG and Olympic-related publications until 2004, after which time this Centre was renamed (Australian Centre for Olympic Studies) and moved along with its library to the University of Technology, Sydney, where it remains today (Cashman, 2006). GGW2000 also maintained its website, on which could be found various SOG-related studies and reports, up until this same year (Myer, 2001).

While the defined lifecycle of the SOG, as is the case with all LSSEs, can reasonably be argued to be an inherent limitation on its ability to engender ongoing community EfSD benefits, the same cannot be said of the event’s primary site, SOP. This site remains a major example of a large-scale sustainable-development project. The creation of a new body in 2001, Sydney Olympic Park Authority (SOPA), to manage this public space, provided the opportunity to continue, and to build upon, some of the EfSD activities originally commenced by the OCA and SOCOG.

SOPA, using the Guidelines as a base, established its own guidelines in the environmental area, as well as a Sustainability Strategy (SOPA, 2006a). This strategy, as can be seen in Figure 4.3, had four components, one of which, Involving People, had a stated goal of raising environmental awareness. In support of this strategy, as Figure 4.4 indicates, an environmental management system was developed that included an environmental communication plan. This plan in turn included a number of EfSD-linked practices. In addition to those previously noted in the context of schools, these practices
included public talks and interpretive tours, and events (e.g. Bird Week, World Environment day) (SOPA, 2006b). Underpinning these activities, it can reasonably be argued, is the capacity for SOP to play a ‘showcasing role’ in the areas of building design, land remediation and environment-related technologies. Lampus (SOG, 2005) makes this point, noting that

one of the things about Sydney Olympic Park is that it’s a great little showcase of all things sustainable where you can actually come to one site and see the practical implementation of a whole range of things.

4.6.5 External EfSD Legacies

While acknowledging that the focus of this study is the SOG’s host community, it would be remiss of the researcher not to point out that the EfSD impact of the Games was not limited to this context. Greenpeace emphasised this when it noted in the context of the SOG that

…the largest television audience in history will be able to see solutions such as solar power, environmentally friendly building design and materials and integrated public transport working successfully (Greenpeace, n.d.b).

This showcasing role of the SOG was also acknowledged by the Organising Committee for the 2006 Olympic Winter Games Torino (2004, p. 30), who observed that

Olympic Games have been increasingly sophisticated in their approach to environmental protection, culminating in the Sydney Summer Games in 2000, which are overall seen as a showcase for how environmental concerns can be successfully addressed.

At the international level, there was also formal acknowledgement of the OCA’s and SOCOG’s environmental efforts, with both organisations being elected to the UNEP’s Global 500 Roll of Honour in 2001 for their contributions to the protection of the environment. In awarding this honour, UNEP noted, amongst other achievements, the
role SOG had played in increasing global awareness about environmental issues (UNEP, 2001).

**Figure 4.3: The Four Components of Sydney Olympic Park’s Environment Strategy**

![Diagram of the Four Components of Sydney Olympic Park’s Environment Strategy]

Source: Sydney Olympic Park Authority (2006c)

The role of staff, consultants and volunteers associated with the SOG as a conduit for information, knowledge and expertise to future Olympic and LSSE bidding and host cities needs also to be acknowledged (Earth Council, 2001). For example, Peter Ottesen, Manager Environmental Program at SOCOG, at the behest of the IOC, ran a workshop for the London 2012 Organising Committee concerning the environmental management of an Olympic Games. He also conducted a similar presentation for those responsible for the environmental component of the Melbourne 2006 Commonwealth Games (Ottesen, SOG, 2005). Another example of how environmental information and expertise was transferred via individuals is that of Colin Stubbs, who, having acted as a volunteer in the environment area in the SOG, went on to become the Head of Environment for the London 2012 Games. In this capacity, in formulating the environmental strategy for
London, including those associated with EiSD, he drew on many of the practices he had been exposed to at the SOG (Stubbs, SOG, 2005).

In the specific context of the IOC itself and the Olympic Movement, it can also be reasonably argued that the SOG provided a model (along with associated tools and knowledge) for future Olympics to guide their engagement with a sustainable development agenda (Earth Council, 2001; ‘Sydney 2000’, n.d a; Lowe cited in Cashman & Hughes, 1998). In acknowledgement of this the IOC acted to: arrange tours of the
environmental aspects of Sydney’s Olympic sites for its members; invite presentations from SOCOG and OCA staff at its bi-annual Sport and Environment Commission conferences (from 1995) and Regional Seminars on Sport and the Environment (1997); and capture technical data relating to the SOGs environmental programs through a formal knowledge-transfer process (SOCOG, 1999a; Ottesen, SOG, 2005; OCA, 2001a).

Resulting from the insights the IOC obtained in these ways were changes to its practices and policies regarding the environment. Specifically, the IOC, as a result of the SOG, greatly strengthened its bidding criteria in the environmental area. Additionally, the IOC’s decision to make the environment the third pillar of Olympism has been attributed by some directly to the efforts of SOG organisers, who placed the environment on the IOC agenda in a way that had not been done before (Prasad, 1993). Overall, as Holway (SOG, 2005), Balderstone (SOG, 2005) and David Chernushenko, Director, Green and Gold Inc (SOG, 2006) argue, Sydney took the environmental dimension of the Olympics to a new level. This new level, from an EfSD perspective, is perhaps best reflected in the decision by the organising committee for the most recent summer Games in Beijing to implement education programs throughout the preparation and staging phases of the Olympics in order to raise the environmental awareness of the whole society and encourage the public to play an active role in the actions aimed at ecological improvement (Beijing Organising Committee for the Olympic Games cited in Cashman, 2006, p. 214).

4.7 Key Findings

Discussion in this chapter has sought to provide insights into the research questions posed for this study in the context of the SOG. The first of these concerned the identification of active stakeholders (focal organisations, their collaborators and independent contributors) in the EfSD process, and the location of these stakeholders within one of six broad societal sectors significant from a community EfSD perspective. In terms of these sectors, government was found to play the dominant role in the EfSD process, with focal organisations (OCA and SOCOG) and several independent contributors (‘Sydney 2000’, ORTA and Environment Australia) being located within this grouping. The proactive role
played by SOCOG and the OCA in developing collaborative relationships with organisations from the Government, Non-Government and Schools and Higher Education sectors further emphasised their key role in the EfSD process. Other societal sectors from which significant independent or collaborative contributions to the EfSD process emanated were the Non-Government Organisation (e.g. Greenpeace, GGW2000, Landcare) and Schools and the Higher Education sectors (e.g. State Departments of School Education). Regarding the other sectors, it is perhaps most noteworthy that active stakeholders from the Business and Industry sector were limited to one small consultancy firm.

The second question addressed in this chapter sought to: identify programs and initiatives engaged in by active stakeholders in the EfSD process; determine the beneficiaries of these practices; and classify them by education type (formal, non-formal or informal). Not surprisingly, given their legislated requirement to progress an environmental agenda through the Games, focal organisations were involved in the vast majority of practices that were identified as contributing to host-community EfSD. These practices were found to be wide ranging in nature. In the planning phase of the event, a formalised process of stakeholder engagement and organisational learning (i.e. expert panels, Olympic Environment Forum and the Homebush Bay Environmental Reference Group) linked to the environmental challenges posed by the event was in evidence. Organisational learning in the area of the environment was also found to be driven by these same organisations in their contractors, sponsors and merchandisers by the inclusion of environmental requirements within contractual agreements and tender documents. Additionally, these bodies engaged in training practices that acted to connect staff, volunteers, contractors and construction workers to their respective environmental agendas. Further, it was established that they generated a substantial volume of print, electronic and audio-visual resources linked to sustainable development in areas such as sustainable building design and construction, land remediation and waste management. Some of this material reflected on environmental practices associated with the event, and based on this generated a number of ‘lessons’ with applications not only in an LSSE context, but also
to the broader community’s efforts to engage with the concept of sustainable development.

Other means by which focal organisations can be argued to have acted to progress an EfSD agenda were identified as: media liaison efforts; conduct of presentations; participation in, or conduct of, events; operation of environmental information centres, use of static environmental displays; site tours; participation in awards; use of native animals as event mascots; conduct of an environmentally themed Olympic Youth Camp; and the operation of several ‘showcase’ worm farms. In association with their collaborating stakeholders, a further range of initiatives linked to EfSD were also engaged in. Central amongst these were NOEP (in association with state school systems) and Olympic Landcare (Landcare Australia).

While not contributing to the EfSD process associated with the SOG to the same degree as focal organisations, independent contributors nonetheless still played a meaningful role. This contribution came from their: development, distribution and/or provision of access to publications and electronic resources of both a general and technical nature concerning environmental matters linked to the Games; the conduct of media campaigns; participation in, or the conduct of, events; and mass-media reporting of environmental issues associated with the Games.

Formal, non-formal and informal EfSD learning opportunities were found to be in evidence in the context of the SOG. These opportunities were evident in the context of both organisations and individuals. Mapping the EfSD programs and initiatives that provided these opportunities against their likely beneficiaries resulted in the finding that the most impacted societal sectors were: Government, Business and Industry, Schools and Higher Education Institutions and Community.

The third question about which this study sought to provide insights concerned those factors that might have served to hinder or facilitate the extent to which the practices identified previously progressed EfSD within the SOG’s host community. In terms of facilitating factors, it was found that the Guidelines were central to the actions of focal
organisations in this area, as well as those of tenderers, contractors and sponsors. The societal context in which the Games took place was also identified as being key in creating a context in which a ‘Green Games’ agenda could emerge, thereby making it possible to develop and engage in practices linked to EfSD. Additionally, the level of external review of the SOG’s environmental agenda was found to be a factor in placing in the public domain a significant volume of printed and electronic material concerning the ‘green’ dimension of the Games. The NGOs, most particularly GGW2000 and Greenpeace, that undertook this reviewing function also acted to play a major role in stimulating and maintaining community interest and awareness in environmental matters linked to the event. Finally, the efforts of focal organisations in reaching out to establish collaborative stakeholder relationships with selected organisations (e.g. environmental NGOs, state school systems and Landcare Australia) was seen as greatly increasing the capacity of these bodies to pursue an EfSD agenda.

Several factors were identified as potentially playing a role in inhibiting the pursuit of an EfSD agenda through the SOG. Central amongst these was the perception by focal organisations that the environmental component of the Games was a non-core aspect of the event. The lack of understanding and experience in engaging with a sustainable development agenda through an LSSE, combined with the limited effort by focal organisations to work with other organisations involved in this dimension of the event, was also identified as potentially constraining the degree to which the SOG was able to be leveraged for EfSD purposes. Lastly, the ‘hands-off’ role played by the IOC and AOC in connection with the environmental aspects of the event raised the issue of the extent to which EfSD may have featured more strongly should they have acted otherwise.

The fourth and final research question dealt with in this chapter sought to provide insights into the extent to which the SOG resulted in an EfSD legacy for its host community. While acknowledging that information about this matter was limited, a number of general observations were nonetheless made. At the level of the host community the view was taken that it was probable that the SOG had generated a legacy of environmental
awareness, understanding and practice. In this regard, it was argued that the SOG had: increased its host community’s understanding of sustainable development matters by producing a substantial amount of publicly accessible material (print and electronic); stimulated environment-related discussion and debate; served as an ongoing (through SOP) showcase of environment-related technology and design; generated a deeper understanding of sustainable-development practices in industry and government in areas such as sustainable building design; and educated, trained and/or encouraged learning through practice in a variety of groups of matters linked to sustainable development.

The capacity of the SOG to generate a meaningful EfSD legacy was, however, found to be constrained by several factors. Focal organisations devoted few resources to carrying an environmental message beyond the Games themselves; the decision not to construct an environmental pavilion evidences this. Also, access to the extensive volume of material carrying the various environmental lessons learnt through the Games was not facilitated by these bodies, with no apparent coordinated effort devoted to collecting and making it publicly accessible through a centralised repository. Additionally, there was no structure put in place by focal organisations, industry or government to allow EfSD-related initiatives emerging from the Games to be continued, or to build upon what had been learnt through the event in areas such as sustainable design. When viewed collectively, these constraints on post-Games EfSD-related legacies could arguably be linked to two primary factors. The first is the perspective held by focal organisations that the SOG’s ‘green’ agenda was non-core from the viewpoint of the event’s successful delivery. The second concerns the general characteristics of projects such as LSSEs themselves (see Chapter 2). These characteristics relate to their defined lifespan, limited resource base and the tendency for organisations responsible for their delivery to have an ever-increasing focus upon the key deliverable, the project (event) itself.
4.8 Summary

The intent of this chapter was to provide input into the main research question posed in this study: *How can the hosting of a large-scale sporting event act to progress its host community’s efforts in education for sustainable development?* The choice of the SOG as one of the two events through which to explore this issue resulted from the instrumental role it was believed it could play in advancing the understanding of the process of EfSD through the medium of LSSEs more generally. Based on the findings that have emerged from his chapter, it can reasonably be argued that the SOG has been able to perform this role, and in so doing provide what Stake describes as “the opportunity to learn” about a matter where research and theory are lacking (1994, p. 243).

Specifically, discussion in this chapter has established that the EfSD process associated with the SOG: was government dominated; took place through a diverse range of programs and initiatives; involved formal, informal and non-formal educational practices; had the potential to generate benefits for a diverse range of passive stakeholders; and produced a range of possible legacies, many of which are assumed due to the lack of research specific to them. It was also found that the process benefited from: the establishment of a set of environmental guidelines and their incorporation into law; an existing environmental ethos within the host community; a significant level of independent external review of environment-linked practices; and the establishment of partnerships by focal organisations in order to progress their environmental agenda, inclusive of EfSD. While these factors served to aid the EfSD process, other factors were found to restrict it. These were: the non-core nature of the environment to final event delivery; a limited understanding of, and experience in, the use of LSSEs for EfSD purposes; limited interactions between focal organisations and some independent stakeholders; and the lack of oversight by the IOC and its Australian affiliate the AOC.
Chapter 5: Melbourne 2006 Commonwealth Games

5.1 Introduction

This chapter begins by outlining the relationship between the Commonwealth Games, sustainable development and education for sustainable development (EfSD). This overview provides a context for the following case study of the Melbourne 2006 Commonwealth Games (MCG) and its relationship to EfSD within its host community. Discussion then progresses to the four sub-questions posed in Chapter 3, in the context of the MCG, through an engagement with primary and secondary data sources, specifically archival records, relevant documents and personal interviews.

The first of these questions concerns the identification and classification of organisations or groups that played an active part in the EfSD process associated with the MCG. Two approaches are used to classify these active stakeholders; the first is function based (focal, collaborative or independent contributor—see Chapter 2), serving to clarify the specific role of organisations and groups in the EfSD process; and the second involves the use of broad-based societal sectors—Government, Non-Government Organisations, Business and Industry, Schools and Higher Education Institutions, Media and Community—and is intended to provide insights into the degree of involvement of different components of the MCG’s host community in the EfSD process.

The second question seeks to identify programs or other initiatives aligned with EfSD undertaken by active stakeholders, their educational form (informal, non-formal or formal) and their beneficiaries. In identifying the latter, the issue of their location within the broad societal sectors noted earlier is addressed with a view to establishing those parts of the MCG’s host community that benefited most from these programs and initiatives.

The third question addresses the identification of those factors that might have acted to inhibit or facilitate the effectiveness of the host community EfSD process linked to the MCG. In addressing this issue, factors affecting specific EfSD-linked practices, as well as
the EfSD process itself, are identified and discussed. The final question concerns the nature and extent of the EfSD legacy resulting from the SOG, as viewed through the lens of the previously cited host-community societal sectors. In the last section of this chapter the key findings emerging from the analysis provided here are discussed.

5.2 Background

The Commonwealth Games (CG) is a multi-day sporting event open to nations who are members of the Commonwealth 18 (Insight Economics, 2006, p. iii). Ultimate responsibility for the conduct of this event rests with the Commonwealth Games Federation (CGF)19. In order for a city to host the CG, it must engage in a competitive bidding process based upon a defined set of criteria provided by the CGF. Significantly, from the perspective of this study, these criteria necessitated little by way of response from cities bidding for the 2006 event as regards their proposed efforts in connection with sustainable development, including any initiatives linked to education for sustainable development (EfSD) (Australian Commonwealth Games Association and the Melbourne 2006 Commonwealth Games (MCG) Bid Pty Ltd, 1999, section M, p.8). This lack of engagement with the concept of sustainable development, or more specifically from the viewpoint of this study, the environmental component of this concept, is also evident in the CGF’s constitution. At the time (1999) of the State of Victoria’s successful Commonwealth Games bid, this document made no reference to sustainable development or to the environment in general, a situation that continues to the present day (CGF, 2009). Commonwealth Games host nations, prior to the conduct of the MCG, also appear to have made little effort to independently pursue an environmental agenda through their delivery of the event. The final report of the Manchester 2002 Commonwealth Games, for example, refers to the environment only in the context of waste management, and

18 The Commonwealth is a voluntary association of 54 countries with a collective population of over 2 billion people. (CGF, 2009)
19 The Commonwealth Games Federation (CGF) is an arm of the Commonwealth, an association of 71 nations with a total population of some 2 billion people. The CGF’s role is to direct the development of the Commonwealth Games, which is conducted on a four-yearly cycle. In performing this function it allocates the Games to a Commonwealth member eight years prior to its delivery date via a competitive bidding process involving its affiliated national Commonwealth Games Association (CGA) members. Additionally, it has the broader role of assisting with the development of sport throughout the Commonwealth (CGF, 2005).
limits discussion of environmental education matters to this narrow context (Manchester Commonwealth Games, 2002, p. 93).

The above discussion would suggest that the decision (discussed later in this chapter) by the Victorian Government to pursue an environmental agenda through the CG, inclusive of practices linked to EfSD, meant that it faced two initial challenges. Firstly, the event owner’s lack of focus on this area meant it had provided no meaningful direction or guidance regarding the pursuit of such an agenda. Secondly, no substantial insights were available to it from past deliveries of the event as to what environmental strategies and practices it might seek to employ.

5.3 Active stakeholders in the EfSD process

In order to identify organisations that were active stakeholders in the EfSD process associated with the MCG, this section draws upon a review of the secondary data sources identified in Chapter 3. These stakeholders have been grouped in terms of their respective societal sectors—Government, Non-Government Organisations, Schools and Higher Education Institutions, Business and Industry, Media and Community—and their respective roles in the EfSD process (focal, collaborator or independent contributor) have been identified. In the interests of clarity, here and in later sections collaborative stakeholders will be discussed in concert with the focal stakeholders with whom they had a relationship.

5.3.1 Government

5.3.1.1 Office of Commonwealth Games Co-ordination

The Office of Commonwealth Games Co-ordination (OCGC) was identified as the main focal stakeholder in the EfSD process. Established in February 2002, it was located within the Victorian Government’s Department for Victorian Communities. The OCGC performed a broad strategic planning and management role, and in doing so was
responsible for: formulation of government policy in support of the delivery of the MCG; co-ordination of all bodies associated with the event; infrastructure development; co-ordinating public domain events; traffic and transport arrangements; and contract security (Tourism Training Australia and Sports and Recreation Training Victoria, 2002, p.77; Australian Government, n.d.). In undertaking these roles the OCGC was concerned that its actions would serve to produce a legacy of enhanced infrastructure, stronger communities, and a healthier environment (OCGC, 2006a). Regarding this last point, the OCGC was guided by the Victorian Government’s desire to use the Melbourne 2006 Commonwealth Games as a means of: “...building on Victoria’s clean and green image and reputation for liveability, innovation and leadership in environmental policy and leaving a legacy of environmentally sustainable assets and behaviour” (OCGC, 2002, p. 7). Additionally, according to the Minister for the Commonwealth Games, Justin Madden, the event was intended to “...showcase the approaches we need to take in the long term towards litter, water and greenhouse emissions” (Victorian Litter Action Alliance, 2006, p. 1). In response to these broad goals, the OCGC developed a formal environmental sustainability strategy, which aimed to ensure the event was delivered in a way that was “wastewise, carbon neutral and waterwise” (OCGC, 2006a, p. 6).

