

SUMMARY

Nillumbik Shire Council congratulates the Commonwealth Government on the referral of the House of Representatives Standing Committee on Environment and Heritage to consider the issues and opportunities to address Sustainable Cities to 2025.

Council welcomes the opportunity to participate in this consultative process and is pleased to make a detailed submission which Council believes will assist the Standing Committee in their deliberations.

Council's submission draws upon work which it has previously undertaken in preparing its submissions to *Melbourne 2030*.

Key themes and major issues within Nillumbik Shire Council's submission are:

- It is a positive and encouraging move by the Commonwealth Government to investigate and consider initiatives related to sustainable urban development;
- For the outcomes of any Inquiry to be effective there is a need for Commonwealth Government commitment to participation in urban settlement issues;
- Previous research has found that compact cities emphasising multi-nodal cities offer the best environmental, social and economic future;
- Open space is important to community wellbeing and higher density urban development or urban expansion need not be at the expense of open space nor the preservation of natural and culturally significant sites.
- Greater Commonwealth support for land management programs will enhance the environmental sustainability of urban areas. In this regard, due recognition must be given to the infrastructure and other costs borne by local government when seeking to provide basic services to residents within areas which have been designated as 'green wedges' or having similar attributes.

- There is a need to address the retrofitting of existing buildings, in the implementation of energy efficient practices, as well as within new developments and greenfield sites. In addition, industry has a key role in addressing the efficient use of energy including renewal energy sources.
- A catchment management approach is needed to address water management systems and due regard must be given to the initiatives undertaken by local government, particularly in relation to stormwater and domestic waste water management.
- Whilst considerable work has been undertaken in the area of waste management there is a need for particular attention to be given to waste minimisation by industry. Product stewardship and lifecycle assessments are two principles where the Commonwealth Government can play an important role in their promotion.
- Given the intrinsic relationship between transport and land use planning, Commonwealth Government involvement in these areas is essential. The Commonwealth Government can play a strong role in identifying public transport usage targets, modelling and researching travel demand and conceptualising how public transport improvements can be achieved, particularly in relation to the urban fringe.
- Key omissions in the Discussion Paper, however, relate to the important relationships between urban development and:
 - Social sustainability, social capital and community development;
 - Community safety;
 - Community health and wellbeing;
 - Provision of community, health and education facilities and services;
 - Affordable housing;
 - Innovative urban design; and
 - Cultural vitality and diversity.
- The Standing Committee ought to identify what partnerships with all levels of government, non-government organisations, the private sector and the community need to be either established or enhanced in relation to each of the seven visionary objectives and the outcomes recommended by the Committee.

- The Commonwealth Government has a responsibility to take a leadership role in the development of, and reporting on, indicators of the sustainability of Australian urban areas, taking a triple bottom line approach.

1. TERMS OF REFERENCE

The Terms of Reference established for the Standing Committee give particular attention to the impacts of urban development, and especially urban expansion, on the natural and built environment. The Terms of Reference also consider potential patterns of urban development and mechanisms by which the Commonwealth Government can influence such matters.

Whilst the Terms of Reference are comprehensive they are not translated into the issues and questions which are highlighted in the Discussion Paper, particularly in relation to the social implications of urban development. Nor does it consider the ongoing opportunities to establish comprehensive range of indicators and monitoring programs to assess the achievement of sustainable urban development. These matters are outlined in greater detail in Section 8 of this submission.

2. URBAN FORM

It is generally accepted that urban form and settlement patterns affect the way that cities and towns function and can lead to social, economic or environmental benefits. By contrast, the physical form of urban settlements can lead to serious environmental, social and economic issues.

Work undertaken for the Department of Infrastructure to assist in the development of Melbourne 2030, the Metropolitan Strategy to guide the development of Melbourne over the next 30 years, has particularly addressed the question of urban form and environmental benefits.

