

BETTER VALUE FROM GREENFIELD URBAN INFRASTRUCTURE IN VICTORIA

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INTRODUCTION

This paper discusses how excessively fragmented development on Melbourne's urban fringe is diluting the value which State and local Councils can generate from their considerable investment in infrastructure to service this growth. This dilution of value means that growth area households must wait longer for facilities and services than they need to.

We conclude with a proposal to transfer the risks of fragmented development to the parties who are best placed to manage them, namely, the private proponents of new housing on the fringe.

A \$20 BILLION INVESTMENT

SGS Economics & Planning (SGS) estimates that, depending on exactly what infrastructure assets are included, the State Government outlays about \$50,000 for every new home in Melbourne's burgeoning greenfield growth areas to supply arterial roads, schools, public transport links, health care facilities and other regional level infrastructure, as well as part funding of local facilities like sport and recreation centres. At \$50,000 per dwelling over a thirty-year period, State Governments can expect to invest \$11 billion in present value terms¹ to set up this infrastructure for the growth areas. This investment excludes creation of electricity, water supply and sewerage infrastructure, which is now provided by private or Government owned businesses and funded mainly by recurrent charges.

The \$11 billion cost is partly offset by the Government's Growth Area Infrastructure Charge (GAIC) which is levied on land owners when farmland is rezoned for housing development. The GAIC produces about \$6,100 per dwelling. The remainder is paid for by the general taxpayer.

SGS further estimates that, for their part, the Councils in the growth areas will deliver local infrastructure programs at the rate of around \$38,000 per home, amounting to a present value investment of \$8 billion over 30 years. This cost is in part defrayed via statutory Development Contribution Plans (DCPs) put together under the aegis of the State's Victoria Planning Authority. DCP levies currently vary between different growth areas, but average around \$23,000 per dwelling².

The remainder is paid by the ratepayer. The Government has announced the introduction of 'standardised infrastructure charges' to replace variable DCP levies for local government infrastructure. This will streamline administration of revenue collection but will not materially affect the overall level of infrastructure cost recovery by Councils.

The recurrent costs of providing services related to this infrastructure is then funded from taxes (Federal, State and Local) and user fees and charges.

Clearly, providing infrastructure for Melbourne's outward urban growth is a significant financial undertaking. One would expect that this investment would be made in the most efficient way possible, both in terms of the aggregate amount of capital resources which are needed and the flow of these resources into built facilities over time.

¹Using a real discount rate of 4%

²Based on 15 dwellings per net developable hectare

Certainly, if an urban infrastructure PPP to the value of close to \$20 billion over 3 decades were to be on offer to the market, the likes of the merchant banks, their construction companies and their investors would make sure that engineering designs would be as cost effective as possible within the performance requirements set by Government, and that optimal timing is applied to the blending of equity and borrowings to finance the project.

FRAGMENTED DEVELOPMENT SAPS THE EFFICIENCY OF GREENFIELD INFRASTRUCTURE INVESTMENT

How efficient is the infrastructure investment program in Melbourne’s growth areas?

Based on our review of growth management in Wyndham, one of Australia’s fastest growing municipalities (by rate and volume), there would appear to be great scope for improving efficiency in infrastructure investment.

The number of simultaneous growth fronts in Wyndham rings immediate alarm bells. There are more than two dozen, effectively independent, development areas across the

municipality (see Figure 1). This suggests that the triggers for the provision of infrastructure are being met in multiple locations at once, meaning that available capital funds must be spread thinly, and new communities must wait longer than necessary for adequate services and facilities.

