



North East Neighbourhood House Network

Report on *Greener Houses Growing Greener Neighbourhoods*

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www.nenetwork.org.au

Wide range of documents developed and used during the project are also available at www.nenetwork.org.au

The transformation of five Neighbourhood Houses to 'Greener Houses' was made possible by investment from the Victorian Government, *The George Alexander Foundation*, *The Helen Macpherson Smith Trust*, *City of Yarra*, *City of Banyule*, *City of Darebin*, *Shire of Nillumbik* and *City of Whittlesea*.



Helen
Macpherson
Smith
Trust



The Greener Houses project is supported through the EcoLiving grants program, funded by the Victorian Government's Sustainability Fund

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Executive Summary

What *Greener Houses Growing Greener Neighbourhoods* achieved

Greener Houses Growing Greener Neighbourhoods provided an exciting opportunity for Neighbourhood Houses and local volunteers to take action on climate change in their communities, learn new skills, and help others to take action too.

Together we created five 'eco-living' Neighbourhood Houses in Melbourne's northern suburbs.

Greener Houses Growing Greener Neighbourhoods

1. Recruited 59 volunteers at five Neighbourhood Houses
2. Empowered and trained volunteers to develop plans to retrofit four Neighbourhood Houses
3. Transformed the four Neighbourhood Houses by implementing the volunteers' Retrofit Plans
4. Created a *new* 'eco-living' Neighbourhood House
5. Formed partnerships with businesses in the sustainability industry to be part of the implementation of the volunteers' Retrofit Plans
6. Trained volunteers in community engagement skills
7. Empowered volunteers and Neighbourhood Houses to share their eco-buildings and their sustainability knowledge and skills with their local communities

Greener Houses Growing Greener Neighbourhoods achieved all this through a partnership of seven Neighbourhood Houses, five local governments, two tertiary institutions and many business sponsors, and was led by the North East Neighbourhood House Network. It was supported by the Victorian Government and two Philanthropic Trusts.

The five 'Greener' Neighbourhood Houses are living and evolving demonstrations of sustainability for local communities.

What Greener Houses Growing Greener Neighbourhoods learned

Partnership and relationships

Partnership requires active facilitation, negotiation, commitment and leadership, and it takes a significant investment of time to make it work. The Greener Houses partnerships were built on the strong relationships the North East Neighbourhood House Network and the Neighbourhood Houses already had with Local Government. New relationships were also built with Universities, Government and Philanthropic Trusts as well as businesses in the home sustainability industry.

The strength of the partnership relationships in the project is reflected, for example, in the cooperation between the project and local Government. Local Governments are the owners of the retrofitted Neighbourhood House buildings. It is an unusual, and so far as we know, unique for local volunteers to plan the make-over of a local government-owned facility and for the building owners to be comfortable with accepting their recommendations and to facilitate the implementation of the plans. Our experience is a close, collaborative involvement of a Council Sustainability Officer who has responsibility for improving the environmental performance of Council buildings would be beneficial to future projects.

These relationship-based partnerships will now continue to evolve and expand through the ongoing work of the 'eco-living' demonstration houses.

Education for sustainability

A key turning point in the project was the realisation that information workshops and 'education **about** sustainability' would not, on their own, enable the volunteers to work together to formulate building Retrofit Plans. '*Education for Sustainability*' (EfS) provided the missing framework and fitted well with the culture of Neighbourhood Houses, which emphasises community development. EfS uses learning by doing, and transforms information and knowledge into action and change.

Iterative process - community development

The developmental process, or 'learning journey' taken by the volunteers, as well as project staff, informed *what* everyone learned as well as *how* they learned it. This learning then influenced the next steps in the 'learning journey'. In short the 'learning journey' had an iterative component – the process informed the learning and the learning informed the process. This developmental process required significant staff time and resources to respond flexibly to the volunteers' both as individuals and as groups - their existing skills and capacities, their ideas, initiatives and directions.

The process has supported the development of groups of people in five local communities who are highly skilled and knowledgeable about home sustainability. They will continue to be invaluable resources to others in their local communities. But working with five separate groups of volunteers across five sites continually stretched our staff. The project would have been more responsive to volunteers and less taxing on staff with significantly more staff time and resources available, or if we had worked across fewer sites.

Business partnerships

Neighbourhood Houses are uniquely placed to be able to broker this type of partnership involving business, local Government and local communities. It was important that Greener Houses was not seen as a free-for-all to promote any and every "green" product on the market. Neighbourhood Houses' reputation as trustworthy and reliable sources of information had to be maintained. We approached businesses because, based on the volunteers' research, their products were the best for the Neighbourhood House retrofit – and volunteers would feel that ethically they could recommend the products to others.

1 The project

The North East Neighbourhood House Network's *Greener Houses Growing Greener Neighbourhoods* project has developed five Neighbourhood Houses as demonstration centres to showcase the principles and operation of low energy and water use design features, technologies and appliances in family homes. The project:

- retrofitted four Neighbourhood Houses and involved one new, purpose-built Learning Centre
- Established on-going, accessible, local community education to help people make their own homes more eco-friendly, using the five Eco-Living Demonstration Centres as teaching and learning tools

Greener Houses Growing Greener Neighbourhoods is primarily about community engagement and community education and only secondarily about technology, products and equipment. It emphasised:

- ✓ Community development
- ✓ Community engagement
- ✓ Volunteer involvement
- ✓ Learning-by-doing and peer-to-peer education

Greener Houses Growing Greener Neighbourhoods provided an exciting opportunity for people to get involved with local community organisations, learn new skills, and help others to make their homes and lives more sustainable. The project:

8. Recruited more than 59 volunteers and trained them in home sustainability
9. Supported the volunteers to develop retrofit plans for four established Neighbourhood Houses
10. Participated in the design of the new purpose-built Learning Centre
11. Gained the support of local Government¹, businesses in the sustainability industry, and the Victorian Government to implement the retrofit plan
12. Implemented the volunteers' retrofit plans - installing a wide range of equipment, appliances and products which have made the buildings more eco-friendly
13. Developed the five eco-demonstration centres – both the new Learning Centre and the retrofitted Neighbourhood Houses - as tools for teaching and learning about home sustainability
14. Trained more than 20 volunteers to develop and deliver community environmental education to members of the local communities of the five Houses
15. Involved the Neighbourhood House organisations in making a transition to being eco-demonstration centres incorporating new behaviour, development of how-to manuals, production of community education materials, and supporting an ongoing eco-volunteer program

¹ The building owners for the four established Neighbourhood Houses

16. Evaluated the volunteer training and engagement and the community engagement processes, as well as the environmental benefits of retrofitting the Houses
17. Was a partnership involving seven Neighbourhood Houses, five local Governments, two tertiary institutions and many business sponsors, led by the North East Neighbourhood House Network (*see box*)
18. Was supported by two Charitable Trusts as well as the Victorian Government Sustainability Fund, managed by Sustainability Victoria.

Neighbourhood Houses involved

For the location of the Neighbourhood Houses involved, see page 3 of *Greener Houses Growing Greener Neighbourhoods* final report brochure at www.nenetwork.org.au

The project was coordinated by the North East Neighbourhood House Network and involved seven Neighbourhood Houses in Melbourne's northern suburbs:

- Richmond Community Learning Centre
- Jika Jika Community Centre in Northcote
- Watsonia Neighbourhood House
- Allwood Neighbourhood House at Hurstbridge
- Creeds Farm Living and Learning Centre, in North Epping

The five core Houses were supported substantially through the involvement of two other member Houses of the North East Neighbourhood House Network:

- Thornbury Women's Neighbourhood House
- Fitzroy Learning Network

Participating Houses were selected from the Network membership based on the following criteria:

- One in each of the five municipalities in the North east region of Melbourne – giving both socio-economic diversity and geographic spread
- Similar look and construction to typical homes in the neighbourhood
- Council owned
- Variety of types of design
- One new building to respond to the design and building of new homes in the northern growth corridor

Partner Organisations

North East Neighbourhood House Network is the regional association of 33 Neighbourhood Houses in the north-eastern suburbs of Melbourne. The network coordinated and managed *Greener Houses* in close association with the seven participating Houses.

Neighbourhood Houses - The project involved seven neighbourhood Houses – see box 1. The project was supported by the Association of Neighbourhood Houses and Learning Centres, the peak organisation for Neighbourhood Houses in Victoria.

Local Government – The five municipalities in the region covered by the North East Neighbourhood House Network provided grants and in-kind support to the project: the Cities of Yarra, Darebin, Banyule, Whittlesea and the Shire of Nillumbik. The four existing Neighbourhood House buildings are owned by these local Governments. Creeds Farm Living and Learning Centre is community-owned.

National Centre for Sustainability, Swinburne University - provided most of the training for volunteers in home sustainability and in community education. The Centre also assisted with evaluation of the community education phase of the project.

