



StayWarmNH

Final Report

2008-2009

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New Hampshire Office of Energy and Planning
and the
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and the
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I. Executive Summary

Overview

Energy costs soared in the spring and summer of 2008, causing alarm that New Hampshire's more vulnerable residents would face serious challenges in staying warm and safe throughout the winter. Governor John Lynch convened leaders from many agencies, businesses, the legislature, and non-profit organizations throughout the state that similarly recognized the apparently urgent need to address the problem, and a multi-pronged approach was taken. They responded by creating StayWarmNH, an expansion to the existing low-income weatherization programs and by reaching out to the State's most vulnerable residents. This report will provide an overview of StayWarmNH, its successes and challenges, and make recommendations for future efforts.

When heating fuel runs out, some people turn to staying warm in ways that create unsafe levels of carbon monoxide or uncomfortable temperatures, or generally make poor choices leading to preventable health crises. By expanding existing weatherization programs, developing new cost-effective volunteer outreach and Do-It-Yourself (DIY) "winterization" programs, and creating a central information resource for all New Hampshire residents to prepare for and minimize the effects of New Hampshire's winter, StayWarmNH strengthened the community safety net.

Governor John Lynch and legislators joined forces to transfer \$860,000 of electric and natural gas ratepayer funds set aside for other energy-related purposes, and appropriated \$1.2 M from the Greenhouse Gas Emission Reduction Fund to expand the existing weatherization and air-sealing programs administered through the Community Action Agencies (CAAs), as well as create winterization efforts, tapping the state's volunteers and homeowners.

StayWarmNH's leadership and supervision came from the Office of Energy and Planning (OEP), the NH Charitable Foundation (NHCF), and the NH Department of Health and Human Services (DHHS). StayWarmNH became the organizational umbrella for new and expanded programming. The slogan for the initiative is Stay Warm – Stay Safe – Stay Connected.

Funding for StayWarmNH became available in mid October, and Project Director Laura Richardson joined the early team members toward the end of October. Over the course of the next five months, the CAAs invested in additional equipment and doubled the number of housing units that typically receive attention in a given year. Volunteers were recruited, trained, and mobilized within a month, ultimately winterizing more than 400 homes. In addition, winterization kits were developed and distributed to designated low-income homeowners via volunteers who installed the products in the kits, and by the CAAs in a Do-It-Yourself (DIY) program, reaching 3400 homes by May 1, 2009. Resources to keep people warm and safe were available throughout the state on an unprecedented level.

This innovative, public-private initiative evolved quickly. Energy costs dropped significantly. Federal Low Income Home Energy Assistance Program (LIHEAP) allocations were increased dramatically, allowing for greater funding per applicant. The December 13 ice storm that incapacitated the state (430,000 reported electrical outages, some for more than two weeks), increased the availability of warming shelters and awareness of community resources. After the

panic of the ice storm, the program's results expanded to helping the CAAs prioritize homes that need attention. As the program finished for the year, the federal economic stimulus – the American Recovery and Reinvestment Act (ARRA) was passed by the federal legislature and signed into law by President Barack Obama – significantly increasing weatherization funding. StayWarmNH received national attention in the *New York Times*, from the US Department of Energy, and the White House's Office of Social Innovation. This program helped bring together many partners and help the CAAs boost production in very little time.

The purpose of this report is two-fold:

1. Provide an overview of the 2008-09 StayWarmNH initiative, its evolution, successes and challenges, and report on the metrics available of energy, money, and lives saved
2. Make recommendations for future programs, presuming that winter will return, energy costs will remain volatile, and that NH's housing stock will continue to need attention.

The StayWarmNH initiative was separated into four levels to maximize resources, thus reaching as many income-qualified people as quickly as possible. This report will discuss the different components of the initiative. A brief overview here will create a framework in which to understand the initiative and some of the program-specific language used throughout this report.

- Level 1: Full Weatherization, delivered by the Community Action Agencies.
- Level 2: Expanded Air Sealing, delivered by the Community Action Agencies.
- Level 3: Volunteer Winterization, pilot program to mobilize volunteers to install “StayWarm kits” and teach residents about the products and resources available to them in the state. This was the most visible and complex part of the program to organize, and as such is the largest part of this report. Volunteers were matched into teams, and then matched to homes in their communities to fulfill the measures.
- Level 4: Do-It-Yourself StayWarmNH kits, the same kits as Level 3 without a carbon monoxide alarm, available for free to income-eligible homeowners, through the CAAs.

Goals and Expectations

As stated in the overview, when StayWarmNH started in autumn 2008, alarm over energy costs and how NH residents would handle them was top priority. A graph of energy prices from September 2007 – February 2009 created by the Office of Energy and Planning and available in Appendix A of this report, shows the price trend that alarmed many, creating this call to action.

A matrix of targets, funding, and results appears in Section II Introduction on of this report. This program hinged on people more than anything else, and as such many of the goals and results are couched in somewhat subjective terms. Thus, while energy and lives were saved, the focus was more on the prompt delivery of services, without the focused opportunity to develop metrics for energy and cost savings, and this report reflects that.

Goals and expectations for the program included:

- Expanding existing weatherization programs to reach more people, quickly.
- Teaching NH residents how to save energy, thus saving money.
- Keeping people warm and safe; i.e.: avoiding death from freezing or CO poisoning.

- Strengthening community connections and collaborations between businesses, organizations, agencies, and individuals.
- Developing, promoting, and disseminating resources: energy-saving and energy-safety tip sheets and products (available in Appendix F), information about warming shelters, and other resources.
- Providing information about community resources from state and local service providers.
- Building the foundation for future programs – information, volunteer corps, branding.

StayWarmNH remained on target and achieved its overarching goals and expectations, all while staying under budget. Feedback from volunteers, homeowners, media, and collaborating partners was overwhelmingly supportive and positive.

Highlights and Challenges

Heartwarming and heart-wrenching stories surfaced throughout the program. As the new, complex, and most visible part to the StayWarmNH program, the volunteer mobilization required the majority of effort. As a new program, it also provided much insight.

Positive Outcomes:

- Some homeowners that had been on the waiting list for weatherization services for many years finally received attention, even if not the full complement of services they desired.
- People who had fallen through the cracks were identified, and significant enhancements to their lives were made and continue to be made.
- The CAAs quickly learned how to expand their programming to meet target numbers, an exercise that has served them well in light of the ARRA economic stimulus funding.
- Volunteers saved lives and strengthened the safety net, as noted in Section IV Results.
- Volunteers reported powerful experiences: seeing how their neighbors live, helping neighbors that have felt overlooked, empowering homeowners to save money and energy.
- Product Installation Checklists (Appendix C) and The Final Overview Survey of volunteers (Appendix E) are rich in data and insight.
- This state program went from concept to results in four weeks. The volunteer winterization component came together very quickly. Recruiting, training, and mobilizing hundreds of volunteers, developing materials, getting products installed and information returned for additional efforts all fell into place in about a month while remaining on target and on/under budget.
- Of the 413 homes winterized by volunteers, 1047 CFLs were installed, saving \$116,148; reducing CO₂ pollution by 883,930 pounds, and averting the need for 575,850 kWh of electricity¹
- Of the 3,400 StayWarm kits distributed for DIY Installation, assuming half the four CFLs included in the kit were installed by homeowners, savings for those 6,800 bulbs would be \$760,633; reducing CO₂ pollution by 5,759,600 pounds, and averting the need for 3.74 MWh of electricity.

