

Sustainable Cities 2025

Bayside City Council's

submission to the

Commonwealth House of Representatives Standing Committee on Environment and Heritage

Inquiry into Sustainable Cities 2025

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1. Sustainable Bayside

Bayside City Council welcomes the opportunity to contribute to the Commonwealth's *Inquiry into Sustainable Cities 2025*. As an urban metropolitan municipality, Bayside is particularly interested in ensuring that the lifestyles and qualities enjoyed by the community are sustained into the future.

1.1. Bayside's environment

A snapshot of Bayside:

- 35 square kilometers
- 17 kilometers of Port Phillip Bay coastline
- 90 thousand people living in 35 thousand households
- approximately 20,000 domestic animals (dogs and cats)
- predominantly residential, with some small-scale local manufacturing industry

In terms of its environmental sustainability and dependence on environments and resources drawn from beyond its boundaries:

- Insignificant amounts of food are produced in Bayside it comes from other parts of Victoria, interstate and even from overseas.
- The material for building and construction come from elsewhere.
- Cars and other consumer products are manufactured elsewhere, using materials sourced from around the Globe.
- Bayside's electrical energy comes from the LaTrobe Valley, gas from Bass Strait and petrol from Australian and overseas sources.
- During the current drought, the limitations of water supply and the dependence on remote catchments is only too apparent.

It is obvious that the "footprint" of Bayside extends well beyond the municipal boundaries. Ultimately, the sustainability of Bayside depends upon the sustainability of this larger footprint. Bayside City Council is using the "Ecological Footprint" as a measure of environmental sustainability for the municipality. Changes or trends in the size of Bayside's Ecological Footprint will be useful to indicate the suitability of Council's policy settings.

1.2. Bayside's environmental policy and implementation strategies

Bayside City Council, in responding to the needs and aspirations of its community for a quality and sustainable lifestyle, has a broad environmental sustainability agenda that is encapsulated by Council's Environmental Sustainability Policy:

Bayside values its environment and aims to achieve environmental sustainability.

This is a succinct, but strategic, statement that forms a key pillar to Council's various strategies and operations. Further details of this policy, its context and the strategic approaches for delivery, are contained in the Bayside Environmental Sustainability Framework (Attachment 1).

Bayside's commitment to sustainability is reflected through a range of key strategic documents including:

- Bayside 3/12 Corporate Plan 2003-2006
- Municipal Strategic Statement and Local Planning Policy Framework in the Bayside Planning Scheme
- Strategies for guiding particular aspects of life and development in Bayside, for example:
 - Coastal Strategy
 - Bushland Strategy
 - Municipal Public Health Plan
 - Tourism Strategy
 - Housing strategies
 - Mobility Strategy
 - Leisure Plan
 - Bicycle Strategy
 - Traffic Management Strategy
 - Economic Development Strategy
 - Open Space Strategy
 - Development Control eg Residential Neighborhood amendment to the Bayside Planning Scheme

Partnerships are a key element of Bayside's Environmental Sustainability Framework, recognising that, while Council has an important role to play in achieving local sustainability, a coordinated approach with other stakeholders can deliver more effective outcomes. Bayside City Council has active partnerships with:

- Local communities within the municipality
- Other municipal councils with common interests (eg the Association of Bayside Municipalities, the South Metropolitan Mayors' Forum)
- Local government sector (eg ICLEI Cities for Climate Protection program, Municipal Association of Victoria, Victorian Local Governance Association)
- Utilities servicing the municipality (eg South East Water, Melbourne Water)
- State government agencies
- Commonwealth programs

2. Responding to the Terms of Reference

2.1. Sustainable Cities – challenges and responses (Terms of Reference 1-4)

Roles and responsibilities

The factors influencing the development, livability and environmental performance of Australian cities are extremely complex. In some respects the apparently recent focus on "sustainability" and "sustainable cities" represents an integration of separate themes of environment protection (eg water, air, soil etc) that have developed and evolved since the early 1970s. This integrative approach to the environmental performance of cities, particularly when further integrated with social and economic

considerations through a Triple Bottom Line approach, has generated a new wave of interest in the structure, function and performance of urban areas.

It is interesting to observe individuals from all spheres of government (local, State and Commonwealth) identify with the challenges and opportunities of urban sustainability, often based on their direct personal experience and interest in the places where they live. As an emerging area of individual and collective (eg organisational, government, etc) interest, the demarcation and acceptance/uptake of roles and responsibilities is not particularly clear. This is, in part, attributable to the difference between personal (individual) interest and that of the constitutional/statutory responsibility of separate spheres of government and/or organisations/agencies/etc. While there is a climate of ambiguity, or lack of clarity, of roles and responsibilities, then individual interests can be a dominant factor driving particular organisations programs. It is apparent that this is the current situation with "Sustainable Cities" and urban sustainability fits this model.

This model is reflected in the Terms of Reference for the Inquiry into Sustainable Cities 2025. The lack of a clear context, in terms of the roles and responsibilities of the Commonwealth for the environmental sustainability of Australian cities, makes the discussion of questions raised by the first four Terms of Reference very open and, potentially, of little value to advancing the Commonwealth's contribution to sustainable cities.

Recommendation:

The Commonwealth needs to determine and articulate its roles and responsibilities with respect to the pursuit of sustainable cities and how these relate to, and interact with, those of local government, State governments and other stakeholders.

Sustainable Cities – current status

The Terms of Reference for this Inquiry and the content of the Discussion Paper create the impression that the topic of "Sustainable Cities" is virgin ground. While it may be intended to be exploratory and not constrained by dwelling on particular efforts and approaches, it can also be interpreted as being dismissive of the substantial efforts and achievements that have been made to date.

Australia's local government sector is actively engaged in a range of efforts aimed towards the objective of sustainable cities. Bayside, as with many other municipalities, is actively pursuing sustainable outcomes for its part of metropolitan Melbourne. These local government efforts vary from specific, locally developed, responses to particular local issues through to international programs such as the Cities for Climate Protection program(where participating councils use a common coordinated methodology to address the global issues of greenhouse gas emissions).

The Victorian State Government is endeavoring to establish a regional framework for the sustainable development of Melbourne through its Melbourne 2030 strategy. The policy and strategies of Melbourne 2030 are intended to provide responses to the environmental sustainability challenges facing the city. In effect, these would serve as responses to the first four Terms of Reference for this Inquiry, appropriate for the context of Melbourne. **Recommendation:**

The extensive efforts that are progressing at a local and State level to establish frameworks for the sustainable development of Melbourne should be drawn upon to describe the "Sustainable City" parameters of Melbourne.

Environmental challenges for Australian Cities

The Commonwealth's *Human Settlements, Australia State of the Environment Report 2001 (Theme Report)*, provides a comprehensive analysis of the condition of the urban environments of Australia's cities and the challenges that they face. Its intent and design pitch this report at the appropriate level for consideration and information of the Commonwealth.

Much of the information required to respond to Terms of Reference 1 & 2, in particular, is adequately provided by the *Human Settlements, Australia State of Environment* report. This report should provide the basis for the Commonwealth to identify issues and their priority for consideration in policy and strategy for contributing to Sustainable Cities.

Recommendation:

Commonwealth consideration of Sustainable Cities should be based on the findings reported in Human Settlements, Australia State of the Environment Report 2001 (Theme Report).

Guiding Principles for Sustainable Cities

High level strategic principles describing the key attributes of Sustainable Cities have been produced through an international process. The **Melbourne Principles** (so named because they were developed from a workshop held in Melbourne) were adopted at the World Summit on Sustainable Development in Johannesburg in 2002 (see copy attached). Given the international status and acceptance of the Melbourne Principles, it would be appropriate for the Commonwealth to also adopt them as the guiding principles for sustainable cities.

Recommendation:

The Melbourne Principles be adopted by the Commonwealth as the guiding principles for Sustainable Cities.

2.2. Mechanisms for the Commonwealth to contribute to Sustainable Cities (Terms of Reference 5)

Introduction

The Commonwealth has a range of roles, responsibilities and functions that can have an influence on the sustainability of Australian cities. As outlined above, these need to be defined (in the context of sustainable development) and their relationship to those of Local and State governments established. Part of this process is, therefore, the recognition of the roles and responsibilities of local and State government in the delivery of sustainable outcomes. Some specific opportunities for the Commonwealth include:

Vehicle tariffs and taxes

Vehicle use in cities is one of the significant challenges to environmental sustainability. Trends of increasing size and mass of private vehicles, reflected by the growing prominence of 4WD vehicles in urban streets, has a direct impact on the sustainability of urban areas. The greater size and mass of these vehicles places direct pressure on local road infrastructure – greater impact on road pavements and more space required, both on the road and for car parking. In addition, such vehicles tend to consume more fuel (non renewable resources) and produce more greenhouse gas than alternatives that can adequately satisfy the needs and requirements of their users. Distances traveled by private vehicles in urban areas, particularly where alternatives with less environmental impacts exist, are another unsustainable aspect of urban living.

Environmental outcomes can be improved by ensuring that policy settings are conducive to reducing the size of vehicles, fuel consumption and the distance traveled. Unfortunately, the Commonwealth has several policy settings in place that encourage inappropriate vehicles and unnecessary vehicle use. While these policy settings may have been appropriate when they were established, circumstances have changed considerably but the policy has not kept pace.

Vehicle Tariffs

The vehicle tariff concessions granted to the import of 4WD vehicles was an appropriate response to the needs of primary producers when introduced. The situation has changed considerably. The concession is now subsidising vehicles that do not provide benefits to Australia, in fact they are creating additional, unnecessary, environmental impacts and reducing the sustainability of Australian cities.

