

# Submission to Wellington City Council

## on the

# Wellington Urban Growth Plan 2014-43

Prepared by:

Nadine Dodge, Keriata Stuart, Paul Blaschke, Nick Preval, Philippa Howden-Chapman, and Ralph Chapman

On behalf of the New Zealand Centre for Sustainable Cities

October 13, 2014

## About NZ CSC

The New Zealand Centre for Sustainable Cities is an inter-disciplinary research centre dedicated to providing the research base for innovative solutions to the economic, social, environmental and cultural development of our urban centres. As well as undertaking research, we make submissions from time to time to central government and councils on a range of issues relevant to cities, from climate change policy to the design and reconstruction of Christchurch. The Centre is currently running a 4-year Resilient Urban Futures Programme, funded by the Ministry of Business, Innovation and Employment, which began in October 2012.

Research currently being conducted by the NZ Centre for Sustainable Cities investigates housing preferences as they relate to density and transport.

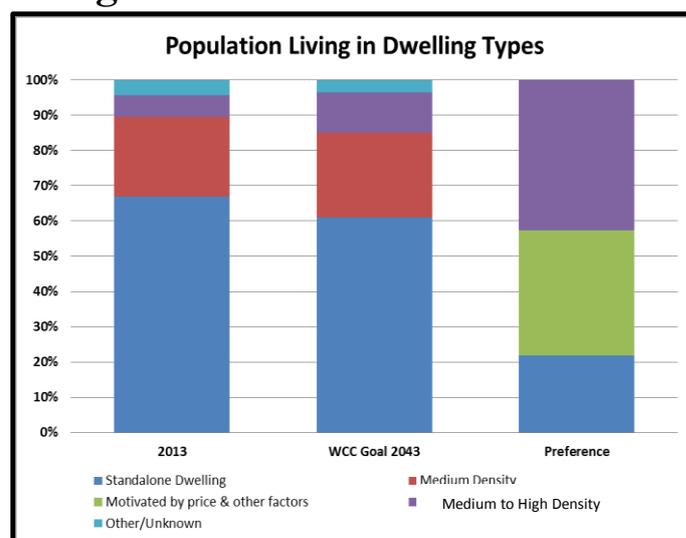
In our study, Wellington residents were randomly chosen to conduct a survey (n=302). Housing choices are used to examine the preferences and trade-offs residents are willing to make between housing attributes. It then segments residents into groups based on their preferences. Three groups have been identified:

## Housing

### Housing Preferences

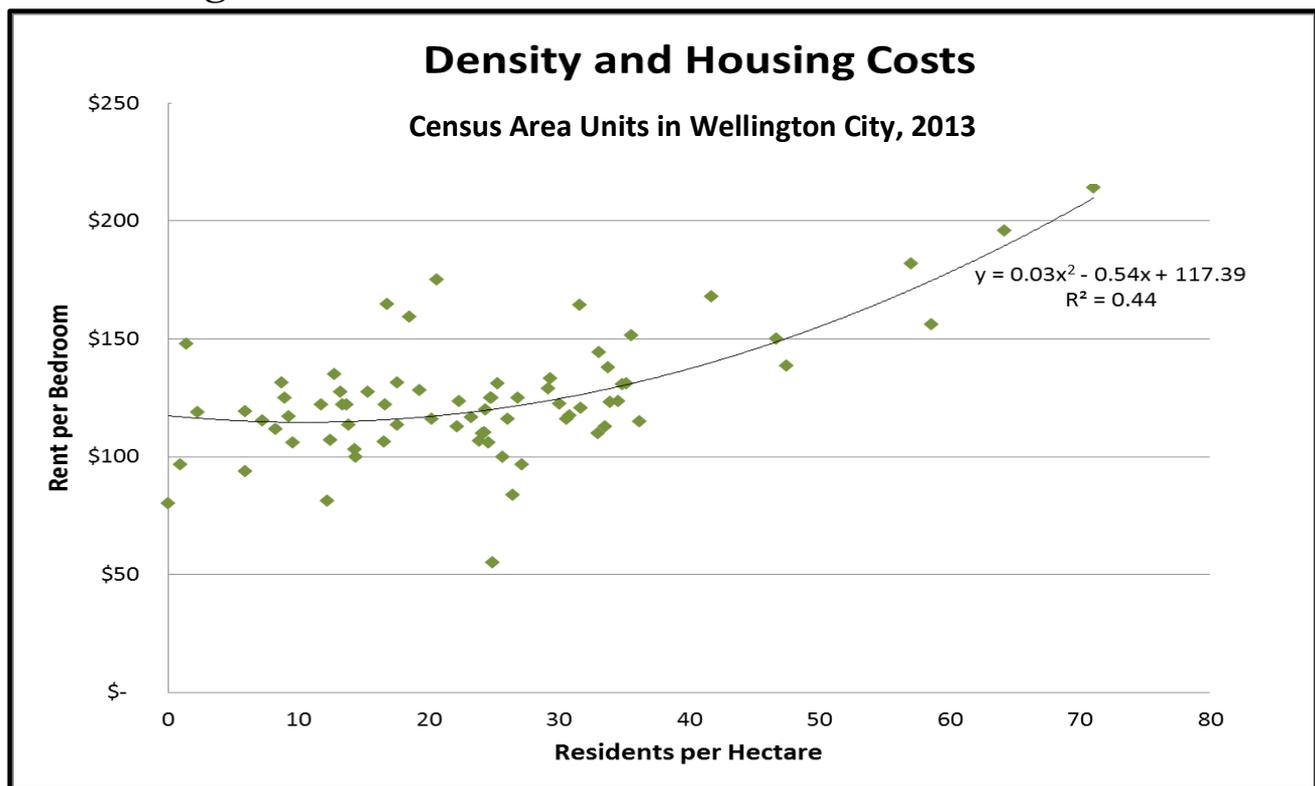
The proposed goal of intensifying residential development in key growth areas is an appropriate means of accommodating population growth while also furthering the city's transportation and environmental goals. It is also supported by research which suggests that there is a substantial unmet demand for affordable high density housing in accessible neighbourhoods (Figure 1). Moreover, Figure 1 underlines that the demand for standalone dwellings is considerably less than has been previously assumed.

Figure 1



Source: Dodge 2014 and WCC 2014

Figure 2



Source: NZ Census 2013

- **High density preference (43%)**

Prefer apartments or townhouses in highly accessible neighbourhoods. However, they would also prefer green outdoor space, which may be a reason why 59% of this group currently live in standalone homes. Off street parking is unimportant to the group, so land devoted to parking would be better used for high quality outdoor space.

- **Low to medium density preference (36%)**

Would ideally prefer a standalone house with a large section. However, they would like also to live in highly accessible neighbourhoods and affordability is more than two times as important as dwelling type. They do not mind living in a neighbourhood with a mix of housing densities. Off street parking is unimportant to the group, so outdoor space would be better used for high quality outdoor space.

- **Low density preference (22%)**

Have a strong preference for a standalone house with a large section, and would prefer to live in a low density neighbourhood. Although they are not strongly motivated by accessibility, three quarters

would prefer to walk, cycle, or take public transit to work.

(Note: For the background to this research, contact Nadine Dodge at the Centre for Sustainable Cities)