Included in the OCGC’s environmental strategy were a range of objectives linked to EfSD. These objectives encompassed environmental awareness raising, environment-related education/training and attitude and behaviour change regarding environmental matters (e.g. litter, public transport usage) (OCGC, 2006a). To achieve these outcomes the OCGC acted either directly, or by establishing collaborative stakeholder relationships with organisations in the Government, Non-Government Organisation and Community sectors (see Table 5.1).
5.3.1.2 Melbourne 2006 Commonwealth Games Corporation

Melbourne 2006 Commonwealth Games Corporation (M2006) was established by the Victorian Government as a statutory body under the *Commonwealth Games Arrangement Act 2001* (VIC) to plan, organise and deliver the MCG (Victorian Parliament, 2001, s.1A, ss. 4B). Given this purpose, M2006 was not responsible for infrastructure development (a task that fell to the OCGC); rather it was responsible for the event’s sports program, ticketing, licensing, sponsorship, and the operation of sporting venues and the Athletes Village (Australian Government, n.d). M2006 was governed by a board of twelve directors, six of whom were appointed by the Victorian Government; four by the Australian Commonwealth Games Association; and two by the Commonwealth Games Federation (Victorian Parliament, 2001, s.1A, ss. 4J). In terms of M2006’s environmental responsibilities, its establishing act simply notes that it will be responsible for delivering “….environmental benefits to Victorians and Australians” (Victorian Parliament, 2001, s.1A, ss. 4B). In the context of the MCG’s environment program, M2006 played a relatively ‘weak’ focal role, with its actions limited to joint development with the OCGC of the event’s Environmental Procurement Guidelines, waste-management practices and workforce training (OCGC, 2006a).
<table>
<thead>
<tr>
<th>Government</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability Victoria</td>
<td>A statutory authority that acts to support the delivery of the Victorian Government’s Framework for Environmental Sustainability. In performing this role, Sustainability Victoria provides advice and assistance to the Government on sustainable resource use with a view to minimising greenhouse gas emissions and resource usage by business and individuals (Sustainability Victoria, n.d).</td>
</tr>
<tr>
<td>Environment Protection Authority (EPA)</td>
<td>A Victorian Government statutory body that acts to address issues associated with land, air, water and noise pollution. Additionally, the EPA is concerned with developing sustainable solutions to waste management. In performing these functions the EPA acts to form partnerships with business, the community and government (EPA, 2007).</td>
</tr>
<tr>
<td>Melbourne Water</td>
<td>A Victorian Government instrument which is operated by an independent board of directors. Its primary functions are to manage Melbourne’s water supply catchments, remove and treat sewage and manage rivers, creeks and major drainage systems within its geographic area of responsibility (Melbourne Water, 2007).</td>
</tr>
<tr>
<td>Parks Victoria</td>
<td>A statutory authority with responsibility for the management of the state’s parks, reserves and other land under state control (Parks Victoria, 2007). Parks Victoria also has responsibility for the recreational management of a number of waterways in close proximity to Melbourne, specifically Port Phillip Bay, Westernport and the Yarra and Maribyrnong rivers (OCGC, 2006a, p. 9).</td>
</tr>
<tr>
<td>The Department of Sustainability and Environment (DSE)</td>
<td>The state of Victoria’s main government agency responsible for the sustainability of both the natural and built environment (DSE, 2007). Its brief is wide ranging and encompasses: water management; stewardship of public land; forest fire management; encouragement of sustainable resource use and management practices by business and the broader community; climate change and greenhouse policy and sustainability policy development (DSE, 2007).</td>
</tr>
<tr>
<td>Major Projects Victoria</td>
<td>A State Government agency that manages large-scale development and construction projects engaged in by the Victorian Government (Major Projects Victoria, 2008).</td>
</tr>
<tr>
<td>Catchment Management Authorities (CMAs)</td>
<td>Statutory bodies, of which there are ten in Victoria, whose role is to ensure integrated land and water management within their designated area. To achieve this goal they work in association with local communities, government, landholders and industry across the catchments for which they are responsible (OCGC, 2006, p. 9).</td>
</tr>
<tr>
<td>ECO-Buy Limited</td>
<td>Established in 2002, ECO-Buy Limited is a not-for-profit company funded by the Victorian Department of Sustainability &amp; Environment. Its function is to encourage the purchase of green products by business and government (ECO-Buy, 2006).</td>
</tr>
<tr>
<td>Melbourne City Council</td>
<td>Melbourne City Council (MCC) is a public statutory body established to govern the Municipality of Melbourne (MCC, 2006, p. 19) (also see 5.3.1.3).</td>
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<tr>
<td>Non-government organisations</td>
<td></td>
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<tr>
<td>Greening Australia</td>
<td>A not-for-profit non-government organisation that operates on an Australia-wide basis. Greening Australia’s primary role lies in vegetation protection and restoration, a role that it pursues via the creation of partnerships with local communities, landholders, government and business (Greening Australia, 2007).</td>
</tr>
<tr>
<td>Conservation Volunteers</td>
<td>A not-for-profit non-government organisation that acts to attract, place and manage volunteers in conservation projects Australia wide (Conservation Volunteers, n.d).</td>
</tr>
<tr>
<td>Clean Up Australia</td>
<td>A not-for-profit organisation and non-government organisation whose original focus was litter and waste and the engagement of communities around these environmental concerns. In more recent years this focus has expanded to embrace water and climate change, and along with this expansion has come a widening of its geographic scope of operation with the creation in 1992 of Clean Up the World (Clean Up the World, n.d.).</td>
</tr>
<tr>
<td>The Victorian Litter Action Alliance</td>
<td>The peak body for litter management and reduction in Victoria. This body draws its membership from state and local government, industry associations and the community. VLAA’s primary function is to ensure a coordinated approach to litter prevention in Victoria (VLAA, Alliance, 2009).</td>
</tr>
<tr>
<td>Waterwatch Victoria</td>
<td>A component of a national volunteer-based community water-quality monitoring network. Waterwatch’s functions extend to: providing water quality and biological monitoring training and support to volunteers, schools and community groups; supporting education in the area of water monitoring in schools and the broader community; engaging in awareness-raising activities; and developing partnerships with government, community groups and private firms with the intent of improving river health (Waterwatch Australia, n.d).</td>
</tr>
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5.3.1.3 The Department of Infrastructure

The Victorian Government’s Department of Infrastructure is the main provider of essential infrastructure in the state of Victoria, bearing responsibility for roads, ports, public transport, freight and major projects (Department of Infrastructure, 2007). This Department was an independent contributor to the EfSD process associated with the MCG via its TravelSmart program (see 5.4.1.3).

5.3.1.4 Melbourne City Council

Melbourne City Council (MCC) is a public statutory body established to govern the Municipality of Melbourne. In performing this function the MCC acts to: represent the community and consider its needs when making decisions; set objectives associated with the provision of municipal services and monitor their achievement; ensure resources are managed responsibly; act as an advocate for community interests in dealings with other communities and governments; and encourage community cohesion and participation in the civic life of the city (MCC, 2006, pp. 19-20). In pursuing these objectives the MCC has established a number of strategic goals, including managing the city in an environmentally responsible way and displaying environmental leadership (MCC, 2006, p. 53). Given these goals, it is not surprising that the MCC sought to leverage the MCG for environmental purposes. To this end, it formed a relationship with a production house, Reiser Productions, to develop an environmental component called Sing for Water for inclusion in the MCG’s cultural program (Sing for Water, Australia, n.d). While this action can be viewed as an independent contribution to the EfSD process associated with the event, it needs to be noted that the MCC also acted as a collaborative stakeholder in the OCGC’s environmental program through its involvement with the Royal Park Wetlands project and Savings in the City: Green Hotel Program (see 5.4.1.1.1).
5.3.2 Media

In a general sense, as was noted in Chapter 4, media organisations can play an independent contributing role in the EfSD process associated with an LSSE. This role is linked to their capacity to: raise public awareness around specific issues; share information and knowledge quickly across large distances; change attitudes and mobilise support around issues; and influence policy decisions (Environmental Information System, n.d.; NZPCE, 2005; Director General on the United Nations Decade of Education for Sustainable Development, 2005). While it has proven difficult to gauge the extent to which media organisations exercised these capacities in the context of the MCG, it has nonetheless been possible to establish that media reporting of selected environmental aspects of the CG did occur (see 5.4.1.2).

5.3.3 Business and Industry

The role of organisations in the Business and Industry sector in the EfSD process, while substantial (as is discussed later in this chapter), resulted from their need to respond to the demands placed upon them by focal stakeholders (e.g. inclusion of environmental conditions within tendering documents – see 5.4.1.1.1) or their desire to leverage the opportunity the event represented to increase sales (e.g. Green Power Initiative – see 5.4.1.1.1). This being the case, organisations in this sector tended not to play an active role in the EfSD process. The only exception to this was found to be several professional/industry-based associations/institutes, as discussed below.
5.3.3.1 Society for Sustainability and Environmental Engineering, Environment Institute of Australia and New Zealand and Waste Management Association of Australia

The Society for Sustainability and Environmental Engineering\(^{20}\), Environment Institute of Australia and New Zealand\(^{21}\) and Waste and Management Association of Australia\(^{22}\) are professional membership bodies operating in the environmental field. In the context of the EfSD process, these bodies acted as independent contributors jointly conducting a post-Games seminar dealing with the environmental aspects of the MCG (see – 5.4.1.3). The seminar was entitled *Games Environment Report Card: Going for Green* (Engineers Australia, n.d.).

5.4 Educational programs and initiatives linked to host-community EfSD and their associated beneficiaries

A number of formal, non-formal and informal educational practices were identified as being engaged in by active stakeholders in the EfSD process. These practices are identified and described here using the same broad societal sector groupings as in the previous section to structure discussion. Additionally, an effort is made in this section to link these practices to specific beneficiaries so as to provide an understanding of the extent to which the six societal groupings were each impacted by the conduct of the MCG from an EfSD perspective.

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\(^{20}\) The Society for Sustainability and Environmental Engineering (SSEE) mission, as its name suggests, is to “provide a national focus and leadership within the engineering profession for the implementation of sustainability for the benefit of the Australian society” (SSEE, 2009). In performing this role, the SSEE seeks to facilitate networking opportunities between its members and to enhance their knowledge and understanding of environmental issues via the publication of a quarterly journal (*The Environmental Engineer*) and conducting seminars (SSEE, 2009).

\(^{21}\) The Environment Institute of Australia and New Zealand (EIANZ) is a professional body for practitioners in the environmental field. Its primary aim is to promote “independent and interdisciplinary discourse on environmental issues” (EIANZ). The stated aims of the EIANZ are to: advance ethical and competent environmental practice; promote environmental knowledge and awareness; and facilitate interaction among environmental practitioners (EIANZ, 2009). As noted previously, this body was one of three professional bodies involved in jointly producing a seminar after the MCG dealing with the environmental aspects of the event.

\(^{22}\) The Waste Management Association of Australia (WMAA) is the peak association for waste-management professionals in Australia. Its primary functions involve the facilitation of professional networking and communication, and engagement in projects that progress the goal of sustainable waste management (WMAA, 2009). The WMAA was a co-producer, with the EIANZ and SSEE of a seminar conducted after the MCG dealing with the environmental dimensions of the event.
5.4.1 EFSD-linked programs and initiatives

5.4.1.1 Government

5.4.1.1.1 Office of Commonwealth Games Co-ordination

As previously noted, an aspect of OCGC’s responsibilities as regards the MCG concerned the broad area of the environment. This responsibility in turn resulted in the development of an environmental strategy (see 5.5.1.1) that included a number of EFSD-linked programs and initiatives, some of which were undertaken directly by OCGC, while others involved collaborative stakeholders. These practices are discussed below.

Environmental Procurement Policy

In October 2006 an environmental procurement policy was developed by the OCGC in concert with M2006. The objectives of this policy were to promote “environmental awareness, positive environmental performance and continuous environmental improvement to potential Commonwealth Games suppliers” (OCGC, n.d. e). This policy emerged from the work of a taskforce (Environmental Procurement Taskforce) created specifically for this purpose (OCGC, 2006, p. 57). Businesses submitting a tender or proposal for the supply of nearly all services and products to the MCG were required to engage directly with this policy. This requirement in turn necessitated that they show compliance with all relevant environmental legislation and regulations, along with details of their environmental policies, plans and how these were being implemented in order to engender positive environmental outcomes. When assessing compliance with this policy, evidence was sought, as appropriate, regarding practices in a range of areas, specifically:

- conservation of resources;
- continual improvement through the establishment, meeting and exceeding of environmental objectives;
- reduction and management of environmental impacts flowing from operational practices and/or products;
- use of cleaner technologies and the manufacture of products with reduced environmental impact;
- use of environmentally sustainable practices in the provision of services;
- consideration of end-of-life options for products, such as their recyclability;
- industry leadership in the minimisation of environmental impacts such that the organisation can demonstrate how it has influenced other businesses and clients, etc; and
- extent to which staff, clients, suppliers and/or the general community have been involved in, or educated concerning, environmental matters. (OCGC n.d)

From an EfSD perspective, the need to provide this evidence would arguably have required a significant organisational learning effort for many businesses.

**Training programs**

The OCGC and M2006 provided all Games staff and volunteers (15,000) with the publication *Team2006 Workbook*, along with an abridged version of this publication (*The Pocket Guide*) (Insight Economics, 2006, p. 177). Both of these publications dealt with approaches employed by the OCGC to deal with the three major environmental objectives of the event, specifically being wastewise, carbon neutral and waterwise. Training and induction sessions drew heavily upon the *Team 2006 Workbook*, thus ensuring the environment dimension featured prominently in these sessions.

Environmental messages were further reinforced by a workforce newsletter entitled *United*. In the case of staff and volunteers assigned to venues, specific training was provided that dealt with venue environmental policies and practices, such as those associated with waste management, packaging and recycling (OCGC, 2006, p. 64).
EfSD-linked communication practices

In the process of pursuing an environmental program through the MCG, the OCGC generated a number of publically available documents and electronic resources concerning aspects of its environmental program (see Table 5.2). Additionally, the OCGC undertook other practices, specifically site tours, presentations, and media liaison activities, which also served to communicate the nature of its environmental practices to various audiences (see Table 5.3). These efforts, from an EfSD perspective, can be viewed according to Dr Michael Buxton, member, Environment Committee, MCG and Associate Professor Environment and Planning, RMIT, as playing a role in raising awareness and/or increasing the knowledge base of specific groups/individuals for whom they were intended, along with the community more broadly (Buxton, MCG, 2006).
### Table 5.2 Office of Commonwealth Games EFSD-linked publications and electronic resources

<table>
<thead>
<tr>
<th>Publication</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>Melbourne 2006 Commonwealth Games: The Environmental Framework</strong></td>
<td>This document provided the overarching framework through which sustainable environmental outcomes were proposed to be achieved through the MCG. Specifically, it served to: outline the environmental policy context in which the MCG was taking place; provide policy direction to government agencies and the OCGC; outline the strategic environmental context for infrastructure development; propose mechanisms for public contributions to policies, initiatives and programs; and provide a structure for the provision of advice, monitoring and reporting (OCGC, n.d).</td>
</tr>
<tr>
<td><strong>Commonwealth Games Advisory Committee (Environment): Report to the Minister for the Commonwealth Games on the Melbourne 2006 Commonwealth Games</strong></td>
<td>This report proposed approaches to targeting resources in order to minimise the environmental impacts of the MCG and maximise behavioural change. In performing this function, it proposed a number of specific and general recommendations, with the latter concerning how the event could be leveraged in order to perform against the key areas noted in the event’s environmental framework (CGAC-E, 2002).</td>
</tr>
<tr>
<td><strong>Melbourne 2006 Commonwealth Games: Government Response to Commonwealth Games Advisory Committee (Environment)</strong></td>
<td>This document put forward the Victorian Government’s response to each of the recommendations (82) made by the CGAC-E in its final report (Commonwealth Games Advisory Committee (Environment): Report to the Minister for the Commonwealth Games on the Melbourne 2006 Commonwealth Games) (OCGC, n.d).</td>
</tr>
<tr>
<td><strong>Triple Bottom Line Assessment of the XVIII Commonwealth Games</strong></td>
<td>Undertaken at the behest of the OCGC by Insight Economics, this report assessed the economic, social and environmental impacts of the MCG, and identified the legacies that resulted in these same areas (Insight Economics, 2006).</td>
</tr>
<tr>
<td><strong>Athletes Village Guidebook</strong></td>
<td>This publication introduced athletes to the facilities and services within the MCG’s Athletes Village. Included within this document was an overview of the environmental design elements of this facility (OCGC, 2006).</td>
</tr>
<tr>
<td><strong>Official Spectator Guide</strong></td>
<td>This publication provided information relevant to event attendees and as such included details of the event’s program, venues and transport options. A brief overview (one paragraph) of the MCG’s environment program was included in this publication (M2006, n.d)..</td>
</tr>
<tr>
<td><strong>Website</strong></td>
<td>From its establishment in 2002 until its closure in late 2006, the OCGC’s website provided a significant volume of publically available material concerning the MCG’s environmental program. While the content of this website varied over the period it operated, at the time of the Games it contained: information on the event’s environment strategy and major environmental initiatives; overviews of the environmental design elements of the major Games venues; copies of environment-related media releases; and key documents associated with the event’s environmental program (OCGC, 2006b).</td>
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### Table 5.3 Other Office of Commonwealth Games Co-ordination EfSD-related communication practices

| **Site tours** | Venue tours of the Athletes Village and the Melbourne Cricket Ground were conducted as part of the OCGC’s Melbourne Commonwealth Games Observers Program. According to Lucy Callaghan, Program Manager for Environment, Office of Commonwealth Games Co-ordination, these tours did include some coverage of the environmental design elements of these facilities (Callaghan, MCG, 2007). While this was the case in practice, it should be noted that the brochure for this program lists 47 themes (or topics) that will be addressed (or addressed if there is sufficient interest) and none of these relate to any specific environmental initiative, or to the environmental program in general (Department of Victorian Communities, n.d.). |
| **MCG official mascot** | The endangered South-Eastern Red-Tailed Black Cockatoo was made the official mascot for the MCG, and given the name of Karak in recognition of its species’ distinctive call. The Games were then leveraged to educate and focus the broader community’s attention upon the importance of preserving this species’ habitat. Actions taken with this intent in mind included the inclusion of educational material within the Commonwealth Games Education Program, promotional events and the issuing of Karak number plates (M2006, 2006). |
| **Media liaison** | The OCGC recognised that the Games represented an “important vehicle for stimulating an appreciation of the environment and building an understanding of the simple steps we can all take to reduce ecological impacts” and that the initiatives associated with the Games were “…an important platform in the State Government’s efforts to inform and educate the broader community about some of the more significant environmental issues affecting the State” (OCGC, 2006a, p. 11). Resulting from this recognition was a media and communications strategy based around the MCG’s environmental program. This strategy involved: placing a number of print advertisements in Victorian metropolitan and regional newspapers concerning the Games’ anti-litter and public transport usage initiatives; publication of an environmental supplement and poster in *The Age* newspaper; and the appointment of an Environmental Ambassador, Rob Gell23 (OCGCa, 2006, pp.64–65). |
| **Staff and consultant/advisor presentations** | Several OCGC staff and consultants made presentations to external audiences concerning the environmental aspects of the MCG. Specifically, a briefing was given by the MCG’s Environmental Ambassador, Rob Gell, to the Building Industry Consultative Council concerning the environmental features of the Athletes Village (OCGC, 2006, p. 65). Additionally, Gell, in association with Glen Terry from Greening Australia and Hon. Justin Madden, Minister for the Commonwealth Games, gave presentations on the event’s environmental program at a one-day post-games seminar (Engineers Australia, n.d). Patrick Ness, Architect and Design Director, Cox Architects, who was responsible for the environmental design elements incorporated into the completely rebuilt northern stand at the Melbourne Cricket Ground, the major Games venue, also gave a number of ad hoc presentations concerning the various environmental features incorporated into this development (Ness, MCG, 2007). |

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23 Rob Gell: A coastal geomorphologist by training, Gell appears on a Victorian commercial television station on weekends in the capacity of a weatherman. In his professional life he operates an environmental and communications consultancy and serves as the chairperson of Greening Australia (Gell, 2009).
Collaborative programs and initiatives

The OCGC, as noted previously, sought to develop stakeholder relationships with a number of organisations in order to pursue its environmental agenda. A number of these collaborations resulted in programs or initiatives that can be seen as linked to the process of host-community EfSD via the MCG. These are discussed below.

Environmental Stakeholder Forum

Some three years prior to the start of the MCG, based on a recommendation made by the Commonwealth Games Advisory Committee – Environment (CGAC-E) (see 5.5.1.1), the OCGC established an Environmental Stakeholder Forum (ESF) (OCGC, 2003). This body comprised 18 representatives (see Table 5.4) from various government departments and agencies involved with the environmental aspects of the Games, as well as environmental groups and event sponsors (OCGC, 2006a, p. 59). The ESF met on five occasions, with the forum acting to allow participants to exchange information and coordinate and monitor the implementation of the various environmental initiatives associated with the event. It also fell to this group to develop the reporting and assessment framework for the Games’ environmental initiatives. This framework was then used in both the interim and final environmental report cards that were made publicly available by the OCGC (OCGC, 2006a). According to Rob Gell, MCG Ambassador for the Environment and Chair of the ESF, viewed purely from an EfSD perspective, the Forum served to facilitate learning between the organisations involved regarding how a large-scale sporting event might be effectively leveraged for environmental purposes, including environmental education (Gell, MCG, 2007).
Table 5.4 Membership of the Melbourne 2006 Commonwealth Games Environmental Stakeholder Forum

<table>
<thead>
<tr>
<th>Catchment Management Authorities</th>
<th>Greening Australia</th>
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<tr>
<td>City of Melbourne</td>
<td>Melbourne 2006 Commonwealth Games Corporation</td>
</tr>
<tr>
<td>Conservation Volunteers Australia</td>
<td>Melbourne Water</td>
</tr>
<tr>
<td>Department of Education and Training</td>
<td>Municipal Association of Victoria</td>
</tr>
<tr>
<td>Department of Innovation, Industry and Regional Development</td>
<td>Office of the Commissioner for Environmental Sustainability</td>
</tr>
<tr>
<td>Department of Infrastructure</td>
<td>Parks Victoria</td>
</tr>
<tr>
<td>Department of Sustainability and Environment</td>
<td>Sustainability Victoria</td>
</tr>
<tr>
<td>ECO-Buy</td>
<td>Toyota Motor Corporation Australia</td>
</tr>
<tr>
<td>Environment Protection Authority</td>
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<tr>
<td>Environment Victoria</td>
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The Commonwealth Games Education Program

A joint initiative of the OCGC, Department of Education and Training, and Sustainability Victoria, the Commonwealth Games Education Program (CGEP) was guided by eight objectives, one of which concerned the uptake by school-aged children of environmentally sustainable behaviours. As a result of this objective, environment-related curriculum materials and supporting resources were developed and incorporated into the five components of the program: Starting Blocks, Post Compulsory Resources, Let the Games Begin, United through the Games and Compass (Victorian Department of Education and Training, 2004, p. 4). An overview of each of these components from an EfSD perspective follows:

- Starting Blocks served to provide an introduction to the Commonwealth Games, with content of audio files, photos, activities and text spanning the needs of children from kindergarten through to the final year of high school. Activities within this component of the education program were linked to both the Victorian Essential Learning Standards and the Curriculum Standards Framework. In the case of years 11 and 12,

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24 Victorian Essential learning Standards outline key learning outcomes that all Victorian students must achieve during their time at school from kindergarten to year 10 (Victorian Curriculum and Assessment Authority, 2009a).
25 The Curriculum Standards Framework (now superseded) describes curriculum and standards in eight areas of learning from kindergarten to year 10. These areas are: the Arts, English, Health and Physical Education, Languages Other Than English,
material was linked to both Vocational Education in Schools\textsuperscript{26} and the Victorian Certificate of Education\textsuperscript{27}. Included within the material developed for this element of the program were units dealing with the ‘Environmentally Friendly Games’ and the endangered Red-Tailed Black Cockatoo (the MCG’s mascot) (OCGC, n.d. f).