Current policy setting will see the tariff differential reduce from the current 10% to 5% on 1 January 2005 (on that date the import duty on passenger motor vehicles will reduce from 15% to 10% while 4WD vehicles will remain at 5% import duty). While there are other factors that also affect choice of vehicle (eg carrying capacity, perceptions of safety, image etc), pricing, including the price difference between available options, has an important role to play. The growth of the 4WD sector of the vehicle market, particularly as urban transport, has been fuelled by the price differential and has helped to establish an aspirational niche class of vehicle. The strength of these drivers is reflected by the momentum established in this sector of the vehicle market with 25% of all new vehicle sales.

Clearly, the policy settings that favours 4WDs by providing a tariff concession is past its use by date and in need of major overhaul. If the Commonwealth wishes to use such differential vehicle tariffs to benefit Australia then:

- Concessions encouraging inappropriate urban vehicles must be removed
- Concessions that favour preferred outcomes (eg reduced greenhouse emissions) should be established.

LPG Excise

Liquefied Petroleum Gas (LPG) is an alternative fuel for conventional vehicles that offers significant environmental benefits over petrol. LPG powered vehicles produce less emissions, including toxicants, particles and greenhouse gases, for the same usage, than their petrol equivalents.

The uptake of LPG as a vehicle fuel provides a number of useful insights into the cultural and behavioural changes that underlie the transition to a more sustainable society. Initial barriers to use of LPG were straightforward and relate to access and availability of the fuel for vehicle use and the availability of cost-effective vehicle conversions. Early uptake of LPG was generally by large fleets (particularly taxis) as their infrastructure and operations meant that they could supply and distribute fuel and manage converted vehicle fleets. From this base LPG vehicle use has grown significantly. LPG is now available through most retail fuel outlets, overcoming distribution and supply impediments. Major car manufactures offer factory fitted LPG fuel options, providing safe and cost-effective access to suitable vehicle systems.

While the cost advantage of LPG fuel (over petrol) has provided a useful incentive for the adoption of this environmentally preferred fuel there remains some resistance to its common use. This can be attributed to cultural resistance to change and a general preference to remain within the comfort zone of previous experience (ie with petrol powered vehicles).

Bayside City Council has endeavored to overcome these cultural barriers to changeover to LPG by the development and application of a vehicle policy that encourages staff to choose LPG over petrol. This approach has been effective in producing a significant change in the profile of Council's vehicle fleet and accounts for a notable reduction in the fleet's greenhouse gas emissions.

Bayside's policy levers off the price differential between LPG and petrol. It is therefore a great concern to see that the Commonwealth, in its recent Budget statements, is foreshadowing the introduction of an excise on LPG that will eliminate this price advantage. Bayside's experience in shifting its fleet towards LPG suggests that the price advantage is necessary to counterbalance the cultural resistance to change. It is reasonable to speculate that the imposition of excise on LPG will, at a minimum, halt the general transition to LPG fuelled vehicles. The current production of LPG vehicles lacks the momentum to be self-sustained without the fuel-cost incentives. There is a reasonably likelihood that the proportion of LPG fuelled vehicles will decline as result if the excise is introduced.

Australian reserves of gas are far more abundant than oil, Australia can produce enough LPG to satisfy domestic needs, however the majority of oil is imported. This means that, in addition to the environmental benefits, there are economic benefits to Australia in having a vehicle fleet that is LPG fuelled rather than petrol.

Commonwealth deregulation of LPG pricing in the early 1990s has resulted in widely fluctuating retail prices. While price variations are also experienced in retail petrol prices, the range experienced in LPG appears to be far greater. For example, in recent weeks the pump price of LPG in Melbourne had fluctuated from around 30 cents per litre to around 40 cents per litre – this represents a 33% price variation. Such

variations create an image of instability that acts as a disincentive to change-over from petrol to LPG. The Commonwealth should inquire into the price fluctuations of LPG and consider the reintroduction of pricing controls to help stabilise the market and instill the confidence necessary to support a broad transition to LPG fuelled vehicles.

Fringe Benefits Tax

The opportunity for some employees to salary package private use vehicles with the taxation obligations being under the Fringe Benefits Tax (FBT) provides some significant disincentives for sustainability. The structure of the FBT system encourages employees to "clock up" kilometers traveled. This is both through the threshold distances and the decreased tax rate for higher distances traveled. The consequence is that there is a financial benefit, usually passed on to the employee, for maximising the distance traveled by the private vehicle per year. This incentive means that unnecessary travel is encouraged and that the use of alternative transport (eg shared travel in another vehicle or travel by public transport) is discouraged.

It is also understood that comparable taxation benefits are not available for public transport use (ie public transport tickets cannot be salary packaged). Such situations serve to reinforce attitudes and behaviours and firmly lock in the current unsustainable transport patterns.

Recommendation:

The Commonwealth should review the tariff, taxation, excise and pricing regulation instruments affecting vehicles and their use with the objective of removing disincentives and providing, where appropriate, incentives to improve the quality of urban environments.

Natural Heritage Trust

The Commonwealth's Natural Heritage Trust (NHT) is the primary vehicle for Commonwealth investment in localised activities aimed at delivering environmental benefits. The NHT and its local delivery arrangements through the Port Phillip and Westernport Catchment Management Authority (PPWCMA) have an inherent focus on the non-urban areas of the Port Phillip region (ie NHT investment targets the areas outside of Melbourne). This non-urban focus reflects the history and precursors of the NHT and the statutory structure of the PPWCMA.

Analysis of the NHT against the thematic areas of the *Australia – State of the Environment 2001* report shows that the NHT provides significant resources targeting the identified issues of all themes except for "Human Settlements", which is the one related to Sustainable Cities.

The NHT provides a precedent and a model for Commonwealth investment to directly target environmental outcomes through local delivery mechanisms. The Commonwealth has the opportunity to extend this model to provide comparable investments to "human settlements" or "sustainable cities". An "UrbanCare" program would complement the existing "BushCare", "CoastCare" and "Landcare" programs of the NHT.

Recommendation: The Commonwealth should extend the Natural Heritage Trust to include an investment stream for Sustainable Cities.

Department of Environment and Heritage programs

The Commonwealth Department of Environment and Heritage has a "Sustainable Cities" program that was established as a \$40 million budget initiative commencing in the 2003-2004 financial year. While this is a laudable initiative, its current configuration and profile appears to fall well short of what may have been expected from its initial announcement.

The "Sustainable Cities" program appears as a component of the Department's Sustainable Industries program area. This is a curious relationship that creates the impression that the Commonwealth's view is that the sustainability of Australian cities will be shaped and driven by a few key industries within them.

The key features of the Sustainable Cities program are disappointing in that they largely appear to be a re-badging or re-packaging of pre-existing programs. There is little suggestion that the Sustainable Cities program is endeavoring to take a key role in leading Australian cities on a path to sustainability.

Recommendation:

The Commonwealth Department of Environment and Heritage should house a Sustainable Cities program that provides the professional resources to assist the Commonwealth in playing a key role in leading Australian cities towards sustainability.

Commonwealth Investments – Sustainability Leverage

It is recognised that Commonwealth investment and participation in major projects gives it the opportunity to apply its policy directions to influence the shape of the project. The Commonwealth's industrial relations and economic policies appear to have played a role in its recent negotiations with the Victorian Government over Commonwealth investment in the MCG redevelopment and the construction of the Scoresby Freeway.

The Commonwealth has the opportunity to extend its policy leverage to seek sustainability outcomes as a condition of its participation and investment. It is reasonable to speculate that linking large scale investments to sustainable outcomes may provide the leverage necessary to overcome the conservative inertia associated with many infrastructure projects. The resulting paradigm shifts should not necessarily detract from achieving the primary objectives of the projects but add a new dimension to them.

Recommendation:

Commonwealth investment in major projects should be linked to progression of its sustainability policy.

3. Further information

For further information on this submission please contact:

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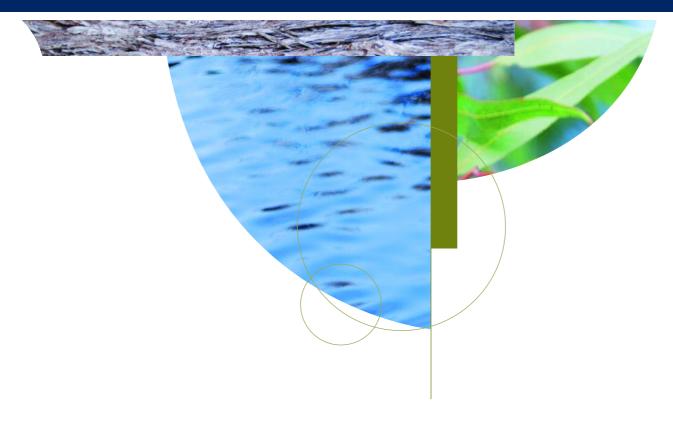
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ATTACHMENTS

- 1. Bayside Environmental Sustainability Framework
- 2. Melbourne Principles for Sustainable Cities



ENVIRONMENTAL SUSTAINABILITY FRAMEWORK





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MAYOR'S MESSAGE

I am proud to present Bayside City Council's *Environmental Sustainability Framework*. This document is a reflection of the strengthening environmental values in our community, and an acknowledgment that the continuation of all social and economic activity rests tenuously on a healthy environment.

Bayside's *Environmental Sustainability Framework* is a living document that will inform all decisions made within council operations. It is an important milestone, which will integrate environmental and social considerations into our bottom line. The Bayside community has been moving in this direction for some time, as evidenced by our vibrant Friends Groups and strong community interest in environmental issues. It is a key goal for Bayside City Council to work with our community towards a sustainable future.