¹ http://www.energystar.gov/ia/business/bulk_purchasing/bpsavings_calc/CalculatorCFLs.xls. Assumptions include: 20-watt CFLs, rated for 10,000 hours, at \$0.18/kWh electric cost; each bulb illuminated for 3 hours/day, replacing 75-watt incandescent lightbulbs.

- To put CFL cost savings in perspective, \$200,000 was budgeted for the Levels 3 and 4 kits. The lightbulbs alone have more than a 4:1 life cycle payback for the entire kit.
- The other products in the StayWarm kits also will save homeowners significant money; although the variables complicate determining metrics.
- Many volunteers, once comfortable with winterizing products, purchased similar products and installed them in their own homes².
- Some Local Energy Committees (LECs) found direction and focus, and praised the training videos, the kits, and the informational sheets. Julie Moran, a volunteer from Colebrook wrote in an email, “This program is what the Colebrook Energy and Environment Committee was hoping to create for our residents, and StayWarmNH did a far better job than we would have dreamed of doing!”
- Positive feedback came to StayWarmNH staff throughout the program, see Appendix B.
- Liability issues (matching strangers into work crews, and sending them to the homes of strangers to make improvements) made everyone nervous, however once the liability forms were approved, these issues seemed to fall into place. There were only two minor mishaps: a faucet was accidentally broken on the first weekend and was easily repaired by the CAA within a week, and a volunteer accidentally broke a lamp. Combined reimbursements for broken items totaled \$50.

Specific Challenges:

- Logistical challenges – time, people, weather, geography all consistently challenged smooth and streamlined execution of the program.
- Communications between StayWarmNH staff and volunteers was sometimes inconsistent or incomplete; communications between CAA staff and homeowners was sometimes confusing, incomplete, or misleading; communications between volunteers and homeowners was sometimes confused or frustrated.
- The program started late in the season, was just ramping up when it should have been mid-way through the volunteer winterization efforts. Many organizational and logistical challenges could have been minimized with more front-end time.
- The Steering Committee anticipated a few large companies and organizations would provide the bulk of the volunteers – instead, most volunteers were individuals unaffiliated with a company or organization.
- Many “handy” types experienced with minor home repair and upgrades were expected to step forward to take leadership roles, and they did not. This proved especially challenging because many unaffiliated volunteers did not feel comfortable being “team leaders” and so declined the efforts to participate unless someone else led them
- Logistically, the framework of the program made it difficult to match individual volunteers to others they did not know and maintain commitments. Furthermore, it was difficult to match volunteer teams within reasonable geographic proximity to each other, then to the homeowners, and then hope that the teams and homeowners worked out mutually appropriate schedules.

² 43.1% of respondents to the online Final Overview Survey for StayWarmNH claim that they have purchased and installed winterization products on their own homes as a result of this program. February-March 2009, 60 respondents. See Appendix E.

- A lack of access to current homeowner data under the control of the CAAs hampered a more streamlined outcome.
- StayWarmNH staff did not know until after the fact if teams stayed together and/or actually followed through on their commitments. Oftentimes, StayWarmNH staff learned about broken commitments weeks later, while following up on unreturned paperwork. StayWarmNH staff trusted the volunteers to follow-through on their commitments, and while most did a spectacular job, those that didn't complicated and stymied the initiative.
- StayWarm kits provided 30 energy-saving and energy-safety products. Each home is unique, some needing more products, others fewer or none. Homeowners were asked to pass along or re-gift unused products to neighbors, friends, or relatives that could use surplus materials. As shown in Appendix Item C, some products were more popular than others. There is no information on what became of the uninstalled products.
- Data management issues compounded other logistical problems. The six databases used by the CAAs need modernization and interconnection to OEP, operations both for StayWarmNH, as well as fuel-assistance and weatherization programming.
- The volunteers expressed frustration about the amount of attention needed by homes; 48.1% expressed frustration with visiting homes that were in such bad condition that the kits provided little relief; 44.4% were frustrated by the homes that were in "good" condition, and many volunteers perceived that their assistance and the products in the kits weren't "needed".³ While this may have been a frustration, the feedback helps the CAAs prioritize the waiting list within their territories.
- While reaching an additional 5,000 homes through StayWarmNH with a variety of different measures is remarkable, there are still thousands of homes on the waiting list.
- Future programs should utilize a more user-friendly and accessible registration program. It was very difficult to manage volunteer information, particularly as the program progressed, with new volunteers registering, changing email addresses, or volunteer dates. It became very difficult to track them individually.
- Some miscommunications between CAA volunteers (through Workplace Success) and homeowners raised unrealistic expectations, causing confusion when StayWarmNH volunteers called to make appointments.⁴ That said, in many cases this introduction to customer service, telemarketing, and data entry was the first career move for many of these CAA volunteers, and as such should be commended.

Recommendations

For this program to be most efficient, it will need to be revamped somewhat. More organizational time is required to recruit, train, and nurture volunteers and promote the program in general. The StayWarmNH staff needs time to organize the efforts, develop the program, and

³ Results from Final Overview Survey of volunteers.

⁴ Homeowners complained to StayWarmNH about these miscommunications and confusion between the StayWarmNH volunteers and the Workplace Success volunteers. StayWarmNH staff learned too late some Workplace Success volunteers were making specific appointments, were promising services not available through the program, or making commitments that were otherwise unrealistic. Many of these homeowners never even appeared on lists provided to StayWarmNH from the CAAs. Others were provided to StayWarmNH, but volunteer teams were not in that geographic area, and so were not assigned those homes. Some of the homeowners claimed they took a vacation or sick day from work to await a volunteer who never called.

have the systems in place prior to running the program. These efforts should begin in early summer with volunteer mobilization beginning in early autumn. StayWarmNH should require pre-assembled and committed teams or require individuals unaffiliated with teams to work in targeted communities, matched up the day of the event. This latter model was successfully tested on two occasions, at four different sites and coordinated on site by StayWarmNH and the NH Community Loan Fund Staff, who could troubleshoot from the field.

A better data management system is needed to coordinate efforts between the six CAAs and OEP, thus allowing StayWarmNH to also provide information to volunteers expeditiously, and not have to wait for lengthy periods while confusing contact is made with homeowners. While the data collected did go back to the CAAs via StayWarmNH, having this information entered into the system once would improve the efficiencies.

Furthermore, improved volunteer recruitment and registration processes are needed. Volunteer recruitment for this initial year included viral email promotion, media coverage, and recruitment through collaborating businesses, agencies, non-profits, and other circles of influence. Clearly, this can be expanded and made more accessible throughout the state, and to many more potential volunteers. When volunteers register, StayWarmNH staff should immediately be alerted, a response should be sent to the volunteer, and all the necessary data should flow easily into a database accessible in real time. Unfortunately, the database developed for this pilot project required a lot of intervention, and the information was often not maximized. Once the program was in full swing, it was very difficult to sort volunteers, update their profiles, and communicate with them – individually, in groups based on the dates they were scheduled to be in the field, or en masse. However, the program was moving too quickly to reinvent the database and system. As a pilot project, StayWarmNH staff recognized that it was a temporary obstacle and that this problem would be solved for future efforts.