A schematic example illustrates the efficiency loss in this multi development front situation. Figure 2 (overleaf) shows a hypothetical growth corridor structured around a major highway spine. In the second panel of the diagram, a cohort of growth, shown as a shaded rectangle, is sufficient to trigger the provision of a particular item of infrastructure – say a school – indicated by the black disc. Once supplied, the school can efficiently cope with two further cohorts of growth. Four cohorts of growth occur in this panel meaning that 2 schools would need to be delivered over the period in question. Consider the same quantum of growth (four cohorts) occurring over the same period but distributed across four growth fronts (panel 3 in the diagram). Within the same growth period, this pattern of development triggers the need for four schools, as well as the need to expand road capacity for the full length of the corridor compared to half in the sequenced situation. If one sets aside the scarcity of government resources for investment in

FIGURE 1 DEVELOPMENT FRONTS IN WYNDHAM 2016

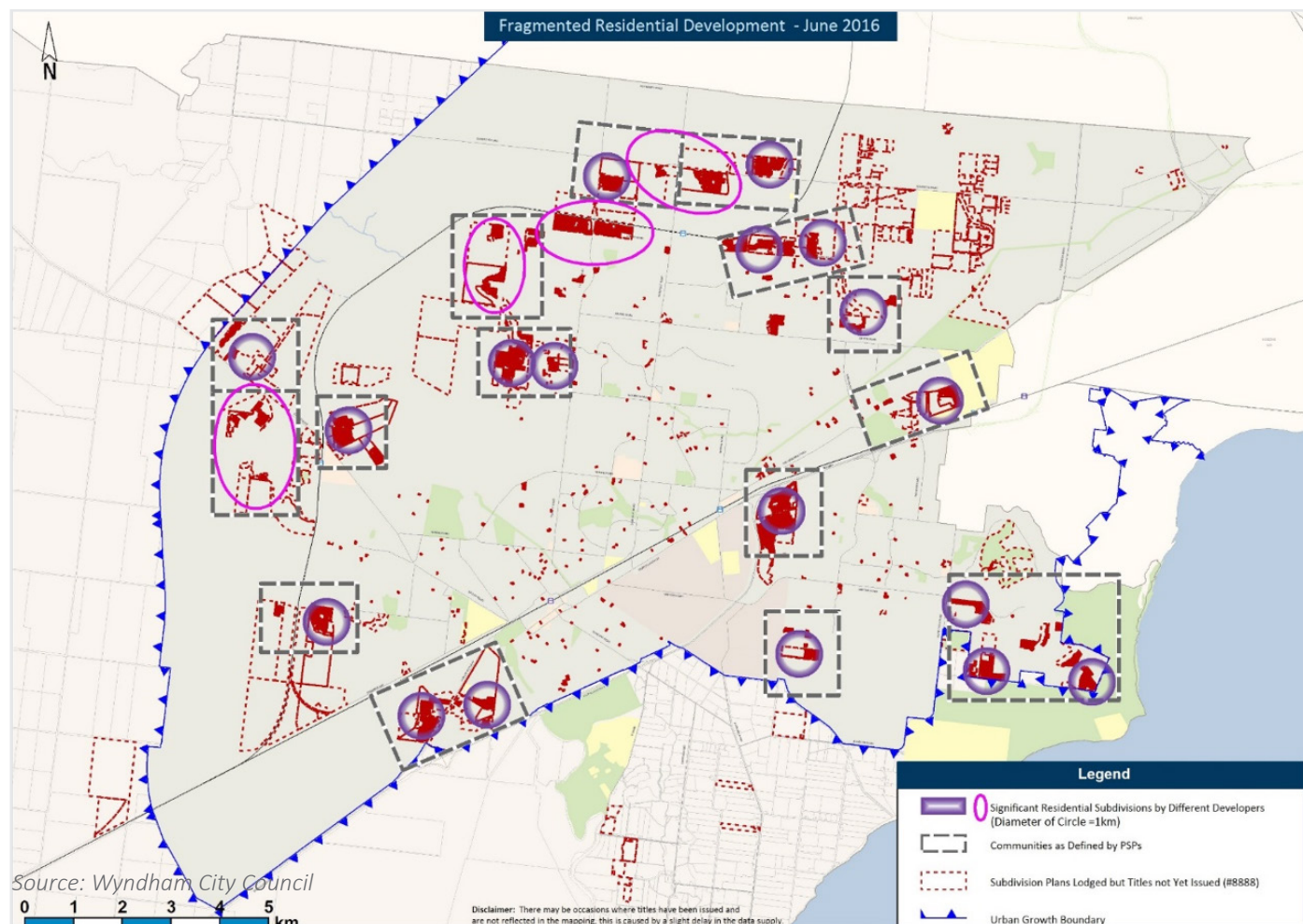
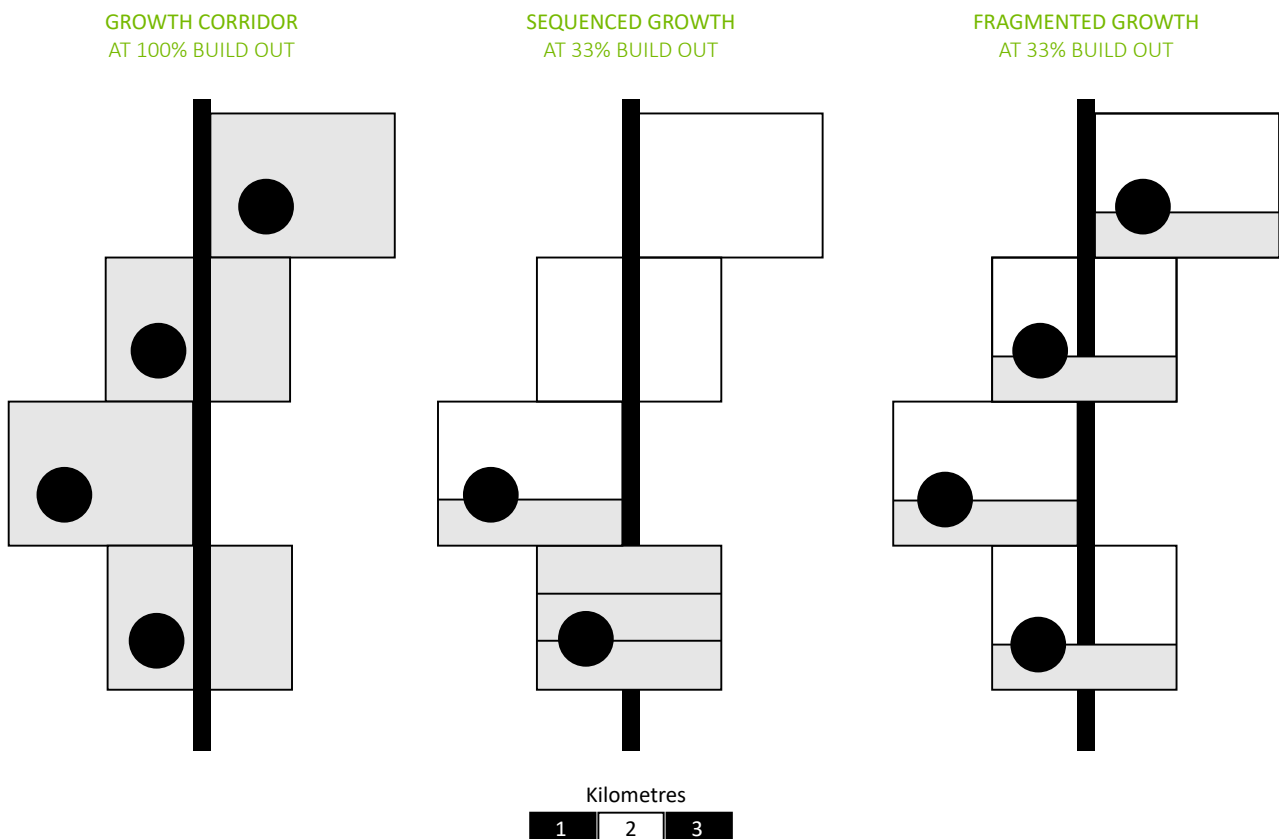


FIGURE 2 SEQUENCED VERSUS FRAGMENTED GROWTH



infrastructure and the cost of money, the cost of supplying infrastructure will be the same for both Panels 2 and 3 at 100% build out. However, in present value terms, sequenced development would deliver the same infrastructure at a lower cost than the fragmented development pattern.