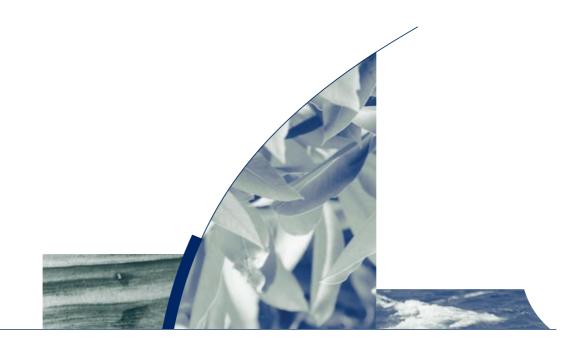
The essence of 'sustainability' is best expressed through the question: *in what kind of world do we wish to leave to our children?* The answer can be seen in the Bayside vision statement:

"A safe, attractive and vibrant city, Bayside values heritage and environment, promotes innovation and celebrates success."

The *Environmental Sustainability Framework* will help us on this journey.

Terry O'Brien Mayor





THE BAYSIDE

ENVIRONMENTAL SUSTAINABILITY FRAMEWORK





section



CONTEXT

This booklet describes the context and basis for Bayside City Council's Environmental Sustainability Policy and its implementaion.

Bayside's Environmental Sustainability Policy is a key element of Council's policy framework. This policy guides decision making and the development of organisational practices and procedures with respect to environmental outcomes. It complements Council policy for other matters, such as economic and social development, to form an integrated approach to support a sustainable Bayside community.

The Bayside Environmental Sustainability Policy has been developed through the following steps:

- ~ Clarification of environmental sustainability,
- Setting Bayside within the bigger picture international, national and State context,
- Establishing Bayside's role and current approaches to environmental sustainability,
- Building a structured framework for environmental sustainability.

As illustrated in the following diagram, these elements come together to establish the basis for the environmental sustainability policy statement. The policy is implemented through the Environmental Sustainability Strategy.

Environmental Sustainability Framework



Figure 1. Illustration of the Environmental Sustainability Framework





section



WHAT DOES "ENVIRONMENTAL SUSTAINABILITY" MEAN?

2.1 From Sustainable Development to Triple Bottom Line and beyond

The World Commission on Environment and Development used the term "sustainable development" in its 1987 final report, "Our Common Future", and defined it as:

- Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

These and the many other definitions of sustainable development recognise that we need to link development and protection of the environment in order to protect and manage ecosystems and natural resources, which are essential for fulfilling basic human needs and improving living standards for all.

The application of "sustainable development" principles since 1987 has seen progressive developments in the approach and its description. The concept of "Ecologically Sustainable Development" (ESD) guided Australia through the 1990s. The National Strategy for Ecologically Sustainable Development (1992) providing the key direction.

The subsequent progression from Environmental Sustainable Development (ESD) to "environmental sustainability" recognises that environmental outcomes might be achieved by actions other than "development". Consequently specific interventions may be required to improve environmental quality rather than just ensuring that new development is sustainable. Environmental sustainability recognises that environmental outcomes or objectives cannot be considered in isolation of other drivers or needs of the community. Consequently, "triple bottom line," the simultaneous accounting of environmental, financial and social factors and objectives, has emerged to reflect the multiple objective nature of sustainability.



Figure 2. Sustainability, as assessed through the Triple Bottom Line, means meeting financial, environmental & social objectives simultaneously

The "Triple Bottom Line" approach means that environmental and social factors must be considered, along with economic factors, throughout the decisionmaking process. This represents a major progression from earlier ad hoc approaches where environment and sustainability issues may have been considered to some degree but are outweighed, or disregarded, in the final decision processes by other imperatives. While all decision-making requires application of judgement and an exercise of discretion, a structured triple bottom line approach ensures that environmental, social and economic factors are all part of the process.

The concept of triple bottom line has been driven by a "climate of opinion" within the community that challenges the predominance of financial consideration to the detriment, or exclusion, of "quality of life" factors.

Bayside City Council has taken the triple bottom line concept a step further. In the context of a local community there is a fourth key element knowledge. A community that actively expands its knowledge and takes advantage of emerging information and understanding is able to progressively move towards its social, economic and environmental goals. Bayside's State of the City reporting is developing a framework where data about the quality and state of social, economic, environmental and knowledge parameters are collated.



2.2 Sustainable Suburbs Possibility or Pipe Dream?

Bayside is a highly modified environment. It has been transformed by progressive waves of development from its pre-European conditions to house a population of over 90,000 people in 2001. The transformation is evident in the physical and biological aspects of the environment. Roads, houses and other structures dominate the physical environment. Gardens and open spaces contain plants that have been imported from other parts of Australia and from overseas. In addition to the number of people, and their domestic animals, the fauna of Bayside has changed through the loss of native animals and the introduction of exotic species (most obvious in bird communities). Furthermore, Bayside is completely dependent on external sources of food and other materials and energy (eg gas, electricity and fuel). Waste material is taken out of the municipality and is disposed of elsewhere.

Can an open system, like Bayside, be environmentally sustainable? Is the concept of sustainability fanciful in such a modified environment? These are challenging questions. The answers, in part, depend on the scale at which we wish to achieve environmental sustainability.

It is highly unlikely that a household can be selfsustaining and independent of external services (eg inputs of food and other materials, outputs of wastes). There are, however, excellent examples that demonstrate that some inputs and outputs can be significantly reduced - particularly to meet water and energy requirements. But, such solutions are unlikely to be adopted on a broad scale as they don't meet the social and financial objectives of many residents eg they may cost more or may be less convenient.

At a larger scale it is possible to conceive a time when national net environmental impacts are effectively eliminated and:

- environmental values and qualities of land, air and water are maintained, and in some cases, enhanced
- biodiversity and ecosystems are conserved and their long-term security assured
- material and energy resources are used at rates that do not deplete their availability for future generations
 eg through renewable sources and effective recycling
- the generation of waste material is minimised and the management of these materials does not degrade environmental quality.



Such national outcomes will only be achieved through the accumulation of benefits and improvements across the spectrum of all stakeholders, right down to the scale of individuals and their actions.

Where does this leave Councils? Is there a role for Councils in contributing to sustainability? If so, how do you measure environmental sustainability? What is an environmentally sustainable council?

One way to approach this conundrum is to consider how much of the earth's resources are used by our community to meet its needs. For example, how much land is required to produce the food we eat plus provide the other resources that we consume. Estimates can be made of the various inputs required to sustain our daily lives and can be subsequently equated to the environmental resources that support us. This measure has been termed an "Ecological Footprint" and can be expressed as the number of hectares of the earth that are needed to provide an individual's needs.

Visit http://www.rprogress.org/programs/sustainability/ef/ for more information on ecological footprints.

Nature provides an average of 2.2 hectares of bioproductive area for every person in the world. With a global population of 10 billion for the year 2050, the available area will be reduced to 1.2 hectares. This should also give room for the 25 million other species. Already, humanity's footprint may be over 30 percent larger than what the world has to offer as it consumes more than what nature can provide. The ecological footprint provides a useful measure of sustainability and allows us to compare our performance in Australia with other countries and the whole world. The comparison below illustrates a number of environmental sustainability issues. It is apparent that the "developed" countries of the world use more than their direct share of global resources. In isolation, Australia can be considered to be faring reasonably well in its use of available resources. But this can be attributed to the large, sparsely populated land mass. On a global scale Australians are clearly using more than our share of global resources. While Australians' demands on global resources are less per capita than the United States, they are greater than the United Kingdom and Canada. Canada provides the best comparison of the countries listed as it has comparable parameters in terms of population, GDP and land area. However, direct comparisons between countries without understanding the underlying assumptions and calculations of the ecological footprint may lead to some erroneous conclusions on the sustainability of the lifestyles and cultures of those communities.

It would be useful to bring the measure of ecological footprint down to a more local level to allow the per capita footprint for Bayside residents to be compared with those of other Melbourne municipalities and Australians in general.

Environmental sustainability for Bayside can be described as ensuring that the per capita ecological footprint for the municipality approaches the estimated global biocapacity. While this is, and always will be, a "long stretch" goal, our "environmental sustainability performance" should be equal to, if not better than, comparable municipalities.

	Australia	Indonesia	UK	USA	Canada	World
Population	18,141,000	200,415,000	58,413,000	269,439,00	29,947,000	5,744,872,000
GDP (\$US million)	337,909	190,105	1,094,734	7,100,007	573,695	-
Ecological Footprint (average per capita)	8.5	1.5	6.2	12.2	7.7	2.9
Existing Biocapacity (per capita)	9.3	3.2	1.8	5.5	11.2	2.2
Ecological Deficit (Ha / capita)	0.8	1.7	-4.4	-6.7	3.5	-0.7
Ecological Deficit (allowing for bio- diversity)(Ha / capita)	0.8	1.7	-4.4	-6.7	3.5	-0.7



section



INTERNATIONAL, NATIONAL, STATE & LOCAL FRAMEWORKS FOR ENVIRONMENTAL SUSTAINABILITY

3.1 Global Scale - United Nations Agenda 21

In 1987 the World Commission on Environment and Development, in a report titled Our Common Future (the Brundtland Report), recognised that sustainable development meant adopting lifestyles within the planet's means. The report also clearly identified that the current patterns of economic growth could not be sustained without significant changes in attitudes and actions.

From 1990 to 1992 the United Nations developed a global action plan for sustainable development. This plan, Agenda 21, was adopted at a Heads of Government Conference - The United Nations Conference on Environment and Development, also called the "Earth Summit" - in Rio de Janeiro in June 1992. The Conference also saw the signing of two new global Conventions, on Climate Change and Conservation of Biological Diversity and the adoption of a Declaration on the principles of sustainable development ("The Rio Declaration").