Centre for Design, RMIT, undertook evaluation of the environmental performance of the Neighbourhood Houses before and after the process of retrofitting the buildings. The centre also undertook evaluation of the volunteer engagement and education.

Funding partners -

- The Greener Houses project is supported through the EcoLiving grants program, funded by the Victorian Government's Sustainability Fund as an initiative of Our Environment Our Future to help Victorians reduce their impact on the environment
- The George Alexander Foundation provided funding for the development and delivery of the volunteer training
- The Helen Macpherson Smith Trust supported project evaluation and Volunteer costs (including production of training materials, resources, catering, etc)

Business partners – the project approached a number of businesses involved in manufacture, sale and installation of the products selected by volunteers in their retrofit plans, seeking their involvement as project partners. The following companies responded positively through the donation or partial donation of products or installation:

Belle skylights – Solatubes and Belray Selectolite

Bosch – instantaneous gas hot water systems

ecoMaster – draught sealing, ecoGlaze secondary glazing, ceiling insulation

Justrite – retrofitted wall insulation

SolaMate – solar air heating and cooling system

The project has also enjoyed the very generous support of ***Chorus Studio***. Chorus designed and produced all promotional and education materials as well as signage.

Neighbourhood Houses: the heart of the community

Neighbourhood Houses are friendly, welcoming places for people to gather, meet others and get involved in their local community. They are managed by the local community. People can volunteer; participate in informal and formal learning, and in social and recreational activities. They can also lead activities, be a tutor or get involved in the running of the House through election to the Committee of Management.

To ensure that Neighbourhood Houses are responsive to the local community, the staff and Committee of Management strive to include local people at all levels in and in all aspects of the operation of the House. This approach gives local people the opportunity to be part of identifying local issues and needs, and finding ways they can respond².

This focus on participation makes Neighbourhood Houses dynamic places that are “hot spots of community activity”, according to a detailed census³ of participation in Neighbourhood Houses in Victoria. The census also found:

“The magnitude of community participation in the houses makes them significant sites of community engagement, involving a wide range of people, particularly those who may otherwise be excluded. The scale of the training activities the houses provide means they offer considerable potential for capacity building in local communities. In addition, they offer one pathway for people to develop the confidence and skills to take on decision-making roles in local communities”

The 2006 census found that in Victoria there were

- 395 Neighbourhood Houses in Victoria - *one in virtually every suburb, in regional centres & in most towns*
- More than 3 million participants in classes, programs or organised activities (*Individual participants may attend more than once*)

Australia-wide there are more than 1000 Neighbourhood Houses & Community Centres.

Why Neighbourhood House Community Development is important

At a time when many people increasingly feel that decisions that affect their lives are made at a distance, Neighbourhood Houses have a more important role than ever. They give people opportunities to shape the ways in which their local community responds to the needs and aspirations of local people. Whether it is day-to-day needs like childcare, adult education, or simply being connected with others; or whether it is the need to respond to major events and natural disasters like bush fires or floods, Neighbourhood Houses give people the rare opportunity to work together and decide for themselves what to do.

² The model of Neighbourhood House community development practice can be described in six simple and generic steps. These steps enable Houses to have a key role in local area planning to meet the needs of their local communities. See Neighbourhood House Coordination Program 2009-2012, Program Guidelines and Neighbourhood House Sector Information Guide.

http://www.dpcd.vic.gov.au/__data/assets/pdf_file/0020/33095/Neighbourhood_House_Coordination_Program_Guidelines_2009-12_web2.pdf

³ *Participation in Neighbourhood Houses: Results of the 2006 Census* Department of Victorian Communities, 2006.

Neighbourhood Houses: linked together

Although Neighbourhood Houses are independent, and managed by the local community, for the local community, they are not isolated organisations. The Neighbourhood House model of 'community development' links Houses regionally and State-wide.

Many Houses find that the needs of their local community are shared by other local communities. Victorian Neighbourhood Houses are linked together in regional 'networks' which encourage and support Houses to work collectively on these shared issues to achieve better results for their communities than they can by working individually. In some cases these responses are organised and facilitated by the Network itself.

The North East Neighbourhood House Network, the lead agency for *Greener Houses*, is one of 16 regional Neighbourhood House Networks in Victoria.

Where the issues faced by local communities are widespread, regional Networks work collectively at the State level through Peak organisation Association of Neighbourhood Houses and Learning Centres.

How *Greener Houses* started

Over many years, responding to community interest in and concern about the environment, most Neighbourhood Houses in the North East Neighbourhood House Network had run local environmental projects or environmental education.

By the mid-2000s very high levels of public concern about the drought, water shortages and climate change raised the question among North East Neighbourhood House Network members: can we work with our local communities on these major issues more effectively by working together than by working separately?

Through its strategic planning process in 2006 the Network explored how to respond to the emerging need within local communities to be able to take action on climate change. Questions Network members asked:

- What is a good way to work with our communities on environmental issues and concerns?
- How can we support our communities to respond to climate change?
- How can we do something that can be shared with others and serve as a model for others?

Network members adopted a new Strategic Plan in 2007 that planned a regional project to retrofit Neighbourhood Houses as eco-friendly demonstration houses, showing community members how they can cut energy and water use at home⁴. Broadly, it was envisaged that the project would involve three phases:

1. Training Neighbourhood House members and volunteers in home energy auditing and supporting them to develop & cost a plan to retrofit their Neighbourhood House to make it energy efficient and greenhouse-friendly
2. Use the plan developed by the local people to prepare funding proposals to retrofit the house; once funding is secured, install greenhouse-friendly equipment and appliances, making each Neighbourhood House a friendly demonstration house

⁴ Drawing on an international program *Master Composters*, North East Neighbourhood House Network members had already developed and run a similar model for community-based peer-to-peer education on home composting, '*Earthmatters*'. The Network developed this model for regional application, but was not successful in receiving funding.

3. Involve the volunteers who have developed the retrofit plan in developing and delivering informal and formal environmental education programs in each House, to assist members of the local community to understand what actions they can take at home to reduce their contribution to climate change.

It was envisaged that this project would involve a broad partnership including specialist NGOs/energy consultants, the State and local Governments, and potentially the Commonwealth Government.

Why Neighbourhood Houses make ideal eco-demonstration centres

- ✓ Peoples' learning about the environment is often from family & friends, usually in informal settings – Neighbourhood Houses create the informal friendly atmosphere that is so conducive to learning & doing
- ✓ Neighbourhood Houses are generally of similar vintage & construction as the homes in surrounding neighbourhoods, so can easily demonstrate how local houses can be made eco-friendly
- ✓ There is a Neighbourhood House or Community Centre in virtually every suburb, giving all Victorians the opportunity to easily find out about eco-friendly living
- ✓ High levels of community participation in Neighbourhood Houses already giving the project strong 'reach' into the community (see below), enabling us to provide people with information about making their homes eco-friendly
- ✓ Potential to significantly increase participation in Neighbourhood Houses with new eco-programs that connect with local peoples' interests and concerns
- ✓ Neighbourhood Houses are in the business of connecting with people, drawing them in & encouraging their participation
- ✓ Neighbourhood Houses are experts involving and managing volunteers
- ✓ Neighbourhood Houses are in the business of formal and informal education
- ✓ Neighbourhood Houses work in partnerships with Government and non-government organisations

The Vision for *Greener Houses*

Motivations that drove the Network's vision for the project were quite broad and strategic. Neighbourhood House Network members could see that their organisations were ideally placed to help people meet the emerging challenges of the drought and climate change by providing information, raising awareness and most importantly training people in new "eco- skills".

The Network and its members were looking for a flagship project that would:

- demonstrate the capacity of Neighbourhood Houses to work effectively with local communities on environmental issues
- show that environment could be core business of Neighbourhood Houses

To show that Neighbourhood Houses make ideal eco-demonstration centres and that virtually every Neighbourhood House has the potential to be an Eco- Demonstration Centre, a large project was

conceived – locating one eco-Neighbourhood House in each of the five local government areas that make up the North East Network’s area.

Including a new, purpose-built Neighbourhood House in the northern growth corridor would not only reach people building new homes, it would also demonstrate the benefits of building-in environmental features in new community facilities.

Finally the network was keen to assist some of its smaller and less well-resourced members. The project was seen as having the potential to help build the organisational capacity and effectiveness of smaller houses.

The project was conceived as phase one of three phases of an Eco-friendly Neighbourhood Houses project:

1. Pilot - 5 Neighbourhood Houses in the NE Region, one House per Municipality
2. Whole of NE Region, the remaining 25 Houses in the Region
3. Extend to other regions, & ultimately all Neighbourhood Houses in Victoria

2 The *Greener Houses* Volunteers' Sustainability Learning Journey

Retrofit Houses

Volunteer Program

Volunteers are central to the *Greener Houses Growing Greener Neighbourhoods* project. The Volunteer program has embedded sustainability knowledge and skills in the local community. In the first stage of community engagement the Neighbourhood Houses recruited volunteers who were then trained in home sustainability skills. The volunteers then developed a specific plan for their House.