This research found that:

“A gradual consensus has emerged that compact cities emphasising the multi nodal city, with consolidation applied selectively around higher density mixed use activity centres linked to high quality (including high frequency) reliable public transport offer the best environmental, social and economic future. The benefits claimed include reduced car travel and emissions, lower infrastructure costs, more varied and intensified social activities particularly those associated with the public realm, protection of countryside, better access to services, and a range of claimed benefits relating to quality of life.” (Technical Report 1 – Environmental Issues and their Impact on Metropolitan Strategy, p.18)

This research also identified that Australian evidence indicated that “changes to the urban form of our cities could lead to substantial reductions to transport and housing energy use and infrastructure costs.” In particular, the quoted research found that greenfield residential densities of 15 lots per hectare and higher street connectivity led to a six per cent saving on infrastructure costs compared to a conventional development scenario using 10 lots per hectare.

Other research found that savings of up to 57% of transport energy use could be achieved primarily by increasing the proportion of local employment, retail and related land uses which provided high levels of self containment for daily activities.

Energy savings of up to 26 % over conventional detached housing could be made by designing houses to make the most of solar energy for heating and cooling, and using shared walls and floors like those in terrace or apartment housing.

The Discussion Paper has identified five possible planning designs including the:

- Compact city;
- Edge city;
- Corridor city;
- Fringe city; and
- Ultra city.

It is considered that, given the work undertaken as part of the preparation of Melbourne 2030, further research ought to be undertaken by the Standing Committee to verify earlier findings that compact cities emphasising the multi-nodal city offer the best environmental, social and economic future.

In relation to urban form, Melbourne 2030 has also sought to address the issues identified in the Discussion Paper through the designation of green wedges, growth corridors and opportunities for higher density residential development within and close to activity centres and redevelopment sites. Melbourne 2030 provides a comprehensive strategic plan for the future development of Melbourne over the next 30 years and is a positive and major contribution to setting the direction of how the metropolitan area will grow over this period. It provides the framework within which local government can plan for the future of their municipalities and provides one model for consideration by the Standing Committee in addressing issues of sustainability.

3. PRESERVE BUSHLAND, SIGNIFICANT HERITAGE AND URBAN GREEN ZONES

It is unclear from the Discussion Paper whether the term 'urban green zones' refers to areas of public open space or land within 'green' or 'rural' wedges as a used in the Melbourne 2030 context.

It is presumed, for the purposes of this submission, that the Discussion Paper means public open space area.

It is widely acknowledged that open space is important to community wellbeing. The open space network of formal and informal parks and reserves, sporting fields, conservation areas, waterways and trails is an integral component of why people choose to live in or visit places such as the Shire of Nillumbik. Open space plays a major role in the sustainability of the Shire by protecting the environment and improving the overall quality of life for residents and visitors. It provides opportunities for people to relax, exercise, socialise and enjoy nature and it also assists in promoting the Shire as a tourist destination.

Higher density urban development or urban expansion need not be at the expense of open space and the preservation of bushland and culturally significant sites where careful strategic planning has been undertaken. The use of Incorporated Plans, Development Plans and planning scheme controls contain a suite of mechanisms to ensure that natural and culturally significant sites are protected.

The Nillumbik experience has been that remnant vegetation can be retained on private land, and it is not necessary that the protection of remnant vegetation is solely achieved through it being in public ownership. Traditionally, land use planning has sought to protect bushland and conservation areas through planning scheme controls and regulations. Alternatively, public ownership has been viewed as another tool of affording protection to sites of environmental significance. However, in many localities, particularly in proximity to urban areas, sites of high conservation significance remain in private ownership and land acquisition is decreasingly an option for public authorities, not only because

of the prohibitive cost of acquisition but also the ongoing maintenance costs that these sites require.

It has, therefore, been necessary for this Council to consider other incentive programs and opportunities to protect areas of bushland which remain in private ownership, and this is an area where the Commonwealth can also take a greater role. In addition, as urban development encroaches, management techniques for publicly owned sites have needed to be cognisant of community concerns regarding public safety, conflicting expectations of management regimes and increasing demands for urban/residential amenity.