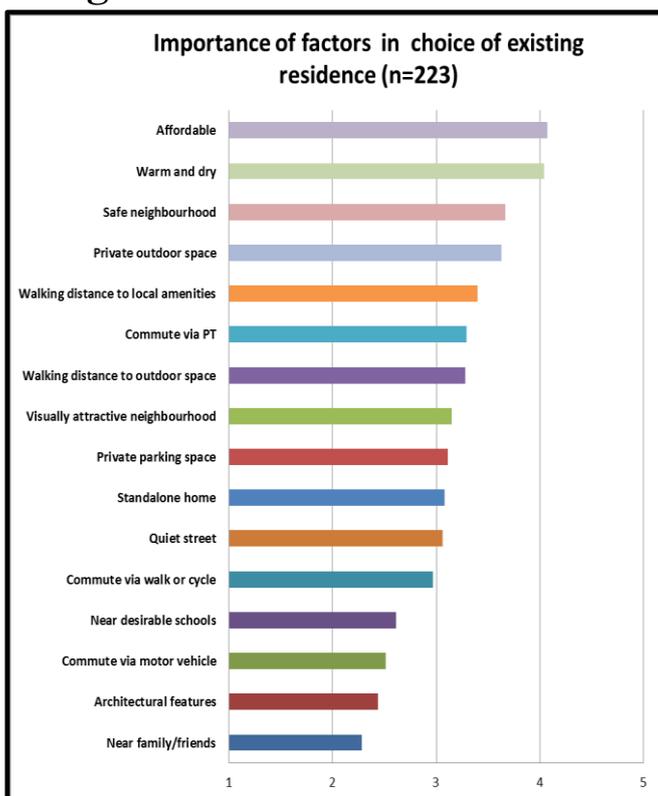
### Affordability & Density

In theory, higher density housing would be more affordable, as it provides more units of housing per unit of land area. However, in the Wellington City case, higher density is weakly associated with higher housing costs than low density (Figure 2). On the one hand this suggests that higher density positively rather than negatively affects the utility of dwellings, which is encouraging when considering plans for intensification. On the other hand, it suggests that those who are strongly motivated by price will tend to choose lower density rather than higher density housing. This suggests that affordability may be one reason why many of those with a higher density preference live in low density areas.

Additionally, affordability has been found to be the single most important factor when residents are choosing housing (Figure 3). Given these realities,

plans for intensification should focus on affordability. For those with a high density preference, lack of affordability can be a barrier to choosing high density living. For those with a low density preference, the vast majority are more motivated by price than house type, and would therefore be willing to accept medium density housing if it was more affordable than low density housing.

**Figure 3**



Source: Dodge 2014

### Housing Affordability & Health

One topic which seems to be given insufficient attention in the plan is the provision of affordable and healthy homes. While the plan notes that the quality of medium density housing should be improved, the provision of healthy and affordable homes is an issue for all housing types. In 2043, 8 of 10 people will live in houses built before 2014. Population growth will be accommodated not only by the construction of new dwellings, but also through the renovations of existing dwellings. Given their predominance in the market and their importance for health and inequality, it would be

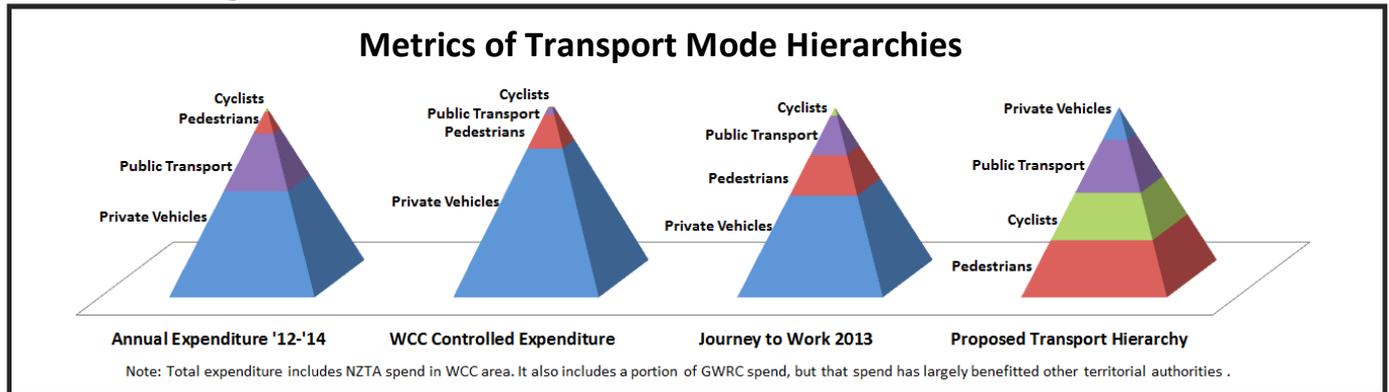
advantageous to see a greater focus on the quality of existing dwellings in the urban growth strategy.

Poor quality housing is cold, damp and contains accident hazards. Randomised controlled trial research carried out by *He Kainga Oranga*, the Housing and Health Programme of the University of Otago, Wellington demonstrates the health benefits of improving insulation and heating and of reducing safety hazards (Howden-Chapman et al. 2007; Howden-Chapman et al. 2008, Keall et al. 2014). These health benefits are gained disproportionately by children, the unwell and the elderly, as such people are more vulnerable and spend a larger proportion of their time in their homes.