By way of illustration, if, hypothetically, government were to enter into a public private partnership for the supply of schools in the corridor in question, the private partner would seek a significantly greater fee were it to be required to commit to a supply pattern driven by fragmented as opposed to sequenced growth. This is because the private partner would be exposed to a greater risk of having to outlay more capital sooner, and these 'accelerated' outlays will need to earn a suitable return.

GREENFIELD HOUSEHOLDS PAY THE PRICE OF FRAGMENTATION

In reality, governments have more or less fixed budgets for investment in growth area infrastructure. This means that the inefficiency of providing infrastructure into a fragmented development pattern is borne not in higher outlays by Government and Councils, but rather in extended waits for warranted roads, schools, community facilities and other services on the part of emerging growth area communities.

Whether the cost is financial, or felt in delayed service delivery, it is likely to be substantial. Unfortunately, the financial (as distinct from social and environmental) benefits of optimal staging of urban development in Australia is a neglected area of research. Perhaps the most important

³Kinhill Engineers Pty Ltd (1995) Smart planning not sprawl : the costs & benefits of alternative fringe development, Discussion paper (Australian Urban and Regional Development Review), published by Commonwealth Government

contribution to date was made more than 20 years ago in a study completed for the Queensland and Commonwealth Governments by Kinhill⁹. This study assessed different forms and sequences of development for a population of 100,000 in the Gold Coast corridor in Queensland. It found that staging land release around infrastructure capacity would generate a saving of around 2.5% in the delivery of roads, water supply, sewers and other facilities.

Applying this finding to the Victorian State Government's projected \$11 billion outlay in outward urban expansion in Melbourne, a saving of close to \$300 million (present value) is on offer. If Council funded infrastructure is considered, the total saving is close to half a billion dollars.

WAYS FORWARD

What can be done about this lack of financial efficiency and/or unnecessary delays in the delivery of infrastructure and services for growth area households?

Prescribing a fixed staging pattern for development, whereby a particular development area or front is 'substantially' completed before a new one is opened up could create more problems than it solves. It would reduce housing choice on the urban fringe, and it would most likely hand monopoly power to owners of urban designated land which is privileged by the staging plan. This could militate against housing affordability.

The objective of maintaining competitive dynamism in the greenfield housing market while improving the efficiency of the community's \$20 billion infrastructure roll-out requires a more appropriate allocation of staging risk. Specifically, this risk should rest with the party best able to manage it – the private sector.

Such an approach would see Councils and Government agreeing on a preferred sequence of development for the purposes of planning an efficient roll-out of infrastructure, taking into account housing demand and the associated land requirements in a particular growth corridor. Proponents would be permitted to undertake 'out of sequence' projects at their discretion, but would be required to compensate infrastructure agencies for the net additional costs attaching to modification of their roll-out plans to accommodate the divergent projects.

Under Victoria's current growth management system, it is possible to stage the roll-out of Precinct Structure Plans (PSPs) and contain the number of developable areas to some extent through planning controls. However, as noted, strict land release staging can be counterproductive in terms of other policy objectives, namely the retention of competition in land supply and maintenance of affordable housing.

A better approach would be to develop a 'nominal' preferred staging of development across all PSPs, but making it clear to the market that out-of-sequence projects would be accommodated provided two conditions are met:

THE COST OF FRAGMENTATION (1)

Schools provision in outer urban areas is lagging residential development. Those provided become rapidly overcrowded.