Agenda 21 sets out actions that nations, communities and international organisations can all take to contribute to the goal of global sustainability in the twenty-first century. The Conference also led to the establishment of a new UN organisation, the Commission on Sustainable Development (UNCSD) which meets annually to review progress in the implementation of Agenda 21. The Global Plan for Action on Land Based Sources of Marine Pollution has since been developed under the auspices of UNCSD. This is an international program aimed at reducing pollution generated from land eg sewage, urban stormwater, industrial effluent and agricultural runoff that ends up in the world's oceans.





3.2 Australian National Scale -National Strategy for Ecological Sustainable Development

Australia's response to Agenda 21 has been to adopt and further refine the concept of sustainable development, taking into account our unique natural environment, the aspirations and values of the Australian people and the prevailing patterns of economic production and consumption. The result is Ecologically Sustainable Development - ESD.

Put simply, ESD means using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained and quality of life for both present and future generations is increased. It requires changes in the nature of production and consumption so that they can better satisfy human needs while using fewer raw materials and producing less waste. The key to ESD is integrating both environmental and development considerations in decision-making.

Australia's National Strategy for ESD provides a national framework for the implementation of Agenda 21. The National Strategy fulfils the obligation Australia entered into in Rio De Janeiro to implement Agenda 21.

The National Strategy provides a framework, comprising policy, principles and broad strategies for achieving ESD. More detailed analysis and specific action strategies are contained in particular national and Commonwealth strategies, policies and programs for example, the National Greenhouse Response Strategy, Commonwealth Oceans Policy, the National Water Quality Management Strategy. The National Environment Protection Council (NEPC) is an interjurisdictional (Commonwealth, States and Territories) statutory body that has the power to set legal standards and requirements for environmental performance (for example National Environment Protection Measures). The NEPC, through these tools, provides a statutory framework contributing towards ESD.

3.3 State Scale - Victoria

Victoria does not have a separate ESD or sustainability statement. There are, however, a series of statutory and non-statutory tools and programs that implement the National Strategy, and Australia's obligations under Agenda 21, at a State level. State environment protection policies, Flora and Fauna Guarantee Action Statements and the Victorian Planning Policy are examples of the statutory (legal) tools. Non-statutory tools and programs include the Victorian Biodiversity Strategy and the Victorian Coastal Strategy. These provide strategic directions to ensure that development is consistent with ESD and also form the basis for identifying and establishing priorities for government programs.

The principles of ESD also underpin various natural resource management programs such as catchment management (administered through Catchment Management Authorities and the Port Phillip Catchment and Land Protection Board). Regional Catchment Strategies are a tool for implementation of ESD at regional scales. Their focus tends to be on issues such as water quality, pest plant and animal control and other environmental aspects that are often primarily related to agricultural productivity.

The Metropolitan Strategy, under development by the Department of Infrastructure, is aiming to develop a strategic land use and transport plan for Melbourne. This is intended to improve the environmental sustainability of urban Melbourne.



Environmental Sustainability Framework

3.4 Local scale - Local Agenda 21

Local Agenda 21 (LA21) is an international program that provides a framework for developing local solutions to broad environmental issues. It embodies the concept of "think global – act local" and provides a basic roadmap for local government to fulfil its environmental and sustainability responsibilities. LA21 describes the efforts of Local Governments, regional organisations and communities to promote and implement ecologically sustainable development at a local level. It recognises that Local Governments and the wider communities they represent are increasingly becoming the lead agencies to achieve sustainable development through the integration of environmental, economic and social goals.

LA 21 provides the context for all the operations of a local authority. It is not a discrete program which sits alongside strategies for waste management, parks and gardens, transport planning and community services. Rather, the vision of sustainability and the goals and targets of LA 21 should set the direction for all of the activities of local authorities. In this sense, it is an umbrella program, a strategic long term framework for directing action towards sustainable development.

A LA 21 program is not about starting from scratch but rather about building on existing programs,

activities and policies. LA 21 will be about applying sustainability principles to existing integrated strategic planning frameworks. LA 21 can build on work already being undertaken, ensuring that it is long term, involves the community and takes account of principles such as ecological integrity, precaution and equity between and within generations.

One of the most effective implementation strategies for LA 21 will be compiling audits or inventories of existing programs, strategies, activities and policies that are either a) working towards sustainability or b) moving away from sustainability. The aim will be to strengthen the first set and neutralise the second set.

Existing programs within Bayside that are closely associated with an LA 21 framework include the Bayside Coastal Strategy, Municipal Strategic Statement, local masterplans and the Stormwater Management Plan. Additional programs, such as energy efficiency/greenhouse gas reduction programs, could be initiated and undertaken to fit within the context of LA 21.

Many of the LA 21 objectives are delivered through the normal works and services (operating) programs of Council. The LA 21 framework ensures that environmental sustainability objectives are fully identified and accounted for alongside other objectives (eg financial and social outcomes).







section



ENVIRONMENTAL ISSUES

4.1 Scope of Issues

This section contains a number of broad environmental issues and potential responses to them that are of interest to, or have some effect on, Bayside and its residents. The nature of these vary considerably, from those where there is a direct and immediate impact on human health and local amenity (eg gross air pollution), to those where Bayside is only one of many sources and the effects are both widespread and may not be realised for some time (eg climate change).

Environmental Issues & Actions.

Climate Change/ Global Warming

- Decrease Green House Gas (GHG) emission
- Promote sustainable transport
- Promote renewable energy
- Prepare for sea level rise (coastal inundation, loss of beaches & foreshores)
- Prepare for habitat changes and altered primary production
- ~ Promote efficient and effective use of energy resources
- Promote renewable energy sources

Transport/ Air Quality

- ~ Map visitor transport
- Decrease traffic /transport noise pollution
- Promote alternative transport (eg bicycle) & public transport
- Protect human health

Coastal Management

- ~ Manage Erosion
- Prevent pollution
- ~ Retain biodiversity/ public amenity

Waste Management and Recycling

- Ensure safe disposal of hazardous material and dangerous goods
- Develop long term opportunities for safe waste disposal
- Reduce emissions of Ozone depleting chemicals
- Promote recovery and reuse of resources
- Ensure safe chemical collection
- Promote sustainable construction
- Prevent litter
- ~ Reduce consumption
- Close the loop through the purchase of products made from recycled materials

Water

- Reduce water consumption (residential, commercial, council premises, council open space, other open space - eg golf courses)
- Develop waste water management systems
- Control stormwater
- Promote water re-use
- Promote domestic/ residential reuse of greywater and rainwater
- Keep water bodies, waterways (eg Elster Creek) and coastal waters pure through prevention of pollution input to these waters
- Protect groundwater quality
- Develop groundwater as an alternative water resource

Biological diversity

- Protect ecosystem process and function
- Conserve genetic diversity and species resilience
- Protect native indigenous plant and animal species
- Control/ remove pest plants and animals

Soil

- Prevent erosion
- Prevent water infiltration (stormwater related - maintenance of pervious surfaces to allow infiltration of water)
- Prevent soil contamination potential constraint on development in the construction process

Urban Form

- ~ Incorporate ESD principles
- Balance residential design and urban design
- Balance progressive architecture vs heritage values

Human Culture & the Built Environment

- ~ Identify heritage values
- Identify cultural and physical links to the past
- Build human capacity
- Promote "community cohesion"
- Create safe public spaces
- Develop an inclusive community





4.2 "Green" & "Brown" Issues

Environmental issues can be broadly categorised as

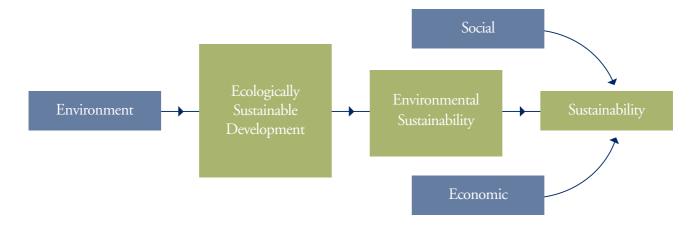
- 1 Conservation of environmental elements and values (commonly referred to as "Green issues"), for example:
 - Protection and restoration of natural communities and Ecosystem function
 - Biodiversity
 - Habitat protection
- 2 Reduction and avoidance of environmental impacts (commonly referred to as "Brown issues"), for example:
 - Reduce inputs of materials and energy
 - Maximise value/benefit of use
 - •*Minimise non-reusable outputs (wastes)*

While there may be interaction between "green" and "brown" issues most of the environmental issues listed in Section 4.1 fall comfortably within one or the other category. The type of response to "green" and "brown" issues can be quite different. Determining whether an issue is "green" or "brown" can help to uncover the environmental objectives that may underlie an issue and assist in developing an appropriate response strategy.

4.3 Paradigm Shifts

Philosophical approaches to environmental management have developed significantly over the last 10-15 years. These developments are reflected in changes in terminology and represent significant paradigm shifts in the position and relationship between environment and other aspects of public policy and corporate management. The progressive change in terms is represented in the following diagram:

- The progression from "environment" issues to "ecologically sustainable development" (ESD) occurred in the early 1990s and is reflected in key developments such as the National Strategy for Ecologically Sustainable Development (NSESD)
- Progression to "sustainability" recognises that environmental outcomes might be achieved by actions other than "development" (eg specific interventions might be required to improve environmental quality rather than just ensuring that new development is sustainable) and that environmental outcomes or objectives cannot be considered in isolation of other drivers or needs of the community.
- "Triple bottom line" simultaneous accounting of environmental, financial and social factors and objectives reflects the multiple objective nature of sustainability.
- The progression from "environment" to "sustainability" is not uniform in the approaches of local councils or other stakeholders. For example, some councils probably deal with these issues in the context of "environment", others are scattered through the range of paradigms with the more progressive at the "sustainability" end of the scale.
- This spread of paradigms can be attributed, in part, to a range of factors about the relative priority of environment-related issues and other circumstances facing individual councils. The lack of an articulated strategic direction from the Victorian Government may account for some of the spread, particularly the lower end of the spectrum.