Currently 30% of Wellington households rent privately, with this proportion likely to increase by 2043. We know that without adequate incentives many private landlords will not take measures to improve the quality of their rental properties, for example retrofitting floor and ceiling insulation and addressing accident hazards. The resulting costs, such as increased GP visits, more days off school or work, and greater risk of mortality are borne by renters and New Zealand as a whole.

Adopting the rental WOF is one way in which Wellington City Council can address this problem. It is thus heartening to see support for the WOF and for several other actions within the Housing Action Plan noted on pg. 55. However, the Housing Action Plan does not appear to be available on the WCC website, so it is difficult to comment on this matter. We suggest that, in addition to supporting the Housing Action Plan that more tangible actions be taken, such as the inclusion of the rental WOF in the next LTP. The New Zealand Centre for Sustainable Cities would welcome the opportunity to work with the Council to evaluate the effects of the introduction of a rental WOF on the supply of rental housing, residential movement and the health of tenants.

**Figure 4**



Source: Dodge 2014, WCC Annual Plan, GWRC Annual Plan, NZ Census 2014

## Open Spaces

As is noted in the Urban Growth Plan, the central city is being transformed from primarily a place to work to a place to live and work. Research conducted by the Centre demonstrates that those with a high density preference also have a strong preference for outdoor space (Dodge 2014). This could potentially be a barrier for these residents to choose medium and high density living. In areas targeted for intensification, a commitment to transform parks in order to support intensification goals would be a useful means of ensuring that density does not come at the cost of liveability, while ensuring that provision of parks does not significantly reduce density. Specifically, it would be advantageous to see an investment in high quality parks (often small, such as Glover Park) to support a range of uses and serve as a proxy for traditional private outdoor spaces, such as sections.

Brisbane has produced a manual entitled 'Green and open space planning for urban consolidation', a review of the literature and best practice on the aspects of open space necessary to enable high quality dense living, and the Centre notionally supports the use of this manual – its comprehensiveness would be difficult to match.

This plan is also an opportunity to enable new ways of meeting human needs for safe open spaces – for instance, promoting housing developments which enclose car-free open green spaces (Austin, 2011).

Māori indigenous knowledge and models of housing and community space can and should be explicitly taken into account (Awatere, Rolleston and Pauling, 2010; Te Aranga Māori cultural landscape strategy, 2008). Gray & Hoare (2009) have also explored the implications of indigenous knowledge for intensifying the inner suburbs in Wellington, especially in areas where the typography enables more dwellings without loss of green space or privacy.

## Transport

The proposed transport hierarchy is a useful framework from which to approach transportation planning. The hierarchy of modes seems a logical one, as walking and cycling provide the most benefits, which include increased physical activity, decreased emissions, and decreased congestion for road users. Public transport also provides benefits of decreased emissions and congestion, while private vehicles provide the least benefits but will continue to be necessary for many trips.

However, it is unclear how the transport hierarchy is meant to impact policy and planning. A clear framework for implementing the hierarchy into practice is needed for clarity, especially as it is such a significant departure from the existing transport policy hierarchy. Two metrics which could be used to assess outcomes could be the proportional allocation of transport funding and daily mode share for journeys to work (Figure 4). A notionally challenging policy could be to tie the expenditure

for each mode to its share of commutes each morning.

On the face of it, this might seem impossible as it is a departure from the norm. However, NZTA publishes a great deal of data on roading expenditure and Wellington City spends double what most authorities spend on maintenance (NZTA, 2014). Given this, there is an opportunity to reallocate funds earmarked for roading expenditure to improving cycling and walking infrastructure, as well as potentially public transport.

## Parking

We support the plan's goals to balance car parking against other road uses, such as cycle lanes and bus priority lanes. We would also support a shift to a supply and demand based approach to managing parking, as it would further other goals in the Plan, such as making parks easily available for those who need them and ensuring that road space is efficiently used (pg. 51).