Through ARRA, the professional weatherization measures provided by the CAAs will be funded at unprecedented levels. The winterization efforts handled by volunteers and homeowners with the StayWarm kits are thus dwarfed. Despite the significant increase in capacity to undertake weatherization, thousands of New Hampshire homeowners will continue to go without the benefits of the program. StayWarmNH provides a bridge and community connection, and helps the CAAs focus on the most needy homeowners. The community benefits provided through the neighbor-to-neighbor outreach is important on many levels.

The Future of StayWarmNH

As with any new program, particularly one that moved very quickly, hindsight is 20-20. The future of this program is still to be determined, and will surely continue to evolve, as it has since autumn 2008. With significant funding for weatherization through ARRA, StayWarmNH should remain flexible and find its niche of need, relevancy, opportunity, and appropriateness. Many volunteers continue to express their hope and expectation that the program will continue and that they will remain involved.

There are a number of directions the program can take. Energy costs will surely continue to be burdensome. NH's residential buildings continue to have low energy performance compared to

what they could have. The public has shown overwhelming interest in helping its neighbors through a program like this. StayWarmNH's successes reflect very well on the State. Much has been learned through this pilot project and that education should be reinvested in continued programming. Funding, ownership, and direction of a future StayWarmNH program need to be determined. The following program ideas are proposals and are not mutually exclusive. Herewith are five program proposals to consider.

Volunteer Program – Proposal One:

Run a similar program to the 2008-09 StayWarmNH initiative, tweak the contents of the kits, encourage pre-assembled teams or targeted communities only. Upgrade the database management system, start earlier in the season; recruit, retrain, and nurture volunteers earlier in the season. Expand staff to smooth out logistical issues.

Volunteer Program – Proposal Two:

Run a similar program, and expand on Proposal One with new measures.

- Expand the program to an income-blind audience.
- Require proof of product installation from Level 4 Do-It-Yourself StayWarm kits.
- Provide StayWarm kits to Local Energy Committees or other groups.
- Work closely with the NH-CLF and other organizations to find other cooperative communities, condominium associations, and towns for winterization projects.
- With homeowner permission, coordinate with the utilities and fuel companies to track energy savings as a result of the measures.

New Pilot Program – Proposal Three:

Be Cool Energy Efficiency Toolkits for Libraries

Toolkits would be provided to libraries throughout the state for free, and made available to patrons through the standard 2-week library loan program. Products in the kit would not require replenishment by library staff and would include items such as a Kill-A-Watt EZ Electricity Usage Monitor, a brush set for cleaning refrigerator coils and clothes dryer exhaust, The NH Public Utilities Commission's Field Guide to Residential Building Book (or an updated version), and other products. It would also include a list of 20+ products the homeowner can purchase for immediate energy savings such as compact fluorescent lightbulbs, pipe insulation, and caulk, as well as laminated/durable energy saving tip sheets and how-to sheets on various products and projects that may have proven confusing or intimidating for the general public in the past.

Volunteer Program - Proposal Four:

Pre-Audit Audit:⁵ A somewhat unanticipated benefit of the 2008-09 StayWarmNH program was providing data to the CAAs to help them prioritize homes for additional services. Under this

⁵ Most often, the CAAs do not know the condition of the homes they are to weatherize. Energy auditors assess the home on the day of their assignment, but arrive without much background information other than name, address, phone number, and brief demographics on the resident. The homes of many low-income homeowners requesting weatherization services may not qualify for the measures if, for example, there are problems with the roof, water in the basement, or structural problems with the house. In these situations, the weatherization measures will either not be maximized, will be damaged by the existing problems, or pose other problems. The audit will continue, but the follow-up measures will not. Maximizing the efforts by the auditors by screening these homes could provide a valuable service to the CAAs.

proposal, volunteers could help the CAAs screen these homes, thus making the CAAs's efforts that much more efficient. Focus on assessing potential works sites with the help of retrained volunteers, supporting the CAAs expanded weatherization program under ARRA. Retrain volunteers, arm them with a CO alarm, CFLs, and an in-depth checklist, visit homes on the weatherization waiting list, interview homeowners, and visually inspect the homes. This should start in the spring to support the CAAs as they expand their efforts. The CAAs may consider implementing this type of program with their new auditors and weatherization crews.

Volunteer Program – Proposal Five:

Contract with another organization to administer the program: In light of ARRA, expanded programming through OEP, strained personnel resources and budgets, and other complicating factors, the StayWarmNH model and brand could be delegated to another group or organization. This program reflected favorably on the State, and as such some connection should be continued.

Future Funding of StayWarmNH

StayWarmNH will not receive ARRA funds from the Weatherization Program, but there may be an opportunity for funding under the State Energy Program. StayWarmNH, possibly in partnership with other organizations, might be able to tap the Regional Greenhouse Gas Initiative's (RGGI) Greenhouse Gas Emission Reduction (GHGER) Fund, grants from the NH Charitable Foundation, or other sources.

Nevertheless, StayWarmNH staff maintained fiscal responsibility while meeting targets, and approximately \$53,000 of unused funds from Levels 3 and 4 will be rolled into future programming or returned to the GHGER Fund for reallocation to other projects.

Conclusion

Despite ambitious goals, logistical challenges, the dynamic nature of energy costs and the weather, StayWarmNH hit its core target goals. Thousands of homes were made a bit warmer and safer. Community connections were enhanced on many levels. Thousands of residents were educated about energy saving products and habits. And the CAAs expanded their weatherization and air-sealing programs, an important experience in light of the \$23.2 M coming to the state through the American Recovery and Reinvestment Act for low-income weatherization. Some volunteers have alerted StayWarmNH staff that they are shifting their careers; ten StayWarmNH veterans inquired to the CAAs about joining their energy auditing and weatherization teams.

II. Introduction

The StayWarmNH Initiative

StayWarmNH targeted low-income home owners with four levels of services, tools, outreach, and education, with the expectation that these measures and efforts would provide energy savings. As energy costs soared, Governor Lynch convened two meetings at the State House, inviting many leaders in the state to develop a program that would address these issues of soaring energy costs. Governor Lynch and New Hampshire legislators came together to quickly craft and sign into law HB1653, “an act relative to providing additional fuel assistance and enhanced weatherization services to income-eligible New Hampshire citizens...”⁶

Key Collaborators

Success of this program can only be attributed to collaboration of myriad agencies, non-profit and faith-based organizations, utilities, and individuals that put aside their day-to-day crises and projects in order to support StayWarmNH. Governor Lynch’s emphasis on addressing the energy crunch for those most affected by volatile energy costs, created the visibility needed to recruit key team players. NHCF and OEP led the effort regarding direction and support. NHCF funded the Project Director’s salary and support. OEP hosted the initiative, sharing space, overhead resources, and OEP staff to assist the program. DHHS provided early leadership in developing the framework for the program and raising awareness of sensitive health and privacy issues. The CAAs played a most important role on every level of this initiative. In particular, the Belknap-Merrimack Community Action Agency scrambled to expand their weatherization and air-sealing programs, while also supporting the volunteer and DIY winterization programs, as they were rolled out throughout the regional and satellite offices. They did this without additional remuneration. VolunteerNH dedicated a VISTA volunteer who helped tremendously.