*Post Compulsory Resources* were designed to link with senior secondary studies and vocational education programs. The environment featured as the first of five major themes addressed in these resources, with activities linked to the three primary aims of the MCG’s environment strategy, specifically waste minimisation, carbon neutrality and water conservation. Additionally, this resource dealt with: the environmental design and construction aspects of the Games Village; how to organise tree-planting events; and issues concerning the Games’ mascot, the endangered Red-Tailed Black Cockatoo VCAA, 2005).

- *Let the Games Begin* was a resource designed for students in the middle years of school. The focus of this component of the MCG’s education program was decision making and the organisation of large-scale events (OCGC, 2006b). Included within this set of resources were information and activities associated with the development of environmental strategies for events (OCGC, 2005a).

- *United through the Games* was the title given to five units of work that contained learning activities spanning kindergarten to year 10. The focus of these units varied between year levels, with the material provided for years 3 and 4 concentrating on the environmental aspects of the Games, specifically: environmental issues surrounding the event; endangered species; energy and housing; the link between a healthy lifestyle and the environment; and water management (OCGC, 2006b).

\textsuperscript{26}Vocational Education in Schools refers to those programs developed to: increase opportunities and pathways for secondary students in their final two years of high school; enhance post compulsory educational outcomes; and address the employment needs of industry in Victoria (Department of Education and Early Childhood Development, 2009).

\textsuperscript{27}The Victorian Certificate of Education is the qualification that the majority of students who complete year 12 in Victoria receive (Victorian Curriculum and Assessment Authority, 2009c).
CommPass was a set of teaching resources and activities developed for primary school students from kindergarten to year 6. These resources and activities were created around three key themes, one of which concerned participation in, and adoption of, environmentally sustainable practices. Central amongst the resources included in this kit was an individual ‘passport’ for each student in which they could record what they had learnt in connection with the environment and other themes (OCGC, 2006b).

To ensure widespread access to the CGEP, material associated with it was sent to all (approximately) 2400 schools in Victoria. In total some 11,000 Compass teacher kits were distributed, 38,000 CD ROMs, 500,000 passports and 100,000 posters. Additionally, the program was made available online through the M2006 website, as well as in a CD-ROM format (OCGC, 2005a). As regards the former, this component of the M2006 site received an estimated 200,000 hits between March 2004 and April 2006 (Insight Economics, 2006, p. 95). Other actions that were taken in support of the education program were the inclusion of an environmental supplement and poster in the main local broadsheet newspaper, The Age, and the creation of an online magazine for students—CG Reps Gamezine. It is noteworthy from an EfSD perspective that the third edition of this e-zine (October 2005) was entitled ‘Environment and You’ and contained an interview with the Melbourne 2006 Commonwealth Games Environment Ambassador, Rob Gell; a case study of a specific school’s efforts to reduce, reuse and recycle; an overview of activities held for schools in association with the ‘Our River Our Games’ program; a competition based around the event’s mascot—the endangered South-Eastern Red-Tailed Black Cockatoo; and a list of environment-based activities and resources (OCGC, 2005a).

As a way of assisting teachers in their efforts to engage with the event’s education program, a state-wide professional development program was conducted in all regions of Victoria (OCGC, 2005a). From an EfSD perspective, it is noteworthy that some of these professional-development sessions were conducted by the Victorian Association of Environmental Education. The sessions conducted by this body dealt with the
conservation of the South-Eastern Red-Tailed Black Cockatoo and its stringy bark forest habitat (Victorian Association of Environmental Education, 2005, n.p.).

It is also noteworthy that outside of the formal Games education program some schools engaged their students in environmentally based volunteering activities linked to the event, including tree planting, tree growing and litter collection (OCGC, 2006, p. 63). Additionally, according to Kate McKeand, Project Officer, Environment Program, Office of Commonwealth Games Co-ordination, a number of schools also participated in the Commonwealth Games’ WasteWise Events Challenge. This activity required schools to show how they had acted to minimise waste associated with an event they had designed and delivered (McKeand, MCG, 2007). This initiative involved the OCGC collaborating with Sustainability Victoria, and can be seen as an extension of the latter’s WasteWise School Program (Ecocycle Victoria, 2005).

**Green Trades Program**

The Green Trades Program was developed to provide training to plumbing and electrical apprentices and qualified tradespeople working on the construction of MCG venues and the Athletes Village. The focus of this program was sustainable technologies and practices. Although it was a joint initiative between the OCGC and Sustainability Victoria, the cost of these training programs was met by the OCGC. In total, 16 plumbing apprentices, 40 registered plumbers and 15 electrical apprentices took part in the program (Sustainability Victoria, 2006b). Industry associations, according to Lucy Callaghan, Program Manager for Environment, Office of Commonwealth Games Co-ordination, were central to the development of material associated with this initiative (Callaghan, MCG, 2007). Specifically, these organisations were the Master Plumbers and Mechanical Services Association of Australia and Alternative Technologies Association (OCGC, 2006a, p. 6).
Waste-minimisation efforts

The OCGC and M2006, in association with Sustainability Victoria, sought to ensure the Commonwealth Games would be a low-waste event. Various strategies were employed for this purpose, including: developing and implementing public and back-of-house recycling procedures; instituting packaging guidelines for merchandisers, suppliers, sponsors and other providers of goods and services; and conducting WasteWise catering training for catering company managers and supervisors (OCGC, 2006a, p. 46). Regarding this last point, resource material was also developed to aid catering companies in training their own staff in WasteWise practices (Sustainability Victoria, 2006).

Waste-minimisation efforts extended to construction waste resulting from the development and demolition of the major Games venues, specifically the Athletes’ Village, Melbourne Cricket Ground and Melbourne Sports and Aquatic Centre. In connection with these venues, OCGC and Sustainability Victoria established a recycling benchmark of 95%, and worked with Sustainability Victoria and construction companies involved in these projects to establish systems to achieve this goal (OCGC, 2006a, p. 53). According to Patrick Ness, the architect responsible for alterations to the MCG’s main venue, the Melbourne Cricket Ground, this process was aided by the requirement that tenderers for Games construction projects provided an environmental-management plan that embraced recycling of building waste (Ness, MCG, 2007). From an EfSD viewpoint, engagement with the WasteWise requirements of the CG offered the potential to raise awareness, understanding and capabilities of organisations in the construction and catering industries in relation to the management of waste streams.

Venue and Games Village Design and Construction Initiatives

The OCGC, in association with Major Projects Victoria, required architectural firms and developers involved in the planning and construction of major Games infrastructure to incorporate water- and energy-saving technologies and design elements. To ensure this, sustainability covenants were developed and instituted in partnership with construction
firms such as the Village Park Consortium, which was responsible for building the Games Village (Department for Victorian Communities, 2003-4, p. 41). In the context of water, and depending on the specific development, these design elements and technologies related to: rainwater collection; water treatment and recycling; grey-water collection; landscaping; and the use of water-efficient appliances, fixtures and fittings (OCGC, 2006, p. 32).

In order to achieve high levels of energy efficiency, permanent residential buildings at the Athletes Village were designed to a six-star standard, employing such design elements as: insulation, air-leakage control, roof ventilation, energy-efficient lighting (including motion sensors), solar gas-boosted hot water systems and double glazing (OCGC, October 2006). Other major developments, specifically the Melbourne Cricket Ground and the Melbourne Sport and Aquatic Centre, also reflected the OCGC’s commitment in this area. In the case of the former, 200sqm of grid-connected photovoltaic panels, along with energy-efficient lighting systems, were installed, while the latter’s construction included an 800kW cogeneration power plant that used both gas and electricity (OCGC, 2006, p. 41).

Viewed through the lens of EfSD, these energy- and water-saving initiatives had the potential to serve as a showcase for how architects and the construction industry as a whole might employ such technologies in future developments (Insight Economics, 2006, p. 109). Additionally, from the perspective of the general community, their presence in such high-profile Games venues may have acted to further reinforce messages associated with water and energy usage that they were receiving from other sources, such as power companies (see later discussion in this section). Athletes and team officials (of which there were 5,867) were also likely to be impacted by such developments given the ‘visibility’ of such initiatives within the Athletes Village, and the inclusion of information concerning them in the Athletes Village Guidebook that was provided to each athlete and team official (Insight Economics, 2006, p. 70; OCGC, 2006, p. 65).
Many of the venues for the Commonwealth Games, such as the Melbourne Cricket Ground and the Melbourne Exhibition Centre, along with a number of paths and roads designated for use in athletic and bicycling events, lay within close proximity to the Yarra River (British Broadcasting Commission, 2006). Additionally, the river was integral to the event’s entertainment program, serving as ‘stage’ for both a nightly sound and light show and its opening and closing ceremonies (OCGC, 2006a). Given this, an opportunity was identified by the OCGC to leverage the attention the river would receive during the Games both to improve its health and, significantly from an EfSD viewpoint, increase community awareness of environmental issues associated with it (Insight Economics, 2006, p. 62). The program the OCGC developed for these purposes was entitled ‘Our River Our Games’, and involved tree planting, night fauna studies, stormwater education, litter clean-ups and drain stencilling activities (Victorian Association of Environmental Education, 2005, n.p). Partnerships were crucial in the delivery of this program, with a number of organisations involved in various aspects of it. Specifically, these organisations were: Melbourne Water; Conservation Volunteers Australia; Department of Sustainability and Environment; Friends Groups; local councils; local schools; Parks Victoria; and Waterwatch Victoria. In total, the ‘Our River Our Games’ program resulted in 41 individual activity days across 17 locations, with participation from some 200 adults and 230 school students (OCGC, 2006a, p. 14). Implementing this program was made easier, according to its co-ordinator, Gillian McDonald (MCG, 2007) because its main delivery partner, Melbourne Water, already had in place a strong community education program based around the Yarra River and other Melbourne water courses.

While not a component of the ‘Our River Our Games’ program, the purchase of two litter barges by the OCGC and Parks Victoria to ply the Yarra and Maribyrnong rivers, collecting rubbish from the two waterways, also served to create community awareness of the issue of litter as the Games approached. Painted prominently on these vessels were
the words ‘Commonwealth Games Environment Program’ and ‘Cleaning Our Waterways for the 2006 Commonwealth Games’ (OCGC, 2006, p. 49).

Commonwealth Games Anti-Litter Campaign

The Commonwealth Games Anti-Litter Campaign was a joint initiative of the OCGC, Sustainability Victoria and the Victorian Litter Action Alliance. According to Karen Kossen, Litter Champion, Victorian Litter Action Alliance, this campaign was based on extensive research into littering behaviour and attitudes toward littering (Kossen, MCG, 2007). Significantly, from an EfSD perspective, the focus of this program was achieving behaviour change, with the MCG regarded as an opportunity to further raise community awareness of the littering issue and to “achieve a legacy of ongoing litter-free behaviour” (Victorian Litter Action Alliance, 2006). This focus was acknowledged by Cheryl Batagol, a member of the CGAC-E, and Chair of Melbourne Water, who noted that “we were concerned much more with embedding behavioural change as opposed to the mechanics of simply putting a bin out” (Batagol, MCG, 2007).

The anti-litter campaign was delivered in three stages. The pre-games element was entitled ‘Let’s start training for the Games’; the Games time stage, ‘Clean up at the Games’; and the post-Games component, ‘Keep up the good work’ (Insight Economics, 2006, p. 65). The program’s delivery involved a range of media, including television, radio, print and outdoor advertising, and sought to embrace all residents of Victorians, not simply those residing in the host city (Kossen, MCG, 2007). Additionally, public relations activities were employed as an adjunct to media usage, which sometimes involved the use of high-profile athletes to launch clean-up events (Sustainability Victoria, 2006, n.p). Aiding the campaign’s efforts were 16 Regional Waste Management Groups, Clean Up Australia, almost half (47%) of Victorian local councils and six environmental/community groups. These bodies performed various roles, including distributing/using materials prepared in support of the program, conducting clean-up day events (81 were conducted involving 4,300 volunteers) and/or assisting with media coverage of clean-up activities (OCGC, 2006, p. 51). Organisations involved in the
campaign also had access to a detailed litter campaign resource kit (Community Change, June 2006, p. 3).

ECO-Buy Business

ECO-Buy Business commenced in July 2005 and was a partnership between OCGC, Sustainability Victoria and the Municipal Association of Victoria (the owners of ECO-Buy). It was also supported by the Australian Industry Group, the Victorian Employers’ Chamber of Commerce and Industry, and the Industry Capability Network. The intent of this program was to encourage, in particular, large businesses, to develop purchasing policies that would give preference to green products and services (OCGC, 2006a, p. 58). In recognition of the importance of education in engaging businesses with the concept of ‘green’ purchasing, ECO-Buy Business acted to: produce a guide on developing and implementing a green purchasing program; conduct meetings designed to allow businesses to share their experiences regarding green purchasing; conduct exhibitions of green products and services; and deliver training sessions dealing with green purchasing (ECO-Buy, n.d).

ECO-Buy Business was viewed as a legacy program by the OCGC and was endorsed by major business associations (Stephens, MCG, 2007). Efforts to stimulate membership in this program prior to and during the Games extended to feature articles in two magazines (Waste Management and Environment and Contract Management in Practice), industry presentations (14) and the conduct of a Green Purchasing Expo (OCGC, 2006a, p. 58).

Tree-planting program

As part of an effort to make the Games a carbon-neutral event, the OCGC, in association with the Department of Sustainability and Environment, various catchment-management authorities, Greening Australia and community groups, aimed to plant up to one million trees (OCGC, 2006b). In order to achieve this goal, some 2,000 volunteers were enlisted from organisations such as schools, scout groups and environmental organisations.
According to Kendrea Pope, Manager, Education Program, Office of Commonwealth Games Co-ordination, this program was also viewed by the OCGC as a means of raising awareness about the issue of greenhouse gas abatement amongst those directly involved, as well as in the communities in the fifteen regions in which tree-planting took place (MCG, 2007). It should also be noted that a number of the tree-planting events were accompanied by presentations on indigenous species (flora and fauna), with one event involving a demonstration of direct seeding technology for local area landowners (McKeand, MCG, 2007).

**Green Power Initiative**

The Green Power initiative was essentially a sponsorship arrangement between the OCGC and Origin Energy. This arrangement involved Origin Energy agreeing to sponsor the Games through a contra deal by which Origin Energy supplied Green Power (2.7 GWh) to all sixteen Games venues located in Melbourne and in regional centres for the duration of the event. Additionally, Origin Energy provided 200sqm of grid-connected solar photovoltaic panels for the new Olympic Stand entry at the Melbourne Cricket Ground (OCGC, 2006a, p. 41). In return for its sponsorship of the event, Origin Energy was able to leverage its Green Power actions associated with the MCG in a television campaign over the Games period (Origin Energy, 2006). While the intent of this campaign was to increase the number of households signing up for this energy product, it can also be argued from an EfSD perspective that Origin Energy’s promotional actions served to further raise awareness throughout Victoria of ‘green’ energy in reducing greenhouse gas emissions. Indeed, the Victorian Minister for Environment and the Minister for Energy Industries and Resources used the opportunity provided by Origin Energy’s sponsorship of the Games to issue a press release highlighting this link (Environment Minister and Energy Industries and Resources Minister, 24 February, 2006).

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28 Green power is electrical power generated from renewable sources such as the wind, sun, water or waste (OCGC, 2006, p.41)
Grants program

Commencing in mid 2005 and concluding at the end of March 2006, the OCGC operated a competitive grants program called ‘Getting Involved’, which was open to all Victorian local councils. Eight of the projects awarded grants through this initiative were environment based (OCGC, 2006a, p. 61). Two of these programs, the Yea Wetlands Boardwalk and the Bayside City Councils Indigenous Coastal Trail, involved a significant environmental interpretive component (Yea Wetlands Committee of Management, n.d.; Bayside City Council 12 April, 2005).

In addition to competitive grants, OCGC also provided two one-off grants to Melbourne City Council. The first of these was for $5 million to construct a five-hectare wetland area (Trin Warren Tam-boore) in the northwest section of Royal Park, Melbourne’s largest park. This development was undertaken at the same time as the construction of the nearby Melbourne Commonwealth Games Athletes Village. The wetland was designed to treat and recycle storm water sourced from the Athletes Village, the surrounding area and Melbourne Park Zoo, using natural biological processes. In turn, this water was used to irrigate up to 20ha of open space (Department of Environment and Water Resources, 2007, p. 18). From an EfSD viewpoint, it is noteworthy that this artificial wetland was designed in such a way as to foster an appreciation of such environments through the inclusion of pathways, a bird hide and the onsite provision of printed information about the environmental attributes of the area (City of Melbourne, n.d.). Insight Economics states that this initiative enhanced the awareness of wetland habitats and water recycling amongst Melbournians generally (2006, p. 63).

The second grant received by Melbourne City Council was for the development of a program entitled Savings in the City: Green Hotel Program29. This program, which commenced in July 2005, sought to assist Melbourne hotels to reduce their use of energy

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29 The Savings in the City: Green Hotel Program was an initiative of the City of Melbourne however it was only in the concept stage prior to the MCG. The OCGC promised to provide the City with a $50,000 grant to expedite the development of the program and to launch it. While the program was developed and launched the $50,000 was never paid by the OCGC to the City of Melbourne (Blunt, MCG, 2007).
and water and generation of solid waste (OCGC 2007, p. 6). Significantly, from an EfSD perspective, this initiative was underpinned by a number of publications and other resources developed to educate participating properties on how to engage with the program. These publications were: an *EnergyWise Hotel Toolkit*, a *WasteWise Hotel Toolkit*; a benchmarking tool to gauge an individual hotel’s efforts at minimising its energy, water usage and waste generation; and a Green Hotels water and waste fact sheet. Additionally, the City of Melbourne incorporated into its website a dedicated section from which these materials could be accessed or downloaded. By the end of the Games this ongoing program had fifteen participating properties (Blunt, MCG, 2007).

5.4.1.1.2 Melbourne Commonwealth Games Corporation

M2006’s role in the MCG’s environmental program was much more constrained than that of the OCGC. It was nonetheless classified as a focal organisation in this study due to its joint development of certain key aspects of this program with the OCGC, most notably Environmental Procurement Guidelines and waste-management processes (OCGC, 2006, p. 46). Additionally, M2006 was required to engage with the MCG’s environmental program (as appropriate), which meant it acted to: incorporate Environmental Procurement Guidelines into tender documents; include environmental messages in its staff and volunteer training; and implement practices designed to minimise waste (OCGC, 2006a). M2006 also provided information about the environmental program on its website, along with links to the event’s tree-planting, education and ‘Our River Our Games’ programs (M2006, 2006). Unlike the OCGC, M2006 did not seek to form collaborative stakeholder relationships for EfSD purposes.

5.4.1.1.3 Department of Infrastructure

The need to transport large numbers of people to and from Games venues resulted in an existing program, TravelSmart, being adapted, rebranded (TravelSmart Commonwealth Games) and implemented for this purpose by the Department of Infrastructure over the 2005/6 period. This program had two components; one focused upon communities
immediately surrounding the three major Games venues (Melbourne Cricket Ground, Melbourne Sports and Aquatic Centre and Telstra Dome); and the other focused on large workplaces within the Melbourne CBD (OCGC, 2006, p. 45). In the case of the community program, 11,000 households were targeted, while the participation goal for the workplace program was 50 businesses, each employing 100 or more staff (Steer, Davies & Gleave, 2006, p. 1; Meiklejohn, MCG, 2007).

The short-term goal of the TravelSmart Commonwealth Games program was to convince people living or working in close proximity to Games venues to make use of alternative transport modes during the event and by so doing reduce greenhouse gas emissions and traffic congestion. Significantly from an EfSD perspective, it was also intended that the program would build a legacy of changed travel behaviour amongst its target groups (Insight Economics, 2006, p. 173).

5.4.1.1.4 City of Melbourne

In addition to receiving grants from the OCGC to develop the Savings in the City: Green Hotel Program and construct the Royal Park Wetlands, as previously noted, the City of Melbourne developed an independent relationship with Reiser Productions Pty Ltd. This relationship resulted in the co-production of a choir-based event entitled Sing for Water. This event, which was first produced for the 2002 Mayors Thames Festival in London, was incorporated into the Melbourne 2006 Commonwealth Games Cultural Program and involved community choirs and schools performing songs about water (Sing for Water, Australia, n.d). The aim of this initiative was to further develop the Victorian community’s awareness of the importance of clean water and sanitation in the context of developing countries, with a specific focus on this issue within South-East Asia and the Pacific (Insight Economics, 2006, p. 63). A total of 27 community choirs took part in the main Sing for Water concert in Melbourne, while a separate event, Children Sing for Water, involved choirs from 12 primary schools (OCGC, 2006, p. 33). In total, some 5,000 people attended these concerts, with profits donated to a clean water project in East Timor (Sing for Water, Australia, n.d).
5.4.1.2 Media

As noted previously, the MCG had the potential to impact host-community awareness and/or understanding of environmental issues. This potential is especially evident considering there were some 2,713 accredited journalists at the MCG and that the television viewing audience was claimed to be 1.5 billion (OCGC, October 2006; Insight Economics, 2006, p. 143). The OCGC recognised this potential and as a result sought to engage journalists attending the event using a media and communication strategy specifically designed to create awareness of its environmental program (OCGC, 2006, p. 65). A review of the media archives section of the M2006 and OCGC websites indicates that one means employed for this purpose was media releases. A total of 12 were identified, with the bulk of these (9) emanating from the OCGC (OCGC, 2006c; M2006, 2006b).

As noted earlier, although it is difficult to determine the extent of media coverage of the environmental programs and initiatives associated with the Games, it is nonetheless possible to support the contention that coverage of this aspect of the event did indeed occur. In this regard, the media archives of the two largest Australian newspaper publishers, Fairfax Media Ltd and News Limited were consulted and a review undertaken commencing from the year the bid was won (1999) to the end of the year in which the event was delivered (2006) (see Table 5.5). The total number of articles identified through this means was 53 (or less than 7 per year), with the Games’ mascot Karak (the endangered Red-Tailed Black Cockatoo) receiving the highest level of coverage.

