

Making urban sprawl work

Urban sprawl is one of the big challenges facing our cities. With the proper approach it can work, say submissions to a House of Representatives inquiry into sustainable cities.

They are popping up everywhere—new urban developments, many on the fringes of our cities, as people move further and further from city centres to get their piece of the Australian dream.

The result is urban sprawl, which is copping the blame for many of the woes of modern day living. Because of urban sprawl we're spending too much of our time stuck in traffic getting to and from work. We've got more pollution because there are too many cars on our roads. We're getting fatter because it's too far to walk to school or to the shops. Garbage trucks can't even fit down some of our streets. And we don't know our neighbours any more.

But some submissions to the House of Representatives Environment Committee's inquiry into sustainable cities say urban sprawl doesn't need to be a dirty word.

"It is possible to create larger cities or regional centres that provide effective, energy conscious and affordable housing close to work places that sustain local environments and allow commuters to journey to work in travel modes that are greenhouse efficient," says the submission from the Hickinbotham Group, a major home builder and land development company in South Australia and Queensland.

"Sprawl does not necessarily mean environmental and social degradation just the same as increasing residential densities with the threat of overcrowding and traffic generation also does not mean degradation. It comes down to the effective planning and integration of our cities."

Delfin Lend Lease, one of Australia's largest developers of urban communities, agrees. It says the problems associated with urban sprawl arise when development is done without integrated planning.

"Most new urban development in Australia occurs on a piecemeal basis with the result that employment, services and transport lag behind actual needs," Delfin Lend Lease says. "Much of the workforce in outer suburbs has to travel outside the locality in order to access employment."

A better option, it says, is to have master planned communities that from the outset integrate housing with a range of business, health, education and recreation facilities. It believes master planned communities offer the best opportunity to achieve a greater range of social, economic and environmental objectives than any other form of new urban development.

Delfin Lend Lease currently has 20 urban projects under way. One of its most extensive is Forest Lake, a master planned community in Brisbane.

Housing development on the Gold Coast (Qld). Photos opposite and overleaf: AUSPIC

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Commenced in 1990, the project covers 1,010 hectares of land divided into some 20 individual villages. The development will include over 7,700 dwellings, a nursing home, retirement villages, five early learning centres, three primary schools, two secondary school campuses, a major district shopping centre, three neighbourhood centres, recreational facilities, more than 35 kilometres of hike and bike trails, more than 130 hectares of parkland and an 11 hectare water body. When completed in 2006, the master planned development will accommodate around 22,000 people.

“By virtue of their size and approach, [master planned communities] offer a degree of comprehensive and co-ordinated planning that simply cannot be achieved by fragmented and piecemeal development at the urban periphery or in infill sites,” says Delfin Lend Lease’s Queensland General Manager, Guy Gibson.

He believes there are clear advantages to the wider community in applying a land release model that encourages the market to assemble parcels of land that can be holistically planned and then developed in a co-ordinated way.

“As a general rule, master planned communities offer economies of scale in the provision of infrastructure that seldom can be achieved with fragmented and piecemeal development.

“A further advantage of size is the ability to attract substantial partners who in turn bring resources, knowledge and skills to contribute to the new community’s development.

“Frequently this can lead to innovation and fresh new approaches to service provision that find less fertile ground in traditional forms of urban development.

“Most new urban development in Australia occurs on a piecemeal basis.”

“For example, at St Mary’s in Sydney’s west, we are partnering with Mission Australia to develop some different approaches creating genuinely affordable housing for low income families and special needs groups.”

Delfin Lend Lease says a more desirable pattern of development for Australian cities would include more greenspace protection, more workers living in close proximity to city centres and more jobs in outer suburban areas where the majority of workers live. It should also include enhanced opportunities



Environment Committee members inspecting master planned communities on the Gold Coast.

to travel by public transport and for walking and cycling, as well as the development of communities in outer suburbs that are more self-contained. This would involve “the creation of real ‘neighbourhoods’, with schools, shops, community facilities and jobs provided locally”.