The Steering Committee was comprised of members from OEP, NHCF, DHHS, Belknap-Merrimack CAA, the Office of the Governor, the Public Utilities Commission, the Office of the Consumer Advocate, NH Legal Assistance, The Jordan Institute, NH Timberland Owners Association, NH Catholic Charities, VolunteerNH, United Way and 2-1-1, Clean Air-Cool Planet; the NH House of Representatives, Department of Safety – Emergency Management, the Department of Safety – Homeland Security, and the NH Local Government Center. The steering committee established goals for the program, helped determine resources, promoted the program, and organized subcommittees. All of this built the foundation for the program’s success.

The Communications Committee similarly provided generous time, advice, financial support, as well as creativity. Promotional posters, flyers, and Public Service Announcements helped spread the word about the program. Members on this committee included representatives of NHCF, The Governor’s Office, DHHS, National Grid, Homeland Security – Emergency Management, Citizens Bank, Louis Karno & Company Communications, Public Service Company of New Hampshire, The Community Loan Fund, and NH Catholic Charities.

⁶ HB1653 text is available at: <http://www.gencourt.state.nh.us/legislation/2008/HB1563.html>

Logistical support from Public Service Company of New Hampshire (PSNH), Department of Transportation staff, and the NH Community Loan Fund was very important and critical to smooth operations. AM Conservation Services, a South Carolina company specializing in weatherization kit development, packaging, and distribution, provided StayWarmNH kits at a bulk discount price and with an extremely fast turnaround time. EVP Marketing and Media provided a discount price for training video production and manufacture, as well as hosting the video on line for download without charge to the program.

Representatives of all these groups, who are leaders in the state in their respective areas, were supportive and patient, generous with their time and in many circumstances with funding. Furthermore, many of them participated in the program as winterization volunteers.

The volunteers provided the strongest and most visible component to this program. Almost 500 individuals stepped forward to participate. They suffered through the early disorganized stage of the program and many stuck with it until it was quite a bit more streamlined. Many of them set aside their normal routines, postponed other projects, or even abandoned their own crises, particularly during the ice storm, to maintain their commitment to the program and their community members in need. These volunteers donated their time and their hearts to their communities, making a connection to their neighbors that had positive impact on both. They challenged StayWarmNH staff with their personal issues and uplifted staff with their stories of epiphany and heartbreak. This level of collaboration bodes well for New Hampshire.

Weatherization and Winterization

Terminology can confuse people, and often they make assumptions about programs based on misunderstandings of language. This happened from time to time with the StayWarmNH initiative. The terms Weatherize and Winterize mean very different things under this program, however were often used interchangeably by volunteers, homeowners, and the media.

Weatherization: The Community Action Agencies began their low-income weatherization programs in 1974. Adding insulation, sealing cracks and holes in walls and foundations, fixing or replacing broken windows, and other major building performance upgrades reduces the energy needed to heat a home in the winter. While these efforts in no way turn a drafty home into a zero-energy home, they will improve the comfort and reduce energy bills.

Nationally, the Department of Energy claims that “On average, weatherization reduces heating bills by 32% and overall energy bills by about \$350 per year at current prices.”⁷ New Hampshire has different variables than much of the rest of the country – little electric heat, older home construction, cold winters and milder summers – but the point of weatherizing is to reduce the amount of energy required as an input to keep the building comfortable and safe. A 2007 report by Blasnik & Associates on the effectiveness of weatherization in New Hampshire found that heat savings from weatherization ranged from 10-22%, depending on fuel type.⁸

⁷ US Department of Energy, <http://apps1.eere.energy.gov/weatherization>.

⁸ *New Hampshire Weatherization Program Impact Evaluation Report*, April 9, 2007, prepared by Michael Blasnik, M. Blasnik & Associates. Available at http://www.nh.gov/oep/programs/energy/documents/blasnik_wxn_study.pdf.

Residents of low-income homes (often elderly, disabled, families with small children) sometimes have trouble with home maintenance, upgrades, and energy saving habits. In 2008, 35,351 residents in NH qualified for and received fuel assistance through the US DOE's Low Income Home Energy Assistance Program (LIHEAP). This funding helps residents remain in their homes, and use their limited income to pay for other necessities. Reducing the amount of energy a home needs ultimately means that fewer funds are needed to offset those costs, thus saving tax payers' money to fund LIHEAP. That said, as the economy shifts downward, more people may be in need of assistance, many of whom had never sought it previously.

Blasnik further reports: "16% of participants reported that they had to go without food at some point to pay for their energy bills, 31% went without medical or dental care, 23% went without prescription medicine, and 15% had to skip a rent or mortgage payment" because of the high cost of energy. The report continues: "73% of participants reported that Wx has helped them pay other bills because of the energy cost savings."⁹

The point of StayWarmNH was not to study these conditions, but rather to acknowledge them and the people suffering because of them, and do something about it. StayWarmNH's goal was to address some of these problems, both with long-term and short-term measures.

Winterizing, on the other hand, is a much less intensive process, addressing temporary issues with less expensive and less permanent solutions. Preparing a home for winter's bluster takes a bit of time, but quickly saves some money and improves the comfort of a home. Measures often include closing windows and installing or securing storm windows, removing air conditioners, caulking up gaps and holes around windows, sills, and other places. New Hampshire's housing stock is relatively older¹⁰, but almost all homes require some attention in the fall to prepare for winter. Homeowners typically address these easier measures themselves, yet many physically cannot install these products, do not realize the benefit of the efforts, or are overwhelmed by many complicating factors in their lives. Having materials and information provided to them reduces the complications and incents them to install the materials themselves or permit volunteers to do so.

StayWarmNH offered winterization kits with about 30 products and information sheets to 4,000 homeowners during the 2008-09 heating season. As of May 1, 2009, volunteers installed 413 kits, and homeowners took possession of 3,400 kits, overwhelmingly with positive feedback. These kits cost the initiative \$28.80 each, (plus literature, CO alarms, and administrative and training costs), a mere fraction of the cost of the weatherization efforts. Making the materials available, with or without assistance, reassured many homeowners that the State of New Hampshire cares about them and wants to help them save energy and be safe. The community connection added to the \$30 box of products was, as the advertisement says, "priceless." In fact, volunteers saved lives and greatly impacted some of these homeowners, as will be discussed more in depth in Section IV Results.

⁹ Blasnik Report, page 21.

¹⁰ According to the 2000 US Census survey, 65.1% of NH's housing stock was built before 1980; of which 23.7% of NH's housing stock was built before 1939. http://factfinder.census.gov/servlet/QTTable?_bm=y&-geo_id=04000US33&-qr_name=DEC_2000_SF3_U_DP4&-ds_name=DEC_2000_SF3_U&-redoLog=false

The Human Element

Volunteers participating in this initiative expressed excitement, support, and positive feedback. Please refer to Appendix Item B for unsolicited comments sent to StayWarmNH staff via email. This feedback got the program organizers through the difficult days when logistics were especially challenging.