In the second stage the Volunteers have received training in peer-to-peer community environmental education techniques. Their thorough understanding of the technologies and products that have been used to retrofit the House, along with their experience of the complex decision making processes that householders face when thinking about the changes they can make in their own lives and homes, means that they are well equipped to help others through the home sustainability maze.

Volunteer recruitment

In April 2009 recruiting volunteers for the four Greener Houses to be retrofitted was a simple and straight-forward process. Posters and information calling for volunteers were distributed at the Neighbourhood Houses, in Council newsletters; through Council volunteer resource centres and through NGO volunteer programs, at community venues, and events such as the Sustainable Living Festival.

People who responded to the advertising were sent the Eco-Living Volunteer Information Kit and an Eco-Living Volunteer Application Form. To help them decide if the project was for them, they were also invited to attend an information session at the Neighbourhood House to meet other potential volunteers, House and project staff, and find out more about the project.

The response was excellent. Sixty one people signed up as volunteers May 2009. Some people quickly found they didn't have the time required or that the project was not for them. Volunteer numbers settled, with about 55 people remaining involved at the close of 2009⁵.

The volunteers were a diverse group of people ranging in age from 20s to 70s with about 60% women. Slightly more than half of the volunteers participated in a surveyed conducted by RMIT's Centre for Design. The results of this survey provide detailed information on volunteers' age, employment, their previous experience volunteering, and their motivations for volunteering in this project⁶.

Overall, our volunteers ranged in prior knowledge and experience of sustainability from complete novices, to those who'd already given their own homes a thorough green makeover, with most somewhere in the middle. Some had technical backgrounds in engineering and physics while most had no, or limited technical backgrounds. Our volunteers included artists, administrative officers, university students, pensioners, people who were unemployed, retired school teachers and librarians. Though they came from many walks of life the volunteers shared enormous energy and enthusiasm for learning about home sustainability, and wanted to make a difference in their local communities about the environment.

⁵ This includes Creeds Farm volunteers – see below

⁶ *Greener Houses Growing Greener Neighbourhoods Evaluation Project – Community Engagement, Phase 1. Volunteer Survey: Summary of Preliminary Findings, July 2010.* Centre for Design, RMIT. See pages 19 – 22.

Volunteer sustainability learning journey – learning by doing

Working in groups

Once all volunteers had signed up there was an orientation workshop so each group could meet their fellow members, be introduced to the Neighbourhood House and the project. From their very first meetings the ‘culture’ of the group was quickly established reflecting the personalities, skills, experience and backgrounds of the group members.

The RMIT survey of volunteers⁷ asked them to rate their experience of working together in their groups. Volunteers reported that group cooperation, shared vision, diversity among group members (background, experience and expertise), internal communication, equality of participation and peer-to-peer learning was generally working well. They also felt there were challenges including establishing group leadership, commitment to meetings and group organisation. These experiences were to influence the design of later planning for community education training.

To support the forming and functioning of group dynamics the project staff were conscious of incorporating ways to support group cohesion and acknowledge and value the volunteers’ enormous contribution to the project. The most important way of doing this throughout the project was to ensure that healthy, environmentally-friendly food was provided, especially for long meetings and workshops! One group actually identified chocolate as an important part of keeping them together. Project staff also held a catered end of year party sent Christmas cards and ensured resources including equipment and reference books were available. Later all volunteers received a ceramic coffee ‘keep cup’ nicely labelled with “I’m a Greener Houses volunteer” and the Greener Houses logo.

Training and Education Process

The volunteers’ “*sustainability learning journey*” gradually built knowledge and understanding through seeing and doing, experiencing, reflecting, thinking, discussing, and sharing. The Learning Journey is broadly outlined in Fig 1. The *Greener Houses Volunteers’ Sustainability Learning Journey*

The project was based on a clear idea of what was to be achieved and the strategies for getting there. But there were aspects of this process that could not, and could never have been, predetermined. The process or learning journey that the volunteers (as well as the project staff and trainers) have embarked on informed *what* everyone learned as well as *how* they learned it. This learning then influenced the next steps in the journey. In short, the journey had an iterative component – the process informing the learning and the learning informing the process. This developmental process requires staff to respond flexibly to the volunteers.

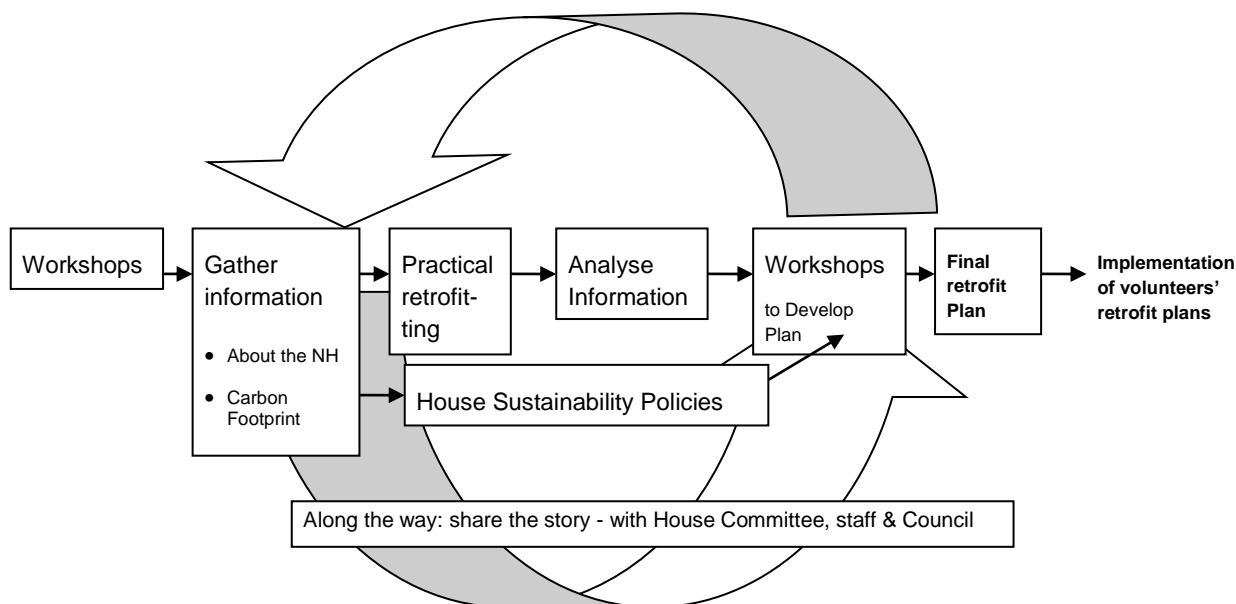
Workshops

The initial volunteer training concept was that the training would be undertaken as a series of four workshops at the beginning of the project in May and June 2009. Following the initial orientation and group forming workshop, three full-day workshops were presented by Moreland Energy Foundation (MEFL) covering:

1. calculating the House carbon foot print and energy auditing
2. practical retrofitting – mainly draught sealing
3. passive building design and products for retrofitting

⁷ *Greener Houses Growing Greener Neighbourhoods Evaluation Project – Community Engagement, Phase 1. Volunteer Survey: Summary of Preliminary Findings, July 2010.* Centre for Design, RMIT. See page 35.

Fig 1. The Greener Houses Volunteers' Sustainability Learning Journey



Workshops ...continued from previous page

All volunteers came together for Workshops 1 & 3; workshop two was offered separately to each group in their own Neighbourhood House.

Moreland Energy Foundation provided very well-documented, detailed presentations of information during these sessions. The Centre for Design survey of volunteers found that most volunteers surveyed felt that the amount and the depth of information provided in the initial workshops was “about right” for them (RMIT Evaluation Community Engagement p24).

Although almost all participants felt the workshops were very informative, some volunteers and the project staff felt there was generally far too much information presented in a very short period of time; and some of what was presented was very technical, leaving at least some volunteers uncertain of how to use the information to develop their retrofit plans for the Houses.

For example “...we just got a bit much at once before we were actually able to apply it to the actual neighbourhood house we were working on and by the time we revisited it [many] of us needed a refresher.” (RMIT Evaluation Community Engagement p24).

Gathering Information

Project staff’s response to the exclusive focus on information in the training workshops was to develop a set of ‘audit’ templates to assist volunteers in coming to a collective understanding of the Neighbourhood House building before formulating their retrofit plans.