In regards to parking in residential areas, we believe a review of the minimum parking requirement is overdue. Census data and our research suggest that residents strongly prefer affordability over the provision of off-street parking, and developers indicate an additional car park can add as much as \$75,000 in cost to a home. Further research could provide information on the current supply and demand for parking and the efficacy of different means of parking provision in meeting the city's needs. In doing so, the plan should account for the demographic ageing of Wellington's population in the next thirty years, as well as recent experience which suggests that Generation Y residents will drive less than previous generations.

In regard to the goal of 'making parking information more accessible and improving enforcement servicing and pricing' (pg. 51) demand responsive smart metering is a carpark pricing technique made possible with emerging technology which can efficiently achieve these goals. Demand-responsive pricing helps ensure that parks are available where people need them; it encourages drivers to park in underused areas

and reduces demand in overused areas, and reduces searching for parks. The varying parking fees will allow more efficient access and use of parking spots. SFPark in the City of San Francisco provides a good model of how this can be done (City of San Francisco, 2014).

In regard to making parking information more accessible to users, many cities have partnered with app developers to help people find available parks more quickly, or even digitally book a parking spot, which reduces traffic and emissions associated with searching for parks and allows customers to park and get to their destinations more quickly (for example, City of Perth 2014).

## Māori & urban planning

Including Māori values, knowledge and experience in urban growth planning is desirable. While the draft plan gives limited recognition to the place of Māori, particularly local iwi/hapū (p28) it does so almost entirely in the context of 'history' and 'heritage' and refers mainly to historic sites and individual heritage items such as artworks. In doing so, the plan misses the opportunity to recognise and benefit from the body of research on how Māori knowledge can contribute to creating urban form that connects people and their environment. Tāone Tupu Ora (2011) includes research showing how community-generated Māori principles can inform housing developments (Awatere, Rolleston and Pauling, 2011), and on suburban intensification and indigenous settlement patterns (Gray and Hoare, 2011). This, and other research such as Harmsworth (2004) and Awatere et al (2008), identifies both general principles and specific actions that could inform the Plan.

The draft growth strategy also omits any recognition of the value of Māori knowledge and perspectives in including green and 'natural' spaces in Wellington's new urban form. Models for this, such as Te Aranga: Māori Cultural Landscape Strategy (2008), are being recognised in other urban long-term plans.

The following table highlights suggestions and responses to specific aspects of the plan.

| <b>Response to Specific Aspects of the Urban Growth Strategy</b> |  |  |   |
|--|--|--|---|
| <b>Page</b>  | <b>Goal</b>  | <b>Issue</b>   | <b>Suggestion</b>   |
| 10   | Ensure development occurs close to employment, services, and public and other transport links.   | Unclear how WCC will 'ensure' this. Will this be a voluntary programme or incorporated into the district plan?   | Define minimum public transport access required for new residential/commercial development. Suggested actions: 1. Require that new development must occur within 400 metres of frequent (15min frequency) PT stops, as this is the commonly accepted maximum distance to walk to transit. 2. Prioritize public and active transport oriented (rather than automobile oriented) development in existing town centres through removing parking requirements in all MDRAs/SHAs.  |
| 10   | Improve the resilience of the city against the risk of natural hazards and climate change.   | Unclear how this goal will be translated into action.  | Climate change adaptation has already been operationalised in many vulnerable cities around the globe. As the city in New Zealand that is most vulnerable to sea level rise, Wellington needs to begin planning and implementing climate change adaptation measures imminently, including a notification process for staged withdrawal of Council protection of properties (managed retreat) in areas of high vulnerability, such as Lyall Bay. It would be ideal to see adaptation incorporated into all urban planning documents, such as this plan.  |
| 18   | Target for new housing density types: low 25%, medium 35%, high 40%.   | Unclear how density is defined. Appears to be measured by dwelling type, but this is unclear. Dwelling types are not universally synonymous with density, i.e. density depends heavily on design, not just dwelling type. Oriental Bay/Mt Victoria are great examples of high density areas with a large number of standalone dwellings. | Adopt a population-weighted density measure, and adopt standards for what constitutes "high" "medium" and "low" density. Calculate this using NZ Census data at the meshblock level, and classify how much of the city is living at each level of density. This would take little time. Then, adopt a growth target and pathway based on research revealing the preference of Wellington City residents. Our research using a list of respondents provided by Wellington City Council research shows that 43% of Wellington City residents want to live at high density, 22% want to live at low density, and the remaining 35% have other priorities (such as affordability) but are open to either. |
| 19   | Investment in natural environment and parks keeps pace with the city's population growth, intensification in urban areas, and new housing development in greenfield locations. | Unclear how this goal will be translated into action. Needs for parks will be substantially different in greenfield and intensified urban areas, so goals for each area would be valuable.   | For the central city, establish that parks should support intensification goals. Invest in central city parks to support a range of uses and serve as a replacement for private outdoor space/sections. For greenfield locations, ensure a minimum level of greenspace access during the consent process. Establish targets for use types of open space for each typology. It is important to note that it is not area of open space that is critical, but rather its ability to support a range of uses.   |
| 19   | Indigenous biodiversity is protected and restored.   | Unclear how this goal will be translated into action. Unclear to what extent biodiversity would/should be restored.  | Establish clear goal or refer to goals in Biodiversity Action Plan.   |

