
Submission by Beacon Pathway Ltd (Beacon)

Submission on LTCCP for Waitakere City Council

Date	30 April 2009
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About Beacon

- Beacon Pathway (Beacon) is a research consortium that seeks to radically change the design, construction and renovation of New Zealand’s homes and neighbourhoods. Beacon aims to bring about a significant improvement in the sustainability of the residential built environment in New Zealand through science-based New Zealand research. Our vision is “Creating homes and neighbourhoods that work well into the future and don’t cost the earth”.
- Beacon’s shareholding partners are organisations with a considerable stake in the quality of the residential sector: BRANZ, Fletcher Building, New Zealand Steel, Scion and Waitakere City Council. Contributions from the shareholders are matched, dollar for dollar, by funding from the Foundation for Research, Science and Technology (FRST).
- Beacon believes it is only through collaboration and the sharing of knowledge that there can be a significant improvement in New Zealand’s homes.
- Beacon’s goal is to significantly improve housing sustainability through:
 - influencing policy and regulation;
 - understanding consumer and industry needs;
 - defining an appropriate high standard of sustainability; and,
 - developing the tools to achieve, measure and monitor progress to achieving that standard at the house and neighbourhood levels.

A summary of Beacon’s research is annexed to this submission

Reason for Submission

Beacon recognises the need for maximising the sustainability potential of the residential built environment during the development process at all scales - including individual homes, new developments and neighbourhoods. It also recognises the important role that local councils play in both supporting and encouraging the development and management of homes with a greater emphasis on sustainability.

Submission

New Lynn Redevelopment (p8)

Beacon supports the New Lynn Redevelopment Programme and the Council's vision for major town centres that are high density, vibrant, safe and connected by sustainable social and physical infrastructure.

Massey and NOSGA Development

Beacon submits in support of Council seeking to maximise the level of sustainable building design and development in the new NOSGA development. We draw to your attention Beacon's Local Government Resource Manual to support this development, which provides the detailed rationale, suggested solutions and case studies to support sustainable building. This Manual is being launched in June 2009 via workshops around New Zealand, including Auckland, and we invite Waitakere City Council to participate in the Auckland workshops (see also Appendix A).

Key LTTCP Issues (pp22-27)

Disposal of land surplus to requirements

Beacon supports investigating the disposal of land surplus to requirements, as long as these investigations maximise Council's ability to influence sustainable neighbourhoods and town centre development. Beacon does not wish to see any strategic land holdings sold that may result in lost opportunities for increasing connectivity, compact neighbourhoods, providing needed social infrastructure and otherwise meeting Council's stated community outcomes.

Wilsher Village Complex

Beacon strongly supports the redevelopment of the Wilsher Village Complex as a flagship model of sustainable residential living, built to the Life Mark standard for older adults on a low to modest income.

Retrofitting the City

Beacon strongly supports the 'Retrofit the City' initiative and its target to upgrade 20,000 homes by 2020, which will have a significant flow on effect to the local economy. Beacon's submission to the Government's Job Summit showed that, for every 1,000 houses retrofitted, a total of 151 full-time equivalent jobs would be required for delivery solely of on-site retrofitting services; a total of 392 full-time equivalent jobs would be required to provide the products and

services involved in the renovation activity. See also Beacon's *National Value Case* and HomeSmart Renovation project described in Appendix A for more evidence and information to support housing retrofitting for sustainability.

Beacon also supports trialling the rates postponement option from 2010/2011 for the Retrofit the City initiative to improve home living conditions.

Strategic Projects (p56)

Beacon supports the Business Improvement District in place for Te Atatu Peninsula and that planned for Glen Eden. Beacon would like to see opportunities maximised for sustainable building and development within these processes (see Beacon's HSS High Standard of Sustainability® for more details).

Social and Cultural Strategy (p59)

Beacon supports the development of an action plan for Affordable and Sustainable Housing.

Beacon submits that the proposed City Social Plan includes the importance of healthy and sustainable housing and neighbourhoods as foundations of individual and community wellbeing.

Beacon supports Council's locality-based projects such as Tatou West Harbour neighbourhood development and Massey Matters, as excellent examples of involving local people in creating sustainable neighbourhoods.

Beacon would like to see these local neighbourhood development initiatives supported, resourced and strengthened into the future and this community based approach promoted locally, regionally and nationally. Beacon's neighbourhood research strand which includes how to measure neighbourhood sustainability can assist these initiatives (see Appendix A).

Beacon supports the development of a housing impact assessment tool and other sustainable and affordable housing initiatives. Council's attention is drawn to Beacon's HomeSmart Renovations project, which could support these initiatives (see Appendix A).

Water Supply (p70)

Beacon supports water demand management initiatives including water metering. Council is referred to Beacon's *Slowing the Flow* report, which was prepared specifically to assist Councils to put in place a package of water demand management practices, see http://beaconpathway.co.nz/further-research/article/a_framework_for_councils. It draws in a range of methods from more efficient management of infrastructure and community education to a range of regulatory methods and economic tools.

Wastewater (p79)

Beacon supports the reduction of wastewater overflows and the active pursuit of alternatives to conventional wastewater infrastructure, including mini and local treatment facilities, storage tanks at known overflow sites and education on water conservation and wastewater disposal.

Beacon supports introducing user-pays charges for wastewater.