See www.nenetwork.org.au for templates

It was envisaged that the groups would work through the templates systematically familiarising themselves with how the local community used the Neighbourhood House, the structure and design of the building and its strengths and weaknesses from a sustainability point of view, as well as the current pattern of energy and water use in the building. This data collection was seen as the

necessary foundation to clarifying the options for actions that could reduce the carbon footprint of the House.

The four groups each responded to the challenge in their own unique way. Some groups quickly got on with collecting data - these tended to be the groups where individual members had extensive pre-existing skills and knowledge, and the templates provided weren't regarded as necessary or useful. One person expressed surprise that they weren't 'on their own' once the MEFL workshops were over. Individuals in the more self-motivated groups varied in their capacity to share their skills and knowledge and 'bring the whole group with them'. One group struggled to 'jell' as a group as a result of this. Other groups enthusiastically welcomed the templates as they saw them as providing direction and structure to their work.

Practical Retrofitting

Three of the four groups focused strongly on 'practical retrofitting' for much of the remainder of 2009. Between the three groups they held a total of eight working bees between August and November, sealing up the draughts in their old and very draughty buildings. The fourth group, at Jika Jika, had very little interest in draught sealing as most people had thoroughly sealed their own homes and were looking for new challenges. Fortunately at this time the project was approached by 'Low Energy Supplies and Services' (LESS), who were running the Energy and Water Task Force project in the Cities of Darebin and Yarra. The project was retrofitting, free of charge, the homes of low-income earners in the two municipalities. Their staff, who had been long-term unemployed, did their practical hands-on training at the Community Centre, including draught-sealing the two Jika Jika buildings and insulating the childcare room at the main building. Labour and materials were provided free of charge.

Education *for* Sustainability

A range of discussions with MEFL and with other sustainability training providers led us to recognise the important difference between information and education in the sustainability field. A great deal of the sustainability education offered in Australia at that time emphasised information provision, or '*education about sustainability*'.

The '*education about sustainability*' approach was not a comfortable 'fit' with the project and staff felt it was unlikely to produce the outcomes required. In particular staff felt it wouldn't build volunteers' capacity to collaboratively formulate the retrofit plans.

The alternative approach is '*Education for Sustainability*':

*"Providing information and raising awareness are important, but so too is building individual and organisational capacity ... to ... implement solutions. Education for Sustainability's focus on building capacity ... makes it an essential element in shifting towards sustainability."*⁸

The project sought an alternative training provider to work in a facilitative way with the volunteers on their learning journey. The National Centre for Sustainability at Swinburne University (NCS) works in the '*Education for Sustainability*' (EfS) framework. The Centre's EfS training philosophy recognises that learners are active participants in the learning process, and that this process must therefore be interactive, participatory & collaborative, learner-centred, experiential and responsive. It also recognises that trainers must be engaged with the learners to be responsive to them as they learn.

'Education for Sustainability' is a developmental process, very similar to the approach to community development practiced in Neighbourhood Houses. This approach acknowledged that the learning

⁸ *Living Sustainably: The Australian Government's National Action Plan for Education for (p8)*
<http://www.environment.gov.au/education/publications/pubs/national-action-plan.pdf>

journey for the volunteers and the project staff, would inform *what* everyone learned as well as *how* they learned it. This learning would then influence the next steps in the journey. In short the journey would have an iterative component – the process informing the learning and the learning informing the process.

NCS' approach seemed to be a good fit with both Neighbourhood Houses and the Greener Houses project, and NCS was appointed as the trainer provider for the remainder of the project. The Centre's involvement was also crucial because of the huge workload required to support four groups (and a fifth at Creeds Farm which started in Aug/Sept 2009 – see next section) as well as the need for further technical training and support.

Analysis and retrofit plans

NCS offered a total of 21 workshops across all 5 Houses between November 2009 and July 2010. The key task for NCS was to facilitate the decision-making required to finalise the volunteers' retrofit plans.

NCS facilitated the volunteer groups to develop a decision-making matrix to enable them to choose between a large array of options for improving the sustainability of the buildings, beginning with a review of the energy audits that groups had done. Each group chose the criteria in their matrix and worked out how they would analyse this information to formulate their retrofit plans. All groups worked at different paces reflecting the time they had available and the particular challenges of their building.

Subsequently NCS offered a number of workshops on specific home sustainability topics. In contrast to the earlier information-focused workshops, these were intended to be practical sessions to enable groups to work through the decisions they needed to make to formulate their retrofit plans. Many of these topic workshops were offered to all House groups together. Topics included Water Efficiency, Shading and Ventilation, Green Purchasing, Passive Design, Lighting, Heating and Cooling, Renewable Energy and use of FirstRate 4⁹

Watsonia Neighbourhood House – a different route

Watsonia Neighbourhood House had a different track through the project to the other Houses being retrofitted. In 2009 Banyule Council, the building owner, announced a feasibility study into the redevelopment of the House as it is over-crowded and the facilities urgently need upgrading. It includes a double fronted brick veneer house typical of homes in Watsonia and behind it a large portable installed over 15 years earlier to cope with overcrowding.

Council appointed consultants to undertake a needs analysis, consult the community and develop concept plans for the redevelopment of the House, with the intention of both allocating funding for the redevelopment from the 2011/12 financial year, as well as seeking additional funds externally.

The announcement and the study posed challenges to the *Greener Houses* volunteer group - questions included 'which parts of the House if any would remain?' is there any point in coming up with a retrofit plan?

Some members of the Greener Houses group participated in the consultation workshops and had input into the concept plans for the redevelopment. The group also continued working on their retrofit plan, although it might be seen as not as complete as the other House retrofit plans.

Overall the group chose not to address issues in the portable, as this was expected to be demolished, rather to concentrate on the established 'front' House

⁹ FirstRate is a computer program that models the heating and cooling requirements for Australian residential homes

Ultimately, a list of actions was developed that would be compatible with the re-development concept plans.

Towards the end of 2011, Council made a new, completely unexpected, announcement of a fresh feasibility study for a community hub in Watsonia - in which the Neighbourhood House would be included. This announcement has been an additional uncertainty for the volunteers and for the project overall. In view of this announcement, expectations are that there will be no significant changes to the location of the House or to the building fabric in the next few years, so a few additional works were undertaken.

3 The Greener Houses Volunteers' retrofit plans

The four retrofit plans produced by the volunteer groups were comprehensive documents reflecting the extensive knowledge and training as well as the thorough and often painstaking work put into them. The retrofit plans typically comprised about 20 actions to improve the performance of the buildings. All the plans reflected the volunteers' thorough grasp that there is a hierarchy of actions to take to improve home sustainability starting with small, basic but vital actions to improve energy efficiency (such as reducing stand-by load, draught sealing and insulation), through to the addition of solar panels and the complete re-building of a particularly inefficient room.

See www.nenetwork.org.au for the volunteers retrofit plans

House Committees consider the proposed retrofit plans

Once the Greener Houses teams had agreed on their retrofit plans the next step was to present the plans to the Committees of Management at each house for their formal consideration. Reactions to the plans varied between Houses. Predictably the strongest support for the plans came from those Houses where Committees and key staff had a good understanding of the project, had most strongly supported its goals from the beginning, and had actively participated in the project throughout.

Greener Houses staff and volunteers had briefed House Committees and staff as the project progressed and some volunteers were members of House Committees. At some Houses, at least, there was a good level of understanding of the volunteers' work.

Jika Jika and Richmond readily gave their approval to the draft plans. Both had Committee members who had been or who were still *Greener Houses* volunteers. They also had key staff that although they could not participate in the project as volunteers either had home retrofitting experience to start with or had attended many of the training workshops and volunteer meetings. They had also participated in discussions about the pros and cons of the various proposed retrofit actions before the volunteers finalised the proposed plans. Another factor in these Committees' responses was that they were able to share the sense of ownership of the House building with the Greener Houses volunteers.

At Allwood Neighbourhood House the Committee had major reservations about certain aspects of the plan and after rather robust debate major amendments were made to it. Some of the reservations resulted from the Committee feeling they had a long and solid experience of using the building, which enabled them to better appreciate the implications of the proposed changes. There was also a feeling that the long-term nature of committee membership meant that they would have to wear the consequences of the proposed changes.

At Watsonia Neighbourhood House the uncertainty about the redevelopment of the building continued. The plan that was finally tabled for the committee was more limited than at the other Houses – it identified those actions that would be unlikely to be affected if the re-development were to proceed. In addition to the challenges posed by this uncertainty, key Watsonia staff had been on bereavement leave and, later, sick leave over an extended period. The Committee chose to manage this situation by increasing the role of volunteers in the organisation, putting significant strain on an already busy Committee. The capacity for Committee members or staff to participate in the wider project and be part of the thinking was limited by these circumstances. Nonetheless the Committee agreed to the plan, with some reservations.

By October 2010 all Houses had the agreement of the Committees of Management for the retrofit plans.