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30 The review process involved the use of the broad headings of Melbourne Commonwealth Games, Melbourne 2006 Games, Commonwealth Games and identifying from the articles generated those dealing specifically with one or more environmental aspects of the event.
Table 5.5 Articles in Fairfax Media Ltd\textsuperscript{31} and News Limited\textsuperscript{32} Publications 1999 – 2006 concerning environmental aspects of the Melbourne 2006 Commonwealth Games

<table>
<thead>
<tr>
<th>Topic</th>
<th>Frequency</th>
<th>Total</th>
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<tbody>
<tr>
<td>Environmental Aspects of the MCG Athletes Village</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>MCG Mascot - Karak</td>
<td>4</td>
<td>24</td>
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<tr>
<td>MCG Litter Campaign</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>MCG Environmental Activities Associated with the Yarra River</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tree Planting and Other Efforts by the MCG to Be Carbon Neutral</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Public Transport Usage and the MCG</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Use of ‘Green Power’ at the MCG</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Overall MCG Environmental Program</td>
<td>1</td>
<td></td>
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</tbody>
</table>


5.4.1.3 Business and Industry

While, as noted previously, organisations in this societal sector did act to participate in, or support EfSD initiatives (e.g. Green Trades Program and ECO-Buy Business), few bodies from this grouping were identified as active stakeholders in the EfSD process. Specifically, the only organisations identified as performing this role were the Society for Sustainability and Environmental Engineering, the Environment Institute of Australia and the Waste Management Association of Australia. These organisations, the first two being professional bodies and the last an industry association, jointly delivered a post-Games seminar entitled \textit{Games Environment Report Card: Going for Green}. This seminar targeted professionals in the broad fields of environmental engineering, design and waste management. While the program for this seminar could not be established, it was

\textsuperscript{31} Sydney Morning Herald, Age, Central Coast Herald, Fairfax Community Newspapers NSW, Fairfax Community Newspapers Victoria, Illawarra Mercury, Newcastle Herald, Sun Herald, Sunday Age.

\textsuperscript{32} The Australian and Weekend Australian, Australian Magazine, Daily Telegraph, Sunday Telegraph, Sunday Telegraph Magazine, Herald Sun, Sunday Herald Sun, Sun, Courier-Mail, Sunday Mail.
nonetheless determined that several key individuals who were involved in the MCG’s environment program presented at this event (i.e. Rob Gell, the MCG Ambassador for the Environment; Glen Terry, Port Phillip Regional Manager, Greening Australia; and Hon. Justin Madden, Minister for the Commonwealth Games) (Engineers Australia, n.d).

### 5.4.2 Informal, formal and non-formal EfSD

Viewed collectively, the previously identified EfSD-linked initiatives and practices provided a mix of opportunities for informal, non-formal and formal learning at both the organisational and individual levels. In the organisational context, the potential for informal EfSD arguably arose from: the need to respond to environmental components of tenders and contracts; participation in discussion forums; and engagement in specific environment-related programs (e.g. ECO-Buy Business, Savings in the City: Green Hotel Program, TravelSmart). At the level of the individual, the potential for informal learning existed through: personal engagement with the environmental design elements of Games infrastructure and associated developments; workplace practice; accessing environment-related publications/electronic resources; exposure to advertising and media coverage; and participation in site tours, events, programs, campaigns and presentations linked to the MCG’s environmental program. In terms of non-formal EfSD, this was limited to the environmental components of staff, volunteer and contractor training provided by M2006 and OCGC, and training associated with the ECO-Buy Business initiative and WasteWise program. Formal EfSD was restricted to the environmental elements of the Commonwealth Games Education Program, which operated in the bulk of the approximately 2,400 schools across Victoria, and the Green Trades Program, which involved 31 apprentices and 40 qualified trades people (OCGC, 2006, p. 27; 66). The former, given its geographic spread and coverage of school years from kindergarten to year 12, can reasonably be argued to have been a significant in terms of the overall EfSD impact of the MCG.
5.4.3 Beneficiaries of EfSD-linked practices and initiatives

While the previous section provided a general overview of the beneficiaries of the various forms of EfSD evident in this study, in order to generate a clearer understanding of this matter, a more detailed analysis is called for. This analysis takes the form of several tables, which illustrate the EfSD-linked program/initiative–beneficiary relationship. The first (Table 5.6) deals only with OCGC and M2006, the event’s focal organisations, while the second (Table 5.7) concerns those of a joint nature involving the OCGC and its collaborative stakeholders. The third table (Table 5.8) deals with those programs/initiatives linked to independent stakeholders in the EfSD process.

While the placement of most beneficiary organisations or groups within the societal sectors used in this study needs little explanation, several decisions as regards these placements do need some measure of clarification. Specifically, volunteers, athletes and team officials have been placed into the ‘Community’ sector, as it has been assumed that they were largely drawn from this sector and that they will return to it once the event is over. Additionally, Table 5.6 acknowledges, by including the classification of “external beneficiaries” that a number of individuals from within these same groups are from overseas and will return to their respective countries post-event. This matter will be taken up later in the chapter.
Table 5.6 EfSD-linked practices by stakeholder beneficiary – OCGC and M2006 programs and initiatives

<table>
<thead>
<tr>
<th>Stakeholder beneficiaries</th>
<th>Environmental procurement policy</th>
<th>Training programs</th>
<th>EfSD-linked communication practices</th>
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<tbody>
<tr>
<td><strong>Government</strong></td>
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<tr>
<td>OCGC and M2006 management and staff</td>
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<td><strong>Business and industry</strong></td>
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<td>Contracted construction firms and their staff</td>
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<td>Contracted suppliers and their staff</td>
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<td>Professionals/Consultants</td>
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<td><strong>Community</strong></td>
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<td>Volunteers</td>
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<td>Athletes and team officials</td>
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<td>Spectators</td>
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<tr>
<td>Australian residents, primarily from Melbourne and the state of Victoria</td>
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<td><strong>External beneficiaries</strong></td>
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<td>Non-Australian volunteers, athletes, team officials and spectators</td>
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<td>Overseas electronic and print media audiences</td>
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Table 5.7  EfSD-linked programs and initiatives by stakeholder beneficiary – OCGC and its collaborative stakeholders

<table>
<thead>
<tr>
<th>Stakeholder beneficiaries</th>
<th>Environmental Stakeholder Forum</th>
<th>Commonw wealth Games Education Program</th>
<th>Waste-minimisation initiatives</th>
<th>Venue and Games Village environ-mental design and construct-ion initiatives</th>
<th>Our River Our Games Program</th>
<th>Yarra River litter barges</th>
<th>ECO-Buy Business</th>
<th>Green Trades Programs</th>
<th>Commonwea lth Games anti-litter campaign</th>
<th>Tree Planting Program</th>
<th>Green Power Initiative</th>
<th>Grants Program</th>
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<td>Victorian Government</td>
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<td>Volunteers in EfSD-linked programs</td>
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<td>Australian residents, primarily from Melbourne and Victoria.</td>
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</table>

Australian residents, primarily from Melbourne and Victoria.
Table 5.8 EfSD-linked programs and initiatives by stakeholder beneficiary – Independent Contributors

<table>
<thead>
<tr>
<th>Stakeholder beneficiaries</th>
<th>TravelSmart Commonwealth Games Program</th>
<th>Sing for Water</th>
<th>Media coverage (electronic and print)</th>
<th>Seminar - Environment Report Card: Going for Green</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business and industry</strong></td>
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<tr>
<td>Participating businesses</td>
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<td>Professionals/consultants</td>
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<td><strong>Community</strong></td>
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<td>Attendees of MCG’s cultural program</td>
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<td>Participating households</td>
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<tr>
<td>Australian residents, primarily from Melbourne and the state of Victoria.</td>
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<tr>
<td><strong>External beneficiaries</strong></td>
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<tr>
<td>Overseas electronic and print media audiences</td>
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</table>
5.5 Factors serving to facilitate or inhibit EfSD in the context of the MCG

5.5.1 Facilitating Factors

5.5.1.1 Melbourne Commonwealth Games Environment Strategy

The OCGC’s Environment Strategy underpinned its EfSD-linked practices and initiatives. This strategy emerged as a result of a four-stage process. The first of these stages involved the development of an environmental framework intended to provide a “vision and commitment to achieving cost-effective, sustainable environmental outcomes for the Melbourne 2006 Commonwealth Games” (OCGC, 2002, p. 4). This document, released in July 2002, provided:

- a policy context for environmental planning and delivery of the Games;
- policy direction in the area of the environment to Government agencies and the organisation responsible for delivering the event—M2006;
- a strategic environmental context to guide Games infrastructure development;
- a mechanism to allow public input into environment-related policies, initiatives and programs; and
- a framework for accessing advice and for allowing the monitoring and reporting of environmental aspects of the event. (*ibid*)

Specifically, the areas embraced within the environmental framework document were: public transport and air emissions; sustainable energy; waste avoidance and resource recovery; climate change and greenhouse gas; water quality, conservation and water recycling; protection of the natural environment; operations; and infrastructure. In dealing with these areas, this document made a range of commitments, a number of which were significant from an EfSD perspective, specifically:

- maximise awareness of the Victorian Government’s Walking Policy;
- increase public awareness of, and attitude toward, public transport usage;
- showcase practical use of recycled or recyclable materials and biodegradable products that support a high level of resource recovery and reuse;
- achieve improvements in public behaviour in relation to littering in public places through awareness and education initiatives leading up to and during the Games;
- promote increased awareness of greenhouse issues in Games-related education campaigns;
- demonstrate integrated water-conserving technologies and innovative water-recycling measures;
- investigate demonstrations of innovative use of stormwater collection, management, and reuse applications at purpose-built Games venues; and
- demonstrate innovative new approaches (in infrastructure projects).

(OCGC, 2002, p. 9)

Stage two in the development of the OCGC’s environmental strategy involved establishing an independent Advisory Committee to facilitate public input into the strategy-creation process. The body created for this purpose was the Commonwealth Games Advisory Committee—Environment (CGAC-E), the five members of which were drawn from government bodies associated with natural resource management (three), non-government environment groups (one); and universities (one). The terms of reference given to this body by the Minister for the Commonwealth Games required that they provide input into:

- measures that address sustainability issues such as environmental performance, cost effectiveness and net community benefit;
- assessment criteria for environmental measures for infrastructure projects; and
- a monitoring and reporting mechanism for overseeing environmental performance of the Games (CGAC-E 2002).
The CGAC-E was given three months to prepare its report and during this time received 31 submissions from interested parties, and undertook 99 consultations with a variety of organisations, along with 6 individuals. As part of their information-gathering process they also consulted former Sydney Olympic Games staff that had been involved in its environmental program and examined relevant material from this event and other LSSEs (CGAC-E, 2002).

It is particularly noteworthy from an EfSD perspective that the CGAC-E acknowledged the opportunity provided by the Melbourne 2006 Commonwealth Games to demonstrate to the Victorian community how ecologically sustainable development could be applied in practice in areas such as waste, water and energy management. This acknowledgement, in turn, led to a number of recommendations in its final report that are relevant this study. Specifically, these recommendations relate to leveraging the opportunity presented by the event to raise awareness of environmental conservation and the environmental footprint associated with the lifestyles of individuals; generate long-term behavioural change in the areas of litter, public transport usage, energy and water use; increase consumer awareness of environmentally friendly products and services; promote the purchase of sustainably produced goods; and enhance the understanding of practice in the environmental area by communicating the lessons and legacies of the Games’ environmental program. In addition to these more broadly based recommendations, the CGAE-E also saw the Games as an opportunity to educate private-sector organisations and their employees about the use of environmentally sustainable practices and technologies, believing this could be achieved by such means as showcasing, formal training and inclusion of environmental requirements in tender documents (ibid).

Stage three of the process of developing an environmental strategy for the Games involved the OCGC responding to the CGAC-E’s final recommendations, which it did in a document entitled *Melbourne 2006 Commonwealth Games—Government Response to Commonwealth Games Advisory Committee (Environment) Recommendations*. It is noteworthy that this document indicated support, or support in principle, for all but two
of the 82 recommendations made by the CGAC-E. The two recommendations that were not supported did not relate to EfSD (OCGC, n.d., a).

Drawing upon its original environmental framework, the CGAC-E’s recommendations, and its response to these, the OCGC completed the process it had commenced some 12 months prior with the release of its environmental strategy, *The Melbourne 2006 Commonwealth Games Environment Strategy* (OCGC, n.d., a). This strategy made a number of commitments, some of which had EfSD implications, specifically:

- promote sustainability covenants or environmental improvement plans to private-sector organisations associated with the event in significant capacities;
- develop and employ environmentally sustainable purchasing criteria;
- engage in public reporting of environmental outcomes;
- increase environmental awareness within business and the broader community; and
- conduct environmental-awareness training with volunteers, the Games workforce and suppliers (*ibid*).

### 5.5.1.2 Societal readiness

At the time of Victoria’s bid for the Commonwealth Games in October, 1999, the issue of sustainable development had been on the Australian public agenda for some time. As was noted in Chapter 1, Australian Governments (State and National) some seven years prior had collaborated to develop a National Strategy for Ecologically Sustainable Development (Sydney Olympic Bid Limited, 1993, p. 4). In the context of Victoria, various developments can be identified in the period extending from the successful bid to the delivery of the Games that are also reflective of this engagement. These developments help explain the Victorian Government’s decision to develop an environmental strategy for the MCG.
In 2000, the Victorian Government conducted a summit of selected community opinion leaders in order to explore three key themes in the state’s future development, one of which was the environment. This summit in turn resulted in the publication of a document entitled *A Vision for Victoria to 2010 and Beyond: Growing Victoria Together* (Department of Premier and Cabinet, 2001). Another example of the State Government’s increasing interest in the area of sustainability in the lead-up to the Games can be found in the 2002 introduction of Voluntary Sustainability Covenants (VSCs). These covenants involved industries and companies entering into agreements with the state’s Environmental Protection Agency with the goal of reducing their ecological footprint (OCGC, 2006a, p. 16). This same year also saw Victoria release its Greenhouse Strategy (Department of Sustainability and Environment, 2003, p. 1). It is noteworthy that these developments were referred to by the CGAC-E in its report, arguably as a means of reminding government of its existing commitments in the area of sustainability in order to add weight to its recommendations (CGAC-E, 2002).

A number of other examples of the strengthening connection between the concept of sustainable development and the Victorian community in the lead-up to the Games can also be identified. In July, 2005, all new homes were required to meet a five-star energy rating (HomeStar Energy Rating Services, n.d.). This law in turn had implications for the construction of the Athletes Village. Additionally, a long-term water management strategy (‘Our Water Our Future’) based on water saving and recycling was put into effect in 2004 (Victorian Government, n.d. b) and arguably underpinned the WaterWise goal of the Games. The State Government had also begun a dialogue with the building industry concerning reducing and recycling construction waste. This dialogue led to their joining with the Master Builders Association of Victoria to produce an industry guide for this purpose in 2004 (Master Builders Association of Victoria and Ecocycle Victoria, 2004). Arguably, these efforts influenced the Victorian Government’s decision to require construction firms to minimise and recycle construction waste at Games venues. It is also evident that the Victorian Government had begun to incorporate sustainable development principles into its major infrastructure projects (e.g. Melbourne Showground and the Austin Hospital and Mercy Hospital for Women) around the same time as the Games venues were being constructed (Department of infrastructure, n.d). Collectively, the
previously cited developments would suggest that the environmental design and construction practices in major Games infrastructure projects can be seen more as a continuation of an existing trend rather than as a radical departure from what had gone before.

Further evidence of the Victorian Government’s involvement with the concept of sustainable development prior to the Games can be found in its release of an Environmental Sustainability Framework in 2005. This document sought to provide direction to government, business and the community on approaches to connecting with the concept of environmental sustainability (Department of Sustainability and the Environment, 2005, p. 10). Recognising the importance of learning and behavioural change in meeting the challenges highlighted in this document, that same year it also released its Learning to Live Sustainably Strategy. This strategy sought to foster lifelong learning in school students and community members in connection with matters surrounding sustainability (Department of Sustainability and the Environment, 2005). It is noteworthy from the perspective of this study that this strategy built upon a number of existing school-based programs, including the Sustainable Schools Initiative and WasteWise Schools, both of which were linked to as part of the Commonwealth Games Education Program (Department of Environment, Water, Heritage and the Arts, n.d).

The previously cited actions of the Victorian Government reflect a desire on behalf of its community to engage with sustainable practices. Indeed, several interviewees were of the view that existing community expectations were such that there was no option but to deliver the MCG in an environmentally sustainable way (Pope, MCG, 2007; McKeand, MCG, 2007). Christine Foster, Chair, CGAC-E and Deputy Chair, Victorian Water Trust Advisory Council, summed up this situation, noting that: “I think the main factor that helped us along was that the overall general understanding in the community of sustainability is growing” (Foster, MCG, 2007).

The previously cited interviewee perspectives were echoed in the Minister for the Commonwealth Games, Hon. Justin Madden MLC’s, acknowledgement that “…the staging of the Games must be done in a way that reflects community need for improved
environmental performance and reporting” (OCGC, 2002, p. 3). Such observations about community expectations are also supported by Australian Bureau of Statistics (ABS) figures concerning environmental attitudes. The majority (57%) of Australians, for example, are concerned about environmental issues (ABS, 2006, p. 41), while in the Victorian context 90% of people state that they want to do more for the environment (TQA Research cited in Department of Sustainability and Environment, Sept. 2005, p. 2).

5.5.1.3 Level of understanding of, and experience in, the use of LSSEs for EfSD purposes

Arguably, the MCG was the first LSSE to take place in Australia that had access to a substantial stock of information concerning how such events can engage with an environmental agenda. In this regard, interviewees mentioned a number of past and upcoming events, specifically: the 2006 Winter Olympic Games (Callaghan, MCG, 2007); 2002 Commonwealth Games (Kossen, MCG, 2007; Godhino, MCG, 2007; Batagol, MCG, 2007); 2006 FIFA World Cup (Callaghan, MCG, 2007); 2001 Goodwill Games (Read, MCG, 2007); and the 2012 Olympic Games (Meiklejohn, MCG, 2007). In terms of the MCG’s environmental program, however, the SOG appears to have been the event that was drawn upon most for insights in this area, with Foster noting:

we put quite a bit of effort into finding out what had happened at the Sydney Games, the Olympic Games. We had some of the people who helped develop that on certain aspects down to talk to us and a couple of our members had a really good look over the Village at Sydney and we got a pretty honest debrief from some of the Sydney organisers (Foster, MCG, 2007).

The importance of the SOG was further emphasised by Batagol, who was of the view that while the amount of information available from other LSSEs as regards engaging with an environmental agenda increased as the MCG approached, Sydney still offered the most insights in this area up until the time of the event (Batagol, MCG, 2007). In terms of specific documents relating to the SOG that were drawn upon, interviewees noted: final reports and submissions concerning the SOG’s environmental program made by environmental groups such as Greenpeace and Green Games Watch 2000 (Callaghan, MCG, 2007; Buxton, MCG, 2007); environmental benchmarks established for venues
(Ness, MCG, 2007); and SOG waste-management and littering strategies (Read, MCG, 2007). It is also noteworthy that, according to Naomi Lind, Program Development Officer, Commonwealth Games, Department of Education, the SOG’s education program, which included a significant environmental component, was examined thoroughly, with one of the key people involved in this program (Helen Brownlee) acting as a consultant in developing the MCG’s own program in this area (Lind, MCG, 2007).

### 5.5.1.4 Collaborative relationships

A number of interviewees acknowledged that the development of collaborative relationships by the OCGC with a variety of largely government and non-government organisations was crucial to the creation and delivery of MCG’s environmental program, and by inference, the EfSD elements of this program (McKeand, MCG, 2007; Gonzalvez, MCG, 2007; Callaghan, MCG, 2007; Blunt, MCG, 2007; Kossen, MCG, 2007). A key aspect of their importance lies in the opportunity they provided to link with established initiatives (i.e. TravelSmart, anti-litter campaigns, ECO-Buy, Melbourne Water’s community education program, WasteWise), which according to Batagol “…made it easier…as… things were already in train” (MCG, 2007). In some instances, additional funding provided by the OCGC to these established programs allowed them to connect with larger or new audiences. Such was the case with TravelSmart, anti-litter efforts and ECO-Buy. By engaging organisations as stakeholders in its environmental program, the OCGC was also able to access expertise in areas such as tree planting (Greening Australia); volunteer management (Conservation Volunteers Australia); litter reduction (Victorian Litter Action Alliance); and education (Victorian Department of Education and Training). Grants and sponsorship, as noted earlier, were other means by which the OCGC acted to establish stakeholder relationships in its environmental program.
5.5.2 Inhibiting factors

5.5.2.1 Non-core nature of the environmental elements of event delivery

An indication of the extent to which the environment was viewed as a central consideration in the planning and conduct of the MCG can be found in the *Commonwealth Games Arrangement Act 2001*, the main piece of Victorian Government legislation associated with the MCG. The Act makes no mention of any environment-related deliverables or requirements associated with the Games (Australasian Legal Information Institute, n.d.). In acknowledgement of this omission, the Environment Liaison Office, a body representing peak environment groups in Victoria\(^{33}\), wrote to the Victorian Government opposing the Act prior to its incorporation into state law. They argued, unsuccessfully, that the Act needed to be amended in order to incorporate ecologically sustainable development guidelines, and that an independent body should be established to perform a ‘watch dog’ role for the event’s environmental dimension, as had been done in the context of the SOG (Green Games Watch, 2000) (Royal Park Protection Group, 2001, p. 8). Similarly, a rally outside the Victorian Parliament building by an alliance of the Save Albert Park community lobby group, the Greens, Parkville Association and the Royal Park Protection Group, culminating in the presentation of a list of similar demands to the Minister for the Commonwealth Games, also failed to result in changes to the legislation (*ibid*).