It is clearly recognised that one model does not fit all. Different models suite different communities and it has been the experience of Nillumbik Shire Council that programs and opportunities for community partnership and participation need to be tailored to the attributes and requirements of individual communities. From established suburbs and towns to more isolated rural communities, programs have been established which have a common goal of protecting and enhancing the natural environment. Nillumbik Shire Council has responded to these challenges through the development of an innovative range of land management incentives for private landowners and community participation programs. Land management incentives for private landowners that are designed to enhance biodiversity and protect bushland include rate rebates, biodiversity enhancement grants and financial assistance for pest plant and animal control activities. Landowners are facilitated to join together to establish community working groups which can tackle specific issues, such as rabbit control. In many instances these partnerships often lead to other community development achievements. Greater Commonwealth support for such programs will enhance the environmental sustainability of the urban areas.

In this regard, Council's submission to Melbourne 2030 placed particular emphasis upon the fact that the successful implementation of Melbourne 2030 is dependent upon adequate resourcing and accountability for implementation. In this regard Council proposed that the Victorian Grants Commission must provide for an 'environmental factor' within its funding formulae for designated 'Green Wedge' areas. Such an approach would provide due recognition to the

infrastructure and other costs borne by Councils seeking to provide basic services to residents within 'Green Wedge' areas. Council believes that similar resourcing issues ought to be considered by the Standing Committee when assessing the implications for local government in implementing its recommendations.

4. ACCESS TO AND EFFICIENT USE OF ENERGY, INCLUDING RENEWAL ENERGY SOURCES

Whilst the Discussion Paper concentrates its consideration on the implementation of energy efficient practices within new developments and greenfield sites, there is a need to also address the retrofitting of existing buildings; whether they are for residential, commercial, industrial or public uses.

Given the significant additional costs of retrofitting existing buildings, there is a need for ongoing financial incentives and support for research and development projects, rather than short-term pilot projects, which can initiate and support the continued implementation of energy efficient designs and infrastructure.

A National Standard or Approach to measuring environmental sustainability in the built environment would reduce a significant amount of work being duplicated at the State and Local Level (refer attached).

Council recognises that manufacturing industries have a key role to play in the continued transition to the use of renewal energy resources given their significant usage of energy resources. There is the capacity for the industrial sector to lead by example in the more efficient use of scarce energy resources. As such, there is a particular need to target incentives and programs to the industrial sector given that it is a major user of energy.

5. WATER AND STORMWATER MANAGEMENT SYSTEMS

A catchment management approach is needed to address water management systems. The Green Paper on *Securing Our Water Future*, recently released by the Victorian State government places a strong emphasis upon catchment management. In this regard, the Standing Committee's attention is drawn to the proposals within the Green Paper to seek to achieve smarter water use in urban settlements by:

- Reducing potable water consumption in the household and industry via a range of mechanisms;
- Substituting recycled water and stormwater for potable water to extend the urban water supply;
- Increasing the use of recycled water for industry, agriculture and environmental uses; and
- Promoting the adoption of innovative technologies to extend the supplies of potable water.

A major deficiency of this Green Paper is the lack of recognition that it affords to the initiatives undertaken by local government. Acknowledgment needs to be provided to the work undertaken by local government in the areas of stormwater and domestic waste water management. In particular, there is the opportunity for the Commonwealth to financially support the implementation of these initiatives.

Pricing policies need to be considered in relation to water consumption and incentives provided to facilitate the use of water efficient infrastructure such as the third water pipe. For example, reductions in headworks charges ought to be provided where a third water pipe is installed.

As there is currently a national electricity grid, a national grid for water supply (especially in relation to the eastern states) ought to be investigated.

In relation to stormwater and waste water management, a primary principle for new developments ought to be the concept of no net gain in relation to runoff and waste water.

6. DOMESTIC AND INDUSTRIAL WASTE

Whilst considerable work has been undertaken in the area of waste management, especially at the local and regional level, there is a need for particular attention to be given to waste minimisation in industry which is a key generator at the present time. As indicated previously in this submission, in areas of resource management, industry can play an important leadership role in reducing energy usage and waste creation.