Local Councils consider the proposed retrofit plans

In November and December 2010 the project sought the approval of local governments, (the building owners), for the plans. In some municipalities this was a simple and straightforward process, and reflected the MOUs signed at the beginning of the project. In others getting the right people to the table to consider the plan and finding strategies to manage external factors were vital to getting Council support.

The **City of Yarra** had been a strong supporter of the project from the start, and had allocated funding to support implementation of the retrofit plan. Relevant staff had been briefed on a number of occasions about progress of the project. While Council was in a general sense comfortable with the plan, they had recently identified that major works were required to rectify problems with the floor at Richmond Community Learning Centre. Once we were able to show that the retrofit works would not affect, or be affected by the re-flooring, Council was happy to proceed with the implementation.

The **City of Darebin** had likewise always been a strong supporter of the project and readily accepted the plan and allocated a staff member to work on the implementation.

The **City of Banyule's** readiness to accept the plan was of course coloured by the uncertainty associated with the redevelopment process. A meeting with the three relevant departments ultimately led to the agreement that those retrofit works that would not be affected by the redevelopment could be implemented.

The **Shire of Nillumbik's** initial lukewarm reception of the plan was quickly replaced with strong support and enthusiasm once the appropriate Council Departments and officers became actively involved. The Environment Department and particularly the Sustainability Officer undertook a vital role. Council also offered support from Council's environmental rolling fund should that be required.

4 Retrofitting the Neighbourhood Houses

The eco-features of the five Greener Neighbourhood Houses are best seen through a visit and a tour with a volunteer or staff member. Please contact your nearest “Greener House” – they will be pleased to help you.

See www.nenetwork.org.au for contact details

Greener Houses Growing Greener Neighbourhoods implemented the volunteers’ retrofit plans in the four Neighbourhood Houses over a period of about 13 months, between January 2011 and February 2012. This effectively involved undertaking 4 major renovations simultaneously in active community facilities, which was often a challenge both for the Houses and the implementation.

It was initially envisaged¹⁰ that the implementation of the retrofit plans would be managed by the four Councils, who are the building owners, in consultation with Greener Houses. But much of the implementation of the retrofit plans ended up being organised and managed by the Greener Houses Project Manager. There were two main reasons for this:

- The project approached a number of key suppliers of products chosen by volunteers and sought their involvement as business partners. A number of companies responded favourably and generously agreed to donate or partially donate products and services;
- When some Councils began the task of implementing the plans, we found that quotes obtained were sometimes significantly higher than when the volunteers had obtained quotes (from the same suppliers). There sometimes seemed to be an unspoken ‘special price’ for local Government.

Neighbourhood Houses are uniquely placed to be able to broker this type of partnership involving business, local Government and local communities. It was important that Greener Houses was not seen as a free-for-all to promote any and every “green” product on the market. The Neighbourhood House’s reputation as a trustworthy and reliable source of information had to be maintained. We approached businesses because, based on the volunteers’ research, their products were the best for the Neighbourhood House retrofit – and volunteers would feel that ethically they could recommend the products to others.

Because the partnership arrangements were with Greener Houses, rather than the five Councils, and because the project was able to obtain better prices on other items, it was clear that the implementation of the retrofit plans would best be managed by the project.

This arrangement was beneficial as it achieved a better, cheaper outcome. It also had significant resource implications for the project and increased pressure on all Greener Houses and North East Neighbourhood House Network staff.

The exception to this arrangement was at Allwood Neighbourhood House in the Shire of Nillumbik. Here the responsibility for the implementation was shared between Council and Greener Houses. This unique arrangement was largely due to one of the Greener Houses volunteers having been employed by the Council as Sustainability Officer just at the time the retrofit implementation began. Her Council role involved not only sustainability education, but also retrofitting and improving Council buildings. Her knowledge of the plan and her commitment to its implementation was invaluable.

¹⁰ in the Memorandum of Understanding signed with each Council

Close, collaborative involvement of a Council Sustainability Officer who has responsibility for improving the environmental performance of Council buildings would be beneficial to future projects.

Eco-features installed in the Greener Houses

The full list of retrofit actions at the Houses can be found in the volunteers' Retrofit Plans – see www.nenetwork.org.au

The following provides an overall summary of actions across the four Houses¹¹.

- Energy efficiency – stand-by power eliminated with **FutureSwitch; advanced draught sealing by EcoMaster**, ceiling and wall insulation, Thermalite added to roof paint for added insulation
- Lighting – Solatubes, Belray Selectolite, retrofit existing, add clear roof to verandah, more efficient fluoro tubes, CFLs, LEDs, motion sensors
- Windows - retrofit EcoGlaze secondary glazing, new double-glazing, pelmets, drapes, roman blinds, external blinds, heavy duty security screens to allow night purging
- Heating and cooling - upgrade to very efficient gas space heating, SolaMate passive cooling and solar heating system, ceiling fans
- Instantaneous gas hot water services
- Water - flow restrictors, replace single flush toilets with dual flush, water tanks
- Solar power – total of 19.62kW of solar panels installed across all Houses
- “glassroom” at Richmond Community Learning Centre rebuilt to achieve greater comfort and energy efficiency

Evaluation and monitoring

Evaluation

The Centre for Design at RMIT undertook assessments of the Neighbourhood House buildings prior to the retrofit plans being implemented and again afterwards¹².

See www.nenetwork.org.au for the evaluation reports

Monitoring

On-going energy monitoring systems have been installed at the Houses. At Allwood Neighbourhood House Council has installed an Ecopulse Energy Management System¹³, which monitors electricity, gas and water consumption in real time, including individual electricity circuits.

At the other four Houses we contracted Solar Sense¹⁴ to install the smaller, more affordable Smart Now EnviR Energy Monitor¹⁵, which also measures, displays and logs electricity generation and consumption in real time. Kits are also available to track individual circuits.

The installation of the monitoring systems will enable the on-going trends and patterns of energy use to be tracked, providing vital feedback to the Houses about the effectiveness of activities to encourage sustainable behaviour.

Energy monitoring systems are now very much more accessible and affordable and it would have been very beneficial to have had the capacity to install the monitoring systems at the beginning of the project.

Watch the Greener Houses page at www.nenetwork.org.au for reports on monitoring.

¹¹ Not all of these actions were taken at all Houses, see Retrofit Plans for details.

¹² Both reports can be found at www.nenetwork.org.au

¹³ <http://ecopulsetechnologies.com.au/>

¹⁴ trevor@solarsense.net

¹⁵ <http://www.smartnow.com.au/smartnow-current-cost-solutions/>

5 Creeds Farm Living and Learning Centre

- *Creating a new eco-living Neighbourhood House*

Unlike the other four Neighbourhood Houses in the project, Creeds Farm Living and Learning Centre (CFLLC) was not built at the start of Greener Houses. Construction commenced in June 2009, was completed in June 2010 and the Centre opened for business in September 2010.

Creeds Farm is purpose-built, early community infrastructure. It is community-owned and managed in a community that is just becoming established in the Whittlesea Growth Corridor on the outer urban fringe of northern Melbourne.

The North East Neighbourhood House Network was one of 5 organisations which, in partnership, oversaw the design, the construction and establishment of the Centre. In July 2007 Creeds Farm Living and Learning Centre Board formally agreed to be a partner in *Greener Houses Growing Greener Neighbourhoods*.

It was vital that the building was designed to promote the community development practice of involving and connecting people in an informal, welcoming and interactive way. It needed to include flexible spaces that could be used for multiple uses that could change over time.

It was also vital that the building achieved the environmental performance standards needed for it to be a sustainability “teaching and learning tool” for the local community. The *Greener Houses* Project Manager worked with the Creeds Farm Board and architect to influence the building’s design to achieve this.

There were two phases to this. The first aimed to maximise the thermal performance of the building envelope. *Greener Houses* contracted RMIT Centre for Design to assess the energy efficiency of the building plans. This assessment was then used to assist the architect in improving the thermal performance - and therefore reducing heating and cooling requirements of the building. The Centre for Design carried out two assessments in late 2008 and in early 2009. Results of the analysis were included in the building design along with advice provided by Alan Pears, sustainability consultant¹⁶. This was a very valuable process that ensured that the energy efficiency of the building improved significantly. Although the RMIT report did not constitute a formal star-rating¹⁷, the design improved from the equivalent of approximately 5 stars to 7.3 stars.

The second phase related to the fit out and the equipment to be installed. A range of issues emerged, many of which were debated and resolved to everyone’s satisfaction. Once the building was open and operational for a few months we found like many new buildings there was need for a few adjustments. For example, external shade blinds were required on the kitchen, office and meeting room windows to maintain comfortable temperatures without air conditioning. Additional solar panels were required to make a reasonable contribution to the energy requirements of the Centre – additional panels took the system from 1.8 to 3kW. The draught sealing also needed to be improved. Seals around the doors all met the standards required in building regulations. But these were simply not adequate. EcoMaster were contracted to fit their high quality and very effective seals to doors.