Currently there are schools in the growth areas of Wyndham with 300 prep year enrolments. This is generally not regarded as a satisfactory learning environment for a 5-year-old. Total enrolments for some P-7 schools are over 1,000.

Overcrowding is managed with large numbers of portables. These end up being placed on what was supposed to be the school ovals. This, in turn, requires use of adjacent Council ovals and facilities.

Given the heavy demand both during and outside school hours this becomes "over use" and playing surfaces deteriorate and cannot be adequately maintained as a result. When schools do build their ovals, there is not sufficient funding provided to irrigate them and they are not "fit for purpose" in terms of community use outside school hours.

THE COST OF FRAGMENTATION (2)

The frequency of bus reviews, with consequential introductions of new services in greenfield areas in Melbourne is “episodic” rather than scheduled, even though there is excellent predictive data, with planning and building approvals providing good lead times for service planning. In mid-2016, in the City of Wyndham, there were over 8,000 dwellings or over 20,000 people living more than 400 metres from a bus stop. Since then another 3,000 dwellings have been built and most of these will be in areas with no bus services.

1. The proponent’s project will form a viable and cohesive community in the short term, and
2. The proponent enters into an agreement to compensate all infrastructure agencies (local and state) for the additional infrastructure costs caused as a result of the project being out-of-sequence.

In this model, a benchmark sequencing of new suburb development would be agreed between the growth area Council and State Government as being the most cost efficient from the perspective of all major infrastructure costs including roads, schools and water cycle management. A benchmark sequencing framework would take the form of a living plan, initially representing the ideal sequence of development based on a consolidated and prioritised view of all government agencies’ infrastructure delivery plans and updated over time to reflect approved development outside the initial sequence.

Both councils and State Government agencies would base their forward infrastructure investment strategies on the agreed sequencing plan. Developers wishing to pursue projects which are not in line with the benchmark sequence agreed between councils and State Government would be required to compensate the relevant infrastructure agencies, if this variation from the agreed sequence causes extra costs, in present value terms, for these agencies. In this regard, proponents of out-of-sequence projects would be required to prepare (or fund the preparation of) *cost impact assessments* for any agencies which see a *prima facie* need for such an assessment.

The cost impact assessment would compare the present value cost of infrastructure delivery for the agency in question had development proceeded in line with a staging plan agreed between Council and relevant State agencies with the present value cost of infrastructure delivery given the proposed variation to the sequencing plan.

Cost impact assessments could be prepared according to a standard administrative process and a pro-forma methodology. A proponent seeking to undertake an out-of-sequence development would be referred, by the approval authority, to those infrastructure agencies (education, roads, public transport etc) that have signalled a potential cost impact with the proposal. These agencies would furnish the proponent with a roll-out plan for their services or facilities under the planned staging of development, and a second roll-out plan allowing for the proposed out-of-sequence development, while holding standards of service delivery for new residents constant. Using this data, the proponent would prepare a cost impact assessment and propose a remedy for sign off by the infrastructure agency in question, before proceeding to final development approval.

The method of compensation for any additional costs would be a matter of negotiation between the proponent and the affected agencies. It could be effected through a legally binding agreement, for example, contracts made under Section 173 of Victoria’s Planning and Environment Act.

Once an out-of-sequence project has been approved and infrastructure roll-out plans adjusted accordingly, the sequencing plan would be revised and re-issued as necessary. This revised sequencing plan would constitute the benchmark for any subsequent out-of-sequence proposals. In this way, the implementation of a development sequencing framework will maximise the cost effectiveness of investment in infrastructure and will work to reduce the occurrence of poorly serviced piecemeal developments.

CONCLUSION

Housing expansion on the urban fringe involves a major infrastructure undertaking. If the funds deployed by State Governments and Councils are not used as efficiently as possible, there will be a significant cost to the taxpayer and/or growth area households will be forced to wait longer than necessary for the facilities and services they require.

