

6 April 2023

## Submitter Statement by Historic Places Wellington - Appendix Stream 2 – 6 April 2023

Presenters: Felicity Wong LLB (Hons), MPA (ANZSOG)  
Christina Mackay BArch, MBA, FNZIA

1.0 At our HPW Stream 1 presentation, the panel requested evidence relating to the **sustainability of old houses versus new houses**.

Last month, Irishman Peter Cox, a leading Building Conservation expert presented at ICOMOS NZ seminars on this subject to the building conservation and architectural professions. He presented findings from recent UK and European research<sup>1 2</sup> and recommendations. The 2020 Historic England publication *'There's no place like old houses – Re-use and Recycle to Reduce Carbon?'*<sup>3</sup> provides an easy to read summary and expert references.

### 2.0 FINDINGS

**2.1 The built environment sector is a significant emitter.** In UK, when construction, transportation and buildings electricity use are taken into account – up to 42% of carbon emissions. BRANZ estimate the built environment contributes to 15 -20% of New Zealand's greenhouse gases<sup>4</sup>.

The focus of carbon reduction strategies to date, has largely concentrated on emissions that occur when buildings are used – known as **operational emissions**. Reducing the use of fossil fuels for heating and cooling is a central focus. UK research demonstrates that refurbishment and retrofit could reduce the carbon emissions of historic buildings by over 60% by 2050.

**2.2 The carbon emitted during construction, maintenance and demolition or re-use – known as the embodied carbon emissions of buildings.** To date these remain largely neglected but a recent study used a whole life approach (considering both operational and embodied carbon emissions) to estimate carbon emissions associated with a typical Victorian Terrace house for a 60 year period. When sympathetically refurbished and retrofitted, the study found that it will emit less carbon by 2050 than a new building. A similar study on heritage & character NZ timber frame houses is not available.

**2.3 Older buildings can be more resilient .** In the 8 years prior to 2018, England lost over 70,000 homes through demolition – most of these were modern buildings that had not survived the test of

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<sup>1</sup> Duffy, A., Nerguti, A., Egel Purcell, C., Cox, P. 2019 *Understanding Carbon in the Historic Environment*, Historic England.

<sup>2</sup> Potts, A (Lead Author) . 2021. *European Heritage Green Paper*. Europa Nostra, The Hague & Brussels.

<sup>3</sup> Leeson, A. and Kirkham, A. 2020 *There is No Place like Old Homes – re-use and recycle to reduce carbon*. Historic England <https://historicengland.org.uk/content/heritage-counts/pub/2019/hc2019-re-use-recycle-to-reduce-carbon/>

<sup>4</sup> <https://www.branz.co.nz/sustainable-building/climate-change/>

time. Century-old Wellington inner city suburb housing maybe more inherently resilient than more recent housing.

**2.4 We can dramatically reduce carbon in the built historic environment** The UK's Committee on Climate Change has identified retrofitting existing homes as one of five priorities for government action. The Heritage Counts research also demonstrates that the speed at which carbon is reduced in buildings has a greater impact than the scale of retrofit showing that the sooner actions are taken the more effectively we can address carbon in buildings.

### **3.0 RECOMMENDATIONS**

**3.1 Use and re-use first.** If we reuse what is already here we can avoid carbon emissions. To move towards 2050 net-carbon goals, **the reuse and energy upgrade of our existing buildings is essential** for the health and wellbeing of people and our planet.

**3.2 This regeneration of housing** will need to promote longer lifespan for buildings, sympathetic retrofit (to suit heritage/character housing), research and incentives for repair and maintenance, research and innovation on best retrofit of traditional buildings (and assessment tools), building craft skills and empowerment of members of the public to reduce carbon in their houses with low impact every day activities.

### **4.0 CONCLUSION**

**4.1** In New Zealand, BRANZ 2023 research report<sup>5</sup> concludes 'it seems that it is highly unlikely' 'our nation's 2050 zero-carbon dwelling-related goal will be met'. The necessary retrofitting of the 80% of all housing that will exist in 2050 is a huge task and expense. The report identifies a most important medium-term carbon reduction measure to "Identify and implement the most cost-effective measures to reduce operational energy use within existing dwellings".

**4.2** The old houses in the inner city suburbs of Wellington have heritage value in sustaining continuity within our communities, but they also have value in their contribution to reducing our carbon footprint and minimizing resource depletion.

**4.3** On this basis, we should keep as many as possible and, as a city, build knowledge, resources and skills for their energy retrofit and their long life.

### **5.0 Cost/Other Impacts under S.77J**

**5.1** In its submissions on the Draft District Plan and on the PDP, HPW consistently referred to this issue for evaluation purposes. The positive broader impact of retaining the heritage/character resource is relevant to assessment of imposing the character qualifying matter (QM) under s.77J(3)

### **6.0 Existing Qualifying Matter s.77K**

**6.1** In any event, HPW says the substantive rules applicable in existing character areas in the ODP, in particular the pre 1930 demolition control, is an "existing" QM within the terms of s.77K. All areas of proposed charter precincts (and proposals for extensions) are within the character areas of the existing ODP and subject to the pre 1930 demolition control.

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<sup>5</sup> BRANZ. (2023) SR478 Housing stock strategies responding to New Zealand's 2050 carbon target

6.2 The purpose of s.77K is to “roll over” existing QMs without the need for the same level of evaluative rigour, on the basis that they have already been evaluated and justified in forming the operative provisions. That applies to the character precincts because the pre 1930 demolition control in the operative plan has already been evaluated and justified in various plan changes, as explained in Mr Brett McKay’s statement, supported by WCCT and HPW.

6.3 The alternative “roll over” process is available under 77K(3) for existing QM that are in the list in s.77I(a) to (i). HPA says there is an existing qualifying matter which accommodates heritage as a matter of national importance. HPW has consistently submitted that the underlying rationale for the character QM (in particular the pre 1930 demolition control) is the existence of unspecified heritage in its geographical area of existing application.

6.4 The heritage is evidenced by the 1892 Thomas Ward map of the buildings of the inner suburbs which remain today and over which the pre 1930 demolition control applies under the operative plan. Support for the existing QM approach is found in the demolition control having continued effect, and not being lifted when the MDRS provisions took immediate effect. The heritage underpinning of the control is reflected in its reference to “ the townscape character [being] to some extent defined by heritage related qualities”.

6.5 The alternative “roll over” of character as an existing QM under s.77K avoids the need for compliance with the assessments under s.77J and s.77L.

6.6 The PDP character precincts are an existing QM via ss.77K(3) and 77I(a)). HPW contends, the Pt 1 Schedule 1 process is the correct process for the determination of the lifting of the control.