¹⁶ *Creeds Farm Neighbourhood Centre Thermal Performance Assessment 2008*, Centre for Design and *Creeds Farm Neighbourhood Centre Thermal Performance Assessment 2009*, Centre for Design.

¹⁷ In this study the Creeds Farm Living and Learning Centre thermal performance was equated to how it would perform if it were used as a house, for purposes of informing the design only, and so does not constitute a formal rating.

Finally issues emerged with the operation of the heating system in the first winter after opening. The heating system is a gas-fired, in-slab hydronic heating system. The choice of heating system for the Centre had not been unanimously agreed by the Board. The Network and Greener Houses favoured a number of small, very efficient split system air conditioners to provide the small amount of supplementary heating and cooling that was expected to be required in this energy efficient building. But the majority decision of the Board was to install the gas-fired hydronic heating system. Ultimately additional expertise was needed to develop operating instructions for the heating system for use by both the maintenance contractors and centre staff. This is because very few heating & cooling contractors in Australia have the expertise to fully appreciate the implications of the building's eco-design for the operation of the heating system.

Volunteer recruitment

Volunteer recruitment for Creeds Farm Living and Learning centre began in August 2009, four months after volunteer recruitment for the other four houses. Volunteer recruitment wasn't quite as straight forward as at the established Houses. Similar methods were used for recruitment, prospective volunteers were sent Information kits and Application Forms; and there were two information sessions.

As would be expected fewer people volunteered at Creeds Farm. By early 2010, the group settled at five – only one of whom was a resident of the Aurora estate where the centre is located. Others came from nearby established suburbs, perhaps not surprisingly as many of the homes in the area were still under construction.

Volunteer training

National Centre for Sustainability offered a series of 6 workshops for volunteers at Creeds Farm between November 2009 and April 2010. The training aimed to help people understand the design of the Centre; and how best to operate its features to maximise its sustainability potential. The training was timed to track the construction of the building, so that volunteers could see and understand the building's sustainability features as they were built. The Greener Houses training was the first program the Centre offered to the community.

The learning by doing

The training also aimed to help the volunteers identify 'learning by doing' projects they could undertake that would be useful to the centre once it opened and which would also consolidate and integrate the learning offered in the workshops.

The volunteers worked with *Greener Houses* and Creeds Executive Officer to identify a range of potential projects they could undertake during the establishment phase of the Centre and in preparation for it being an eco-living demonstration Centre when it opened. Their 'learning by doing' was combining with the community education phase of the project and was ahead of the retrofit houses.

They developed a number of proposed projects for the establishment and operations of the centre as well as projects focused on community education. (see table below)

Considerable work by volunteers, Greener Houses staff and the Centre went into planning these projects. The experience of Creeds Farm as a community facility in an emerging community is that the capacity of the community to participate is affected by a range of factors. The numbers of people available for participation, the distance of their homes on the urban fringe from their everyday activities and their commitments to establishing their new home are some of the reasons people have less time to commit to the participation required for this project. The volunteers are keen and interested but they have been more available to do one off events than project based activity.

They have conducted Sustainability open days, Sustainability festivals, tours for a range of people, local council, other councils, other Neighbourhood Houses, other Neighbourhood House Networks, Department of Human Services program staff, Department of Planning and Community Development program staff, state and federal politicians, parliamentary secretaries, heads of departments. Creeds Farm LLC participated in the Sustainability House Day in September 2011 with the other retrofitted houses.

The Executive Officer has commenced a number of the projects that were identified and has called on volunteers, Board members and the Greener Houses staff to assist and review the work on policies and the operations manual, this work is ongoing.

One of the Greener Houses volunteers has now become a Board member. This will assist in ensure the continuity of the development of the Centre as an eco-living demonstration and the gradual introduction of community education programs.

Projects to support the Establishment and operation of the Centre	
Policies	Governance and operational policies for the Centre, which promote best practice in sustainability in its day-to-day operations
Manual	A simple-to-read 'how to manual' that sets out the environmental features of the Centre and shows people how to use the features and what to do in the centre to get the best benefit from its features
Purchasing	Development of criteria for the research and decision making on the products to be purchased for the Centre
	Research the products as above (similar to the investigation and research for products in the retrofit Houses)
Community Education Projects	
<ul style="list-style-type: none"> • Research, plan and organise the setting up of a 'green' resource library • <i>Develop Green 'Tips' as part of the www.cfillc.org.au home page</i> • Research suitable online links to other sites to put on www.cfillc.org.au • Volunteers link with one or more of the other Houses involved in the project that are retro-fitting facilities to gain practical skills • Footprint Audits, volunteers to chose a component of the Centre and measure its footprint • A community-created garden • Life Cycle Analysis of different features in the Centre and track - could inform the maintenance and management 	

6 Community Engagement

This section is in two parts: the first dealing with the training of volunteers in Community engagement; and the second the volunteers' involvement in engaging their community about sustainability.

Training volunteers in Community Engagement

Who is the audience for sustainability engagement in the Greener Neighbourhood Houses?

Greener Houses staff recognised that there are two broad audiences for sustainability education messages and activities at the 'Greener' Neighbourhood Houses:

1. participants in current classes and activities; and
2. new people who might be attracted to the House because it's an *Eco-Living Centre*

In general the opportunities for people already participating in the Houses' activities were likely to be incidental to these activities, with an emphasis on helping them understand how to 'get the best out of' the newly retrofitted (or the new) eco-centre. Overall these activities might be thought of as "behaviour change" activities, designed (for example) to help people stay warm in winter or cool in summer while minimizing energy use, environmental impact and helping the House save money. This type of engagement was also seen as potentially a powerful way of gently encouraging people to adopt more sustainable behaviour at home.

Although 'getting the best out of the building' would also be part of the education offered to eco-visitors to the 'Greener Houses', the main attraction to this group is more likely to be activities specifically designed to help them learn about home sustainability.

The initial thinking of the Greener Houses staff was that training for the volunteers would provide the skills and techniques they would need to work with each of these two audiences.

In mid-late 2010 outlines for workshops on two broad topics were developed: one on 'behaviour change' and one on adult environmental education. (see below)

Through wide reading on community engagement, and particularly behaviour change for sustainability, project staff identified Les Robinson's¹⁸ 'Enabling Change' work of as offering important insights and tools that might be useful to the volunteers and the project overall.

The 'Enabling Change' model proposes a series of steps that a change facilitator takes to encourage and support behaviour change on difficult and challenging issues, such as sustainability. (see Fig 1.) It suggests that sparking peer-to-conversations, or 'BUZZ is the first condition for social change':

"Successful projects give people reasons and opportunities to interact with each other. Nothing happens without conversation. Conversation, or at least interaction, is the carrier of social change. It connects people, decides social norms, and its how societies and groups make choices. In short: no buzz, no change"

Robinson's research found that when people had succeeded in changing their behaviour, the experiences that were the main triggers of change were:

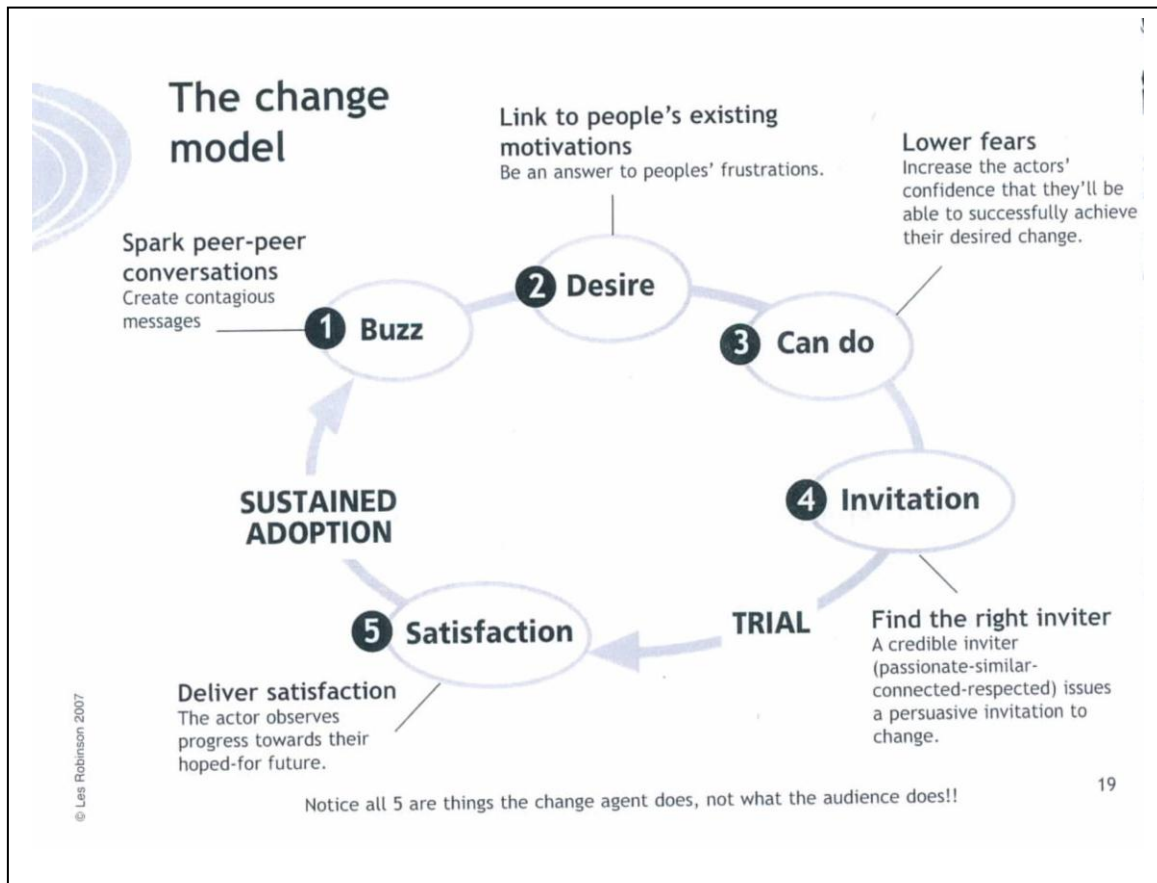
- Information 29% (only 8% recalled a specific source)
- Bad news 6%
- Interaction with a significant other 75%

¹⁸ <http://www.enablingchange.com.au/> Also project staff member Jeff White had attended a 2-day Enabling Change workshop in 2009, and permission was sought from Les to use and quote from his materials in our work with volunteers. Unless specified, the graphics and quotes used in this section come from the 'Enabling Change' workshop notes – 'Enabling Change: A Master Class in program design for behaviour change'. Les Robinson Sept 2009

These findings reinforced the learning’s from the initial volunteer training stage of the project: that while information is important, alone it is seldom enough. Rather than concentrating on provision of information, engaging in conversations - starting a BUZZ - became the focus of the first community engagement workshop held with volunteers.

“...change may be an inherently social process mediated by special conversations between people who are already connected to each other”

Fig 1. The Change Model



The “Buzz workshop”, held at Creeds Farm in October 2010 encouraged volunteers to start to see themselves as sustainability facilitators. Following a brief presentation on the ‘Enabling Change’ model, volunteers planned activities for the remainder of the year that aimed to generate buzz among existing participants of the five Houses about the ‘greening’ of the buildings. (See www.nenetwork.org.au for BUZZ workshop presentation)

Volunteers also formed a sub-committee comprising people from all five Houses to decide on the ‘main messages’ of the project and how they might be communicated. The group met twice and decided on an overarching message for the project “Living cheaper, healthier, greener”. They also felt it would be necessary to have a professional design for printed materials. Chorus Studio was then asked to develop a series of templates volunteers could use in publications.

Volunteers’ BUZZ activities pre-Christmas 2010:

- Richmond Community Learning Centre volunteers produced a banner for the front fence. They also held an “Eco-improvement” competition at the Centre’s Twilight Christmas Market on 19 November. Visitors to the market were encouraged to enter the competition to win a

prize - Flexicar membership (donated, value \$300). To enter the competition, people had to nominate one “eco-improvement” they could do make to their home.

- At Jika Jika volunteers spoke at the Centre’s Christmas Party, explaining the work they had done in developing the retrofit plan and the works that were about to start. They also organised a prize draw for those who attended the Party – a \$50 voucher donated by the Environment Shop in Thornbury.
- At Allwood Neighbourhood House, the volunteers put together a display about the project for the House’s Christmas market.
- At Watsonia the volunteers chose to create a poster to put up at the House explaining the work they had been doing in developing the retrofit plan.
- At Creeds Farm they participated in the World Environment Day Expo, providing tours and volunteer ambassadors, including an 11 year old boy.

Training for ‘Education for Sustainability’

In the New Year, 2011, the additional funding available to the project provided the opportunity to re-contract Swinburne University’s National Centre for Sustainability (NCS) to work on Action Research evaluation that would be embedded in further ‘*Education for Sustainability*’ training for the volunteers.

NCS was contracted in 2011 to:

- **Integrate *Education for Sustainability*** into the project by increasing volunteers’ understanding of EfS methods, principles and processes and how to use them in their Community Engagement activities
- **Assist volunteers to use *Action Research*** as a strategy for planning, monitoring and evaluating the effectiveness of their Community Engagement activities

And, to use these frameworks to:

- **Facilitate the volunteers’** planning, promotion, delivery and evaluation of Community Engagement activities at the Eco-Living Centres
- **Develop strategies for the transition** from the Greener Houses staff supporting the volunteers and facilitating their work, to the volunteer groups being self-managed, with support from House staff.
- **Evaluate and report** on the processes and outcomes of the volunteer community engagement training and on the volunteers’ community engagement activities

‘Closing’ the Retrofit planning and opening the Community Engagement

In early 2011 *Greener Houses* staff hosted dinners at the four retrofit Neighbourhood Houses to mark the end of the retrofit planning phase, to say ‘*thank you*’ to volunteers, and celebrate everyone’s’ achievements. Volunteers were all presented with ceramic take-away coffee ‘keep-cups’ marked with the project logo and ‘*I’m a Greener Houses Volunteer*’. The dinners also were intended to provide a sense of closure for anyone who wished to finish up with the project now that the retrofit plans were complete, or because for some other reason they were no longer able to continue. They were also a taster for those who opted to go on into the community education phase.

The closure dinners included a brief discussion of the community engagement phase of the project and the roles that people might take on were discussed. (see below – Options for volunteer involvement in community engagement activities) Most people saw themselves in the ‘face-to face community educator’ role. In retrospect, as many of the necessary roles are largely invisible,

without the experience of themselves organising complex community engagement activities it was unlikely that people would be keen on the less-visible roles. It may take a year or more of working together, with a facilitator, before the importance of all the roles might become clear.

Options for volunteer involvement in community engagement activities

- Face-to face community educator (eg 'open House' or House 'tour' guide; one-to-one advice; workshop facilitator, eco-living behaviour facilitator etc)
- Behind the scenes community educator (prepare displays, signs, brochures etc; do any extra research to answer peoples' tricky questions)
- Promotions (contact local paper to get notices in to promote activities, make and distribute posters, newsletters, web site etc)
- Monitoring energy use at the House (tracking bills and comparing them with past bills and reporting to the other volunteers, staff committee and House participants)
- Liaise with House Coordinator and Committee of Management
- Group convenor (calls meetings, keeps contact lists up to date, sends out information etc)
- Liaise with Greener Houses volunteer groups at the other Houses

Community engagement training

Following the 'closure' dinners, about 20 people were still registered as Greener Houses volunteers¹⁹. This included six new people who had been recently joined, following advertising for new volunteers. Interestingly, the rate of recruitment was not as high as it had been at the very start of the project.

NCS originally planned three workshops each of 3 hours. Workshops one and two ran in June and July and were designed to enable volunteers to feel ready to have informal 'educational' conversations with Neighbourhood House participants, run tours of the Houses' eco features, or be involved in preparing printed educational materials for the community.

Volunteers could choose either daytime Saturday or a weekday evening workshop time slots – to offer flexibility for volunteers and maximise attendance. Volunteers from all Houses came together for the workshops, mixing with each other for the first time since the Buzz workshop.

In keeping with the principles and practice of Education *for* Sustainability, and community development, NCS didn't set the topics and dates for the third workshop, as it was important to have the flexibility to be responsive to what the groups felt they needed to do following the first two workshops.

Education *for* Sustainability Workshops

At the first workshop we suggested that volunteers consider opening the Houses as part of the Sustainable House Day²⁰ - an annual event run across Australia in mid-September by the Alternative Technology Association. The suggestion generated a lot of excitement and was enthusiastically received. Volunteers said they liked the focus and the deadline that the Day offered, as well as the chance to trial templates for printed materials. Many also liked the feel of being part of something bigger.

The workshop also focused on:

¹⁹ With any volunteer project which continues over an extended period, volunteers' lives change - people move jobs or cities, take up other volunteer roles, become carers for sick family members or become sick themselves. Or have babies – two of our volunteers had, between them, three babies during the course of the project!