4.4 Principles of Environmental Sustainability

The following are statements of principle that: underpin State, Commonwealth and national legislation and agreements on the environment and sustainability, and encourage triple bottom line approaches.

These environmental sustainability principles can guide actions and decisions to ensure that they are working towards environmental sustainability objectives rather than against them.

1. Integration of Economic & Environmental Considerations

The adoption of sound environmental practices and procedures, as a basis for ecologically sustainable development, will benefit both the Australian people and environment, and the international community and environment. This requires the effective integration of economic and environmental considerations in decision-making processes, in order to improve community well-being and to benefit future generations. The measures adopted should be cost-effective, and not be disproportionate to the significance of the environmental problems being addressed.

2. Precautionary Principle

Where there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by careful evaluation to avoid, wherever practical, serious or irreversible damage to the environment; and an assessment of the riskweighted consequences of various options.

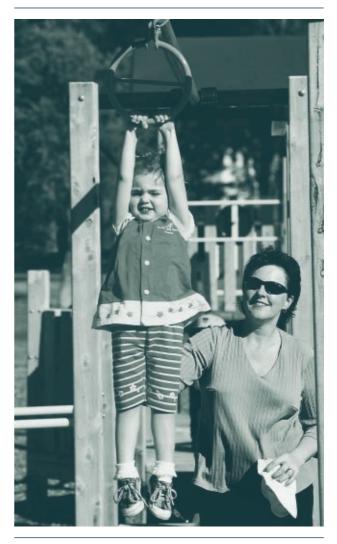
3. Intergenerational Equity

The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

4. Conservation of Biological Diversity & Ecological Integrity

Conservation of biological diversity and ecological integrity should be a fundamental consideration in decision making.







5. Improved Valuation, Pricing & Incentive Mechanisms.

Environmental factors should be included in the valuation of assets and services;

~ Polluter Pays:

Those who generate pollution and waste should bear the cost of containment, avoidance or abatement;

~ User Pays:

The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any wastes; and,

~ Incentives & Market Mechanisms:

Environment goals, having been established, should be pursued in the most cost effective way, by establishing incentive structures, including market mechanisms, which enable those best placed to maximise benefits and/or minimise costs to develop their own solutions and responses to environmental problems.

6. Continuous Improvement

Environmental condition has been significantly altered by human activity. Statutory environmental requirements are generally set to prevent further degradation and to protect existing values and uses. As such, compliance with these requirements may not ensure environmental sustainability. Continuous improvement, beyond compliance, takes advantage of technological and social developments to reverse environmental degradation, improve environmental values and move towards securing sustainability.

7. Eco-efficiency

Individuals and businesses should ensure the delivery of competitively priced goods and services that satisfy human needs and bring quality of life, while progressively reducing ecological degradation and resource intensity throughout the lifecycle to a level at least in line with the Earth's estimated carrying capacity.

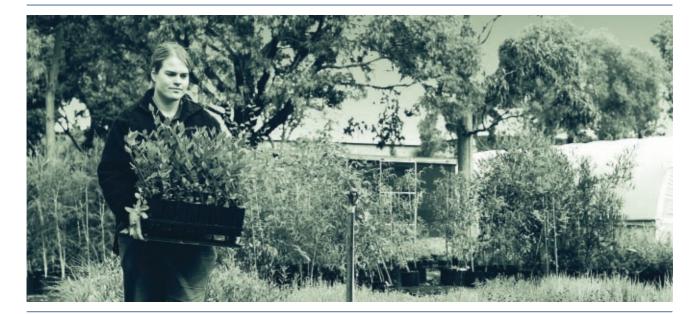
8. Shared Responsibility

Protection of the environment is a responsibility shared by all members of the community, including government at all levels, industry, business and individuals.

9. Waste Management Hierarchy

Wastes should be managed in the following order of preference:

- Avoidance;
- ~ Reuse;
- ~ Recycling;
- ~ Recovery of energy;
- Treatment;
- Containment; and
- ~ Disposal.



10. Integrated Environmental Management

Where approaches to managing impacts on one segment of the environment have potential impacts on another segment, the best overall environmental outcome should be sought.

11. Facilitative Regulation

A range of regulatory and non-regulatory tools should be developed which maximise the flexibility of parties to achieve agreed environmental outcomes.

12. Accountability

- Community aspirations for environmental quality should drive environmental improvement. In order to achieve this, the community must have a good understanding of environmental issues, and share the responsibility to act to protect the environment.
- Those who impact on the environment have a responsibility to understand, mitigate, be accountable for and report publicly on these impacts.
- Governments should:
 Provide accessible, accurate and useful information on environmental quality, risks and improvement options;
- Ensure that environmental policy development is open and transparent, and effectively involves all stakeholders;
- ~ Invite public comment and feedback on its priorities, strategies and programs; and
- Ensure that its decisions and actions are accountable to the community and open to public review.

13. Enforcement

Enforcement of environmental requirements should be actively and equitably undertaken through effective application of local laws and statutory delegations and in partnership with other authorities to:

- Better protect the environment and its economic and social uses;
- Ensure no commercial advantage is obtained by failing to comply with the environmental requirements;
- Influence the attitude and behaviour of those whose actions may have adverse environmental impacts, including those who produce, invest in, sell and use goods and services which have such impacts; and,

- Set enforcement priorities that relate to the environmental hazard or risk.

14. Education & Awareness

The community and stakeholders need to be aware of their direct and indirect impacts on the environment and measures to avoid such impacts.

15. Best practice

Compliance with statutory environmental requirements is the minimum acceptable standard. Where practical, the best environmental outcome should be sought.

16. Responsibility

The responsibilities of the Bayside community extend beyond the borders of the municipality.

17. Validation

Expert opinion and judgement is applied to resolve differing views on the environmental, social and financial benefits and impacts of policy and implementation.

18. Urban Environments

Recognition that urban environments are highly modified and that social and financial interests and objectives may preclude some biodiversity and sustainability outcomes that would otherwise be pursued. Preserve and protect existing environment and resources as much as practical in the context of continuing community usage.

19. Cultural Heritage

Recognise that the cultural heritage of Bayside (including aboriginal and contemporary communities) provides spiritual connections to the land and environment and that one of the values of Bayside is the "sense of place."







section



AN ENVIRONMENTALLY SUSTAINABLE BAYSIDE

5.1 A Snapshot View of the Bayside Environment

This section provides a brief overview of the condition of Bayside's environment and the pressures that it is under. It is not a detailed analysis of environmental parameters but rather a series of statements that characterise the most apparent features.

The State of Bayside's Environment

- Bayside is a highly modified environment. It has been transformed by progressive waves of development from its pre-European conditions to house a population of over 90,000 people in 2001.
- The transformation is evident in the roads, houses and other structures that dominate the physical environment.
- The coastal foreshore and remnant bushland are the predominant features of Bayside's natural environment and contain plant and bird species of State significance.
- Bayside is home to native land mammals (Dasyurids) that are not found within 20-40 km of the municipality.
- Private and public gardens and plantings complement these natural features. These often feature plants that have been imported from other parts of Australia and from overseas. In addition to the number of people and their domestic animals, the fauna of Bayside has changed through the loss of native animals and the introduction of exotic species (most obvious in bird communities).
- The domestic animal population of Bayside is estimated to include 11,700 dogs and 7,300 cats.
- The prominence of vegetation, coupled with family oriented residential development, creates an atmosphere of space and 'greenness.'
- The scale and nature of development in Bayside, being mainly residential with defined areas of commercial and light industrial uses, generally avoids adverse environmental quality.
 Bayside residents enjoy a good quality physical environment eg air quality, noise levels.
- Bayside is completely dependant on external sources of food and other materials and energy (eg gas, electricity and fuel).
 Waste material is taken out of the municipality and is disposed of elsewhere. Consequently, the "ecological footprint" of Bayside extends well beyond the boundaries of the municipality.

Pressure on Bayside's Environment

- Redevelopment of residential properties results in loss of vegetation - loss of established plants. Larger replacement dwellings and multi-unit developments reduce the potential for replacement of comparable vegetation.
- Ongoing changes to gardens continues to alter the species composition of Bayside's vegetation. This may consequently alter habitat for birds and other animals.
- The size and styles of new residential buildings and their greater use of heating, cooling and other services means that energy consumption per dwelling is increasing.
- Bayside has a higher level of car ownership than Melbourne overall.
- The affordability of energy consumption, both at home and in the car, takes away a key incentive for energy conservation. The absence of financial constraints combined with strong social drivers for the benefits of energy (large, climate controlled houses, luxury vehicles, status symbols) conspire to reduce consideration of environmental outcomes.
- Access to public transport differs markedly across the municipality from ready access to frequent and reliable train and tram services though to limited and indirect bus services.
- Demand for further recreational facilities increases the pressure to remove or intrude on remnant bushland areas.

