MEASURING NEIGHBOURHOOD SUSTAINABILITY
A New Zealand Example
About Beacon Pathway

Transforming New Zealand’s homes and neighbourhoods to be high performing, adaptable, resilient and affordable through:

- Demonstration projects
- Robust research
- Enabling members to lead
- Collaborating and partnering
Beacon’s pathway to the goal

Vision
Creating homes and
neighbourhoods that
work well into the
future and don’t cost
the Earth.

Purpose
To transform New
Zealand’s homes and
neighbourhoods to
be high performing,
adaptable, resilient
and affordable.

Values
• Independent
• Credible
• Innovative and
creative
• Collaborative

GOAL
90% of New
Zealand homes to
a high standard of
sustainability

Knowledge
Beacon establishes a
trusted body of knowledge
that can underpin any
intervention

Demonstrate
Beacon provides proof of
concept that an intervention
can work in the real world

Scale-Up
Beacon plays a role in
scaling up demonstrations
to transform New Zealand’s
residential sector

Review
Beacon reviews the impact
of the scale-up on its goal

Neighbourhoods
New build
Existing homes
Neighbourhood Sustainability Framework

- Outcomes based framework that sets a goal for designing and managing neighbourhoods
- Assesses performance and potential to inform decision-making through 2 tools:
  1. Observational Assessment
  2. Resident Self-Report

"...appreciating the neighbourhood scale as a life space is a strategic move towards developing policies of sustainable urban development."

(Charlot-Valdieu et al., 2003: 10)
6 Critical Domains

ALL domains need to perform well and complement each other, for a neighbourhood to be sustainable in a positive way...
NSF Structure

- Independent assessment of neighbourhood sustainability
- Informs neighbourhood-level decision-making
- Helps design, construct & manage neighbourhoods which:
  - are adaptive and resilient
  - allow people to create rich and satisfying lives
  - respect the limitations of the environment
Observational Assessment Tool

- A basic sustainability assessment for both existing and new neighbourhoods
  - Two distinctly different types of credits – measured/observable and professional judgement
  - Highlights strengths and weaknesses
  - Assessment at element level
  - Nine separate sections with banded grades
  - Identifies what outcomes need to be addressed
Residential Self-Report Tool

- Assesses neighbourhood sustainability by collecting information residents’ perceptions, experiences and behaviours.
- Can only be used in existing neighbourhoods
- A survey process with data analysis calibrated by the National Neighbourhood Survey, Quality of Life Survey and Census data.
- Results are both absolute and comparative – NZ Census, Quality of Life surveys and Beacon’s National Survey of Neighbourhood Experiences and Characteristics.
Hobsonville Pt Sustainable Development Framework

- Vision: Strong, vibrant community that sets new benchmarks for quality and accessible urban development with an environmentally responsible focus
- Framework signed off in 2007
- Regularly reviewed and reported against since.
- Long Term Indicators for 2021
- Short term Development Indicators.
# Observational Tool Results Summary

<table>
<thead>
<tr>
<th>Section</th>
<th>Features</th>
<th>Sustainability Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Walking access to basic everyday facilities</td>
<td>Very High</td>
</tr>
<tr>
<td>2</td>
<td>Access to public transport</td>
<td>Medium</td>
</tr>
<tr>
<td>3</td>
<td>Efficient use of space and viability of local centres</td>
<td>Medium</td>
</tr>
<tr>
<td>4</td>
<td>Protection and enhancement of the natural environment</td>
<td>Very High</td>
</tr>
<tr>
<td>5</td>
<td>Dwelling sustainability</td>
<td>Very High</td>
</tr>
<tr>
<td>6</td>
<td>Quality of space</td>
<td>Very High</td>
</tr>
<tr>
<td>7</td>
<td>Diversity and resilience</td>
<td>High</td>
</tr>
<tr>
<td>8</td>
<td>Street network</td>
<td>Very High</td>
</tr>
<tr>
<td>9</td>
<td>Innovation and community-building</td>
<td>Medium</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>Very High</strong></td>
</tr>
</tbody>
</table>
Observational Tool Identified Strengths