The Hickinbotham Group says its ideas for a more sustainable city draw inspiration from the townships that evolved in the Middle Ages.

“We believe there is a much more innovative approach to development—that is, a series of nodal villages,” says Managing Director Michael Hickinbotham. “These are villages that would comprise between 2,000 and 5,000 citizens. They would be ringed by agriculture. They would have an old-style town square.

“Studies show that people, if they have a choice, prefer to live in a rural or semirural environment.

“The idea is high quality housing that is energy efficient which would reclaim and re-use its waste water. That waste water would then be piped, once it is filtered and purified, back into the home so it can be used for non-potable purposes. It could also be used for productive purposes within the ambit of the town itself. That would create wealth and employment. It would create a better living environment. It is a more sustainable model of development.”

Mr Hickinbotham says government land release policies can work against such sustainable development approaches.

“The system we have at the moment in Adelaide is that they put a ring around the city, supposedly because the government does not want urban sprawl and it cannot afford to pay for infrastructure,” he says. “Sixty per cent of the land sold within that boundary is owned by the Land Management Corporation, which is a government authority. Their charter is to maximise revenue to the government.

“What they are doing is creating urban sprawl. They have hemmed us in. We are constrained. If we pay the sort of money they want for an allotment, we cannot do anything other than develop in the traditional way. We do not think that is necessarily a good thing.”

Mr Hickinbotham says the constraints that developers are operating under make it almost impossible for private developers to be innovative.

“When planners gained the ascendancy, they had this idea that all the people should be here, all the employment should be here, all the light industry should be here, and everyone should travel by car.”

He says the Hickinbotham Group would like to create more “nodal villages” but are constrained by the cost of land.



VARSITY LAKES

“Unfortunately, with the government selling land and maximising the price, and other developers bidding up the value of that land, it means they want to see it cut up into smaller and smaller allotments with larger and larger houses on them. It is completely the opposite of what we would advocate.”

Delfin Land Lease says one of its concerns is that planning approval processes are not geared to large scale, long-term developments.

“An ongoing issue, certainly with local authorities, is getting them to understand that we are here for eight, 10, 12 or 15 years,” says Delfin’s Queensland Engineering Services Manager, Robert Ball. “When we go back trying to get approvals for various things, you get treated as though you have 50 lots down the road, you are going to do it and then take off and they will not see you for dust in 12 months time.”

Queensland General Manager Guy Gibson says there are almost diseconomies of scale at an approval level for very large projects.

“Given that there is a fairly widespread acknowledgment that these sorts of large scale projects do result in better outcomes, you would think that the systems would be set up to facilitate and encourage those kinds of projects,” he says. “But, in fact, in a way the systems are really set up to encourage and facilitate the smaller scale, single-use residential projects rather than the large scale, complex, mixed-use, integrated projects like ours.”

As for any action that can be taken at the national level to help with development of sustainable cities, Mr Gibson sees merit in a proposal from the Property Council of Australia for the establishment of a new agreement on sustainability from all levels of Australian government. This agreement would commit all governments to the better alignment of development and environmental objectives. Similar to the National Competition Council, payments to states and territories would be conditional on implementation of the agreed sustainability principles.

Speaking after committee inspections of housing developments, then House of Representatives Environment Committee Chair, Bruce Billson (Member for Dunkley, Vic) said the issues raised in submissions and at hearings were being worked through by the committee to identify what the federal government legitimately and reasonably is able to do within our federal

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system to advance the opportunities that have been identified to create more sustainable cities.

“Getting the best out of all the contributors to this debate means formulating plans for the future we all feel part of and own,” said Mr Billson, “where different levels of government share this vision for the future and invest taxpayer funds in ways that help to achieve a shared purpose, where developers and investors are encouraged and rewarded

to do helpful things and where individual projects and personal choices are pursued with an eye to what a more sustainable city means.” ■

Links and contacts

Visit: www.aph.gov.au/house/committee/environ

Phone: (02) 6277 4580

Email: environment.reps@aph.gov.au

Where have all the clothes lines gone?