Summary

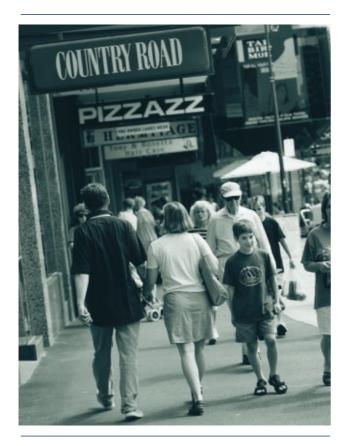
The location and form of development of Bayside endows the municipality with an attractive, wellvegetated environment that does not have apparent environmental problems. These particular values are at risk of being eroded by incremental changes resulting from redevelopment of residential properties. In addition, the lifestyle enjoyed by many Bayside residents, being driven by social factors and not confined by financial costs, consumes energy and material resources at above average levels and adds significantly to the municipalities overall environmental impact. The full environmental impact, or ecological footprint, extends to places well beyond the municipal boundaries. Such extended impacts are not immediately apparent from within the municipality and can grow unnoticed.





5.2 Role & Responsibility of Bayside City council

Bayside City Council has a key role in ensuring environmental sustainability is achieved within the municipality and that key environmental issues are effectively managed to minimise adverse environmental impacts. Some of the responsibilities to achieve this outcome are conferred by statute and common law (eg liability for consequences of action taken by Council) while others are derived from State government policy and decisions and Council resolutions and actions.





Council's role:

To achieve environmental sustainability through Council's:

Business and operations

By minimising adverse environmental impacts while effectively delivering services to the community.

Decisions Affecting

- Development eg Strategic land use planning, coastal planning, economic development programs.
- Activity and practices within the municipality eg: establishment and enforcement of local laws controlling activities that may have adverse environmental impacts.

Education and Advocacy

By raising the awareness and understanding of the community and other stakeholders and by seeking more effective arrangements and outcomes (such as with the State Government).

Leadership and Community Influence By demonstrating commitment and the benefits of improved practices.

5.3 Bayside's Responses to Environmental Issues

Environmental management and reducing environmental impacts is nothing new to Bayside City Council. Council has made significant steps towards environmental sustainability through its statutory decisions and ongoing business and operations. While many of these actions are part of the day to day business of Council there are some that stand out as clear examples of strategic measures to achieve sustainability. These include:

- Bayside Coastal Strategy
- Community plant nursery
- Banksia Bulletin
- ~ National Biodiversity Month activities
- Waste management and recycling initiatives
- Measures to improve the quality of stormwater discharged to Port Phillip Bay (eg installation of gross pollution traps)
- Development of a stormwater management plan for the municipality.
- Support of Friend's Groups to protect and restore habitat and biodiversity
- Vegetation protection measures (eg tree controls, planning overlays)
- ~ Sandringham Urban Village Strategy
- Proposal for 4 star energy rating for new residences (Amendment C2).
- Vegetation Protection Overlay proposal in Amendment C2
- Local Law 2 controlling removal of large or significant trees.

These measures provide Council with a sound basis for moving towards a more comprehensive basis for achieving sustainability.

5.4 Environmental Sustainability Framework

The previous sections provide content and rationale for Bayside's pursuit of environmental sustainability. This material underpins Council's adopted Environmental Sustainability Policy. The delivery and implementation of this policy is guided by the Environmental Sustainability Strategy. Together, the context and rationale, policy and strategy form a framework for Environmental Sustainability.

Context & Rationale				
Environmental	International,	Environmental	Bayside	
Sustainability	National &	Issues - Scope	Environmental	
- Definition	State Context	& Nature	Sustainability	

Environmental Sustainability Framework



5.5 Bayside Environmental Sustainability Policy

The Bayside environmental sustainability policy is a statement of intent with respect to environmental sustainability:

Bayside values its environment and aims to achieve environmental sustainability







6.1 Context

The policy statement reflects Council's commitment, as expressed in KRA 2 of the Corporate Plan 2001-2004, to:

- Contribute to global responsibilities for environmental sustainability by working towards the sustainable use of resources
- Achieving environmental outcomes within the city by ensuring the protection of a healthy environment

This policy is guided by:

- Principles of environmental sustainability established in State and Commonwealth legislation and formal agreements (as detailed in Section 4.4) and
- Consideration of environmental issues in conjunction with other factors (a reflection of environment being one element of Council's State of the City reporting framework).

section



ENVIRONMENTAL SUSTAINABILITY STRATEGY

6.2 Goals

The following goals for Bayside City Council are implicit to the achievement of a sustainable environment and describe the qualities and characteristics of the "environmental sustainability culture":

Bayside City Council will ensure that

- It is recognised as a leader in environmental sustainability through its consistent application of environmental sustainability principles and progressive improvement in environmental performance and outcomes.
- The environmental values and qualities of land, air and water are maintained, and where practical, enhanced.
- Biodiversity and ecosystem processes are conserved, and where practical and consistent with social and economic objectives, rehabilitated.
- Non-renewable material and energy resources are used at a rate that does not deplete their availability for future generations.
- There is a significant reduction in the generation of waste materials and their management does not degrade environmental quality.
- The Bayside community understands and appreciates the importance and benefits of environmental processes and actively works to maximise the benefits.
- Measures of environmental performance show progressive and enduring improvements.

These are broad goals for guiding this strategy. More specific and measurable targets will emerge through the following strategic approach.







6.3 Strategic Approach

Bayside City Council's State of the City framework provides a holistic, integrated approach to the quality of life and environment within the municipality. The strategic approach for the Environmental Sustainability Framework builds from this foundation. Consequently "environment projects" do not form a distinct, separate entity within the business of Bayside City Council. Instead, environmental sustainability becomes more firmly established in the "organisational culture" of the Council. This approach does not preclude particular programs or projects that are initiated to address particular environmental issues. However, it does mean that there may be environmental sustainability considerations in programs that, at first appearance, might be thought to be remote from "environment". For example, a Best Value review of library services could take into account environmental aspects of the service (eg paper use and recycling, energy use, etc) and consider opportunities for reducing such impacts. While there is an environmental sustainability dimension to the review it would not be considered to be an "environment project" in its own right.

The strategies outlined in this document are intended to develop an "environmental sustainability culture". They recognise the various roles of Council, Administration and the community in achieving environmental sustainability for the municipality.

The key implementation strategies for the Bayside Environmental Sustainability Framework are:

- Capacity Building Ensuring an awareness and understanding of environmental matters by Council, Administration and the community.
- Governance & Choice Application of a holistic approach to the planning and management of Bayside that integrates environmental, social and economic matters to make informed decisions.
- **Partnership** Collaboration with other stakeholders (eg Councils, State and Commonwealth agencies, business, community, etc) to develop and implement programs for progressing environmental sustainability.
- State of the City Measurement, assessment and reporting of environmental performance outcomes.
- Business Framework Incorporation of environmental sustainability policy in the business planning and budget preparation of the Administration and Best Value program reviews.

These are not mutually exclusive. Particular initiatives to progress environmental sustainability may have connections to one or more of these strategies. For example, State of the City might identify a need to improve energy efficiency of commercial premises in Bayside; through Council's business framework a partnership program with State agencies and commercial businesses might be established to raise awareness and understanding of these issues and the opportunities available (capacity building); the outcome being a more informed choice by the businesses.



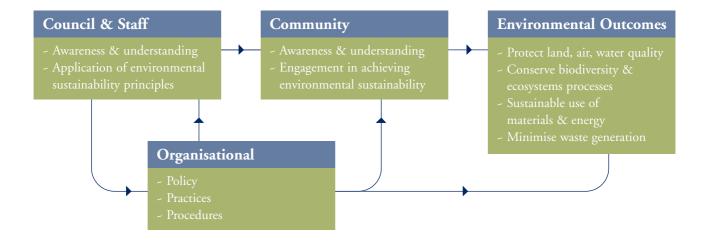
6.4 Capacity Building

Environmental performance is driven by the awareness and understanding of Councillors, staff and the community through the application of environmental sustainability principles.

The diagram below illustrates the role of awareness and understanding in contributing to environmental outcomes.

Capacity building is about creating the understanding and providing the climate for applying it to environmental sustainability. It is a demonstration of the "knowledge" component of Bayside's State of the City reporting framework. Some key elements of capacity building are:

- Recognising the different needs and opportunities for different sectors (eg Councillors, staff, residents with varying socio-economic situations, commercial and industrial businesses, visitors, etc)
- Accessing, packaging and targeting information for the various sectors
- Identifying and developing mechanisms for ensuring that the various sectors are able to use relevant information to improve their environmental sustainability performance (ie carry out their lifestyle, operate their business, discharge their duties in a way that reduces their impact on the environment).





6.5 Governance & Choice

Governance and choice refers to the various decisions that may have some implications in terms of environmental outcomes. These decisions can range from the formal decisions of Council through to the day to day consumer choices of residents. While it can be assumed that an aware and understanding community will result in informed decisions, there is benefit in providing tools and other mechanisms to assist the application of information.

A key objective is to ensure that environmental sustainability considerations are integrated with other factors in the decision making process. Using a major consumer decision as an example, eg the purchase of a new car, helps to illustrate these issues. A consumer wishing to buy a car faces a bewildering array of choice - new or used, size, power, durability, body style, seating capacity, features, comforts, colour, etc. Buried among these are some characteristics that affect environmental outcomes. Fuel economy is the most obvious - a more fuel efficient car uses less resource (the fuel itself) and produces less emissions (air pollutants, greenhouse gases). Other factors include the fuel type (petrol, LPG, diesel, etc), service intervals, long- term life of the vehicle, life-cycle aspects of the materials and construction. An informed consumer needs to know what factors should be considered and what weight to give them in order to make a decision that meets their economic, environmental and social objectives.

Likewise, Council (and businesses) has a need for mechanisms that ensure that its decisions are informed and consider economic, environmental and social objectives in an integrated manner. Council has an opportunity, and responsibility, to be a community leader by demonstrating the benefits of integrated decision making. The mechanisms required will vary with the particular circumstances. For example, Council reports may have a simple checkbox -"compliance with environmental sustainability policy". Bearing in mind that a tick in this box means that the environmental sustainability implications have been considered and can be substantiated, then the seemingly simple mechanism can carry substantial information into the decision making process.