| Page | Goal  | Problem  | Suggestion   |
|------|---|--|--|
| 19   | The environmental impacts of urban development and transport are minimised and embody sustainable, low-impact urban development principles. | It is unclear how the WCC can control this and what exactly is being described. For urban development, will this be a voluntary programme or incorporated into the district plan? For transport, how will this be done?  | Specify which environmental impacts will be minimised and how. This is very unclear in the plan and could refer to localised air emissions, carbon emissions, impacts on water bodies, energy use, land use, etc. State how this will be implemented through District Plan, voluntary program, and/or WCC Policy.  |
| 19   | There are more green buildings and an established green infrastructure network across the city.   | Unclear how this goal will be translated into action. Definitions for a 'green infrastructure network' and 'green buildings' are unclear.  | Establish clear definitions of 'green infrastructure network' and 'green buildings' and state clear goals for each. Establish a green building standards program that requires a certain level of accreditation for any building over a certain size. Establish a greenway network plan in conjunction with the removal of further roading.  |
| 22   | Land use and development in areas most at risk from the impacts of natural hazards and climate change is managed to minimise risks.         | Unclear if WCC has plans to adopt standards/policies to minimise risk.   | State if WCC has plans to adopt district planning rules to minimise risk in high risk areas. Like overall climate change policy, current policy settings do not appear to reflect this precept.  |
| 22   | City's buildings and transport network is increasingly resilient to natural hazards and climate change.                                     | Unclear if WCC has plans to take action regarding climate change adaptation  | Adopt a goal for resilience/hazards/climate change adaptation planning. Stronger connections between this plan and Climate Change Action Plan.   |
| 24   | Wellington's cycling safety, as measured by the rate of injuries and deaths of people on bikes, significantly improves.                     | Rate of injuries and deaths of cyclists is a misleading metric when used alone, as cyclists often avoid very unsafe routes, resulting in low rate of injuries and deaths. An even greater number may avoid cycling altogether if it is perceived to be unsafe, further reducing rates of cyclist injury and death. | Include cycling rates as a metric of cycling safety in addition to the rate of injuries and deaths, as the most proven way to increase cycle safety is to increase cycling rates. Add "level of service" standards for cycling and walking. Add metric of km of high-quality (using a defined level of service) cycleway. Target higher levels of service on average across the transport network for cycling and walking than for other modes. Another option would be to monitor perceptions of cycling safety among both current and potential cyclists.  |
| 25   | Implement new hierarchy of transport planning and policy.   | The importance of this hierarchy appears to be lost in the operationalization of Wellington's transport plans. The current transport plans reflect a clear and overwhelming preference for the car over any other mode.  | Adopt standards that transport spending on the private vehicle must not exceed mode share for journeys to work (44%). There is ample room for savings in roading maintenance and capital expenditure budget, according to NZTA metrics. Wellington City spends more than twice what Dunedin and Christchurch spend per lane km of road network on maintenance, and nearly twice what Auckland spends. This excess funding would be better spent on other modes. Adopt standards that measure the average level of service for each mode in any new project including maintenance - and a framework that defines the targeted level of service for pedestrians, cyclists, PT and cars for a given road type. Prioritize the private car only on state highways. |