A small but significant number of volunteers cancelled at the very last minute; they claimed they wanted to withdraw from the program because it wasn't organized enough for them, or they didn't like or couldn't work with some members on their assigned teams. Some had personal issues surface unexpectedly at the last minute. The ice storm's chaos coincided with a previously scheduled weekend effort, thus shifting priorities for many of the volunteers.

Some homeowners declined services or complicated delivery of services, making unrealistic requests about scheduling or services. Some homeowners did not have phones or answering machines, or the phone numbers had changed, or they simply did not answer the phones, thus complicating issues as well.

With a successful program now completed, and StayWarmNH's positive reputation and credibility established, staff anticipates that larger companies and organizations will want to participate in future efforts. The hundreds of volunteers that participated – happily – in the program this year can be tapped again and will most likely recruit more volunteers from within their circles of influence.

III. StayWarmNH Framework

Explanation of the Programs

The following chart helps clarify the different elements, goals, funding sources, and energy efficiency measures that were part of the StayWarmNH program.

StayWarmNH Targets and Accounting, as of May 30, 2009

| Description | StayWarm Target | StayWarm Actual (as of date) | StayWarm Funds Dedicated | StayWarm Funds Spent | Funding Source | Completion Date |
|--------------------------------|-----------------|---------------------------------|--------------------------|-------------------------|----------------------|--------------------|
| Level 1 | | | | | | |
| | 340 | 205 | \$860,000 | \$860,000 | PSNH ³ | 12/31/08 |
| Full Weatherization | 15 | 168 ¹ | \$44,000 | \$44,000 | Unitil | 12/31/08 |
| | 15 | (3) | \$45,000 | \$0 | NHEC ⁴ | 12/31/08 |
| | 0 | (12) | \$0 | \$0 | NGRID | 12/31/08 |
| | 44 | 208 ² | \$115,357 | \$381,885 | Rolled-over WX funds | 3/31/09 |
| | 155 | 204 | \$750,000 | \$464,000 | FAP Furnace Program | 9/31/09 |
| Total | 569 | 770 | \$1,814,357 | \$1,749,885 | | |
| Level 2 | | | | | | |
| Air Sealing | 732 | 642 – as of 4/30/09 | \$878,000 | \$625,325 as of 4/30/09 | RGGI | 3/31/09 |
| Equipment | | See below | \$120,000 | \$106,000 ⁵ | RGGI | 3/31/09 |
| Level 3 | | | | | | |
| Volunteer Winterization | 500 | 413+ as of 5/30/09 | \$78,600 ⁶ | \$42,828.54 | RGGI | 3/31/09 5/30/09 |
| Level 4 | | | | | | |
| DIY Winterization Kits | 3,500 | 3400 as of 5/29/09 ⁷ | \$122,500 | \$105,915 | RGGI | 3/31/09 |

¹ Unitil weatherized multi-family units as well as single-family units.

² This part of the contract was amended on October 8, 2008 and was not reflected in the Weatherization Targets and Funding Plan of October 20, 2008.

³ PSNH books close in February, target seems to be met, leftover money can rollover into 2009

⁴ NHEC transferred money to the CAAs in November, money did not get used before 12/31/08; NHEC money does not rollover, therefore it is being returned.

⁵ All funds have been obligated or have been expended, invoices are outstanding.

⁶ \$1600 was moved from Level 2 to Level 3 because of a tallying error on Level 2 that was initially signed in a contract.

⁷ The balance of Level 4 kits will be distributed in June.

Figure 1: StayWarmNH Targets and Accounting, as of May 30, 2009

The Weatherization Waiting List and LIHEAP

At the beginning of the 2008-09 heating season, approximately 16,000 homeowners requested weatherization services from the CAAs. Some were on the waiting list for many years, others only a few months. To receive weatherization services, one must income-qualify for fuel assistance and request the services. One may decline the fuel assistance even if one qualifies. Eligibility is based on total household income during the preceding month. There is no home visit, assets test, or other verification process.

The CAA weatherization list prioritizes eligible clients, starting with elderly, disabled, families with children under six years of age, and those with very high energy usage. Dana Nute from BM-CAA adds “The CAAs also look at location so as to serve every town when possible. If a client received a heating system replacement or upgrade under the Heating Repair and Replacement Program then it is the goal of the CAA to weatherize this house within a year as per DOE to enhance the investment. Calls from the clients are also screened as to needs of the clients. The Area Centers are a conduit of information of the clients’ needs... When clients are eligible for other programs such as the CORE Program¹¹ where they are high usage clients, then we can leverage funding, thereby freeing up money for more DOE clients. These clients will have high priority. Also clients of natural gas programs will move up the list.”¹²

| Income Eligibility Guidelines for the 2008-09 New Hampshire Weatherization Programs | | | | | | | | |
|---|-----------------------|----------|----------|----------|----------|----------|----------|----------|
| Maximum gross household income by number of people in the household is currently established at 185% of the Federal Poverty Guideline for the Weatherization Program. | | | | | | | | |
| | Household size | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 30 Days | \$1,580 | \$2,129 | \$2,676 | \$3,224 | \$3,771 | \$4,319 | \$4,866 | \$5,413 |
| 365 Days | \$19,240 | \$25,900 | \$32,560 | \$39,220 | \$45,880 | \$52,54 | \$59,200 | \$65,860 |

Figure 2: New Hampshire Weatherization Income Eligibility Guidelines, 2008-09

Low Income Home Energy Assistance Program (LIHEAP) funding, also known as fuel-assistance, helped 35,351 applicants in 2007-08 (4,562 did not receive the benefit). The program, as of March 23, 2009, provided benefits to 40,461 applicants for 2008-09, a 14% increase from the year prior. An additional 6,442 applied for it and did not receive fuel assistance. Celeste Lovett, OEP’s Fuel Assistance Program Manager said “Based on census data, 134,000 New Hampshire households have incomes under the Fuel Assistance income guidelines of 60% State Median Income (SMI).” Nevertheless, it is striking that only 30% of the people who qualify for fuel assistance actually take advantage of the program.

As the economy darkens and more people face hardship, Lovett added that, “So far 30% of certified applications are new.” As need appears to be increasing, funding for LIHEAP is expected to drop by a third, although actual state allocations have not been released by DHHS at this time.¹³ The combination of many more applicants requesting assistance and reduced benefits, making homes more energy efficient and teaching people how to save energy, becomes even more important.

¹¹ NH’s four largest electric utilities administer the CORE programs funded by System Benefits Charge. Funds collected pay for energy efficiency and low-income weatherization projects.

¹² Email conversation with Dana Nute, Belknap-Merrimack Community Action Agency, March 30, 2009.

¹³ Email correspondence with Celeste Lovett, Fuel Assistance Program Manager, NH-OEP, March 23, 2009.

Level 1 – Expanded Weatherization by CAAs

Since 1974, the CAAs have weatherized thousands of low-income homes in New Hampshire. Governor John Lynch’s forward-thinking initiative boosted the number of weatherized homes, in order to temper the crisis of volatile energy costs.