6.6 Partnership

Bayside City Council has particular roles and responsibilities that can affect, directly or indirectly, the environmental sustainability of the municipality. There are, however, many other stakeholders that can effect or influence environmental sustainability in Bayside. These include:

- Commonwealth Government and its agencies
- Victorian Government and its agencies
- Neighbouring Councils and other Melbourne and Victorian Councils
- Businesses commercial, retail and industrial operating within Bayside
- Bayside residents
- Visitors to Bayside eg shoppers, recreational, tourist, commuters passing through, etc

Clearly the roles and capacity to influence environmental outcomes varies substantially, depending on the situation. In some cases Council might not be the best placed body to pursue particular environmental sustainability outcomes. Partnerships between Council and other bodies allow arrangements to be made that draw on the strengths of the partners to deliver a more effective outcome than Council can achieve on its own. Partnership approaches can also overcome perceived barriers or impediments to relations between bodies.

The Bayside community includes individuals with the capacity and commitment to undertake various projects that can illustrate and demonstrate sustainability. "Friends Groups" represent strong partnerships between Council and particular sectors of the community to progress biodiversity conservation goals of sustainability. This approach can be broadened by Council forming partnerships with other individuals or groups to facilitate and showcase other aspects of sustainability - for example, sustainable housing design and construction.

The particular arrangements for partnerships - the composition, relative roles, duration etc can be tailored to suit the needs of the specific circumstances. Some partnerships may be enduring and deal with a sequence of issues while others are transient, dealing only with a specific issue.

6.7 State of the City

The State of the City report framework established by Bayside City Council provides a comprehensive view of the sustainability of the municipality. It has a focus on the outcomes rather than measures of effort or output. The report will present an integration of the four defining themes in any citizen's quality of life to Council and the Bayside community.

The State of the City report views the city as an organic entity, comprising economic systems, environmental systems, social systems and the information and knowledge resources which are typical of the Information Age. Council has a direct role in protecting, enhancing and developing the resilience of each of these systems and to the extent that it is successful it will improve the quality of life of its community.

Analysis of the information contained within, and supporting, the State of the City will provide measures of progress towards environmental sustainability and may expose gaps, deficiencies or opportunities. State of the City provides a comprehensive monitoring and review function to the Environmental Sustainability Framework. Particular issues that require Council's attention can then be addressed through Council's business framework.



6.8 Business Framework

Bayside City Council has a structured framework for managing the business activities and resources of Council. The elements of this framework include:

- Review of strategic priorities and objectives
- ~ Corporate Plan
- Annual Budget
- Divisional Business Plans & Departmental work programs
- Best Value service review

These arrangements ensure that Council's resources and efforts are directed towards identified priorities within the municipality. Application of the Environmental Sustainability Policy within the business framework will ensure that environmental sustainability objectives are an integral part of the full spectrum of Council's business. The "environmental" nature of specific projects and programs in Council's business framework will vary from those that are purposefully addressing particular environmental issues (eg protection of remnant vegetation) through to those where the connection with environmental performance is not readily apparent (eg delivery of aged care services).

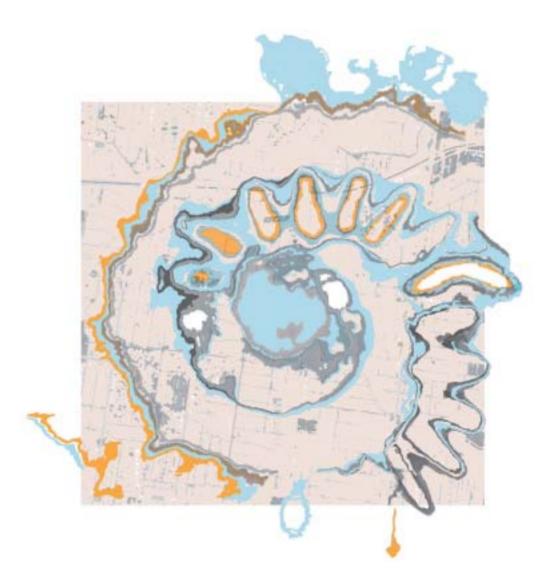
The business frameworks of Council determine the programming - timing, resources, priority - of efforts that will progress environmental sustainability in the municipality. Operational goals can be set for environmental sustainability outcomes within these business frameworks. Such goals can set specific targets for environmental performance, time frames and budgets and provide the necessary accountability and responsibility to ensure that goals are met.

This approach is fundamentally different to other paradigms of "environmental management" where environmental outcomes are pursued through a discrete "environment program". In the integrated "State of the City" approach environmental sustainability is a factor in all decisions and priority setting. For example, environmental outcome objectives can sit alongside financial and other objectives within decision making processes to ensure that the decisions take Bayside forwards, towards sustainability.





Melbourne Principles for Sustainable Cities



United Nations Environment Programme Division of Technology, Industry and Economics Integrative Management Series No.1

Preamble

Cities are fundamental for economic opportunities and social interaction, as well as cultural and spiritual enrichment. However, cities also damage the natural environment and exploit natural resources in an unsustainable manner which can jeopardise long-term prosperity and social wellbeing. This is of global concern, as more than half of the world's population lives in cities and trends indicate that this will increase.

The transformation of cities to sustainability will require cooperation between various levels of government, resource managers, the business sector, community groups and all citizens. Their collective and individual contributions are essential in achieving a common purpose. Improving the sustainability of cities will not only benefit their inhabitants, but also significantly contribute to improving the wellbeing of people around the world. ${\mathcal A}$ Vision for the Creation of Sustainable Cities

To create environmentally healthy, vibrant and sustainable cities where people respect one another and nature, to the benefit of all.

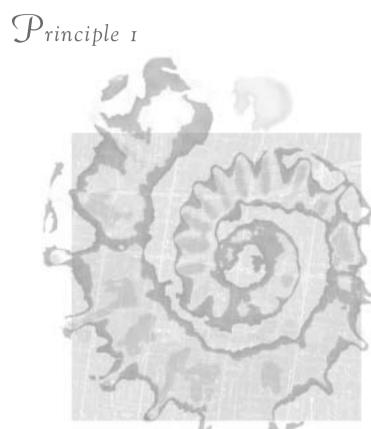
Objectives of the Melbourne Principles

Sustainable development is defined by the Brundtland Commission as 'development that meets the needs of the present, without compromising the ability of future generations to meet their own needs'. The Melbourne Principles for Sustainable Cities have been developed to assist cities that wish to achieve this sustainable development objective. The Principles provide a simple set of statements on how a sustainable city would function.

The Melbourne Principles are intended to guide thinking and provide a strategic framework for action. The Principles are not prescriptive. They allow cities to develop sustainable solutions that are relevant to their particular circumstances. They can help to bring together citizens and decision-makers, whose participation and cooperation is essential in transforming our cities to sustainability.

The Principles also provide cities with a foundation for the integration of international, national and local programmes, gaps to be identified and addressed, as well as realising synergies through partnerships.

For the Melbourne Principles to add value, they will need to be supplemented by relevant case examples and decision support tools to assist cities on their journey towards sustainability.



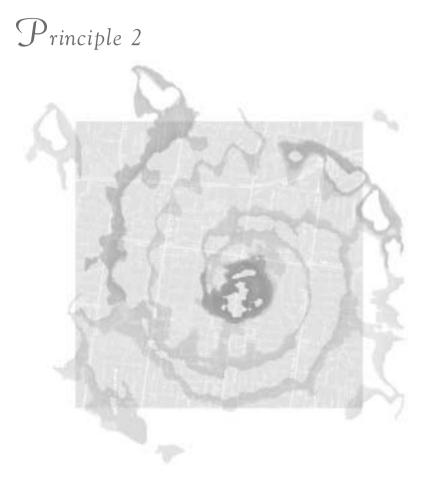
Provide a long-term vision for cities based on: sustainability; intergenerational, social, economic and political equity; and their individuality.

Elaboration

A long-term vision is the starting point for catalysing positive change, leading to sustainability. The vision needs to reflect the distinctive nature and characteristics of each city.

The vision should also express the shared aspirations of the people for their cities to become more sustainable. It needs to address equity, which means equal access to both natural and human resources, as well as shared responsibility for preserving the value of these resources for future generations.

A vision based on sustainability will help align and motivate communities, governments, businesses and others around a common purpose, and will provide a basis for developing a strategy, an action programme and processes to achieve that vision.



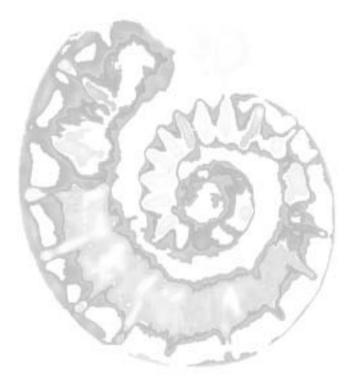
Achieve long-term economic and social security.

Elaboration

Long-term economic and social security are prerequisites for beneficial change and are dependent upon environmentally sound, sustainable development.

To achieve triple bottom line sustainability, economic strategies need to increase the value and vitality of human and natural systems, and conserve and renew human, financial and natural resources. Through fair allocation of resources, economic strategies should seek to meet basic human needs in a just and equitable manner. In particular, economic strategies should guarantee the right to potable water, clean air, food security, shelter and safe sanitation.

Cities are the locus of human diversity; their policies, structures and institutions can significantly contribute to fostering cohesive, stimulating, safe and fulfilled communities.