While absent from legislation, the Victorian Government (largely through the OCGC) did nonetheless engage with an environmental agenda through the MCG, with associated EfSD elements, as has been discussed previously. While acknowledging this, Batagol (MCG, 2007) argues that the environment was nevertheless an “add on” from the perspective of the OCGC rather than being integral to the event’s management systems and associated decision-making processes. Godhino is supportive of this view, noting that from his interactions with Victorian Government bureaucrats associated with the event, it was obvious that they were “not trying to be Sydney…and make as much of an effort as

\(^{33}\) At the time of the MCG these bodies were the Australian Conservation Foundation, Friends of the Earth, Environment Victoria, Victorian National Parks Association and the Wilderness Society Victoria (Royal Park Protection Group, 2003)
Sydney went to on the environment” (Batagol, MCG, 2007). Cost may well have been a factor in this ‘partial’ adoption of a ‘green’ Games agenda. In this regard, Davidson (2003) notes that according to the successful construction tenderer (Village Park Consortium) for the Athletes Village, all bidders were asked midway through the tendering process to exclude environmental initiatives from their bids in order to reduce their quoted price. Subsequently, however, under pressure from the Melbourne and Moreland Councils (the local government areas in which the development was located), the Victorian Government agreed to fund the incorporation of environmental design elements into the Village (Millar, 2003). Issues associated with the State Government’s concern over the cost of the Games are also likely to be behind Foster’s comment that

….a lot of sustainability initiatives that you might have liked to have done, like further schools programs which required much more upfront investment, just weren’t possible in the context of the Games (Foster, MCG, 2007).

Further evidence of the constrained emphasis on the ‘green’ elements of the MCG by the OCGC can be found in the level of media coverage the environmental dimension of the event received, even though a strategy had been developed, as noted earlier, for this purpose. In this regard, Batagol drew a parallel with the Sydney 2000 Olympic Games, noting in the context of the media that there was a “real component of leveraging (the event) for sustainability purpose (by organisers)”, something that she goes on to state was absent in Melbourne (Batagol, MCG, 2007). McKeand (MCG, 2007) is also of this view, observing that “one of the things that we could have done more (of) is have more information in the media about the environment program”. The modest number of newspaper articles published in Australia’s two largest newspaper publishers (see Table 5.5) in relation to CG environmental matters adds further weight to this view.

The lack of media engagement around the environmental aspects of the Games resulted, according to Jenny Sams, Director of the OCGC, in the broader community not making the connection between the environment and the MCG 18 months out from its commencement. She goes on to note that it was in recognition of this that the decision was taken to appoint an Environmental Ambassador whose brief was to address this issue (MCG, 2007). Still further evidence of this low-key approach to communicating the
MCG’s environmental dimensions can be found in the decision to omit any mention of this aspect of the event from the list of possible topics, of which there were 47, that could be covered in the event’s observer program (Department of Victorian Communities, n.d.). Finally, this limited effort to communicate the event’s environmental focus calls into question the degree to which the OCGC’s media strategy (see 5.4.1.2) linked to its environmental programs and initiatives was either adequately resourced or implemented.

The limited time (three months) given to the CGEC-E to solicit community input into the environmental dimension of the MCG, and to undertake research before delivering its final report, can also be seen as symptomatic of the limited emphasis the OCGC placed on the pursuit of an environmental agenda through the Games. Given this timeline, it is not surprising that a number of members of this committee believed that their ability to identify and suggest mechanisms for exploiting the full range of environmental opportunities potentially associated with the event was severely constrained (Buxton, MCG, 2007; Read, MCG, 2007; and Godhino, MCG, 2007; Foster, MCG, 2007). It should also be noted that at the time this committee was established, many of the key infrastructure projects associated with the event were in an advanced stage of negotiations, and as such it was unable to directly engage with these developments through its recommendations (CGAC-E, 2002, p. 2). The issue of lead times also affected other environmental elements of the event, with the Environment Ambassador for the Melbourne 2006 Commonwealth Games noting that by the time he was appointed (12 months out from the Games) it was largely too late to exploit the full potential of the event to carry an environmental message to the broader community (Gell, MCG, 2007).

Given the issues raised previously, the decision by the Victorian Commissioner for Environmental Sustainability to call his audit of the event’s final environmental report an Independent Assessment of the Green Games might arguably be regarded as overstating the Games’ environmental focus (CES, 2006).
5.4.2.2 Level of involvement by the Commonwealth Games Federation, Australian Commonwealth Games Association and M2006 in the environmental agenda of the MCG

As was noted at the outset of this chapter, the bid criteria established by the Commonwealth Games Federation (CGF), to which the Australian Commonwealth Games Association (ACGA) and the Melbourne 2006 Commonwealth Games Bid Pty Ltd responded, necessitated only a basic acknowledgement of the environmental dimension of the MCG. This is reflected in the bid document for the event in which the component dealing with the environment was included in the section headed ‘Additional Information’. Information included here in relation to the environment was limited to some 300 words, which comprised general statements to the effect that the event would: employ world’s best practice in environmental management; utilise environmentally sensitive approaches in the areas of transport, energy and waste management; engage in recycling; and construct an energy-efficient Athletes Village (Australian Commonwealth Games Association and the Melbourne 2006 Commonwealth Games Bid Pty Ltd, 1999).

The brevity of this section raises the issue of the degree to which the CGF (at the time of the MCG) sought to embrace environmental matters in selecting Commonwealth Games host cities. Additionally, given that the CGAC-E was unaware of the contents of this section of the bid (Batagol, MCG, 2007) its link with subsequent actions taken by organisers in the environmental area would seem to be limited. Further, it is worthy of mention that the ACGA website’s listing of sections contained in the MCG bid document omits any mention of the environment. This finding reflects the lack of any evidence beyond the bid document itself that was identified in this study as linking the ACGA to the event’s environmental program. Given the apparent restricted focus on the environment by CGF and its ACGA affiliate, it is not surprising that the environmental program for the MCG, as Pope notes, was “very much a government-driven agenda as opposed to a CGF-driven requirement” (MCG, 2007).

The extent to which a more engaged CGF and/or ACGA in the context of the MCG’s environmental program would have influenced EfSD outcomes cannot be known. Nonetheless, the question of the effect of a more involved event ‘owner’ and local
affiliate must be asked. Indeed, this question may already have been asked within the CGF itself (see 5.5.3).

It would also appear that M2006 had only a limited interest in the environmental agenda established for the MCG. In this regard Batagol (MCG, 2007) notes that “we worked hard at making sure that M2006 built into their planning for the Games the environment features that we wanted and needed” and asserts that the management of M2006 “simply did not see sustainability matters as being connected to their task of delivering the Games”. The reason for this, Godhino (MCG, 2007) believes, lay in its corporate culture being “basically the old culture, not a new sustainable culture”. Buxton (MCG, 2007) goes further, arguing that the attitude of M2006 management was: “[W]e’re only doing this because the government has got to show a public profile for … a message that no one really cares about—we certainly don’t, so stop wasting our time.” Given this lack of interest in environmental considerations, as the event approached the OCGC needed to be increasingly engaged with ensuring M2006 was involved with the MCG’s environmental agenda (Callaghan, MCG, 2007). This lack of connection with the environmental dimension of the event also raises the issue of the degree to which EfSD elements of the initiatives M2006 was involved in (i.e. staff training, supplier contracting, waste management) were actively engaged in.

5.4.2.3 Level of external review

Evaluation of the MCG’s environment program took the form of: a triple bottom line post-Games analysis which embraced the social, economic and environmental aspects of the event (including its EfSD components) conducted by Insight Economics for the OCGC; a post-Games audit of the event’s final environment ‘report card’ by the Victorian Commissioner for Environmental Sustainability; and contracted consultant reviews of selected environmental programs, most specifically the Games’ litter campaign, tree-planting program and TravelSmart initiative (Insight Economics, 2006; Victorian Commissioner for Environmental Sustainability, 2006; OCGC, 2006). Missing from this ‘mix’ of reviewers is the ‘arms length’ body suggested, as noted earlier, by the Environment Liaison Office and the CGAC-E. Such a body, according to the CGAC-E,
would have taken the form of an independently chaired Environment Stakeholder Reference Group comprised of representatives from peak environmental organisations, industry associations, local government, public transport user groups, resident groups and unions. This group, they envisaged, would have acted to produce quarterly publicly available reports on the environmental aspects of the Games and

provide ongoing advice to the Minister for Commonwealth Games on its assessments of the environmental performance of the preparations of the Games and implementation of Government’s response to the Advisory Committee (Environment) report (CGAC-E, 2002, p. 45).

While the OCGC did establish an Environmental Stakeholders Forum, its form differed from that suggested by the CGAC-E, with its members being drawn largely from government entities (as shown in Table 5.2). One possible interpretation of constraining membership in such a way is that the Victorian Government wanted to reduce broader community engagement in the MCG’s environmental program, as well as any potential controversies and resulting associated media coverage. From an EfSD perspective, this lack of engagement arguably inhibited community discussion and debate around environmental matters attached to the Games.

While the OCGC may have sought to ‘control’ the review process for the MCG’s environmental program, it should nonetheless be noted that environmental advocacy groups such as Greenpeace chose not to become involved with the event. In this respect, the MCG differed significantly from the SOG. Batagol (MCG, 2007) notes that “…you actually had green groups driving agendas very, very strongly (in Sydney). In Melbourne they just weren’t there”. There was, as stated earlier, some measure of interest from these groups initially, as they lobbied to alter legislation (Commonwealth Games Arrangement Act) associated with the event to encompass ecologically sustainable development guidelines; however, once this was rejected by the State Government there appears to have been little substantial follow up.
5. 5. EfSD legacies

The environment strategy for the MCG, as previously discussed, sought to generate a variety of EfSD-related legacies linked to awareness raising, attitude and behaviour change, skill and knowledge enhancement and alterations to current industry and business practice. Due to the limited formal research that was conducted specifically on this issue, only a partial picture of the extent to which these outcomes were able to be achieved is provided in this section. While this limitation is acknowledged, this section nonetheless seeks to provide some understanding of the extent to which these legacies emerged from the event, along with which societal sectors they attached to. Additionally, some discussion of possible EfSD legacies beyond the MCG’s host community has been included here.

5.5.1 Government

A great deal of the efforts of the OCGC and M2006 in the area of sustainability can be regarded as an extension of, and in some cases a ‘ratcheting up’ of, the Victorian Government’s broader engagement with the concept of sustainable development. As Callaghan notes, “ultimately the efforts described in the (environment) report card are aimed to link with the Victorian Government’s sustainability agenda” (MCG, 2007). Despite this, it can nonetheless be observed that the MCG represented an opportunity to engage with this agenda in a deeper way than had been the case previously in some areas.

The Department of Infrastructure makes this point in the context of the Athletes Village, acknowledging that this development, with its $15.6 million expenditure on environmental initiatives, raised the benchmark for green housing developments in Victoria (n.d). This benchmark, Gell argues, helped signal to developers that the incorporation of such design elements into buildings was increasingly becoming the norm and that the industry needed to adapt to it (MCG, 2007). The Victorian Commissioner for Environmental Sustainability was also of this view, noting that the Games should be seen as a major point of reference for the construction and related industries as to “how we do things” (Commissioner for Environmental Sustainability, Victoria, n.d., p. 5). Arguably, the Government was also able to accelerate the efforts of other types of business to
engage with a sustainability agenda through the Games-linked programs of TravelSmart and ECO-Buy. Additionally, its community and school-directed efforts in this area (see 5.5.4) potentially served to progress its overall sustainability agenda.

The MCG also acted as a ‘laboratory’ in which certain Government EfSD-linked practices and initiatives could be trialled or further developed. After the Games, the *Environmental Procurement Guidelines*, for example, were refined and went on to be used more broadly by Victorian Government departments and agencies (OCGC, 2006, p. 57). The Department of Infrastructure’s TravelSmart program also benefited from the Games, with the event allowing it to experiment on a large scale with its behaviour-change methodology, which subsequently resulted in further refinements (Meiklejohn, MCG, 2007). Additionally, the MCG acted as a catalyst for government to support new, ongoing environmental initiatives with EfSD elements, specifically ECO-Buy Business, that served to progress its sustainable-development agenda.

### 5.5.2 Business and Industry

The potential for EfSD legacies in this sector was arguably greatest in the building and construction industry. Rob Gell, for example, argues that the capacity of architects, engineering firms, and construction companies to engage with sustainable design briefs was significantly enhanced through the Games (MCG, 2007). Gell’s views are supported by Insight Economics, which concluded that the Games provided a platform for updating the building industry’s understanding of best environmental practice in design and construction, and that what was learnt in these areas through the Games would be one of the event’s longer-term legacies (2006, p. 12). A specific example of such a legacy is that of Grocon, a major construction company engaged in the development of Games venues. This company went on to apply to its next major construction project (The AXA building, Collins Street, Melbourne) what it had learnt through its engagement with the MCG about systems and processes for waste minimisation (OCGC, 2006, p. 53).

The role of the MCG as a showcase for industry of environmental technologies and practices can also be argued to be a noteworthy EfSD legacy resulting from the event.
The Athletes Village and Melbourne Cricket Ground alterations demonstrated to both industry and the broader community how large-scale developments can embrace environmental design and construction practices (Insight Economics, 2006, p. 12). Aiding this process was a post-games seminar dealing with these issues and targeting professionals in the field (Engineers Australia, n.d.). The significance of this showcasing role in the context of these projects should not be underestimated, as the Victorian Master Builders Association, along with the Victorian housing industry in general, had been actively campaigning against five-star energy and water-efficient housing for some time prior to the MCG (Gell, MCG, 2007).

Engagement with ecologically sustainable design principles and practices was not limited to the organisations involved with the MCG but also extended to their employees. For example, Patrick Ness states in connection with construction contractors at the Melbourne Cricket Ground that “numerous briefings of their workforce [took place] concerning…the design agenda and the green overlays” (MCG, 2007). While it is difficult to determine the extent to which employees were influenced post event by these types of activities and their direct hands-on engagement with ecologically sustainable building practices, several interviewees were of the opinion that there were some general flow-on effects, at least in the areas of awareness and understanding (Ness, MCG, 2007; Foster, MCG, 2007). Insight Economics supported this view, noting that while intangible, the knowledge obtained through building Games infrastructure to best-practice environmental standards resulted in the development of “human capital that can be applied in other future projects around Victoria” (2006, p. 127).

In addition to the building and construction field, the MCG also had the potential to impact other industry sectors from an EfSD perspective. The Savings in the City: Green Hotel Program continues to educate participating hotels about ways to reduce their energy use, greenhouse gas emissions, water consumption and waste (City of Melbourne, n.d.c.). The Environmental Procurement Guidelines developed for the MCG, which sought to “[p]romote environmental awareness, positive environmental performance and continuous environmental improvement,” can also be argued to have expanded the environment-related knowledge, understanding and applied capacities of businesses that
sought supplier status at the MCG (OCGC, n.d., p. 1). This in turn had the capacity to impact upon their future practices. Catering contractors and their staff, most specifically those involved in WasteWise catering training delivered by the OCGC, were also potentially impacted in a similar way.

The ECO-Buy Business and TravelSmart programs offered the potential for organisational learning with implications beyond the Games. ECO-Buy required participating businesses, of which admittedly there was only a small number (13) by Games’ end, to engage in training programs to learn how to integrate environmental purchasing into their organisation (Stephens, MCG, 2007). As regards TravelSmart, the business element of this program sought to generate longer-term travel-related behaviour change amongst the staff of selected CBD businesses. This program was successful in gaining the participation of 37 workplaces that collectively employed 10,694 people (OCGC, 2006, p. 18). The engagement of these firms and their staff is likely to have had some impact on generating awareness of alternatives to private transport, as well as perhaps altering the travel behaviour of their employees. What exactly this impact was is essentially unknown; despite the fact that research was conducted to establish its impact at Games’ end, it was inconclusive because few participating businesses (8%) had actually progressed to the stage of implementing a Green Transport Plan and only 1.1% had issued follow-up travel surveys to staff in order to assess changes in their travel behaviour (Meiklejohn, DeGruyter & Dean, 2006, p. 10).

It can be argued that the MCG offered the potential to enhance the skill and knowledge base of the event industry in terms of its capacity to deliver more environmentally sustainable events. This was a legacy identified by Sustainability Victoria, which captured information from the MCG concerning environment-linked systems and practices in a Green Events Plan. This plan, which was to be made available to the event industry, included information on: energy efficiency and greenhouse gas; waste and recycling; water management; event management and systems, and education and communication (Insight Economics, 2006, p. 158).
5.5.3 Schools and higher education institutions

In the absence of any formal research, the EfSD impact of the MCG school-based education program can only be inferred. In this regard, nearly all schools (approximately 2,400) to which materials were sent participated. Additionally, 100% of teachers who responded to a survey on these materials were positive about their educational value (Insight Economics, 2006, p. 151). This outcome aligns with the view of the MCG’s education program manager, who noted in the context of the environmental aspects of this program that “…in most schools…the material was taken up with a great deal of enthusiasm and got kids really involved in…environmental stuff” (Pope, MCG, 2007). It is noteworthy that the units of work and learning tools developed for the event, given that they were linked to the existing school curriculum and sought to explore ideas and concepts of relevance to it, had the potential for use post Games (Lind, MCG, 2007). Indeed, this did occur, with educational material prepared for the World Swimming Championship being in part based on material and selected ideas taken from it (ibid).

Unlike the school-based program, the Green Trades Program did evaluate its participants. It was found that 90% of those involved intended to apply what they had learnt to their employment and change their existing work practices (OCGC, 2006, p. 67). Regarding the materials developed for this program, ‘green plumbers’ training modules went on to be used in apprentice training offered at the Royal Melbourne Institute of Technology (ibid), while the Victorian Department of Sustainability drew upon it to create a sustainable energy course for practising electricians to be rolled out across Australia (Gonzalvez, MCG, 2007).

5.5.4 Community

Inside Economics (2006), in its Triple Bottom Line Assessment of the Games, argues that the MCG had a positive impact on the Victorian community from an environmental perspective. In support of this view, it refers to a post-Games attitudinal study of Victorians conducted by Quantum Market Research, which found that 60% of people were more willing to act in ways that would benefit the environment, and 47% were more
likely to use public transport as a direct result of the MCG (Insight Economics, 2006, p. 155). It attributes these outcomes directly to: the inclusion of environmental elements in curriculum material prepared for the event’s schools program; the participation of community volunteers in a range of environmental initiatives (e.g. tree-planting days); public communications programs in the areas of public transport use and litter; and public exposure to environmental messages linked to the Games. While such a finding may appear significant, the linear relationship between an individual’s stated intention to act in a specific way and their later actions has been questioned by a number of authors and bodies (e.g. Parliamentary Commissioner for the Environment, 2004, p. 58; Hungerford & Volk 1990, p. 9; Newhouse 1991, p. 27; Learning and Skills Development Agency, 2003, p. 5).

While difficult to quantify, the blending back into the community of OCGC volunteers (15,000), and OCGC and M2006 staff, whose training had incorporated environmental elements, would also have contributed to the community’s awareness and understanding of environmental issues. A similar comment can be made about athletes, team officials and event attendees who potentially would have been exposed to environmental design elements of buildings and publications (e.g. Athletes Village Guidebook, Spectator Guide) with environment-related content.

In addition to assessing the overall impact of the MCG on the community from an environmental perspective, efforts were also made to evaluate specific community-focused programs. The community component of TravelSmart was one of these. This program involved 3,216 households, with a post-Games survey recording a modest increase (no figures provided) in cycling, walking and public transport usage amongst participants (OCGC, 2006, p. 18; TravelSmart, n.d). This outcome would seem to indicate a direct link between the program’s goal of “raising awareness and facilitating understanding of travel behaviour change and its personal and social benefits” and its actual outcomes (Steer, Davies & Gleave, 2006).

The anti-litter campaign conducted in association with the Games is another EfSD-linked initiative with a community focus where post-Games evaluation took place. The
influence of this program was found to have been reasonably effective, with 35% of a representative sample of the Victorian community believing that people’s long-term littering behaviour would change as a result of the campaign. Only 14%, however, indicated that the campaign had changed their own attitude to littering. While this figure may appear low, the researchers argued that this outcome may simply reflect an already strong pre-existing anti-littering attitude in the Victorian community (Community Change, 2006, p. 16). In terms of actual behaviour change, it is interesting to note that the relatively low littering rates experienced during the Games reverting to higher pre-Games levels shortly after the event (ibid). This outcome, according to Kossen, reinforces the importance of not confining such programs to limited timeframes (such as those associated with the conduct of an LSSE) if behaviour change is to be achieved (MCG, 2007).

5.5.5 External EfSD legacies

The capacity of future Commonwealth Games to learn from the MCG’s environmental program was enhanced by a transfer of knowledge program that was part of the original agreement between the CGF and the State of Victoria. This program required that details concerning the event’s major programs be provided to the CGF. This information included core publications, policies and operational templates (M2006, n.d c). Notable amongst this material from an EfSD perspective were documents concerning the event’s education program, environmental strategy, environment framework, and the Victorian Government’s response to the CGAC-E report (Insight Economics, 2006). In addition to this formal approach to information transfer, an observer’s program operated at the MCG involved delegations from CG host and bidding cities (Insight Economics, 2006, p. 53). While this program, as noted previously, failed to list the environment as a topic that could be explored through it, it was nonetheless the case that a few first-hand briefings on the environmental design aspects of the Athletes Village and other venues did take place (Gell, MCG, 2007). Although difficult to determine, it can also be argued that the

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34 An assessment of the Game’s anti-litter program was undertaken by the consultancy firm Community Change. This study found that littering behaviour changed markedly during the period of the Games, dropping by one-third in major game’s precincts, areas immediately around venues and in major corridors leading to and from venues, compared to the period immediately before the event and one month after (Community Change, 2006).
exposure overseas athletes, team officials, spectators and volunteers had to varying aspects of the MCG’s environmental program might have had some impact on their home countries upon their return.

The extent to which the example provided by MCG’s environmental program, inclusive of its EfSD elements, served to stimulate a deeper interest by the CGF in the environmental dimension of the CG was not clear from the study’s findings. Nonetheless, it can be observed that the CGF has moved in recent times to embrace the concept of sustainable development. This is evident in the current Candidate City Manual35 (for the 2014 CG), in which the CGF expressed for the first time its commitment to the concept. Associated with this has been a change to the event’s bidding criteria, which now require a more detailed response from bidding cities regarding their environmental program. From an EfSD perspective, it is noteworthy that this additional detail includes the need to outline approaches to leveraging the event in order to raise community environmental awareness (CGF, 2005, pp. 46–7). It is also noteworthy that going forward the CG’s engagement with sustainable development will be strengthened by the decision by the United Nations Environment Program to support future host cities (commencing with New Delhi in 2010) in their efforts to pursue an environmental agenda through the event. This assistance, significantly from an EfSD perspective, will extend to the joint development of workshops, general environmental awareness-raising efforts and the linking of the Games to other environmental events such as Clean Up the World (Organising Committee Commonwealth Games New Delhi, 2010, n.d).