| Page     | Goal  | Issue   | Suggestion   |
|----------|---|---|--|
| 51       | Parking policy                                | Currently the parking policy in the document mixes between two theories of parking management - It mixes the theories of supply and demand with those of predict and provide. The reality is that predict and provide parking incurs massive costs to Wellington City - work in Auckland indicates that each excess parking spot can come with an opportunity cost of \$20,000 or higher. | Remove the minimum parking requirement wherever practical. NZCSC research shows that many areas outside the central city are showing half or more of households going without a car - even if they have a parking spot. Census data indicates that residents living in multi-unit dwellings own far fewer cars than those who live in standalone houses; 40% of these households do not own a car. As a result, medium density residential areas and special housing areas are key targets for such an intervention. Additionally, development opportunities to create more high-quality medium-density housing capacity will only be constrained by not allowing the market to set the supply and demand of parking. Developers will not build a home they cannot sell, and are best positioned to determine whether or not a given development needs a substantial parking allocation. |
| 51       | Commuter parking/central city parking         | Stated goal is to move away from a focus on commuter parking. However, this seems at odds with practice, which is reopening the James Smith and Reading car parks.  | The reopening of the James Smith and Reading car parks presents a significant opportunity for the city. NZTA data shows that the closing of those carparks showed no influence on transport outcome measures, meaning that there is likely a large oversupply of central city parking for commuters/shoppers. As a result, the reopening of these car parks (and thus the provision of parking which is known to be excess to demand) presents a huge opportunity for Wellington City Council to put words into action - by investing in alternative transport modes around the central city and removing parking 'on busy streets where demand for bus service or cycling is high. Multiple streets around these two parks could benefit from this kind of investment, and it would present an excellent opportunity to put the road space to better use to suit residents' desires.    |
| 55       | Rental Warrant of Fitness                     | Support for a rental WOF is good in theory but is a bit nebulous in the Plan.   | A focus on the quality of existing dwellings is critical to urban growth planning, as approximately 80% of residents will live in pre-2014 dwellings as of 2043. The quality of rental homes needs to be incorporated into planning, as an increasing percentage of residents rent rather than own. A focus on the renovation and improvement of existing dwellings could both improve quality of life for residents and also be another means of accommodating population growth / adapting the housing stock to changing needs that accompany demographic changes.   |
| 11<br>48 | Commitment to innovation (e.g. uber,carshare) | A commitment to innovation should not be applied selectively to new markets like ridesharing, when ample innovation is occurring in other relevant markets.   | New standard-bearing transport options are called out by name(e.g. Uber) as options needing support. Notionally this support of innovation is positive. However, we advise against singling out one supplier for support in a public strategy document as "picking winners" can reduce competition driving further innovation and cost savings. A commitment to innovation in the space, whether it is ridesharing, car sharing, digital parking management and booking, space optimization on roads (by increasing the provision for pedestrians, cyclists and public transport) and spatial optimization for development (by helping get larger blocks for innovative new developments) will yield tangible benefits in affordability and quality of life for Wellingtonians in the future.  |