In the broader context, product stewardship, not only involving the consumer but also the producer, is an important element in the management of both domestic and industrial waste, which is an area where the Commonwealth Government has a key role to play in promoting such responsibility.

Lifecycle assessments of products (from cradle to cradle) is one mechanism for ensuring that there is a clear understanding of an individual product's waste implications.

7. SUSTAINABLE TRANSPORT NETWORKS

Given the intrinsic relationship between transport and land use planning, Commonwealth Government involvement in transport planning and provision is essential if it is to take an active interest and participatory role in broader urban settlement issues. In this regard, the Commonwealth Government's interest and involvement in the provision of public transport in urban areas would be welcomed, and it is an area where the Commonwealth could take a more significant role.

Council notes with interest that in the United States, 75% of the costs of new urban rail and light rail lines is directly funded from Federal fuel taxes (Public lecture by visiting American expert GB Harrington, sponsored by the Victorian Department of Sustainability and Environment 28 October 2003, Melbourne).

Melbourne 2030 strongly encourages the role of public transport as a means of achieving a sustainable transport system, a principle that is strongly supported by this Council. However, the draft Integrated Transport Implementation Plan, which was designed to support the achievement of this vision, suffers from a range of omissions including:

- A lack of public analysis, research or cost-benefit assessment of options and concepts for changes to the transport system;
- Not enough commitment to dates for implementation of strategic plans or specific infrastructure improvements;
- Very little, if any, financial analysis of the order of expenditure requirement in public transport to achieve the goal of 20% public transport trips by 2020;
- No overall financial planning or analysis relating to important issues such as road pricing, public transport fares and subsidies or the wider issues of subsidies to different transport modes;
- Very little discussion on how the public transport system could be developed to deal better with the needs of the urban fringe or, for that matter, the more dispersed outer suburbs; and
- Little conceptualisation of a future bus network with better differentiated services ranging from long haul mass transit to low volume local services.

It is therefore considered that, in the absence of this work at the metropolitan and State level, that the Standing Committee and ultimately the Commonwealth Government can play a clear role in relation to:

- Identifying public transport usage targets and funding commitments required to achieve such targets;
- Modelling of financial plans required to achieve such mode shifts and dealing with such issues as pricing, marketing, subsidies and funding of key projects;
- Conceptualisation of how public transport changes can be achieved including differentiated services for mass transit, long haul (cross-town) and urban fringe applications and stronger integration of modes;
- Upgraded modelling and research to analyse travel demand including changes in employment location and dispersal of jobs, changing school profiles and locations and changing demographics; and
- Improvements to public transport services relevant to the urban fringe.

As indicated in Section 2 of this submission, research has found that savings of up to 57% of transport energy use could be achieved primarily by increasing the proportion of local employment, retail and related land uses which provide high levels of self containment for daily activities. Thus, confirming the strong correlation between land use and transport planning as well as providing strong justification for the involvement of the Commonwealth Government in such issues.

8. FURTHER OPPORTUNITIES FOR ADDRESSING SUSTAINABILITY OF URBAN AREAS

The Terms of Reference for the Inquiry refer to the need to consider the environmental, economic and social implications of urban development. Whilst the Discussion Paper details seven visionary objectives for a sustainable city, the questions posed under these themes focus predominantly on environmental and to some extent economic issues. The Discussion Paper provides limited reference to the importance of considering the social implications in the planning, design and development of sustainable cities.

Of particular importance is the need to address the social issues/impacts in relation to:

- Social sustainability, social capital and community development;
- Community safety;
- Community health and wellbeing;
- Provision of family services and aged persons services; and
- Education and health facility provision.

Another matter, which the Standing Committee ought to consider, is the role of housing, and particularly affordable housing in the creation of sustainable communities. Affordable housing is an issue where land use planning only impacts to a minor extent. That extent is essentially in relation to ensuring that an adequate supply of land for residential growth is available, to avoid the shortage of land supply resulting in speculative property investments and land inflation. The far greater influences upon affordable housing are the broader economic matters such as the state of the economic and government policies, in which the Commonwealth Government has a major role. Therefore, if the need for affordable housing is to be effectively tackled a comprehensive strategy, property researched and fully debated with the community is required and could include such matters as the impacts of stamp duty and government policies/programs (eg. first home buyers schemes) as well as the direct supply of housing stock as low income housing through the Commonwealth State Housing Agreement.