5.6 Key findings

Discussion in this chapter has sought to provide insights into the research questions posed in this study in the context of the MCG. The first of these concerned identifying active stakeholders (focal organisations, their collaborators and independent contributors) in the EfSD process, and locating these stakeholders within one of six broad societal groupings of significance from a community EfSD perspective. In responding to this question it was determined that two focal organisations, both established by the Victorian Government,

35 A document provided to cities bidding for the Commonwealth Games to aid them in responding to the bidding criteria (CGF, 2005)
were key to host-community EfSD through the medium of the MCG. These organisations were the OCGC and M2006, with the former playing by far the dominant role. In seeking to progress the event’s environmental strategy, these entities acted directly, or in association with, a range of collaborating stakeholders from the Government and Non-Government sectors to undertake programs and initiatives linked to EfSD. Additionally, several independent contributors to the EfSD process were identified, with these falling into the Government (council), Business and Industry (industry associations and professional institutes) and Media (print and electronic media firms) groupings. When viewed collectively, these findings clearly indicate that the EfSD process, from the viewpoint of the societal sectors used in this study, was Government dominated and driven.

The second question addressed in this chapter concerned: identifying programs and initiatives engaged in by active stakeholders in the EfSD process; determining the beneficiaries of these practices; and classifying them by education type (formal, non-formal or informal). In the context of focal organisations, practices and initiatives with potential EfSD outcomes encompassed: environment-linked procurement guidelines; staff, volunteer and contractor training; production/commissioning of publically available reports and other publications; development of web-based materials; presentations; media-liaison activities; site tours; and promotional activities. Additionally, in association with their collaborating stakeholders, they engaged in a further range of EfSD-linked initiatives, specifically: discussion forums; education and training programs; competitions; the development of policies, procedures and covenants; programs and campaigns; and grant-based partnerships. The several independent contributors to EfSD were found to link to EfSD process through cultural performances, activities directed at industry professional development and media reporting.

A mix of informal, non-formal and formal EfSD learning opportunities was in evidence in the context of the MCG. These opportunities existed at both the organisational and individual levels. By mapping the EfSD programs and initiatives that provided these opportunities against their likely beneficiaries it was found that the MCG had its major
impact upon organisations, groups and individuals in the Community, Business and Industry, and Schools and Higher Education Institution sectors.

The subject of the third and penultimate question in this study concerned those factors acting to hinder or facilitate EfSD via the medium of the MCG. As regards facilitating factors, the host community’s pre-existing engagement with the concept of sustainable development, along with the presence of a detailed focal organisation environmental strategy, were identified as being key to the development of EfSD-linked programs and initiatives. Other significant facilitating factors were identified as: access to a growing stock of information concerning approaches to pursuing an environmental agenda, inclusive of EfSD, through LSSEs; and the OCGC’s use of collaborative relationships to expand its capacity to engage in EfSD-linked practices. These collaborations, it was found, often involved establishing links to established programs and initiatives (e.g. ECO-Buy, TravelSmart, WasteWise) or campaigns (e.g. Victorian Litter Action Alliance’s anti-litter campaigns).

A number of factors were indentified that may have acted to inhibit the full potential of the MCG to serve as an agent for host-community EfSD. Central amongst these was the apparent view by the Victorian Government that the environmental element of the CG was a secondary consideration in the event planning and delivery process, as opposed to being an integral part thereof. Evidence to support this contention was presented, including: the exclusion from the Commonwealth Games Arrangement Act 2001 of any significant environmental component; a desire to downplay the ‘green’ dimension of the event; constraints placed upon the CGAC-E in terms of its reporting timeframe; a limited effort to engage the community through the media concerning the event’s environmental program; a lack of commitment to the event’s environmental agenda by the M2006; and a failure to create an independent ‘arms length’ body to critique, and provide input into, the environmental program of the MCG. Several other factors were also identified as limiting the MCG’s potential in this area, specifically the level of involvement of the Commonwealth Games Federation, Australian Commonwealth Games Association and M2006 in the environmental agenda of the MCG, and the lack of involvement in the event by significant environmental NGOs.
The fourth and final question addressed in this chapter was that of the nature and location, in terms of the societal groupings used in this study, of EfSD legacies. The groupings to which EfSD legacies were attributed were identified as: Government, Business and Industry, Schools and Higher Education and Community. The Government sector was found to have been able to leverage the MCG to progress its efforts to engage business, industry, schools and the broader community around a sustainability agenda. This was achieved through the agency of the OCGC, M2006 and their associated Government and Non-Government stakeholders. Additionally, the Games served as a vehicle through which new EfSD-linked programs and initiatives could be launched and established (e.g. ECO-Buy Business, Environment Procurement Guidelines), and as a means of trialling approaches to the implementation of existing Government programs (i.e. TravelSmart).

Within the Business and Industry sector, the building and construction industry benefited most from an EfSD legacy perspective, with the Games serving to enhance the skill and knowledge base of both organisations and individuals in relation to sustainable design and construction practices. This outcome resulted from direct exposure to environmental building and waste-management practices, along with associated training. Other possible EfSD legacies that were attributed to this sector were changed environmental practices emerging from: participating in the ongoing ECO-Buy Business and Savings in the City: Green Hotel Program; engagement with the MCG’s Environmental Procurement Guidelines; and involvement in WasteWise catering training. It was also found that lessons emerging from the MCG’s environmental program flowed to the event industry via the development of a *Green Events Plan* by Sustainability Victoria.

Beneficiaries within the School and Higher Education Institution sector were concentrated in primary and secondary schools. In the context of these entities, environment-related material prepared for the MCG’s education program grounded concepts and issues within the existing curriculum, serving to connect schoolchildren to a continuing effort to raise their awareness and understanding of sustainable development. The ongoing usefulness of educational material prepared for the event was, however, limited by its defined lifecycle, even though there was some carryover of material and
ideas into subsequent events. The impact on higher education institutions was limited to the small-scale technical skills program (Green Trades) that accompanied the MCG. From an EfSD legacy viewpoint, amongst its participants this initiative generated significant potential for change in their current practices. It also possessed ongoing value, with its modules and materials incorporated into other trade programs.

The significant rise in Victorians’ intention to act in ways conducive to benefiting the environment as a direct result of the MCG was by far the most significant legacy in the Community sector. While acknowledging this, the extent to which this intention translated into actual behaviour change was called into question by reference to the limited post-Games research concerning EfSD-linked programs and initiatives and the literature more generally concerning environmental behaviour change. It was also argued that the blending back into the community of OCGC volunteers and staff whose training embraced environmental elements, along with athletes, team officials and event attendees who would have received some exposure, albeit limited, to aspects of the Games’ environmental program, would also have had some unquantifiable impact on environmental awareness in the host community.

Finally, it was observed that external communities could potentially be impacted from an EfSD perspective through the Games. In particular, it was noted that the observers program, media coverage of the event, and attendance of overseas athletics, along with team officials and spectators, offered the possibility for ideas and concepts associated with aspects of the event’s environmental program to find their way to other locations.

5.7 Summary

This chapter provided insight into the main research question posed in this study: How can the hosting of a large-scale sporting event act to progress its host community’s efforts in education for sustainable development? The choice of the MCG as one of the two events through which to explore this issue resulted from the instrumental role it was believed the event could play in advancing the understanding of the process of EfSD through the medium of LSSEs more generally. Based on the findings that have emerged
from his chapter, it can reasonably be argued that the MCG has been able to perform this role, and in so doing provide what Stake (1994, p. 243) describes as “the opportunity to learn” about a matter where research and theory are lacking.

Specifically, discussion in this chapter has established that the EfSD process associated with the MCG: was government dominated; took place through a diverse range of programs and initiatives; involved formal, informal and non-formal educational practices; had the potential to generate benefits for a diverse range of passive stakeholders; and produced a range of possible legacies, many of which are assumed due to the lack of research specific to them. It was also found that the process benefited from: the pre-existing sustainable development ethos within its host community; a strategic approach to the environmental aspects of the event; access to a developing stock of information concerning LSSEs and the environment; and the decision by the OCGC to draw upon existing environmental programs and initiatives. While these factors are undoubtedly significant in the successful pursuit of an EfSD agenda through an LSSE, the process was also found to be constrained by: the view held by government that environmental considerations associated with the event were a ‘second-tier’ matter; the absence of an external reviewing body; and the failure of the event’s owner (the CGF), its local affiliate (the ACGA), and M2006 to play a more active role in directing and/or overseeing the MCG’s environmental program.
Chapter 6: Large-Scale Sporting Events and Host-Community Education for Sustainable Development

6.1 Introduction

This study explored the role of large-scale sporting events (LSSEs) as a medium through which their host communities could pursue an education for sustainable development (EfSD) agenda. Given the lack of research specific to this topic, an exploratory research approach was employed that utilised two ‘best practice’ cases; the Sydney 2000 Olympic Games (SOG) and the Melbourne 2006 Commonwealth Games (MCG). This chapter summarises the findings of this study and in so doing suggests what these may mean from the perspective of LSSE host communities more generally. With this intent in mind, the four sub-questions guiding this enquiry are used to structure this discussion. The chapter therefore begins by reviewing the study’s outcomes regarding the characteristics of active stakeholders in the EfSD process. It then moves to discuss the range of EfSD practices that were in evidence at both events, along with their educational form and likely beneficiary groups. Those factors that were identified as serving to facilitate or inhibit the EfSD process are then identified and commented upon before describing the nature of EfSD legacies flowing to the SOG’s and MCG’s host communities. In the latter part of this chapter the conceptual framework used to guide this enquiry is revisited in light of the enquiry’s findings and the revisions proposed. This revised framework is intended to provide future LSSE host communities with a deeper understanding of how events of this type can be leveraged for EfSD purposes, as well as offering a more developed starting-point for future researchers seeking to explore this issue. The final section in this chapter suggests areas in which researchers may wish to focus their efforts in order to enhance the EfSD process via the medium of LSSE.

In interpreting the findings presented in this chapter, several matters need to be kept in mind. This study, while it has employed two ‘best practice’ case studies in an effort to generate more compelling and robust findings, is nonetheless explorative in nature and lacks the capacity to provide definitive conclusions. Further, the EfSD process reflected in the revised conceptual framework, as with all such efforts to model reality, does not
represent reality, but rather a simplified version of it. These limitations, however, do not compromise the study’s primary aim, which was to explore the EfSD process in practice and in so doing identify ‘lessons learnt’ that would allow modest speculation to be made with the potential to enhance future efforts by LSSE host communities seeking to leverage LSSEs for EfSD purposes. It is the researcher’s view that it has been successful in this regard.

6.2 Active stakeholders in the EfSD process

Host-community EfSD through the medium of LSSEs was conceived of in this study as a multi-stakeholder process. Developing insights into who these stakeholders may be, along with identifying their respective roles, was the first matter to which this enquiry turned its attention. In order to generate these insights, organisations and groups that had played an active role in the EfSD process associated with the SOG and MCG were first identified and then placed into function-based categories. Drawing upon stakeholder theory, most specifically its use in non-organisational multi-stakeholder settings, these categories were identified as focal, collaborative and independent. Focal organisations were defined as those bodies that acted as the primary drivers of the EfSD process within the context of the two case-study events. Those bodies with which these organisations established relationships for EfSD-related purposes were termed collaborative stakeholders. The remaining stakeholder type— independent stakeholders— were defined as those organisations or groups whose contributions to the EfSD process was direct, as opposed to through the medium of a collaborative relationship with a focal organisation. To further aid in developing an understanding of the operation of the EfSD process, active stakeholders were placed into one of six societal sectors (i.e. Government, Non-Government Organisations, Business and Industry, Schools and Higher Education Institutions, Media and Community), with these groupings based upon prior studies of EfSD in the Australian context. The reason for locating active stakeholders within these sectors was to determine which parts of the LSSE host communities of concern in this study were involved in the EfSD process, along with the extent of their involvement. This information was intended to allow some measure of commentary on what the spread and
nature of this engagement might mean from the perspective of the effective leveraging of LSSEs in general for EfSD purposes.

In the cases of both LSSEs explored in this study, the EfSD process was found to be dominated by the Government sector. It was within this sector that focal organisations were located, with these bodies identified as those entities established by host-community state governments to develop event-related infrastructure and undertake operational planning and delivery tasks. As part of the broad ambit of their responsibility, these bodies were also charged with setting and pursuing an environmental agenda, inclusive of EfSD. In the context of the SOG, the Olympic Co-ordination Authority (OCA) and Sydney Organising Committee for the Olympic Games (SOCOG) performed this role, while in the case of the MCG, these functions were performed by the Office of Commonwealth Co-ordination (OCGC) and Melbourne 2006 Commonwealth Games Corporation (M2006). Anchoring the actions of these bodies in the EfSD area was found to be an acknowledgement of the stakeholder status of the environment by the governments that had established them (i.e. State Government of NSW and State Government of Victoria). In the case of the SOG, this acknowledgement took the form of legislation (i.e. State Environmental Planning Policy No. 38 for the Olympic Games), which in turn gave rise to the OCA’s environmental strategy and SOCOG’s environmental policy, both of which contained EfSD-linked goals. Regarding the MCG, the Victorian State Government’s approach to ensuring that the management of the OCGC embraced environmental considerations in their planning and event-delivery practices took the form of a general directive. This directive resulted in the development of an environmental strategy that was inclusive of EfSD elements. Viewed collectively, these findings suggest that the extent of a given host community’s government’s commitment to the concept of sustainable development will determine, or at least have a major influence upon, the EfSD actions of the focal organisations that they create (this observation will be returned to later in this chapter).

Both the MCG’s and SOG’s focal organisations were found to have actively sought out organisations or groups (collaborative stakeholders) from whom to seek advice/information or with whom to partner in the context of their environmental
programs. The key criterion used by management in selecting such stakeholders appears to have been their instrumental value in aiding efforts to pursue their respective environmental agendas. The decision to seek out collaborative stakeholders can also be viewed as a means of addressing inherent issues associated with operating within a project context (i.e. a defined operational life, the need to create new organisational structures from a zero base and limited resources) and as such the approaches that were used to deal with these issues are likely to have potential implications for LSSE host communities more broadly. These approaches are discussed later in this chapter (see 6.4). From the viewpoint of the collaborative stakeholders themselves, their decisions to seek/accept a ‘stake’ in the environmental agendas pursued by focal organisations can be viewed as arising from self interest in that their involvement with the SOG and MCG provided them with a further opportunity to progress their own efforts in the sustainable development and associated EfSD area.

The societal sectors from which the SOG and MCG’s focal organisations drew their collaborative stakeholders were found to be Government and Non-Government Organisations and Schools and Higher Education Institutions. It can be observed that the first two of these sectors provided a diverse range of opportunities to establish relationships with organisations that were responsible for a number of pre-existing environmental-based initiatives and programs, or that possessed expertise and resources that could be drawn upon quickly to establish new initiatives and programs in this area. While fewer collaborative relationships were developed within the School and Higher Education Institution sector, the association of focal organisations with state departments of school education was particularly significant from an EfSD perspective. This relationship led to the development and implementation of educational programs with EfSD elements at the state level (Commonwealth Games Education Program - CGEP) and national level (National Olympic Environmental Program - NOEP). This sector also provided an example of how focal organisations may not at times fully appreciate the extent of EfSD opportunities that may exist within some societal groupings. In this regard it was observable that MCG’s and SOG’s focal organisations possessed a relatively weak link to the Higher Education Institutions sub-sector (i.e. TAFE and universities). However, at the time of both events this sub-sector had moved, or was moving to,
strongly embrace the concept of sustainable development in their education/training programs, and in the case of universities, also within their research agendas. This is evident in the existence of such organisations as the Association of University Leaders for a Sustainable Future (established in 1990) (ULSF, 2008), and in the 2004 Bonn Learning for Work, Citizenship and Sustainability Declaration of the UNESCO Meeting of International Technical and Vocational Training Experts (UNESCO, 2004).

Collectively, these findings may suggest that from the standpoint of focal organisations, some societal sectors may offer greater opportunities for establishing EfSD relationships than others, and that efforts should be directed at developing a full understanding of the collaborative opportunities that each sector possesses in this area when mapping out an LSSE’s environmental program.

Independent stakeholders made a moderate but not insignificant contribution to EfSD in the context of both the SOG and MCG, with organisations and groups within the Government, Non-Government, Media, Business and Industry and Schools and Higher Education Institution societal groupings identified as active contributors. A number of general observations can be made about the involvement of some of these organisations and groups that may have implications for the EfSD process via LSSEs more generally. Firstly, environmental Non-Government organisations, as was demonstrated in the context of the SOG (i.e. Greenpeace and Green Games Watch 2000) can make meaningful contributions to host-community EfSD. This being the case, approaches to facilitating their involvement through such means as the provision of funding and their engagement as collaborating stakeholders should be a consideration for host communities seeking to maximise EfSD outcomes. Secondly, media organisations possess substantial potential to generate awareness and understanding of the environmental dimension of LSSEs, and to link these dimensions to host-community EfSD more generally. To fully access this potential, however, a more strategic and better-resourced approach to media engagement than was in evidence in the context of both the SOG and MCG would be required. Thirdly, there was limited direct involvement by organisations in the Business and Industry sector in the EfSD process. This situation arguably had the capacity to restrict the EfSD legacy flowing to this sector. A partial means of addressing this situation that has the potential to be used in other LSSE host-community settings was
found to be the conduct by focal organisations, industry associations/institutes and specialist consultancy firms of seminars/workshops/presentations intended fully, or in part, to link this sector to the environmental ‘lessons learnt’ from each event. Lastly, the independent contribution to EfSD made by the Centre for Olympic Studies (COG), University of New South Wales, serves to highlight the potential alluded to earlier in this chapter for universities to contribute to the EfSD process. This potential, as demonstrated by the COG, lies in universities’ capacity for research; ability to create accessible repositories of reports, studies and articles; and their ability to create contexts (e.g. seminars, conferences, workshops) in which discussion, debate and the sharing of information can occur. Given these potential roles, host-community governments or focal organisations should consider encouraging the establishment of such centres and/or providing support for universities undertaking one or more of these roles as part of their efforts to leverage LSSE for EfSD purposes.

While the Community sector was not identified as possessing active stakeholders in the EfSD process, it should nonetheless be noted that organisations and groups (e.g. local environmental groups, volunteers in environment-related programs) within this grouping contributed to it indirectly through their involvement in selected collaborative programs associated with each event (e.g. Olympic Landcare, Our River Our Games Program, Commonwealth Games Anti-Litter Campaign, Commonwealth Games Tree-Planting Program). This finding would suggest that focal organisations seeking to maximise EfSD outcomes in this societal grouping should consider factoring into their criteria for selecting collaborative stakeholders their capacity to reach out and engage with organisations, groups and individuals in this sector.

6.3 EfSD programs and initiatives, and their beneficiaries and educational forms

In Chapter 1 it was noted that community EfSD was a complex, multi-faceted process that could be engaged with at various levels and in various ways. At a foundation level, it was argued that community EfSD requires awareness, understanding, and a capacity to
engage with sustainable practices, as well as attitudes and behaviour conducive to such engagement. At a higher level the process was deemed to be one of developing citizens’ skills and knowledge necessary to challenge and reshape their societies in order to make them not only more sustainable environmentally, but also economically and socially sustainable. Keeping these perspectives in mind, when viewed collectively the EfSD-linked programs and initiatives associated with both the SOG and MCG can be seen as performing an essentially foundational function, with the outcomes sought being linked to environmental awareness raising, enhanced understanding of environmental issues, and changing individual and corporate attitudes and practice. Indeed, it could be argued that LSSEs are limited by their nature to performing this role. Nonetheless, the performance of this role, as discussed in Chapter 1 (see 1.4.2), is still significant from the perspective of a given community’s journey towards a more sustainable future.

A range of environment-linked programs and initiatives undertaken by focal organisations were argued in this study to have the potential to engender EfSD outcomes. In some instances these programs or initiatives can be observed to have as an objective, or their primary objective, the creation of environmental awareness, understanding or behaviour change. In other instances such outcomes can be reasonably seen as a consequence of implementing a given program or initiative. Examples of the former are: staff, volunteer, contractor and construction worker training programs that incorporated environmental elements; production or commissioning of publically available print, electronic and audio-visual material relating to the environmental aspects of both events; media-liaison efforts; presentations; site tours; events; development of environmental information centres; displays; and the use of environmental mascots and ambassadors.

Regarding the latter, the use of environmental guidelines and the incorporation of environmental requirements into tender conditions or contracts were argued to have ‘pushed’ private-sector organisations (i.e. construction firms, service supply companies, merchandisers and sponsors) to enhance their understanding of, and approach to dealing with, environmental issues associated with their products or services.

Focal organisations, as noted previously, also established relationships with collaborative stakeholders in order to develop new programs (e.g. NOEP, CGEP) or to gain access to
existing environment-related programs or initiatives. As regards the latter, this commonly resulted in modifications or extensions to these programs, as well as their re-badging (e.g. Commonwealth Games Anti-Litter Campaign, Our River Our Games program, Olympic Landcare).

In addition to the EfSD-linked practices associated with focal stakeholders and their collaborating stakeholders, a number of organisations (independent stakeholders) were also found to have contributed to the EfSD process. These contributions took a variety of forms, specifically: development, distribution and/or provision of access to environment-related printed and electronic publications both of a general and technical nature; media campaigns designed to stimulate public debate around event-related environmental issues; conduct of events; activities directed at professional development; public performances; and media reporting. It is noteworthy that the extent of these contributions was much more limited in the context of the MCG than the SOG, with this difference being largely attributable to the level of engagement by environmental NGOs. This matter is returned to later in this chapter (see 6.4).