<table>
<thead>
<tr>
<th>Observational Tool</th>
<th>Current rating</th>
<th>Key areas of strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking access to basic everyday facilities</td>
<td>Very High</td>
<td>Multiple facilities within easy walking distance.</td>
</tr>
<tr>
<td>Protection and enhancement of the natural environment</td>
<td>Very High</td>
<td>Concentration of imperviousness as well as planting and protection of habitat, stream and wetland management (including riparian margins).</td>
</tr>
<tr>
<td>Dwelling Sustainability</td>
<td>Very High</td>
<td>High standards of energy efficiency, the inclusion of renewable energy sources, effective water efficiency and options for natural ventilation for all rooms.</td>
</tr>
<tr>
<td>Quality of space</td>
<td>Very High</td>
<td>Good passive surveillance of and effective ease of access to footpaths and public spaces, opportunities for casual interaction and high quality streetscapes and public spaces.</td>
</tr>
<tr>
<td>Street network</td>
<td>Very High</td>
<td>Responds well to natural features, offers reasonable solar access for most dwellings, providing good connectivity and discouraging fast traffic.</td>
</tr>
</tbody>
</table>
## Observational Tool Areas for Improvement

<table>
<thead>
<tr>
<th></th>
<th>Current rating</th>
<th>Areas for improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to public transport</td>
<td>Medium</td>
<td>Improving the frequency of public transport and improved public transport routes.</td>
</tr>
<tr>
<td>Efficient use of space and viability of local centres</td>
<td>Medium</td>
<td>Increasing the presence of local facilities, such as retail shops and a higher density of dwellings in the immediate vicinity of these.</td>
</tr>
<tr>
<td>Diversity and resilience</td>
<td>High</td>
<td>Increasing the mix of uses in the neighbourhood and immediate environment. For example, providing healthcare, child care or professional (legal or accounting) services, start-up spaces for artists or commercial enterprises and/or live/work premises.</td>
</tr>
<tr>
<td>Innovation and community building</td>
<td>Medium</td>
<td>Increasing community building activities such as a toy library or men’s shed as well as communal energy generation or car sharing for example.</td>
</tr>
</tbody>
</table>
Resident Survey Overview

- 83% response rate
- All but one respondent agreed that Hobsonville Pt is a great place to live.
- 88% reported no intention of moving.
- Over 66% reported that their neighbourhood “had a strong sense of community”.
- 95% felt safe during the day and over 98% felt safe after dark.
Resident Survey Overview

- 95% agreed that their homes were warm and comfortable.
- 59% said that they could get by without outside help for a few days in a natural disaster.
- 63% of people stated that they had taken action to improve the environment in the past year. 17% reported composting.
- Engaged group of residents with 48 households (62%) indicating that they would be happy to participate further.
Key results: Transport

The bar chart compares different modes of transport with the Auckland population (Census 2006) as a reference. It shows:

- **Walk**: Lower than Auckland population.
- **Cycle**: Similar to Auckland population.
- **Scooter or skate**: Similar to Auckland population.
- **Public bus**: Higher than Auckland population.
- **Ferry**: Lower than Auckland population.
- **Train**: Not measured in Census.
- **Driver of motor vehicle**: Similar to Auckland population.
- **Passenger in motor vehicle**: Not measured in Census.

The chart indicates the percentage of individuals using each mode of transport compared to the Auckland population.
Key Results: Local Facilities

- Over a quarter use parks daily.
- Nearly half visit the market weekly, nearly 90% at least monthly.
- 19% participate in local community groups.
Key Contributing Features

- Consistent vision – holistic approaches to sustainability and placemaking
- Safe and pleasant physical environment
- Key local amenities established early
- Public transport, limited garaging and parking
- High standard of housing
- Community activation
Uses by Hobsonville Land Company

- Useful measurement and benchmark data of long term indicators
- Re-prioritisation of local public transport
- Consideration of formal car pooling scheme
- Highlighted importance of neighbourhood shops and local employment
- Understanding of current demographics
- Support for placemaking, facilitation of events and occasions plus other community activation
Uses by Beacon Pathway

- Tools further refined to ensure the reliability, relevance and usefulness.
- Most significant change to the criteria for the ranking categories of the Observational Tool.
  - Now a higher standard of sustainability is required to meet the standards for a rating of medium, high and very high.
- Useful as local baseline research, as well as informing decision making and partnerships.
- Useful to contribute to development of meta-database of neighbourhood level information.
For more information

http://beaconpathway.co.nz/neighbourhoods

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