## References

- Austin, T. (2012). **Planning more sustainable urban districts: what lessons can New Zealand cities and towns learn from European best practice?** In Witten K, Abrahamse W & Stuart K (Eds.), *Growth Misconduct? Avoiding sprawl and improving urban intensification in New Zealand*. Wellington, N.Z: Steele Roberts
- Awatere, S., Pauling, C., Rolleston, S., Developing **Māori Urban Design Principles**. In K. Stuart & M. Thompson-Fawcett (Eds.), *Tāone Tupu Ora: Indigenous Knowledge and Sustainable Urban Design* (pp. 50-59). Wellington, N.Z: Steele Roberts
- Awatere, S., Pauling, C., Rolleston, S., Hoskins, R., Wixon, K. (2008). Tū Whare Ora. **Building Capacity for Māori Driven Design in Sustainable Settlement Development**. <http://www.maramatanga.ac.nz/sites/default/files/05RF15%20Final%20Contract%20report.pdf>
- Barter, P. (2014). **A parking policy typology for clearer thinking on parking reform**. *International Journal of Urban Sciences*. Volume 18, Issue 1.
- Blair, N. (2010). **Orakei Papakāinga Ki Mua: Towards 2030 and Beyond**. In K. Stuart & M. Thompson-Fawcett (Eds.), *Tāone Tupu Ora: Indigenous Knowledge and Sustainable Urban Design* (pp. 50-59). Wellington, N.Z: Steele Roberts.
- Byrne, J & Sipe, N. (2010). **Green and open space planning for urban consolidation – A review of the literature and best practice**. Griffith University Urban Research Programme. [http://www98.griffith.edu.au/dspace/bitstream/handle/10072/34502/62968\\_1.pdf?sequence=1](http://www98.griffith.edu.au/dspace/bitstream/handle/10072/34502/62968_1.pdf?sequence=1)
- City of Perth (2014). Mobile Parking App. <http://www.cityofperthparking.com.au/mobile-app>
- Dodge, N. (2014). **Housing Preferences in Wellington, NZ**. Unpublished PhD Research. New Zealand Centre for Sustainable Cities.
- Greater Wellington Regional Council (2012). **Regional Land Transport Plan** <http://www.gw.govt.nz/assets/Transport/Regional-transport/RLTP-2012-15.pdf>
- Greater Wellington Regional Council (2013a). **Farebox compliance report** <https://www.fyi.org.nz/request/1148-farebox-recovery-ratio-for-oct-2013-fares>
- Greater Wellington Regional Council (2013b) **Annual Report 2012/13** <http://www.gw.govt.nz/annual-report-2012-13/>
- Green Trip Parking Database**. Transform <http://database.greentrip.org/>
- Gray, J, Hoare, C. **Suburban intensification and indigenous settlement patterns**. In K. Stuart & M. Thompson-Fawcett (Eds.), *Tāone Tupu Ora: Indigenous Knowledge and Sustainable Urban Design* (pp. 60-81). Wellington, N.Z: Steele Roberts.
- Harmsworth, G. (2004). **The Role of Māori Values in Low-impact Urban Design and Development** (LIUDD). Discussion paper. Landcare Research NZ [http://www.landcareresearch.co.nz/research/sustainablesoc/social/indigenous\\_index.asp](http://www.landcareresearch.co.nz/research/sustainablesoc/social/indigenous_index.asp)
- Howden-Chapman, P., A. Matheson, J. Crane, H. Viggers, M. Cunningham, T. Blakely, C. Cunningham, A. Woodward, K. Saville-Smith and D. O'Dea (2007). **Effect of insulating**

**existing houses on health inequality: cluster randomised study in the community.** BMJ 334(7591): 460-469.

Howden-Chapman, P., N. Pierse, S. Nicholls, J. Gillespie-Bennett, H. Viggers, M. Cunningham, R. Phipps, M. Boulic, P. Fjallstrom and S. Free (2008). **Effects of improved home heating on asthma in community dwelling children: randomised controlled trial.** BMJ 337(a1411): 848-862.

Keall, M. D., Pierse, N., Howden-Chapman, P., Cunningham, C., Cunningham, M., Guria, J., & Baker, M. G. (2014). **Home modifications to reduce injuries from falls in the Home Injury Prevention Intervention (HIPI) study: a cluster-randomised controlled trial.** The Lancet (in press).

Meurk CD, Blaschke PM, Simcock, R (2013). **Ecosystem services in urban areas.** Chapter

1-18 in Dymond J ed. Ecosystem services in New Zealand: condition and trends. Manaaki Whenua Press, Lincoln, Canterbury.

New Zealand Transport Agency (2014). **Our evidence base for transport investment: Efficient Transport.** <http://www.nzta.govt.nz/planning/nltp-2015-2018/evidence.html>

Statistics New Zealand (2013). **Census of Population and Dwellings.**

City of San Francisco (2014) **SFPark.** City of San Francisco <http://sfpark.org/>

Ngā Aho. (2008). **Te Aranga: Māori Cultural Landscape Strategy.** Hastings, N.Z.

Wellington City Council (2009-2014), **Annual Reports 2009-2014** <http://wellington.govt.nz/your-council/plans-policies-and-bylaws/plans-and-reports/annual-report>