The disappearance of the humble clothes line from Australia's urban environment must be viewed with alarm according to one academic's submission to the federal parliamentary inquiry into Sustainable Cities 2025.

Australian universities have been prominent in the House of Representatives Environment Committee's investigation that has received 186 submissions to date.

Environmental and urban specialists from the University of NSW, University of Western Sydney and the Australian National University have all made contributions to the wide-ranging inquiry on how to make cities better places to live.

Dr Richard Corkish, who heads the Centre for Photovoltaic Engineering at the University of NSW, lamented the demise of clothes lines as a costly consequence of poorly planned higher density living.

Dr Corkish's submission warned of the impediments to utilising renewable energy sources in residential, commercial and industrial areas.

“Recent trends to urban consolidation have had severe impacts on solar access and have thus eliminated the option of many solar technologies for the life of the development—perhaps several hundred years,” Dr Corkish said.

“In addition to the inability of many buildings to capture passive solar benefits or to use solar water or PV [photovoltaic] systems, an important but little discussed impact of trends to higher density has been the elimination of backyard space for clothes drying. The latter has resulted in many new residential developments relying totally on electric or gas clothes dryers, with substantial increases in household energy use and its associated impacts.

“In a country with so much sun, increasing use of electricity and gas to dry clothes is a major policy failure.

“Solar access criteria should be a mandatory part of all building development application processes.”



Photo: Newspix/Mark McCormack

Dr Corkish wants governments to actively increase the uptake of renewable energy supplies in residential and commercial properties.

“The introduction of uniform mandatory energy standards for new buildings and major retrofits must be fast tracked,” he said.

“Renewable energy options from passive solar design through to solar water heaters and photovoltaic systems can readily be included. Such an approach will immediately alert developers to the cost effectiveness of correct building orientation and preservation of solar access. This in itself is the crucial first step in facilitating the use, either at construction or later on, of solar technologies.”

Another submission, from the Centre for a Sustainable Built Environment (CSBE) at the University of NSW, also warned about future energy supply problems hampering the imperative of achieving more sustainable cities.

The CSBE expressed significant concerns about the current energy supply options available to Australian cities and the nature, mix and growth in demand for energy. There were even greater concerns about the increasing inefficiency of energy supply in urban areas, as well as the increasing per capita energy use in these areas.

Uncontrolled increases on local area transformer systems could possibly result in a repeat of the recent New York power failures in western Sydney. Peak demand growth alone needs particular consideration, with increasing house sizes and high use of

mechanical systems for comfort being areas of concern.

Some of the CSBE's suggestions for governments include:

- policy that promotes decentralised supply options such as photovoltaics, biogases, wind and fuel cells;
- government subsidies for such technologies not only to ensure faster adoption but industry development as well; and
- promotion of renewable options for all sectors of the economy and all types of buildings and consumers.

The director of the Centre for Sustainable Energy Systems at the Australian National University, Professor Andrew Blakers, warned a bold new approach would be needed to encourage home-owners to make their homes more energy efficient by 2025.

“Mass retrofitting of energy saving devices and renewable energy equipment to houses, commercial buildings and industrial sites will be required to meet greenhouse targets.” Professor Blakers said.

“The reason for this is that turnover of buildings in Australia is low, which severely limits the rate at which greenhouse gas emissions from buildings can be reduced by building better buildings. I propose solarization as a practical and politically palatable solution to the problem of funding retrofitting.

“Mass retrofitting of roof, wall and floor insulation, draught proofing and solar water heaters to existing buildings (solarization) will yield large greenhouse gas reductions. In a typical brick veneer house the cost of thorough solarization is about \$8,000. The reduction in energy bills pays for solarization well within the lifetime of the solar water heater and insulation.”

Professor Blakers said current barriers to mass solarization include the need for up-front capital and the lack of information on the part of building owners. ■

The submissions and transcripts of hearings from the Environment Committee's sustainable cities inquiry are available at www.aph.gov.au/house/committee/environ or email environment.reps@aph.gov.au or phone (02) 6277 4580 for more information.