The StayWarmNH initiative maximized already dedicated weatherization funds from the CORE programs and other funding sources. Additionally, the legislature and NH Public Utilities Commission (PUC) transferred \$360,000 of unused sulphur dioxide emission allowance proceeds held by PSNH and \$500,000 from the Home Energy Solutions program to the Home Energy Assistance Program to fund this part of the program. Funds were released by the utilities to weatherize additional homes in the 2008-09 heating season.

Some homes in the program have a variety of problems. Fortunately, the CAAs and US-DOE allow stacking of funding sources to address complicating problems. For example, the federal lead-abatement program can help fund the remediation of toxic building materials. The HOME program, funded by Housing and Urban Development, administered by NH Housing Finance Authority and delivered by the CAAs, can make more major upgrades, so that the insulation efforts made possible by Weatherization funds are more permanent and the building performs at a higher level.

Typically, the weatherization funds average \$2,500 per unit, with significantly less invested in multi-family units and manufactured housing, and more in New Hampshire’s classic drafty farmhouses. An additional 770 homes received significant attention as a result of StayWarmNH - Level 1 - Full Weatherization.

Level 2 – Expanded Air Sealing by CAAs and Equipment Purchase

Not all homes seeking weatherization are prepared for or need complete weatherization. While a full weatherization regimen is the preferred measure, sealing the air leaks is the first step in the process. Level 2 of StayWarmNH provided funds to seal up the major air leaks in low-income homes, as well as investing in tools needed by the CAAs. Primarily these services are provided by the CAAs, and not subcontractors. Typically, subcontractors prefer bigger and more profitable work.

Funding for air sealing is spent more on labor than materials, but the \$1,200 average invested to make these improvements impact energy savings and comfort. It is the first step in weatherizing a building, and under ARRA, weatherization measures may be added to the recently completed air sealing projects to finish the job.

The CAAs reported a challenge in hitting targets for StayWarmNH – Level 2 – Air Sealing - for several reasons.

- Initially, they focused their efforts on the Level 1 requirements for full weatherization, and so started late in the season (February) with the Level 2 goals.
- The Rockingham County CAA underwent major management shifts during this period, thus interrupting services and planning.

- Strategic planning for ARRA funds proved demanding and a priority over StayWarmNH.

Nevertheless, by the end of May 2009, 642 units had been air-sealed; the balance is expected to be air-sealed by the end of June 2009. A formal request to extend the March 31, 2009 deadline was submitted to StayWarmNH, and granted, as the legislative language required goals to be met by June 30, 2009, end of the fiscal year. Level 2 also provides an additional bridge for the CAAs as they bring on new teams in preparation for ARRA. While the air-sealing is an enhanced stop-gap measure for most of these homes, they will be able to get full weatherization in the future

The funding for weatherization tools will help the CAAs with their normal programming, as well as additional work to be completed under ARRA. \$160,000 of Level 2 funds purchased 9 Blower Doors, 8 combustion analyzers, 4 vans; 5 insulation machines, 1 generator, 6 computers, and insulation truck equipment.

Behind the Scenes at StayWarmNH

In order to run a program smoothly, a lot of effort must occur behind the scenes. The flow chart below attempts to concisely show the efforts made to create the program. Each box in this flow chart represents many hours, days, or weeks of work.

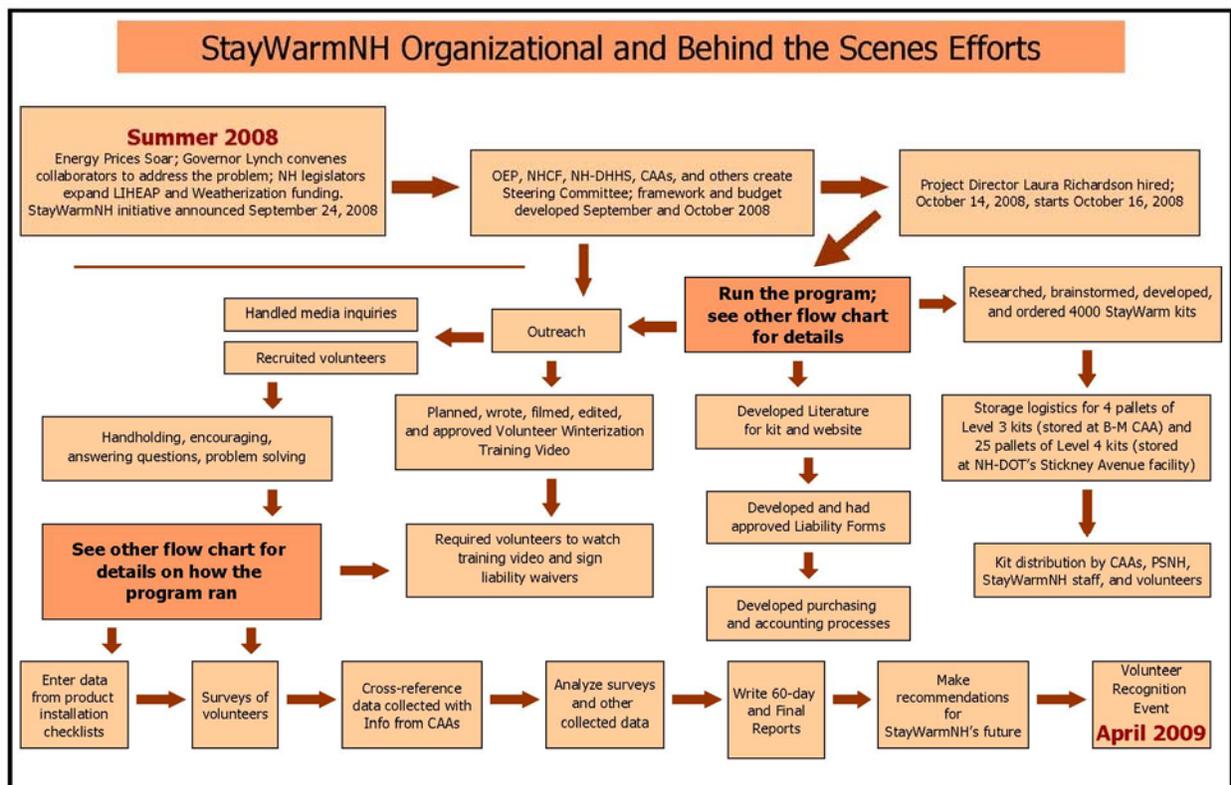


Figure 3: StayWarmNH Organizational and Behind the Scenes Efforts

Level 3 – Volunteer Winterization Effort

By far the most visible part of the StayWarmNH initiative was the Volunteer Winterization effort: 485 volunteers stepped forward to participate in the program, and over the course of several months, they winterized at least 413 homes; homeowners in 82 towns were served. The map on the next page shows where volunteers focused their efforts.