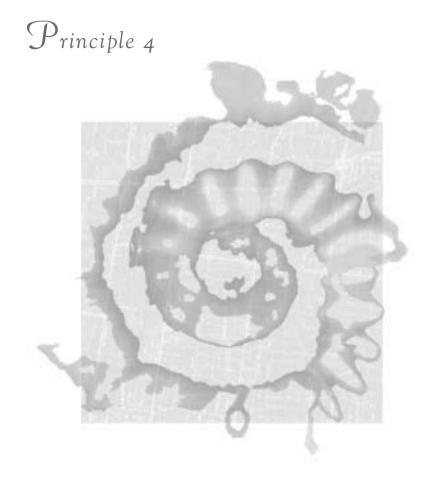
Recognise the intrinsic value of biodiversity and natural ecosystems, and protect and restore them.

Elaboration

Nature is more than a commodity for the benefit of humans. We share the Earth with many other life-forms that have their own intrinsic value. They warrant our respect, whether or not they are of immediate benefit to us.

It is through people's direct experience with nature that they understand its value and gain a better appreciation of the importance of healthy habitats and ecosystems. This connection provides them with an appreciation of the need to manage our interactions with nature empathetically.

Just as humans have the ability to alter the habitat and even to extinguish other species, we can also protect and restore biodiversity. Therefore, we have a responsibility to act as custodians for nature.

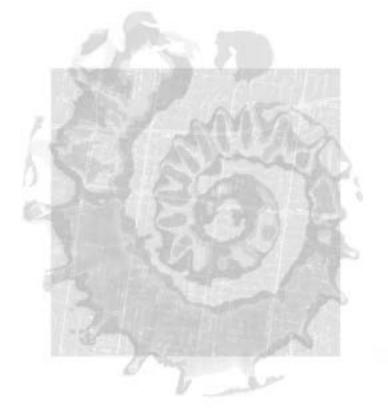


Enable communities to minimise their ecological footprint.

Elaboration

Cities consume significant quantities of resources and have a major impact on the environment, well beyond what they can handle within their borders. These unsustainable trends need to be substantially curbed and eventually reversed. One way of describing the impact of a city is to measure its ecological footprint. The ecological footprint of a city is a measure of the 'load' on nature imposed by meeting the needs of its population. It represents the land area necessary to sustain current levels of resource consumption and waste discharged by that population. Reducing the ecological footprint of a city is a positive contribution towards sustainability.

Like any living system, a community consumes material, water and energy inputs, processes them into useable forms and generates wastes. This is the 'metabolism' of the city and making this metabolism more efficient is essential to reducing the city's ecological footprint. In reducing the footprint, problems should be solved locally where possible, rather than shifting them to other geographic locations or future generations.

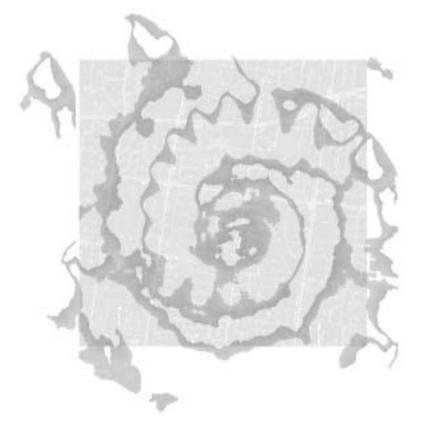


Build on the characteristics of ecosystems in the development and nurturing of healthy and sustainable cities.

Elaboration

Cities can become more sustainable by modelling urban processes on ecological principles of form and function, by which natural ecosystems operate.

The characteristics of ecosystems include diversity, adaptiveness, interconnectedness, resilience, regenerative capacity and symbiosis. These characteristics can be incorporated by cities in the development of strategies to make them more productive and regenerative, resulting in ecological, social and economic benefits.

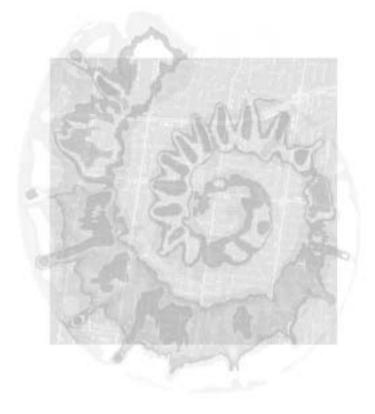


 $\epsilon_{laboration}$

Each city has a distinctive profile of human, cultural, historic and natural characteristics. This profile provides insights on pathways to sustainability that are both acceptable to their people and compatible with their values, traditions, institutions and ecological realities.

Building on existing characteristics helps motivate and mobilise the human and physical resources of cities to achieve sustainable development and regeneration.

Recognise and build on the distinctive characteristics of cities, including their human and cultural values, history and natural systems.

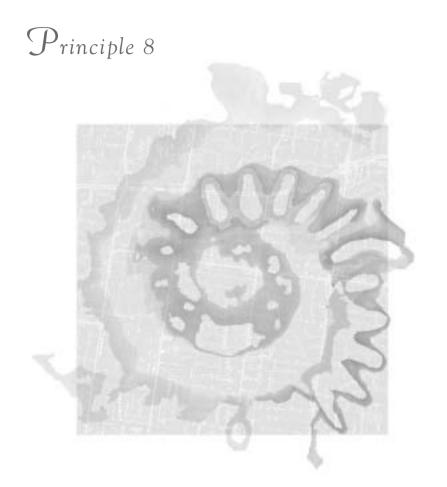


Empower people and foster participation.

Elaboration

The journey towards sustainability requires broadly based support. Empowering people mobilises local knowledge and resources and enlists the support and active participation of all who need to be involved in all stages, from long-term planning to implementation of sustainable solutions.

People have a right to be involved in the decisions that affect them. Attention needs to be given to empowering those whose voices are not always heard, such as the poor.



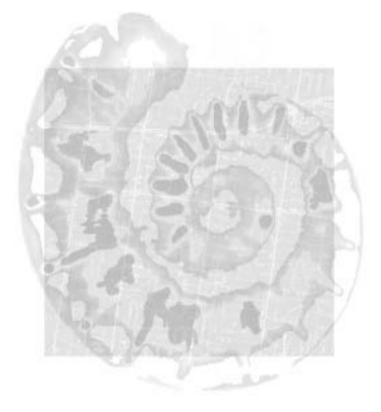
Expand and enable cooperative networks to work towards a common, sustainable future.

Elaboration

Strengthening existing networks and establishing new cooperative networks within cities facilitate the transfer of knowledge and support continual environmental improvement.

The people of cities are the key drivers for transforming cities towards sustainability. This can be achieved effectively if the people living in cities are well informed, can easily access knowledge and share learning. Furthermore, the energy and talent of people can be enhanced by people working with one another through such networks.

There is also value in cities sharing their learning with other cities, pooling resources to develop sustainability tools, and supporting and mentoring one another through inter-city and regional networks. These networks can serve as vehicles for information exchange and encouraging collective effort.



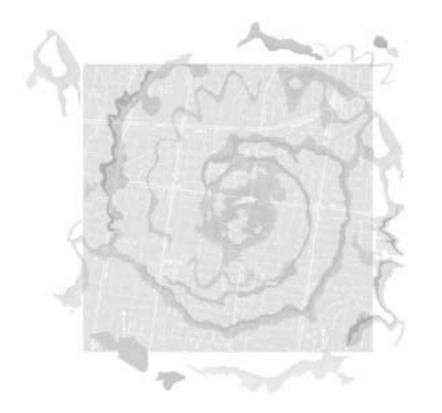
Promote sustainable production and consumption, through appropriate use of environmentally sound technologies and effective demand management.

Elaboration

A range of approaches and tools can be used to promote sustainable practices. Demand management, which includes accurate valuations of natural resources and increasing public awareness, is a valuable strategy to support sustainable consumption. This approach can also provide significant savings in infrastructure investment.

Sustainable production can be supported by the adoption and use of environmentally sound technologies which can improve environmental performance significantly. These technologies protect the environment, are less polluting, use resources in a sustainable manner, recycle more of their wastes and products and handle all residual wastes in a more environmentally acceptable way than the technologies for which they are substitutes.

Environmentally sound technologies can also be used to drive reduced impacts and enhance value along a supply chain and support businesses embracing product stewardship.



Enable continual improvement, based on accountability, transparency and good governance.

Elaboration

Good urban governance requires robust processes directed towards achieving the transformation of cities to sustainability through continual improvement. While in some areas gains will be incremental, there are also opportunities to make substantial improvements through innovative strategies, programmes and technologies.

To manage the continual improvement cycle, it is necessary to use relevant indicators, set targets based on benchmarks and monitor progress against milestones to achieving these targets. This facilitates progress and accountability and ensures effective implementation.

Transparency and openness to scrutiny are part of good governance.

The Principles for Sustainable Cities were developed at an International Charrette held in Melbourne (Australia) between 3 and 5 April 2002, organised by the United Nations Environment Programme International Environmental Technology Centre, and the Environment Protection Authority Victoria. Over 40 experts from around the world contributed to the preparation of the Principles; their support throughout this process is appreciated.

The International Environmental Technology Centre also thanks all those who were involved in the International Workshop on Cities as Sustainable Ecosystems (CASE) which took place in Toronto (Canada) on 18 and 19 March 2002, organised by the Toronto and Region Conservation Authority. It would also like to thank Environment Canada, which was the sponsor. The CASE Workshop was instrumental in defining many of the concepts which ultimately led to the development of the Melbourne Principles.

Melbourne City Council was a major sponsor of Charrette that formulated the Melbourne Principles. On 2 May 2002, the Council formally adopted the Principles as a guiding framework for making Melbourne a sustainable city.





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