The previously cited EfSD-linked programs and initiatives can be seen as a mix of informal, non-formal and formal EfSD learning opportunities with the potential to impact organisational and/or individual awareness, understanding or behaviour. As regards informal education, there was the potential for this to occur at the organisational level through: a need to respond to the environmental elements of tender documents, environmental guidelines, sponsorship criteria and contracts; participation in environmental panels/discussion forums/events/presentations; involvement in environmental programs (e.g. ECO-Buy Business, TravelSmart); engagement with environment-related technical reports/studies and other publications and electronic material; and participation in event-related environmental networks (e.g. SOG’s sponsor environmental network). At the level of the individual, informal learning opportunities arose from: workplace practice; exposure to media reports/articles/advertising; voluntary participation in environment-linked programs; and personal engagement with environmental design features of event-specific infrastructure, static displays and information centres at event sites.
The range of non-formal and formal educational opportunities associated with the environmental dimension of the SOG and MCG, while more limited in their scope than those of an informal nature, were nonetheless significant from an EfSD perspective. Non-formal educational opportunities took the form of environmental content within staff, volunteer and contractor training, as well as in training associated with selected environment-related programs (e.g. ECO-Buy Business, OCGC’s ‘Wastewise’ Program). Formal education was limited to the inclusion of an environmental theme, and associated curriculum content, within the school-based educational programs developed by both events, and a TAFE-based ‘Green Trades’ program developed for the MCG.

When mapped (see Tables 4.12–14 and 5.6–8) against their beneficiary groups EfSD practices associated with the SOG and MCG were shown to have potentially impacted organisations, groups or individuals primarily in the Community, Business and Industry, Government and Schools and Higher Education Institutions sectors. The extent of this impact will be returned to later in this chapter (see 6.5). This outcome would suggest that LSSEs are not highly constrained in terms of their EfSD impacts and as such, it can be argued, represent a useful medium for broad-based host-community EfSD. It was also determined that EfSD outcomes associated with both LSSEs extended beyond their host communities through such means as media coverage of the event, transfer of knowledge programs, and the participation of non-host-community athletes, team officials and spectators, as well as other groups (e.g. visiting sporting association delegations). This observation raises the issue of the extent to which LSSE host communities might consciously seek to exploit the opportunity presented by their event to aid the sustainable-development journey of locations beyond their boundaries.

6.4 Factors impacting the LSSE host-community EfSD process

Both the SOG and MCG demonstrated the importance of a strong host-community government commitment if LSSEs are to be effectively leveraged for sustainable-development purposes, inclusive of EfSD. In the case of the SOG, this commitment, as noted earlier, took the form of legislated guidelines, while in the context of the MCG a
government directive was employed. Making this commitment easier from the perspective of both host governments was the fact that their respective communities had already commenced their journey towards sustainable development prior to the time of their successful event bids (see later discussion in this section). From a societal standpoint, this situation, as a number of interviewees noted, created a climate of expectation concerning the environmental dimension of the SOG and MCG that flowed through to how state governments and the focal organisations they created approached this issue (Pope, MCG, 2007; McKeand, MCG, 2007; Holway, MCG, 2007). The importance of such a climate was further emphasised in this study by reference to the Athens 2004 Olympic Games, which performed poorly from an environmental perspective; at least one researcher linked this result directly to the absence of a pre-existing environmental ethos within its host community (West, 2004). From the viewpoint of LSSE host communities in general, this finding would suggest that engaging in a sustainable development agenda inclusive of EfSD may be easier in some contexts than in others. Further, host communities that have made limited efforts in this area prior to their successful bid may need to devote more resources to, and be more strategic in, engaging their communities in their LSSE’s sustainability program if they are to achieve meaningful EfSD outcomes.

The extent to which ‘models’ of LSSE engagement with a sustainability agenda were in evidence at the time of the SOG and MCG was argued to have been a factor in impacting the EfSD performance of both events. At the time of Sydney’s successful bid for the 2000 Olympic Games it was found that a very limited understanding existed in relation to constructing and delivering upon an environmental agenda through an LSSE. While this situation created space for innovation and creativity, it also arguably meant that efforts in this area, including those of an EfSD nature, were of a pioneering or experimental nature rather than building upon an existing platform of proven practice. Indicative of this situation is Toohey, Crawford and Halbrwirth’s (2004) observation that prior to the Sydney Games no significant effort had been made to include an environmental component within a school-based education program linked to the Olympic Games. In the intervening period between the SOG in 2000 and the conduct of the MCG in 2006, as was discussed in Chapter 1, various organisations (e.g. UNESCO), event ‘owners’
(e.g. IOC) and host communities (e.g. Macau) sought to engage with the concept of sustainable development via the medium of LSSEs in a deeper way than had been the case prior to the Sydney Games. In turn, this deeper engagement led to an enhanced stock of information and expertise upon which the MCG’s focal organisations were able to draw in framing their environmental agenda. This stock of information has continued to develop, with LSSEs building upon each other’s experience in this area. This is evident, for example, in the most recent Winter Olympic Games in Vancouver (VOG), where environmental program elements first seen at the SOG or MCG (e.g. environmental purchasing criteria, TravelSmart, inclusion of environmental elements within school-based Olympic Education programs) were in evidence (Vancouver Olympic Organising Committee, 2010). Given the existence of this growing knowledge base, LSSE host communities seeking to pursue a sustainable development agenda inclusive of EfSD should be able to engage with such an agenda in an ever more sophisticated way. Further, aiding the sharing of insights and information regarding this aspect of LSSE event delivery is the IOC-supported bi-annual World Conference on Sport and the Environment (see Chapter 4).

While they were largely absent in the context of the MCG, environmental non-government organisations’ independent contributions to the EfSD process in the SOG demonstrated their potential as agents for host-community EfSD. This potential was evident from the range of practices in which they participated, specifically: media campaigns; the production of environment-related publications and electronic resources; conduct of, or active participation in, seminars/workshops/community environmental events; and efforts directed at linking focal organisations and contractors to international and local expertise in the environmental area. It was also argued that the presence of these bodies served to reduce the tendency for focal organisations, noted in Chapter 2, to increasingly become pre-occupied with matters that they viewed as more strongly connected to final event (project) delivery as its commencement date drew closer. While acknowledging the role environmental NGOs can play in strengthening EfSD outcomes, both the SOG and MCG cases demonstrated that LSSE host-community governments may nonetheless seek to limit or exclude their involvement in the EfSD process. Evidence for this view in the context of the MCG, it was argued, lay in the
decision not to establish, fund and/or support an independent environmental watchdog even though this had been a Commonwealth Games Environment Committee – Environment (CGAC-E) recommendation. It the case of the SOG, while a decision was made to support and fund such an independent body (i.e. Green Games Watch 2000), and to include other environmental NGOs (i.e. Greenpeace) in environmental advisory bodies, relatively little value appears to have been placed on the input provided by them (Earth Council, 2001). This situation runs counter to the approaches to improving the quality of stakeholder involvement in decision making in multi-stakeholder contexts discussed in Chapter 2, which amongst other things encouraged consensus building, shared ownership and the building of trust.

The reason why focal organisations may seek to reduce the level of involvement of, or exclude, environmental NGOs is unclear; however, the SOG case provides some clues in this regard. Specifically, Greenpeace and GGW2000 presented a different and sometimes competing environmental narrative to that provided by the OCA and SOCOG, which may have caused these focal organisations to seek to disengage from them. The capacity for these bodies to act in this way may also explain the decision by the OCGC to try to avoid creating a situation in which such a narrative could emerge in the first place. It should also be noted that the lack of interest by major environmental NGOs such as Greenpeace in the MCG made the process of controlling their environmental narrative easier than it had been in the case of the SOG.

The SOG and MCG cases demonstrated that there are significant benefits available to LSSE focal organisations that actively seek out collaborative stakeholders with whom to partner in the environmental area. Specifically, once a community has been successful in its bid to conduct an LSSE, it has a limited timeframe in which to plan and deliver it. This limited timeframe in turn creates a need for focal organisations to move quickly in order to develop programs and initiatives capable of achieving their stated goals. The response of the SOG and MCG to this challenge, as discussed previously, was to reach out to other organisations or groups with existing environment-linked programs (e.g. Landcare, Environment Australia, ECO-Buy, Victorian Litter Action Alliance) that could be rebadged or adapted for use in an LSSE context, or that possessed the necessary expertise
to create new programs in this area (e.g. Victorian Department of Education and Training, New South Wales Department of School Education). It can also be argued that by acting to establish program-based partnerships, the SOG’s and MCG’s focal organisations were able to amplify their EfSD impact by accessing external resources, expertise and organisational networks. In the case of the NOEP and CGEP, for example, they were able to gain access to State Departments of Education curriculum development expertise as well as access to their respective school networks through which to roll out their programs. Additionally, it is reasonable to assume that focal organisations were able to ‘stretch’ the limited resources they had allocated to the environmental area through this means by reducing costs associated with the creation, development and/or implementation of programs and initiatives. It was also observable that the capacity of focal organisations to establish collaborative partnerships was made easier by the concentration of many of the organisations (e.g. government departments/ agencies/authorities) concerned within their own societal sector.

Based on preliminary research it was assumed that event owners would directly affect the degree to which focal organisations actively pursued an environmental agenda because of environmental requirements included within bid documents and subsequent host city contracts. In both instances, however, it was found these bodies failed to ‘push’ focal organisations to deliver on their commitments in these documents (regardless of how weak or strong). From the viewpoint of LSSE host communities in general, this again points to the importance of the societal context, and the associated extent of government commitment to sustainable development, in determining the degree to which LSSEs are leveraged for EfSD purposes.

The final issue of note in terms of factors impacting the leveraging of LSSEs for host-community EfSD purposes concerns the apparent perception held by SOG’s and MCG’s focal organisations that the environmental aspects of their respective LSSEs, including those of an EfSD nature, were second-tier, or non-core, considerations in their overall event planning and delivery efforts. Evidence of this view in the context of the MCG can be found in the absence of legislation specific to the environmental aspects of the event; M2006’s lack of an organisational culture conducive to the adoption of practices aligned
with sustainable development; and the limited timeframe (three months) granted to the CGAC-E in which to solicit community input, engage in research and make recommendations to guide the event’s environmental strategy. Additionally, efforts to target environmental initiatives in infrastructure developments (i.e. the athlete village) for cost-cutting purposes, the relatively late appointment of an environmental ambassador, and the limited effort directed at leveraging the event to carry a sustainability message to the broader host community, can be seen in this same light. In the context of the SOG the ‘second-tier’ status of the environmental aspects of the event was evident in the limited resources allocated to, and delays in implementing, the event’s environmental communication plan; a failure to communicate the environmental dimension of the Games at the time of its delivery; a conscious decision by SOCOG to distance itself from the climate of expectation that had been created through the bidding process to deliver a capital “G” Green Games; the failure to engage meaningfully with stakeholders through the Olympic Environment Forum; and a constrained effort to leverage the opportunity the event presented to enhance environmental understanding amongst specific groups, most notably volunteers, sponsors and merchandisers.

By viewing environmental programs and initiatives as second-tier considerations, or as Batagol described them earlier in this study, ‘add-ons’ (MCG, 2007), they became susceptible to the types of actions previously described. This being the case, if LSSE host communities are to maximise outcomes in this area they will need to take the view that environmental elements of an LSSE, including those of an EfSD nature, are integral to the overall event planning and delivery process.

6.5 Host-community EfSD legacies

Due to the limited formal research conducted specific to this issue, the extent of EfSD legacies associated with both the SOG and MCG is difficult to assess with any degree of precision. While acknowledging this limitation, it was nonetheless found that there was some measure of consensus from those organisations and writers that had sought to comment on this issue. Viewed collectively, these perspectives led the researcher to conclude that a range of EfSD legacies can potentially be attributed to the case-study
events, with those societal sectors most impacted being Government, Business and Industry, School and Higher Education Institutions and Community. This section overviews these EfSD legacies and in so doing seeks to provide an understanding of the potential of LSSEs in general to contribute to their host community’s journey towards sustainable development.

In the context of the Government sector, the SOG and MCG acted as a stimulus for their respective state governments to engage further with their respective sustainable-development agendas. Specifically, the SOG and MCG provided vehicles through which governments could encourage the use of environmentally friendly technologies and practices by the Business and Industry sector. This was achieved through showcasing environmental design practices in infrastructure developments such as the athlete villages; ‘pushing’ organisations to engage with sustainable production techniques and practices via the inclusion of environmental conditions in tenders, sponsor and licensee agreements and construction contracts; and enhancing the environmental skill and knowledge base of private-sector firms and their employees through training (e.g. OCA’s Working Greener Program), and creating and/or encouraging participation in ongoing environment-linked programs (e.g. Greenhouse Challenge, ECO-Buy Business, TravelSmart). Additionally, it was determined that several post-event Government initiatives with EfSD implications for this sector, specifically the New South Wales Government’s Building Sustainability Index and the Victorian Government’s Environmental Procurement Guidelines, had their origins in these events.

State governments were able to use the platform provided by the SOG and MCG to carry an environmental message to the Community sector concerning matters such as sustainable transport usage, litter and water recycling and management. Additionally, via focal organisations, they were able to enhance the environmental skill and knowledge base of individuals and groups from within this sector through encouraging their participation in selected programs and initiatives (e.g. Olympic Landcare, Our River Our Games) (see later discussion). It can also be observed that these events provided an opportunity to trial new approaches to behaviour change in areas linked to the environment (i.e. transport usage—TravelSmart) and to experiment with environment-
linked initiatives with EfSD implications (i.e. Environmental Procurement Guidelines and Environmental Management Systems) which were later adopted.

Within the Business and Industry grouping, the building and construction sub-sector arguably benefited most in terms of EfSD legacies. In this regard the SOG and MCG provided a platform for updating sustainable design and construction practice amongst firms and their employees, as well as in professionals allied to it (e.g. engineers, architects). Elements of this platform included: the previously cited showcasing role played by sustainable infrastructure and housing; environment-linked training provided by focal organisations to employees of construction firms and their contractors; and the development of resource material in the form of technical manuals, reports and other documents concerning sustainable building and related practices. Further, in the context of the SOG, significant post-Games initiatives associated with the education of the construction industry as regards ‘green’ building and construction practices can arguably be linked to this event, and specifically to the establishment of the Green Building Council and its Green Star Environmental Rating System for Buildings (Lampus, SOG, 2007).

The SOG and MCG also had the potential to leave a legacy of enhanced environmental awareness, understanding or practice in businesses outside the building and construction sub-sector. Suppliers, licensees and sponsors all faced the need to educate themselves about environmental elements of, as appropriate, tender requirements, guidelines or contractual conditions to which, as noted earlier, they were required to respond. Organisations that participated in selected environmental programs (e.g. Savings in the City: Green Hotel Program, ECO-Buy Business, TravelSmart), also faced this same need as they sought to engage effectively with them. Additionally, it was observed by Sustainability Victoria that the event industry itself benefited from the MCG through a greater understanding of how LSSEs, and events in general, might be delivered more sustainably (Insight Economics, 2006).

Within the School and Higher Education Institution sector, the major EfSD-linked legacy of the SOG and MCG was found to lie in the potential the NOEP and CGEP programs
held to engender an enhanced understanding of environmental issues in school-aged children through their inclusion of environmental elements. Additionally, while much smaller in scale, the environment-based technical education program conducted in concert with the MCG for qualified and apprentice plumbers and electricians was identified as having had a significant impact on the intended future work practices of its participants (OCGC, 2006, p. 67). It was further determined that some material developed for these programs had a post-event life, as it went on to be employed or adapted for use in other event contexts or in new or existing educational programs (OCGC, 2006; Gonzalvez, MCG, 2007). The post-Games use of Sydney Olympic Park as a significant location for school-based environmental education can also be seen a legacy from the perspective of this sector (Wilson-Jones, SOG, 2007).

The key legacy of the SOG and MCG from the viewpoint of the Community sector was argued by a number of interviewees, organisations and writers to be one of a more environmentally aware and informed host community. This view, in the context of the MCG, was supported by post-event research, which found that as a direct result of the event, 60% of Victorians were more willing to act in ways that would benefit the environment (Quantum Market Research cited in Insight Economics, 2006, p. 155). This outcome was attributed to such factors as the participation of individuals in environmental programs and initiatives and environment-linked public communication efforts engaged in by focal organisations. It was further argued in this study that as focal organisation staff and volunteers, environmental program volunteers, athletes and team officials resumed their normal post-event roles, the host community would benefit from what they had learnt, or been exposed to, as a result of the LSSE’s environmental program. Event attendees were another community group to whom a potential EfSD legacy was attributed, with this legacy emerging from their direct exposure to environmental messages (e.g. on electronic notice boards), technologies (e.g. solar power installations at venues) and observable environmental practices (e.g. recycling). It was also argued that the environmental design aspects of event-related infrastructure and site developments (e.g. the creation of artificial wetlands, rehabilitation of degraded land/waterways) provided ongoing opportunities for community EfSD. Of particular note in this regard were the efforts of the Sydney Olympic Park Authority to leverage the
environmental elements of the Olympic site in order to raise community environmental awareness post the event (SOPA, 2006a).

In addition to the potential the SOG and MCG possessed as agents for host-community EfSD, they were also found to offer the opportunity to engender such outcomes in other community settings. Specifically, information concerning the environmental programs of both events was captured through transfer of knowledge programs and passed on to the International Olympic Committee and Commonwealth Games Federation for use by future bidding and host communities. Other possible means by which insights from the environmental program of both events may have flowed to external communities were identified as the conduct of observer programs and media coverage of the environmental aspects of both events.

The previous discussion makes clear that there is a range of possible EfSD-related legacies that can emerge from an LSSE. However, if a host community is to maximise such legacies, consideration should be given to how EfSD programs and initiatives can impact the post-event environment. Several approaches to this challenge were evident in the case studies. One such approach was the purposeful development of environmental programs or initiatives with an intended post-event life (e.g. ECO-Buy Business, Savings in the City: Green Hotel Program) in association with organisations capable of continuing them into the future (e.g. government departments/authorities/agencies). Another approach involved the use of the context provided by the SOG and MCG to trial new initiatives (e.g. Environmental Procurement Policies) or new methodologies for existing programs (e.g. TravelSmart) with a view to refining their later post-event use. The decision by the Sydney Olympic Park Authority to continue to embrace the spirit of the Guidelines through the development of its own environmental education program can also be seen in this same light.

While the value of thinking beyond an LSSE’s defined lifespan from the perspective of strengthening EfSD legacies can be seen from the previously cited examples, this did not always occur in the context of the case-study events. The SOG provides the strongest example of this. In this event it can be observed that little thought was given as to how
environmental building and construction initiatives associated with it could be leveraged post event in order to begin the process of educating industry so as to change construction practices. Indeed, it took a further five years before the innovative practices evident in this area in the SOG found expression in the NSW Government’s Building Sustainability Index. Another example of this lack of post-Games planning was the failure by SOCOG to put in place a mechanism via which the organisations involved in its Sponsors Environmental Network could continue to meet and share insights concerning approaches to conducting their businesses in more sustainable ways. Finally, there was no post-Games environmental communication strategy developed to reinforce the event’s environmental messages, nor was the environmental pavilion promised by OCA, which would have assisted in creating community awareness and understanding of the environmental legacy of SOG, constructed.

6.6 The conceptual framework revisited

The conceptual framework used to guide this study sought to describe the EfSD process, identifying its key elements and proposing the relationships between them (see Chapter 2, Figure 2.4). It was based upon the limited understanding of how LSSEs might contribute to their host community’s EfSD efforts that emerged from a review of literature concerning stakeholder theory, EfSD in general and sustainable development in LSSE contexts. The intent of the framework was to guide the researcher’s thinking concerning the research problem and to help identify the questions that should be asked to inform it. Given the exploratory nature of this study, the framework was cast broadly with the intent that it would be revisited in this final chapter with a view to proposing a revised version anchored in the enquiry’s findings. It should be kept in mind, however, that this modified framework, as with all such frameworks, represents a simplified version of reality, which in this case is further limited by it being derived from only two case studies drawn from a single country.

The conceptual framework as originally proposed envisaged an EfSD process that would be influenced by requirements imposed by event owners; involve organisations, groups or individuals from across a given LSSE’s host community as either active or passive
stakeholders; generate a range of programs and initiatives conducive to EfSD outcomes; be potentially conditioned by (unknown) factors operating within or outside of an LSSE’s host community; and result in broad-based societal EfSD legacies. The framework assumed, drawing upon the limited literature concerning multi-stakeholder processes, that a focal organisation(s) would dominate the EfSD process acting to both contribute directly to it, and to identify, collaborate with, and co-ordinate the response of, other organisations or groups with a stake in it. It was further assumed that such bodies, as discussed in Chapter 2 (see 2.5), could not exert full control over the process as it was open to contributions from other organisations, groups or individuals who may wish to independently seek a stake in it.

Revisiting the conceptual framework in the light of this study’s findings allows a number of observations to be made regarding the extent to which it accurately described the EfSD process in the context of the two case-study events, including the nature of the linkages it depicted. The conceptual framework assumed LSSE owners (i.e. IOC and CGF) would exert some measure of influence on the SOG’s and MCG’s host communities through the inclusion of environment-linked requirements within their bid criteria and associated later contractual agreements with the Government sector in these communities. This assumption was based on preliminary research (see Chapter 1) that found a rising level of engagement with the environment more broadly by such bodies, beginning with the IOC in the early 1990s. In practice, this assumption proved valid, although it has been argued in this study that the environment-linked criteria in these documents were weak, and that in large measure the EfSD process in the context of the MCG and SOG were driven from within the host communities themselves. The extent to which this situation is likely to be the case presently is debatable given, as discussed in Chapter 1, the increasing focus by international bodies (e.g. UNESCO) and LSSE owners themselves, including the IOC and CGF, on the environmental dimension of LSSEs, including their EfSD potential. The case of the Athens Olympic Games discussed earlier in this study would suggest, however, that this increased emphasis may not be as significant in producing EfSD outcomes as may be assumed.
The multi-stakeholder nature of the EfSD process as it was conceived of in this study resulted in the conceptual framework positing the existence of a focal organisation(s) in the context of both events. These organisations, it was assumed, would consciously seek to engage with an EfSD agenda and would act to pursue this agenda both directly through their own actions and via collaborative relationships. The existence of such bodies was confirmed with their being, perhaps unsurprisingly, those organisations charged by host-community state governments with event infrastructure development and event delivery. It was further determined that these bodies acted to establish goals, and develop environment-related policies and strategies, along with associated programs and initiatives, with the intent of generating EfSD outcomes.

