



**Bioregional**  
Championing a  
better way to live

## **WGV by DevelopmentWA – Annual Review**

January 2021

## 1. Bioregional comment on the Annual Review

Given the challenges we have all faced in 2020 it is so inspiring to see a project that continues to exceed its incredibly high levels of ambition. WGV has excelled in three areas technical performance, sustainability culture and wider influence.

### Technical performance

For a small project WGV has a wide range of housing typologies onsite – and yet the actual (not modelled) data shows that the site is a net exporter of electricity. Water management has been just as successful, with a 65% reduction in use and 100% treatment of stormwater onsite. In terms of the energy and carbon emissions required to manufacture the building materials (embodied carbon), a third of the single lots are timber frame, which is relatively rare in Australia, so these houses have very low embodied carbon as well as a zero-carbon operational footprint – a fantastic achievement.

### Culture of sustainability

The effort put into raising awareness amongst the residents, primarily through sustainability workshops, has helped create a community with a strong sense of sharing. This ranges from families co-owning an electric vehicle to simply sharing tools, lawnmowers and surplus food produce. The site has been successful in reducing car ownership and encouraging food growing.

That said, food and transport consumption patterns are not aligned with what the planet can sustain. Further initiatives are required to reduce the use of fossil-fuel-powered vehicles and encourage a shift to plant-based diets.

### Wider influence

For such a relatively small development WGV is having a significant impact:

- On site, the multi-unit Gen Y house has inspired at least three other lots being developed as multi-units – with associated efficient use of materials and reduced parking.
- Several other sites in Fremantle and Perth, including [East Village at Knutsford](#), have adopted the One Planet Living® framework. The success of these projects has helped the City of Fremantle develop the 'Freo Alternative' – an innovative planning mechanism pushing higher sustainability standards on small sites in suburban areas of the City.
- The involvement of Curtin University and DevelopmentWA's annual progress reports have created a wealth of knowledge for the industry. This has revealed some very useful insights, e.g. the high level of uptake of food-growing spaces has left some residents feeling there is insufficient provision of food growing space, highlighting the need to ensure sufficient access to growing space particularly in tight urban developments.

WGV is a zero-carbon development that has already created a strong sustainability culture amongst its residents and set a benchmark for the industry locally and globally. WGV has made a concerted effort to encourage residents to reduce car use and eat a more sustainable diet, but

the gap between cultural norms and what the planet can support is so large that despite these efforts, most residents are probably still consuming more than their fair share of the Earth’s resources. We need all developments to be matching the infrastructure standards of WGV *and* we need collaboration between developers, local and national government and the private sector to ensure that our default consumption patterns match WGV’s sustainability performance. Then we will be on the path to One Planet Living®.

## 2. Summary table

This is the third peer review of LandCorp’s annual progress report in delivering its One Planet Action Plan. While this is a standalone document, it will be best understood if read in conjunction with LandCorp’s internal review. Bioregional uses a simple ‘traffic-light’ approach to review progress in meeting targets.

	Substantially or entirely completed
	Target mostly achieved
	Substantially incomplete, behind schedule or doubt over delivery

One Planet Principle	Outcome	Indicator & Target	Comment	Status
Health and Happiness	Foster a strong sense of community	On average know > 9 neighbours by name	Performance more than double the target, the culture of sharing demonstrates the strong sense of community	
	Foster a healthy community	> 50% of people taking regular exercise	Again target comfortably exceeded	
Equity and Local Economy	Diversity of housing type and tenure	> 5 housing types > 10% affordable housing	It is a shame to see the townhouses reverting to single lots and the Barugruppen site reduced. Nonetheless, seven dwelling typologies represents impressive variety	
	Encourage fair trade and local economy programmes	% of residents considering these in purchasing decisions	WGV construction has provided a boost for the local economy, and this is continuing in operation with >70% of residents shopping locally	
Culture and Community	Create a culture of sustainability	# and participation rates in sustainability related events	Surveyed residents attended 15 sustainability-related events each year and a total of 22 events. The sharing culture created shows the impact this has had. It would be interesting to know if dietary habits have changed.	
	Create a culturally vibrant community	> 5 onsite cultural events a year	Frequent events at SHAC and gardening events show the vibrant community	

Land Use and Wildlife	Create new habitats	Two new habitats	The 'Sump Park' is already flourishing and the green link is close to completion	
	Contribute to an increase in biodiversity	Increase in number of species by 20% and populations by 10%	A detailed ecological survey has shown the nestboxes are well occupied by the target bird species, and highlight the benefit of the retained mature trees and of encouraging the residents to plant native species.	
Sustainable Water	Reduced potable water use by 75%	50 litres/ person / day	65% reduction to 70l/p/day. Although not achieving the target it is still an excellent performance	
	Manage stormwater treated onsite	100%	The 'Sump Park' is delivering this	
Local and Sustainable Food	Access to food growing space	100%	Everyone has access to growing space – though some residents have commented that the space is limited	
	Provide 'edible landscaping'	30% of landscape trees edible	Achieved – mainly citrus and bay trees, but with 10 species. Residents have requested more variety	
	Encourage sustainable, healthy purchasing		Given the impact of meat and dairy consumption this is an area to address further through the sustainability culture onsite	
Travel and Transport	Enable a sustainable transport carbon footprint	1 tCO <sub>2</sub> eq/ person/yr % commuting by private car	Electric car club trial has ended, but three families have clubbed together to purchase an EV. As with food, an area to try and continue encouraging a behaviour shift	
	Reduced private car ownership	Car ownership to be < 1 per household	Ownership approx. 1.3, higher than the target due to the increase in single lots, but still well below Perth average	
Materials and Products	Reduced embodied energy of construction (tonnes CO <sub>2</sub> eq)	30% reduction over baseline	About one third of lots are using lightweight, often timber frame construction. Other One Planet Living projects (eg <a href="#">Villages Nature Paris</a> ) have shown that timber frame reduces embodied carbon over by 50%	
	Sustainable materials in operation	Participation rates in key initiatives	Interviews show a high level of sharing and cooperation onsite	
Zero Waste	Maximise construction waste recycling	95%	The site is achieving closer to 85% - double the national average but below the target	
	Reduction in household waste in operation	30% reduction	Achieved more than double the target	
	Recycling rate of household waste (70%)	70%	Food waste and organic collection has ensured this target is met with low levels of contamination reported	
Zero Carbon Energy	Maximise energy efficiency	34% reduction over baseline	Achieving around 27-29% but still a zero-carbon energy site	

	100% renewable energy	100%	Site is an exporter of energy	
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