This winterizing experience was profound for many volunteers. One volunteer discreetly winterized the home of someone he knew through a more professional venue, and was shocked by his colleague’s situation. Others had never realized mobile home communities were tucked into the landscape they traveled by every day. Stories surfaced of volunteers sitting with elderly homeowners, regretting not having spent quality time with their own elderly family members; homeowners were “appreciative” and “gracious” and “overwhelmed”; StayWarmNH connected volunteers and homeowners in powerful and meaningful ways. Volunteers reported being alarmed by safety issues and compulsive hoarding in cluttered homes; they bemoaned the lack of a better safety net, and similarly resented that some homeowners apparently did not “need” the safety net.

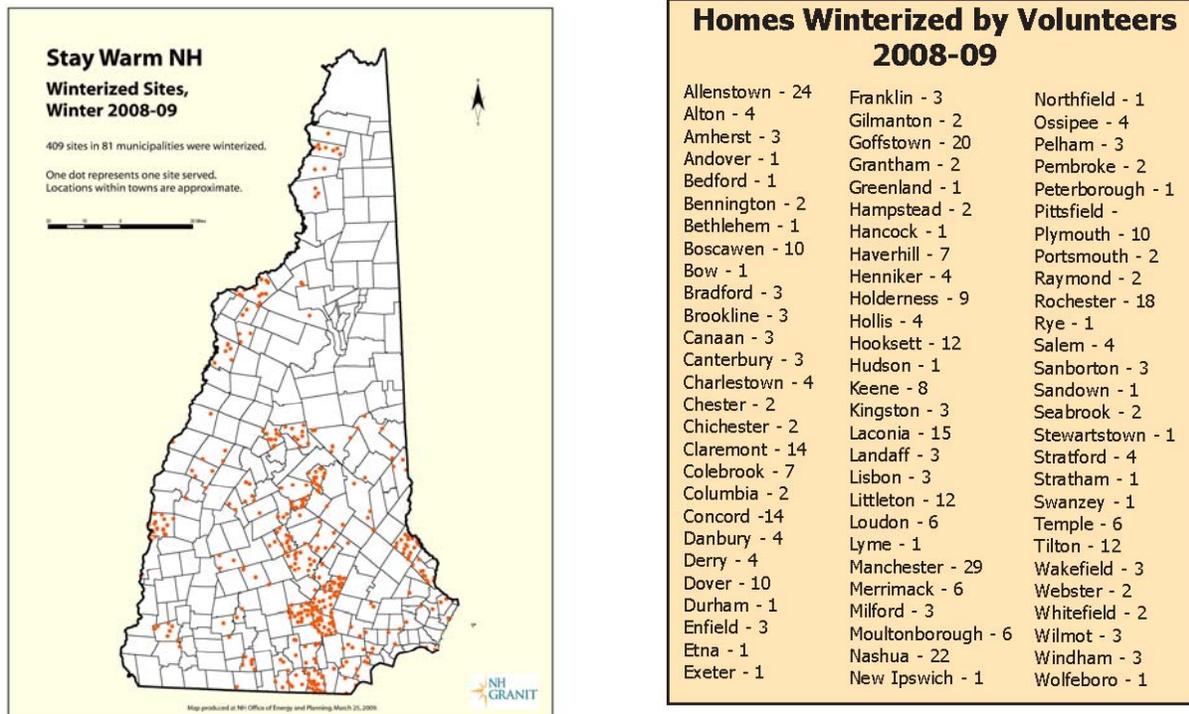


Figure 4: Homes in 82 towns were winterized from November 2008-February 2009.

When grievous circumstances on both ends of the spectrum – homes requiring a lot of attention as well as homes that were in “great” condition – were raised to StayWarmNH staff, concerns were quickly passed along to fuel-assistance and CAA management.

How Level 3 Worked and Didn't Work

Faced with an approaching winter, StayWarmNH prioritized needs in a triage manner, with some details lost in the shuffle, mistakes made, and some people annoyed. Nevertheless, StayWarmNH staff recognized that a fast-moving initiative could not be attractive all the time and be effective, and so chose practicality. Below is a flowchart that attempts to explain how the often chaotic process worked.