The conceptual framework proposed that the EfSD process would involve organisations, groups or individuals from within all of the societal sectors deemed key to broad-based community EfSD in previous studies (i.e. Government, Business and Industry, Non-Government Organisations, Schools and Higher Education Institutions, Media and Community). This assumption necessitated a wide-ranging effort to identify active and passive stakeholders in the EfSD process so as to establish the validity or otherwise of this assumption. It was further assumed for the purposes of analysis that there were two possible stakeholder types within these sectors—those that directly contributed to the EfSD process (independent stakeholders) and those whose contribution to the process was via an association with a focal organisation (collaborative stakeholders). As a result of the study’s findings, a number of observations can be made regarding these assumptions.

The EfSD process, as observed in the SOG and MCG, was found to involve active stakeholders from all but the Community grouping, with contributions from this sector being indirect via voluntary participation in programs or initiatives developed by local government, focal organisations or environmental non-government organisations. Additionally, while organisations within the Media sector were found to have contributed independently to the EfSD process, the assumption that collaborative stakeholders would also be present in this societal grouping proved invalid. It should nonetheless be noted
that focal organisations did seek to actively influence the direct contribution of organisations within this sector via their media communications strategies.

The conceptual framework allowed for the existence of factors that may serve to condition how the EfSD process occurred in the context of the SOG’s and MCG’s host communities. A number of such factors were identified, with the similarities between the two cases regarding these suggesting that many of them may be considerations more generally in the effective management of LSSEs for EfSD purposes. The impacts of these factors in the original framework were assumed to have been limited to affecting the operation of EfSD-linked programs and initiatives. This view was not substantiated by the study. Instead it was found that all stages in the process were potentially open to such influences.

The framework also assumed for the purposes of analysis that EfSD-related legacies would result to all societal sectors. While research specific to this assumption was limited, sufficient evidence was identified to suggest this assumption was valid. Marked differences were, however, identified between sectors in this regard. The study’s findings also raised the issue of EfSD legacies extending beyond a given LSSE host community, a possibility that had not been acknowledged in the original framework.

The critique provided in this section has been used to propose a revised version of the conceptual framework (see Figure 6.1) that better reflects the EfSD process as it occurred in the context of the two case-study events. The modifications embraced in this framework aim to provide a more detailed overview of the process. In so doing they: acknowledge the dominant role of Government, particularly State Government, in the process; provide a clearer understanding of the key steps involved in it; reflect the indirect (rather than the assumed direct) contribution to the EfSD process by groups and organisations in the Community sector; acknowledge the absence of collaborative relations between focal organisations and the Media sector; include the potential for any stage in the EfSD process to be conditioned by factors internal or external to the LSSE host community; and incorporate the potential for EfSD legacies to occur in other communities as a result of an LSSE.
LSSE host communities will each likely approach the challenge of leveraging LSSEs for EfSD purposes in different ways given such factors, as noted previously, as their prior engagement with the concept of sustainable development. Nonetheless, the use of ‘best practice’ cases as the basis for the conceptual framework presented in this section should serve as a useful starting point for their efforts to both understand how the process can occur in LSSE settings and how they might effectively leverage the opportunity it presents for EfSD.

### 6.7 Future research

While this study has provided useful insights into how LSSEs can be leveraged for EfSD purposes, it has also raised a number of questions regarding the operation of the process in such settings. Specifically, while the case studies used here were selected because they were viewed by the author as representing ‘best practice’, the enquiry nonetheless identified a number of impediments to the effective operation of the EfSD process in both events. Additionally, it is possible that other restrictions exist that did not emerge from the study. For example, as discussed in Chapter 2, the limited life of LSSEs may inhibit the involvement of some potential active stakeholders, as they may see greater value in establishing, or further developing their stake in, ongoing environmental programs or initiatives. Further, they may also foresee difficulties in taking jointly developed programs or initiatives into a post-Games context once an LSSE’s focal organisation has ceased to exist. If communities are to derive the best possible EfSD outcomes from the hosting of LSSEs, it is crucial that all such impediments are identified and approaches are developed to reduce or eliminate them. Insights emerging from future research directed at addressing this matter could therefore contribute significantly to strengthening the EfSD process.

Another issue of note from the perspective of future research emerging from the study is the degree of unrealised potential possessed by each of the societal sectors in terms of their capacity to contribute to the EfSD process. Two such sectors singled out in this study in this regard were Schools and Higher Education Institutions and Media. The
matter of how post-LSSE EfSD legacies can best be ensured and maximised is an issue that would also benefit from further research. While some mechanisms for generating such legacies were identified in this enquiry, a strategic approach to engendering outcomes of this nature was found to be absent. In identifying such strategies, the potential for a given LSSE host community’s EfSD efforts to generate legacies in non-LSSE host-community contexts should, as noted earlier, also be considered. Finally, research efforts directed at determining the existence or otherwise of assumed EfSD legacies, along with their extent, would serve to validate or challenge the limited evidence that exists in relation to this matter, as well as provide benchmarks against which future LSSEs could assess their performance in this area.
Figure 6.1 Revised Conceptual Framework – the host-community education for sustainable development process via large-scale sporting events

- **Event Owner**
  - Inclusion of EfSD linked considerations in bid criteria and the host city contract

- **State**
  - Incorporation of EfSD elements into bid document submitted to event owner
  - Development of legislation or the issuing of directives leading to the pursuit of EfSD outcomes by LSSE planning and delivery bodies (focal organisations)

- **Focal Organisations**
  - Establishment of environmental goals and associated strategies/policies conducive to generating EfSD outcomes
  - Identification and engagement with EfSD collaborative stakeholders

- **EfSD-linked programs and initiatives**
  - Developed by:
    - Focal organisations,
    - Focal organisations in association with their collaborative stakeholders; and
    - Independent stakeholders

- **Host-community EfSD related legacies**

- **Factors (inhibitors or facilitators) impacting the EfSD process**

- **External Communities**

- **Local**

- **State**

- **National**

- **Business and Industry**

- **Media**

- **Non-Government Organisations**

- **Schools and Higher Education Institutions**

- **Community**

- **Event Owner**

- **Host Government**
6.8 Summary

The central research question of this study was:

*How can a large-scale sporting event serve as a vehicle through which its host community can pursue an education for sustainable development agenda?*

In order to build a response to this question, two case studies with the capacity to perform what Stake (1994, p. 237) describes as an ‘instrumental’ role were selected. This study therefore was not so much about the case studies themselves, but the insights their analysis would provide from the perspective of advancing an understanding of the issue of host-community EfSD via the medium of LSSEs more generally. With this intent in mind, four subsidiary questions were established to guide this enquiry. These questions sought to identify those entities that could be classified as active stakeholders in the EfSD process; determine the nature of EfSD-linked programs and initiatives with which they engaged, along with their educational form and passive beneficiaries; identify factors that may have acted to inhibit or facilitate their actions in this area; and establish the extent to which host-community EfSD legacies could be attributed to the identified programs and initiatives. In answering these questions, theoretical concepts and ideas from stakeholder theory, sustainable development and EfSD-related literature were drawn upon to aid in the development of a conceptual framework to guide the study.

This study determined that while theEfSD process in the context of the SOG and MCG was Government dominated, active stakeholders in this process could be identified in all but the Community sector. It was further determined that there was a diverse range of programs and initiatives that served an EfSD function, with some of these developed solely with this aim in mind, while in other instances this role was secondary. The educational nature of these programs and initiatives was found to span the spectrum of informal, formal and non-formal education, with most practices falling into the informal category. It was also established that when viewed collectively, these practices possessed
the potential to impact upon, to varying degrees, organisations, groups and individuals across the full range of societal sectors used in this enquiry.

The EfSD process associated with the SOG and MCG was found to be conditioned by a number of factors, with some serving to strengthen the process, while others acted as constraints upon it. These factors were: the presence of focal organisation environmental strategies/policies; societal readiness; extent of collaborative relationships; availability of information and expertise; the non-core nature of environmental considerations to event delivery; the level of involvement by event owners and their affiliates in the EfSD process; and the extent of external review.

The enquiry also demonstrated that the SOG and MCG had the potential to generate EfSD legacies in a diverse range of organisations, groups and individuals, most of which were located in the Government, Business and Industry, School and Higher Education Institutions and Community societal sectors. It was further argued that both events had the potential to generate EfSD legacies beyond their own geographic boundaries via means such as media coverage and transfer of knowledge programs.

The previously cited findings led to a number of observations and suggestions in relation to the effective leveraging of LSSEs by their host communities for EfSD purposes. Central amongst these were the following. Firstly, LSSE host communities need to assess their present level of engagement with the concept of sustainable development, as this is likely to condition what is possible from an EfSD perspective in the limited timeframe presented by an LSSE’s lifecycle. Secondly, the use of collaborative relationships by focal organisations can be key in overcoming, or at least minimising, many of the inherent project-linked limitations that can impact an LSSE’s sustainable development and associated EfSD efforts. Thirdly, a strategic engagement with independent contributors to the EfSD process by focal organisations may offer significant potential to enhance EfSD outcomes. Fourthly, specific societal sectors (i.e. Government and Non-Government Organisations and Schools and Higher Education Institutions) may offer focal organisations the greatest range of opportunities from the perspective of developing collaborative relationships, and if these opportunities are to be fully exploited these
sectors need to be comprehensively explored. Lastly, if communities are to leverage an LSSE in order to progress their efforts in the sustainable development area, they will need to take the view that the environmental components of such events, including those of an EfSD nature, are integral to its overall event planning and delivery process. At the outset of this study it was acknowledged that research specific to the use of LSSEs as vehicles for host-community EfSD was absent from the literature dealing with events of this nature, and from literature dealing with events more broadly. This study has sought to initiate the process of exploring this issue with a view to providing a source upon which LSSE host communities can draw when seeking to: respond to EfSD-linked criteria included in bid documents by LSSE event owners; create LSSE environmental strategies/policies and associated programs and initiatives that are conducive to the pursuit of EfSD outcomes; and effectively manage these programs and initiatives so as to maximise the effectiveness of the EfSD process. This enquiry also intended to provide a platform upon which future researchers could build when exploring the process of host-community EfSD through LSSEs and in so doing raised a number of matters that would benefit from further research. These matters were: the exploration of impediments to the EfSD process; the potential possessed by the identified societal sectors to contribute to the EfSD process; identification and measurement of EfSD legacies; and approaches to leveraging LSSEs so as to maximise EfSD benefits for non-host communities. By exploring these topics researchers will aid the evolving efforts of LSSE host communities as they seek to leverage the opportunity LSSEs present to progress the educative dimension of their journey towards sustainable development.
Appendix 1

Participation agreement

I ____________________ agree to participate in the research project “How can a large-scale sporting event serve as a vehicle through which its hosting community can pursue an education for sustainable development agenda?” (Reference number UTS HREC 2006-177A) being conducted by Mr Rob Harris (student no. 90022726), School of Leisure, Sport and Tourism, University of Technology, Sydney (Ph. 02-9514-5496) for his doctoral degree in education.

I understand that the purpose of this study is to identify, describe and gain a deeper understanding of, those educative practices that can be employed through the medium of large scale sporting events (LSSEs) in order to progress a hosting community’s efforts at sustainable development. I further understand that my participation in this research will involve a face to face interview of up to one hour that will be digitally recorded, and later transcribed and analysed. I also understand that I might be contacted by email/telephone after the interview if it is deemed necessary to seek clarification on one or more of the matters raised. I am aware that I have the option to remain anonymous or have my comments directly attributed. In this regard I have decided to remain anonymous/allow the researcher to quote me in their study (please indicate your decision by striking out whichever does not apply). Additionally, I am aware that I am free to change my mind as to my decision to remain anonymous/be quoted after the interview has been completed. Should I have any concerns about my involvement in this research project, I have been advised that I can contact the researcher, Mr Robert Harris (02-9514-5496) or his supervisor, Professor David Boud (Ph. 02-9514-3945). I also understand that I am free to withdraw my participation from this research project at any time I wish, without consequences, and without giving a reason.

Finally, I agree that Mr Robert Harris has answered all my questions regarding my participation in this research project fully and clearly.

________________________________________  ___/___/___
Signature (participant)

________________________________________  ___/___/___
Signature (researcher or delegate)

NOTE: This study has been approved by the University of Technology, Sydney Human Research Ethics Committee. If you have any complaints or reservations about any aspect of your participation in this research which you cannot resolve with the researcher, you may contact the Ethics Committee through the Research Ethics Officer (ph: 02 9514 9615, Research.Ethics@uts.edu.au) and quote the UTS HREC reference number. Any complaint you make will be treated in confidence and investigated fully and you will be informed of the outcome.
Appendix 2

Interview Questions

Interviewee: 
Position held at time of event: 

Date/time/location of interview: 

Preamble

Purpose of study

The purpose of this study is to explore the educative potential large scale sporting events (LSSE) possess as agents for progressing their host communities efforts in the area of sustainable development, or more specifically, the environmental dimension of this concept. In pursuing this goal this study seeks to identify those programs or initiatives that might have impacted upon environmental awareness, knowledge, understanding, skills or behaviour in organisations, groups or individuals within selected LSSE host communities. Specifically these communities are those responsible for the conduct of the Sydney 2000 Olympic Games (SOG) and the Melbourne 2006 Commonwealth Games (MCG).

Key Concepts

The concept of education for sustainable development, as it is used in this study, denotes any type of education that might contribute to a community’s movement towards a future more aligned with the resource and environmental constraints which humanity faces. The form such education may take in a LSSE context is envisaged to be varied and might include:

- formal education (e.g. preparation/delivery of classroom based instructional material for use in school or higher education institution contexts);
- non-formal education (e.g. conduct of environment related seminars/workshops/exhibitions/conferences for specific groups, inclusion of environmental elements within staff, volunteer, contractor training); and
- informal education (e.g. event related environment based media campaigns, general media coverage of environmental issues associated with an event, development of web sites with an environmental component, production and distribution of brochures/reports/studies/videos with an environmental focus, environment ambassador programs, use of environmental mascots, inclusion of environmental conditions in event related contracts/tender documents/sponsor agreements, development of environment information centres).

The concept of host community is used here in a geographic context and refers to the city, state and country (Australia) in which the events of interest in this study took place. Within these contexts it is concerned with those organisations, groups or individuals that may have contributed to, or benefited from, EfSD programs and initiatives. These may include, for example: private companies, government entities, non-government organisations, employees, contractors, volunteers, sponsors, school children, athletes, event attendees and the community at large.
Information for interviewees

The interview questions given in this document are designed as a guide for the researcher only. Not every question will be relevant to each interviewee. Additionally, matters are likely to arise during an interview that will be the subject of further questioning. If you feel any question is outside your capacity to comment, or if for any reason you do not wish to answer a specific question, please feel free to indicate this to the researcher.

Questions

1. In what way(s) were you, and/or your organisation, involved in the environmental aspects of the Melbourne Commonwealth Games/Sydney Olympic Games (as appropriate)?

2. Was your organisation’s efforts in the area of the environment in the context of the event conditioned or influenced by any of the following factors:
   a. government policies;
   b. commitments expressed in bid documents;
   c. guidelines provided by event owners (i.e. CGF, IOC);
   d. environmental groups
   e. general community expectations; and
   f. other factors (please specify).

3. a. Did you and/or your organisation seek to learn from previous events (of a similar or dissimilar nature) as regards how they engaged with:
      i. sustainable development
      ii. education in general
      iii. education for sustainable development?
   b. (If yes) What were these events; how was the information obtained; what types of information was sought; and how was it used?

4. a. What (if any) other bodies/individuals did your organisation seek information from in its efforts to integrate sustainable development principles into the event?
   b. Were consultations with any of these other organisations/individuals intended to provide information that might be employed for education for sustainable development purposes?

5. a. Did your organisation seek to form partnerships with other organisations to progress education for sustainable development initiatives? If so, which organisations were these, and what initiatives were they?
   b. Can you identify any individuals from these groups/organisations that could potentially provide additional insights into the nature and intent of these initiatives?
6. Are you aware if your organisation and/or the event organisers set any specific objectives/made any specific recommendations as regards education in general or education for sustainable development?

If ‘yes’ can you recall what these were, or in what document(s) they may be found?

7. 
   a. What actions (if any) did you and/or your organisation engage in/recommend, that you believe could be classified under the heading of education for sustainable development?
   
   b. Are you aware of any documents/publications/websites or other material that carry information (descriptive or evaluative) about these actions/recommendations?

8. 
   a. What specific group(s) were the targets of your organisation’s direct efforts or recommendations as regards education for sustainable development?
   
   b. In the context of these group(s), what (if any) outcomes do you believe resulted from your organisation’s direct efforts/recommendations that could be classified under the heading of education for sustainable development?
   
   c. How would you classify each of these outcomes in terms of the time scale of their impacts:
      i. short term (limited to the period just prior to, during and just after the event)
      ii. medium term (up to 12 months after the event)
      iii. long term (12 months or more after the event)

9. 
   a. Were your organisation’s recommendations/direct efforts at, education for sustainable development evaluated either formally or informally (perhaps as part of a wider evaluation of the event) prior to, during or post the event?
   
   b. If so, what form did this evaluation take and who undertook the evaluation?

10. Overall, how successful or otherwise do you believe your organisation’s direct efforts/recommendations were, in generating education for sustainable development outcomes in the context of the groups that were targeted?

11. In your opinion what factors (if any) acted to facilitate or hinder the take up/implementation of your organisation’s recommendations/planned efforts at education for sustainable development.
12. a. In retrospect, do you believe there were any actions that could have been taken by your organisation, or other organisations associated with the event (please specify), that would have acted to improve the degree to which the event engaged with efforts that could be linked to education for sustainable development?

b. If ‘yes’ what would these actions have been?

13. a. Was any effort made by your organisation to capture information as regards how the event approached the issue of education for sustainable development (perhaps as part of a broad based knowledge management strategy)?

b. If ‘yes’ how was this information collected and what future use will be made of this information?

14. How do you respond to the view that LSSEs are essentially about sport and entertainment and that matters associated with leveraging them for sustainable development purposes, or more specifically for education for sustainable development purposes, should be paid little or no attention?

15. If LSSEs were to be leveraged for education for sustainable development purposes by their host communities, which groups/organisations do you believe should play a role in this process? What role should each of these groups/organisations play?

16. Do you have any other comments/perspectives as regards how the event engaged with the concept of education for sustainable development?

Thank you for participating in this study
Appendix 3

Primary and Secondary Nvivo Data Categories

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<tr>
<th>Interviewees</th>
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<tr>
<td>Potential interviewee names and contacts</td>
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<td>Data sources identified by interviewees</td>
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<tr>
<th>Active stakeholders linked to EfSD</th>
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<tr>
<td>Government</td>
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<td>Event owners (CGF)</td>
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<td>Event Organisers</td>
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<td>National government</td>
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<td>State government departments/agencies</td>
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<td>Local government</td>
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<tr>
<td>Non-government organisations</td>
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<tr>
<td>Environment linked organisations</td>
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<tr>
<td>Event owners (SOG)</td>
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<tr>
<td>Business and industry</td>
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<tr>
<td>Construction industry</td>
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<td>Industry associations</td>
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<th>Media</th>
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<td>Electronic and print media firms</td>
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<th>Beneficiaries</th>
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<td>Government</td>
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<td>Local government</td>
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<tr>
<td>Business and industry</td>
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<tr>
<td>Tendering and contracted construction industry and staff</td>
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<td>Tendering and contracted suppliers</td>
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<td>Merchandisers</td>
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<td>Sponsors</td>
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<td>Hotels</td>
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<td>Business and industry general</td>
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<td>High schools</td>
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<td>Teachers</td>
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<td>TAFE and University students</td>
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<tr>
<td>Community</td>
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<tr>
<td>Volunteers (event)</td>
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<tr>
<td>Volunteers (EfSD linked programs/initiatives)</td>
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<td>Event organiser staff</td>
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<td>Event attendees</td>
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<td>Athletes and team officials</td>
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<tr>
<td>Australian, host state and city residents</td>
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<th>EfSD programs and initiatives</th>
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<tr>
<td>Printed and electronic environment related resource material</td>
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<tr>
<td>Knowledge transfer practices</td>
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<tr>
<td>Construction tender requirements</td>
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<tr>
<td>Presentations by organisers to external groups and stakeholders</td>
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<tr>
<td>Seminars/forums</td>
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<tr>
<td>Participation in environmental awards</td>
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<td>Behaviour change, awareness raising and demonstration programs/projects</td>
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<td>Creation of stakeholder environmental networks</td>
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<td>Public relations activities by organisers and stakeholders</td>
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<td>Community based events</td>
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<td>Sponsorship agreements containing environmental clauses</td>
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<td>Displays/exhibitions</td>
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<td>Alignment of native animal mascots with environmental education/awareness-raising efforts</td>
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<td>Environmental ambassador programs</td>
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<td>Site tours – industry, general public, government</td>
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<td>Supply chain education through the agency of procurement/contracting policies</td>
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<tr>
<td>Education/training programs – internal (staff, volunteers, contractors), TAFE, Schools, Government, Industry</td>
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<tr>
<td>Event organiser financial support of environmental projects with EfSD elements</td>
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<td>Environment based volunteer programs</td>
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<td>Environment based competitions</td>
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<td>Observer programs</td>
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### Limiting or facilitating factors

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<tr>
<td>Host city contract requirements</td>
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<tr>
<td>Government legislation and associated organiser commitment</td>
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<td>Societal readiness</td>
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<tr>
<td>Key stakeholder understanding of, and experience in, the application of sustainable development practices</td>
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<td>Level of external review</td>
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<td>Level of involvement by event owners and local affiliated body in EfSD</td>
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<td>Partnerships</td>
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<td>Level of media engagement</td>
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<td>Planning time frames for environmental programs</td>
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### Legacies

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<td>Community awareness, understanding and behaviour change</td>
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<td>Enhanced understanding and capacities of school aged children as regards environmental matters</td>
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<tr>
<td>Awareness and application of sustainable development practice in business, the construction industry and government</td>
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<td>Host state/city capacity to plan and deliver environmentally friendly events</td>
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<tr>
<td>Enhancement of Business and Industry environment linked capacities</td>
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<td>Ongoing initiatives – schools, business and industry</td>
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<td>Other – external legacies</td>
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