Stormwater (p91)

Beacon supports the Council's implementation of sustainable solutions and Low Impact Design techniques for stormwater including rainwater tanks, rain gardens and swales.

Beacon supports the development of an Integrated Water Resource Management Plan for the Project Twin Streams Catchment (and city wide).

Resource Management (p184)

Beacon submits that, in its regulatory reviews and including the District Plan review starting in 2013, Council should make provision for supporting the development of sustainable buildings.

Beacon seeks provision of appropriate funding and staff resource to develop provisions for sustainable building.

Consent Services (p188)

Beacon supports the role of the Eco Design Advisor.

Beacon submits in support of simplified consenting processes, including reduced fees or waiving of fees for solar water heating and for solar photovoltaic installations.

Appendix A: Beacon's research

Reports and further information can be found at Beacon's website: www.beaconpathway.co.nz

National Value Case

Beacon believes there is a significant role for Government to drive the necessary upgrade of the existing housing stock to a higher standard of sustainability as well as substantially raise minimum standards in the Building Code for new houses. Furthermore, our research indicates a strong value case at a national level to transform a significant proportion of the New Zealand housing stock to Beacon's HSS High Standard of Sustainability® with beneficial social, health, environmental and economic outcomes.

- [National Value Case for Sustainable Housing Innovations](#) (PDF 2MB)

Large-scale renovation is big on job creation

Prudent investment by the Government in New Zealand's residential infrastructure, in partnership with local government and industry, will maintain employment and critical mass in the building, building product manufacturing and building retail industries.

HomeSmart Renovations

The HomeSmart Renovation project involves the assessment and evaluation of renovations undertaken by approximately 600 homeowners across New Zealand to improve their building performance. Each home will receive an individually tailored renovation plan (based on our research so far) which shows participants how to get the best return on their investment, by drawing up a detailed pathway to improve the sustainability of their home. Through the project, we're developing tools which will assist homeowners in making good choices when they make changes to their homes, and collecting information to assess the benefits of renovating homes and the best ways to do this. The research outputs from the project will be available late 2010.

Barriers to sustainable building

Beacon has conducted detailed work looking at the barriers to sustainable building within local government and this has resulted in the development of a Local Government Resource Manual which provides the detailed rationale, suggested solutions and case studies for best practice policy measures to support sustainable building. In 2009, this Resource Manual is being launched through a series of workshops in Christchurch, Wellington, Rotorua and Auckland. This resource will be available through our website to all councils.

- [Best Practice Policy Approaches to Encourage Sustainable Residential Building and Retrofitting: Evaluation and shortlist of initiatives](#) (PDF 118 KB)
- [Best Practice Policy Approaches to Encourage Sustainable Residential Building and Renovation: Survey and Literature Review Results](#) (PDF 820 KB)

Neighbourhood research

Beacon's neighbourhood research team have developed a framework which could be used to measure the sustainability of New Zealand's neighbourhoods. Our aim is to create a tool for developers, planners and local government which both measures neighbourhood sustainability and suggests improvements. The goal is how to design, construct, and manage neighbourhoods which: are adaptive; are resilient; allow people to construct rich satisfying lives; and, respect the limits of the environment.

Water research

Beacon has undertaken a significant amount of research over the past two years related to water. Our premise is that the increasing cost, the decreasing availability of water supply in some parts of the country, and conflicting demands for water allocation between some rural and urban parts, will require a more efficient and conservation-orientated approach if New Zealand is to achieve widespread household sustainability.

During 2008 Beacon ran workshops with six councils across the country in order to explain in detail the range of methods that councils could consider to intensify their water demand management approaches. Each council then prioritised their next likely steps. Beacon continues to observe their progress, so that ways of overcoming potential barriers might be identified and shared with others.

Three other current pieces of work are aimed at deepening our understanding of water issues. One looks at the value case for water, one looks at the relationship between water and energy, and the third looks at the benefits of the integrated management of the three waters.

Key water reports are:

- 2008 [Slowing the Flow: A Comprehensive Demand Management Framework for Reticulated Water Supply](#) (PDF 1.4MB)
- 2008 [Best Practice Water Efficiency Policy and Regulation](#) (PDF 1.4MB)
- 2007 [Demand Management Through Water Retrofit Projects \(Public report\)](#) (PDF 737KB)
- 2007 [Making Policy and Regulations Rain Tank Friendly](#) (PDF 234KB)
- 2006 [Water Efficiencies: Report on Existing Technologies/Expertise in New Zealand](#) (PDF 116KB)

Energy research

Our Energy Retrofit research will provide robust information to inform decision makers and actors in the value chain on how to cost effectively renovate New Zealand homes to a high standard of energy sustainability. We're tackling this in three ways.

- 1) We're looking at how hard or easy it is to renovate the energy performance of **different types** of existing homes. Our houses were built significantly differently over the last century and each type poses different problems for energy retrofits.

- 2) We want to understand how **different consumers** see the energy performance of their home and respond to retrofit opportunities. Specifically we've focused on landlords, high energy users and recent home buyers.
 - 3) We're using what we learned along with our experience in the Home*Smart* Renovations project to build a series of **energy retrofit packages** that will provide effective improvements for each type of home and different consumer groups.
- 2008 [New Zealand House Typologies to Inform Energy Retrofits](#) (PDF 651KB)
 - 2008 [Housing Typologies: Current Stock Prevalence](#) (PDF 392KB)