²⁰ www.sustainablehouseday.com/

- Active listening and how to ‘read’ their audience, whether they were talking to one, or many people about the House’s new eco-features.
- Education *for* Sustainability²¹ and good adult learning: not “telling” people but encouraging active participation;
- Learning styles (VAK model²²)
- Introduction to ‘Action Research’²³ and how we can use it to reflect on and improve our educational activities

Between the first and second workshops volunteers were asked to do some homework, using action research, to engage in informal conversations with participants at their House to gauge peoples’ level of interest in home sustainability and also to gain a sense of what topics might be of particular interest. We called these ‘kettle conversations’ to emphasise their informal nature – the sort of chat you might have while you are waiting for the kettle to boil for a cuppa at the Neighbourhood House, or waiting to pick up your children from childcare. (refer to BUZZ)

The second workshop built on and extended volunteers’ learning about community engagement through exercises to remind people of the diversity in any group they might try to engage, reflection on audiences at the Neighbourhood Houses through discussion of the kettle conversations they’d had, and a refresher on adult learning and the Action Research Cycle. The new material in this workshop covered behaviour change and group facilitation, as well as group ‘health’ and maintenance.

Workshop Feedback

Almost all feedback about the workshops was positive²⁴ including “I learned heaps” and “I got more than I expected”. For some people the content was a more of a refresher. Many reported that it was good to get together with people from the Greener Houses groups at other Houses. The only suggestion for improvement was for House groups to have their workshops separately. This would certainly have assisted groups in their planning for SHD, but would not have given people the choice of daytime or evening session, and would have reduced attendance overall.

The NCS trainer Ian Lillington, reflecting on the response to the workshops commented that the Action Research component was less effective than other parts. Most people were there to ‘get on with the job’ and for many Action Research was not seen, at this stage at least, as part of ‘the job’.

Sustainable House Day preparations

All volunteers committed a huge amount of time and energy to preparing for Sustainable House Day. The third workshop led by NCS became a series of meetings with House groups to facilitate preparations to open the Houses on Sustainable House Day. All met at least twice, with many volunteers taking on work between the meetings. Agendas included logistical planning, preparation of scripts for tours of the Houses’ eco-features, and roles and roleplays. Volunteers, from Jika Jika, Allwood and Watsonia, wrote Fact Sheets on nine topics for distribution to visitors on SHD:

1. Skylights and natural lighting
2. Windows

²¹ See also section on Volunteers Sustainable Learning Journey

²² A common and widely used way of conceptualizing different people’s preferred learning styles – visual, auditory and kinaesthetic or tactile learners

²³ An approach to evaluation which can be useful in community settings involving the simple steps: plan – act - observe – reflect.

²⁴ See NCS report Formative evaluation of the Education for Sustainability Aspects of the Greener Houses project, 2011, available at www.nenetwork.org.au

3. Window coverings
4. Water tanks
5. Power meters – measuring your power use at home
6. Stand-by power
7. Insulation
8. DIY energy audit
9. Draught proofing

Allwood Neighbourhood House opted not to participate in SHD. The Committee of Management felt it was pre-mature for the House to be open for SHD before all of the retrofit works were complete. Other Houses, seeing sustainability as a journey, felt that enough progress had been made and that already there was much to share with their communities. Around this time at Allwood issues, also emerged in relation to the integration of the project volunteers into the day-to-day operations of the House. These issues were subsequently resolved. However, it was a factor in the House opting not to open for SHD.

Sustainable House Day

Sustainable House day was held on Sunday 11 September. It was a cold, windy day – Melbourne did not turn on its best spring weather!

There were about 100 visitors to the four Greener Houses on the Day, with over 30 Greener Houses volunteers, staff and other helpers involved as well. Each house was well-prepared, well presented and most importantly, volunteers and staff really enjoyed the experience.

Most of us had expected higher visitor numbers. But the weather and disappointing levels of local media coverage may have kept numbers low. Lower visitor numbers increased the opportunities for long conversations with visitors, so it was a case of quality if not quantity. Given that some volunteers' fear ahead of the day was that there may be too many people, the relatively low attendance was probably a good thing.

NCS prepared an exit survey which about 90% of visitors completed. The results of the survey are presented in Table 1, and can be summarized:

Most visitors took a volunteer-led tour, or talked with one of the volunteers. Almost half of respondents said the most enjoyable thing about the day was the friendly and helpful people and tours. Feedback for the volunteers was consistently excellent, for example:

- 'splendid guided tour, enthusiasm, knowledge' and the guide 'knows her onions'
- helpful staff and volunteers
- great people to talk to
- love community focus,
- knowledge of volunteers
- met new community members

The majority (about 80%) had not been to the Neighbourhood House before. Most (more than 85%) described their knowledge of domestic Sustainable Homes, before their visit as middle-ing or higher. Most came to see the new Eco-Centres, energy efficiency options and solar PV; many came out of general interest or interest in everything! More than half said the most helpful aspect of the day was seeing the energy efficiency features.

Virtually all respondents said that as a result of attending SHD at the Greener Houses they would take action at home. The most frequently nominated action was improving draught sealing, followed by installing Solatubes, insulation, Future Switches and solar PVs.

Volunteers de-brief about Sustainable House Day

The week following Sustainable House Day volunteers from Jika, Richmond and Watsonia met to de-brief; Creeds Farm volunteers, unable to attend, sent a written report. They completed a feedback form on what they had done on the day, and what skills, knowledge and experience they had drawn on, or needed.

Volunteers were disappointed that numbers were lower than expected, and lower than at private homes nearby which were also open for the Day. Volunteers also expressed disappointment that media coverage of Sustainable House Day overall was so limited. Some felt that the message about community buildings being a legitimate way to learn about home energy efficiency was perhaps too complex for the media to pick up.

Discussion focused on how to make use of the work that had been put in so far which particularly emphasised a greater focus on concentrate on the people who come to the Houses every day, including visiting classes and user groups separately, providing sessions for other volunteers and staff and combining education sessions with existing events like Watsonia's monthly market, Neighbourhood House Week, World Environment Day and the Sustainable Living Festival.

Some volunteers reported that people attending the House were interested in talking about sustainability, when chatting at normal sessions like playgroup, but didn't come to SHD.

Living and evolving Greener Houses

After Sustainable House day the project focused on preparing the Neighbourhood Houses to become independent 'eco-living' Neighbourhood Houses. In particular this meant working with the Houses in different ways to suit their preferred style of delivering on-going community engagement for their local communities.

Houses have committed to on-going community engagement activities, including behaviour change activities focused on behaviour of staff and participants in in the House.

To support this on-going work the project produced internal and external signage. The internal signage simply states how to stay warm or cool in the House in different weather conditions – before using supplementary heating and cooling. The signs are free standing A-frame boards made of coreflute – one for hot days and one for cold days. Staff can put them out in activity rooms to help participants remember what to do. See www.nenetwork.org.au

Now that the funded phase of the project has drawn to a close, the five 'Greener' *Neighbourhood Houses* will have lives of their own as living and evolving demonstrations of sustainability. We hope that other Neighbourhood Houses may take up the experience and lessons of the project and create more 'Greener' *Houses*.

If you would like to tour one or all our five *Greener Houses*, please don't hesitate to contact the House Coordinator and they will be delighted to show around.

7 Future Directions

The North East Neighbourhood House Network's vision for Greener Houses was that it would be a flagship to:

- demonstrate the capacity of Neighbourhood Houses to work effectively with local communities on environmental issues
- show that environment could be core business of Neighbourhood Houses

The project has shown that Neighbourhood Houses make ideal eco-demonstration centres. Our experience confirms that virtually every Neighbourhood House has the potential to be an Eco-Demonstration Centre.

The Commonwealth Government's \$200 million Community Energy Efficiency Program and \$40 million Energy Efficiency Information Grants Program each offer opportunities to build on Greener Houses and to extend to other organisations the learnings from the project.

Work is now being undertaken by a number of individuals and organisations to take the knowledge and experience gained through Greener Houses to assist others to start or continue their sustainability learning journeys. There is considerable experience to be drawn on in facilitating the vital connections between individual Neighbourhood Houses, local government, the Victorian Government and the Commonwealth.

There is interest by a number of other Houses in the North East Neighbourhood House Network to become 'greener houses'. There is also interest from business partner, ecoMaster and the National Centre for Sustainability to be part of on-going or further work with Neighbourhood Houses.

Issues and challenges in progressing this work include the requirement in the Community Energy Efficiency Program for matching funding. Neighbourhood Houses do not themselves have the resources to provide matching funds, so other partners will need to be identified and brought on board.

There is a role for the Victorian Government, and particularly Sustainability Victoria, in assisting local Government to understand the benefits of selecting Neighbourhood Houses for upgrades through the Community Energy Efficiency Program, and other programs in the future.

Greener Houses has demonstrated that Neighbourhood Houses are uniquely placed to use any environmental improvements as a tool for active, on-going sustainability information and community engagement.