Fragmented growth patterns on the urban fringe, where multiple development fronts are opened up simultaneously within the same markets, saps the efficiency of infrastructure investment.

A market solution to improve infrastructure efficiency and lift the timeliness of service delivery to growth area communities would see State Governments and relevant Councils agreeing on a preferred staging plan for development that would support a logical and efficient delivery schedule for roads, schools, public transport, health services, recreation facilities and other assets in a given district. Proponents would be free to pursue out-of-sequence projects, but would need to meet the cost, if any, of altering these roll-out plans.

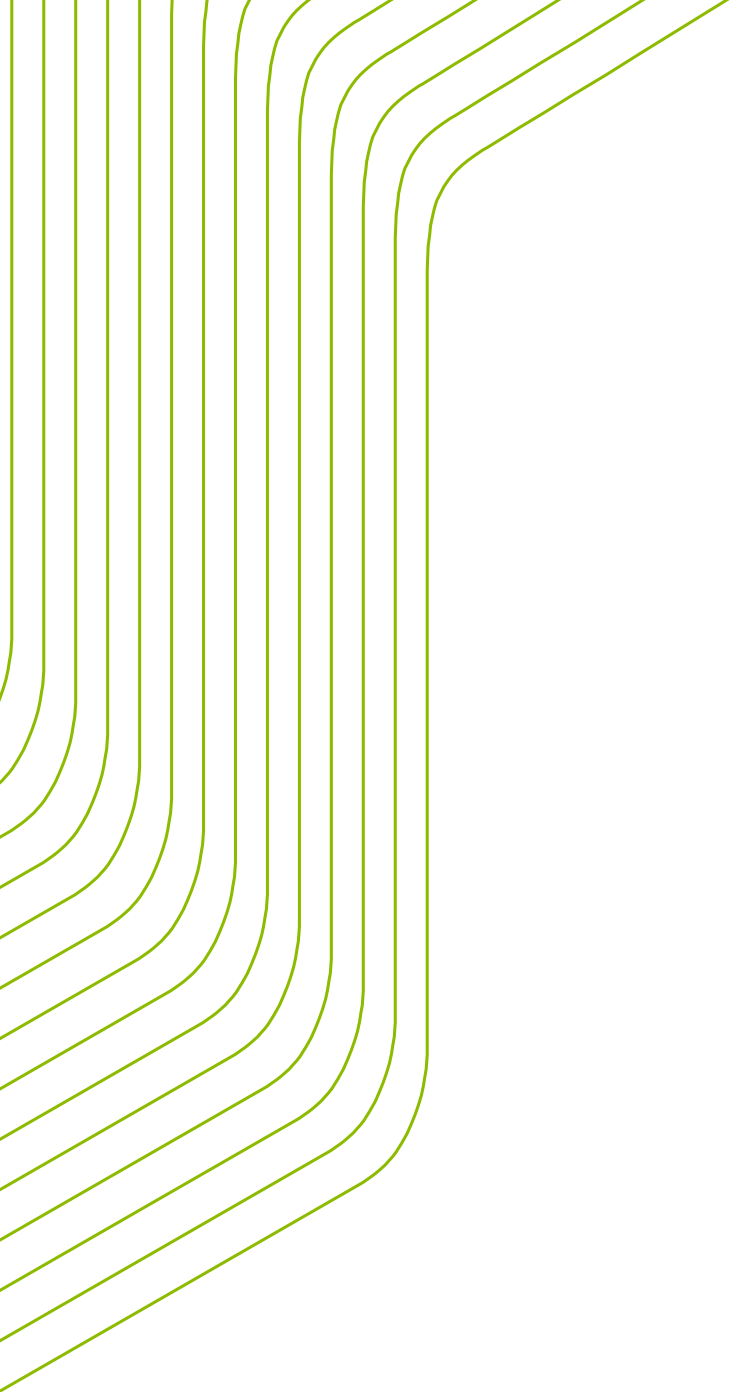
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