In addition, innovation in urban design, creativity and cultural vitality and diversity are all essential elements of a sustainable urban environment. The Terms of Reference, and consequently the Discussion Paper, do not recognise the importance of cultural enterprise and activity in contributing to the vitality and sustainability of urban settlements.

Whilst the Commonwealth Government can play a critical role in shaping urban development policy, the attainment of such policies will be dependent upon the maintenance of robust partnerships between all levels of government as well as with non-government organisations, the private sector and the community. It is essential that the Standing Committee identify what partnerships need to be either established or enhanced in relation to each of the seven visionary objectives.

Finally, there is the opportunity for the Standing Committee to identify mechanisms for the Commonwealth Government to take a leadership role in the development of, and reporting on, indicators of the sustainability of Australian urban areas, taking a triple bottom line approach. Such indicators could be based upon the seven visionary objectives and provide a 'whole of Government' reporting system.

Overview of ESD Regulatory Tools & Approaches

Planning Tool	Where Used	Scope	Application type	Key Features/Issues
FirstRate/NATHERS	VIC, NSW, ACT, QLD, WA, SA, TAS	Building envelope thermal performance	-New residences -Existing residences: -ACT (sale) -Melbourne City Council?	-Software based performance simulation -Limited to building envelope -Rating is on unit area basis so not related to dwelling size
Residential Performance Guide	ACT	-Energy: building envelope + appliances -Water use -Stormwater detention -Materials	New single detached houses within existing urban area	-Tabular format + information guide -Direct link between ACT GHG target & measures -Energy & water use - performance based -Materials & stormwater - qualitative measures
BASIX	NSW – July 2004 QLD WA?	-Water -Energy -Waste -Stormwater detention, use & quality -Social -Transport -Landscape -Materials	All new residential development	-Performance based -Site rating -Neighbourhood rating indicates context of site -Single system allowing for local variation -Web interface -Contextual information via GIS
Docklands ESD Guide	Melbourne Docklands	Biodiversity, Soil, Water, Atmosphere Transport, Energy, Building Materials Indoor environmental quality, Waste, Innovation	Commercial & residential	-Spreadsheet based tool -Incorporates ABGR & FirstRate -primarily performance based criteria
Sustainable Design Scorecard	City of Port Phillip	-Energy: building envelope + appliances -Water use -Stormwater detention & use -Recycling -Transport (Bicycles) -ESD Excellence	All new residential development including extensions Undergoing 'Voluntary' trial prior to Amendment	-Tabular format + information guide -Direct link between point score & environmental impact -Energy, Water & Stormwater criteria performance based -Materials & transport prescriptive
Doncaster Hill Ecologically Sustainable Design Policy	Doncaster Hill Activity Centre (Manningham)	-Energy efficiency -Water conservation & reuse -External building materials -Building interiors -Waste minimisation/avoidance -Quality of public & private realm -Traffic & transport -Construction & demolition practices	New commercial & residential Panel Report (C33) just released.	-Some performance based requirements but most criteria qualitative/subjective -Applicant submits 'sustainability management plan' -Approval at discretion of council -Ongoing monitoring by Council
Ecologically Sustainable Buildings Policy	City of Melbourne	-Energy & greenhouse core issues -Water efficiency & materials if non compliant -Solar collector overshadowing	-New residential -Renovations/extensions Office > 2,500m ² Panel report (C60) just released	-Effectively limited to energy/greenhouse -FirstRate – 5 stars, ABGR 4 Stars -ABGR requires post occupancy evaluation
Building Regulations	Victoria	FirstRate - 5 stars AAA taps Rainwater tank or Solar HWS	All New residential July 2004 (options) July 2005 Commercial 2006??	-Captures all new dwellings -Excludes heating appliances -No size/occupant correction