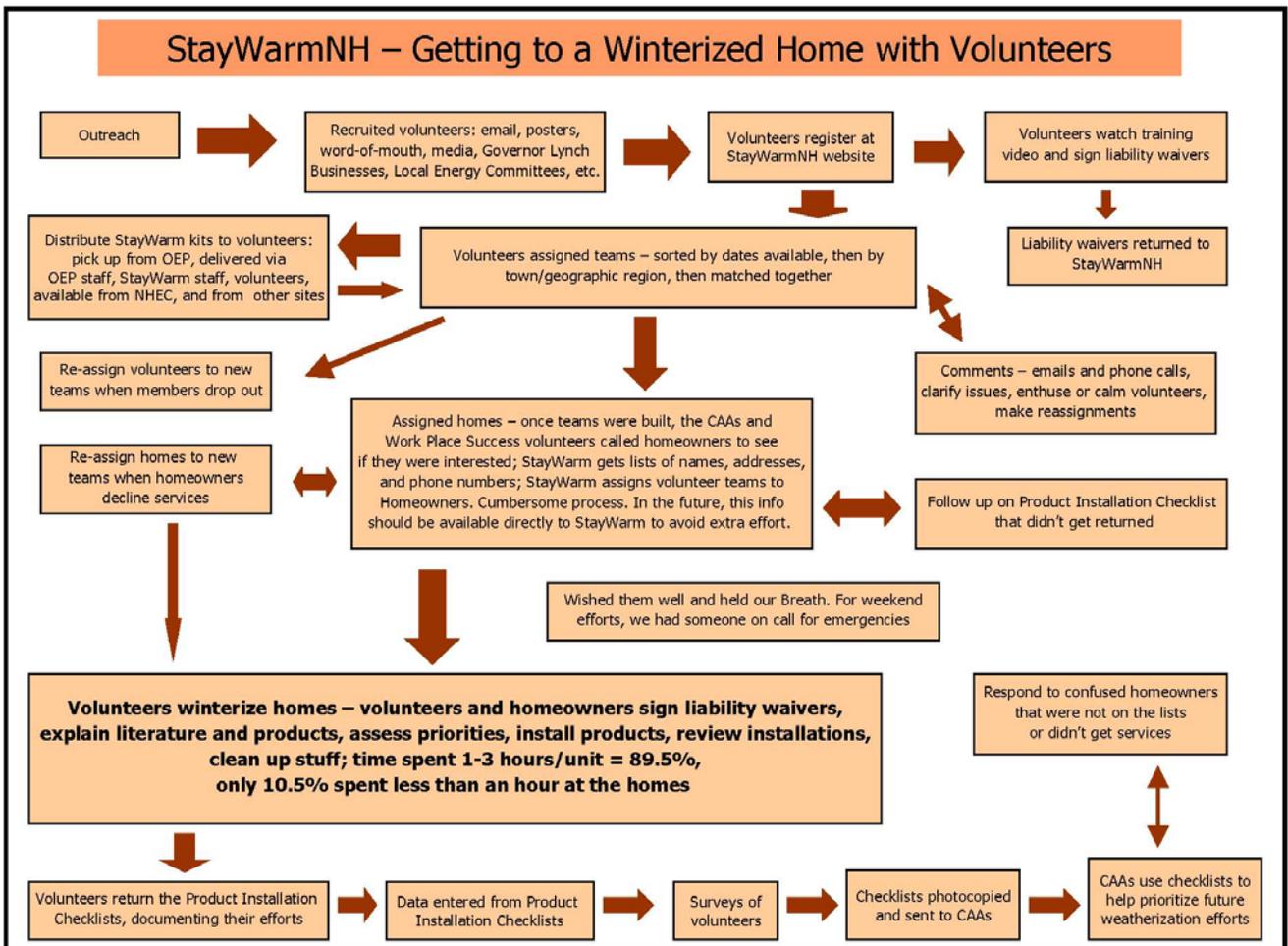


Figure 5: The Level 3 Volunteer Winterization Process

Volunteers heard about the program through their workplace (35.6%), Local Energy Committees (19.6%), other StayWarmNH volunteers (15.2%), and the media – newspapers (10.9%), television (10.9%), and PSAs (6.5%)¹⁴. Clearly, recruiting through the workplace was effective for those people who actually volunteered. However, the initial assumption of the Steering Committee was that a few large employers would embrace this type of program. When the volunteers were sorted by company or affiliation, StayWarm staff were disappointed that the three large targeted employers only had 6, 1, and 1 employees actually participate in the

¹⁴ Final Overview Survey

winterization efforts. Due to a lack of lead time, the employers that have visible volunteer programs were already committed for the year. Some did promote the program from within, but to little avail. The program appeared to be very disorganized because of the late timing, and so many did not sign on to the program. With credibility and infrastructure now built for the program, however, future efforts should grow easily with some effort. Furthermore, some of the people tapped to recruit these businesses did not have the personal clout or connections to pressure the business leaders to participate at strong levels.

Budget and wage negotiations with the State Employees Union were at a fevered pitch during this time. While Governor Lynch worked to balance the budget, StayWarmNH staff gingerly promoted the program within state government. The response was significant, as agencies such as NH-Department of Environmental Services embraced this program. At least 14 volunteers participated from that agency, many on multiple weekends. Eleven OEP employees volunteered as well, almost half of the office, with many recruiting neighbors and family members to work with them. Nonprofit groups like AHEAD in Littleton also adopted the program, running an internal office training program and encouraging staff to volunteer on multiple weekends.

If the program is repeated, more time should be dedicated to promote the program and recruit and train volunteers. There are many natural collaborators that StayWarm could tap, including state agencies, faith-based communities, New Hampshire's legislators, Local Energy Committees, and other non-profit groups. Focused nurture time on recruitment would pay great dividends.



Figure 6: Volunteers in Littleton had fun while helping their neighbors.

Many volunteers continue to rave about the program, and express hope that it will continue in a meaningful way in which they can participate. In spite of the complicating and frustrating factors, 98.3% of the 60 respondents to the Final Overview Survey claim they will or most likely will participate again. They rated their experiences as 48.3% Excellent; 43.1% Good; and 8.6% Mixed Opinion. Furthermore, 85% replied that the program should be run again, with just 15% saying that it should have some changes.

A word about the survey: The point of the surveys was to stay in touch with the volunteers, anonymously, and hear about problems and frustrations they had so that StayWarmNH staff could address them as soon as possible. The survey respondents were probably happier with the program than those who decided to no longer participate in the program, or answer the surveys, and while the surveys were not scientifically designed or analyzed, they did provide the desired insight. StayWarmNH staff felt confident that the 60 respondents, approximately 12% of the entire registered volunteer corps, and a guesstimate of about 25% of the participating volunteers, was a fairly representative sample of the volunteers' experiences overall.

Several communities now hearing about the program want to participate. Temple, Ossipee, Marlborough, Bethlehem, and Colebrook are all hoping to participate next year. The Local Energy Committees, while asked this year to participate, for the most part did not. Now it appears they are blossoming and this is the type of program they seek to adopt. In fact, of the 60 survey respondents, 10 said they were involved in a local energy committee.

Beverly Edwards, Chair of the Temple, NH Economical Energy Committee, wrote about the program: “Through StayWarmNH we have been able to simplify our screening process for who qualifies for the weatherization, utilize the prepared waiver forms, learn how to do the work from watching the video that they provided, and receive the boxes of supplies needed to get a good start on weatherizing folks' homes. It offered us a structure and process that enabled us to get started much more quickly than we were able to before we found the program... The supplies were well thought out and smartly organized and the training video was excellent. It gave us the confidence to get started. And some of our residents have been moved to tears from feeling so grateful for this help. Some can't even believe it's really happening for them.”¹⁵

Other programs and organizations StayWarmNH should partner or re-partner with for future efforts include the NH Community Loan Fund, United Valley Interfaith Project, Button Up, NH-Student Conservation Corps, and Manchester’s Seniors Count Program.

New Hampshire has many handy retired people that would be able to add depth and breadth to this program. Those involved in the program expressed interest in helping out during the week, or over multiple weekends that staff were not available for emergency back up. While StayWarmNH staff scheduled winterization efforts on weekends because many of the volunteers work during the week, encouraging volunteers to self-assemble teams and winterize homes at their schedule would add flexibility and probably increase work done.

Some of the homeowners work multiple jobs and have complicated schedules, others are home throughout the week, and may welcome volunteers regardless of the day. During weekends chosen for large groups of volunteers to winterize, a total of only five technical calls were made needing back-up help. While it is good to have emergency backup available, staff understand that the majority of questions volunteers had were covered in the training materials, they solved their own problems, or they didn’t install potentially problematic products.

Number of Volunteers in the field = 513

Number of total registered volunteers = 486
We estimate half of them did not winterize any homes

November 15 event - 160 volunteers
November 23 event - 116 volunteers
December 13 event - 123 volunteers scheduled,
approximately 24 went out that weekend - Ice Storm;
many followed up after the fact, many did not.

January 10 event - 72 volunteers
February 14 event - 42 volunteers

Volunteers step forward for many reasons, and of those responding to the final overview survey, 41.4% said they did to “help neighbors save money and energy” while 29.3% said they wanted to “connect vulnerable people to services.” These were not mutually exclusive answers.

As winter wound down, fewer volunteers expressed enthusiasm about

¹⁵ Email correspondence, Beverly Edwards, April 14, 2009.

continuing with the program for the season.

The ice storm and holidays broke the stride of the program, but most of the homes could have been winterized at that point if an extra month had been available in October. As the days lengthened, StayWarmNH staff decided to preserve the good will garnered, and finish the program, thus coming up short on the goal of winterizing 500 homes.

The Less Visible Volunteers – Workplace Success

Volunteers helped this program on many levels, from the very visible winterization volunteers, to the members of the Steering and Communication Committees, to the people that willingly helped in so many other ways. Many hands make lighter work. The CAAs tapped the Workplace Success volunteers to help locate homes for the StayWarmNH volunteers to winterize.

The Workplace Success Program is funded by the DHHS – Division of Family Assistance through a partnership with Southern NH Services and local CAAs. Workplace Success is located in twelve sites across the state of New Hampshire, and serves eligible New Hampshire Employment Program (NHEP) participants who are re-entering the workforce. This program provides NHEP participants with the skills, knowledge, and support to obtain unsubsidized employment, giving trainees an opportunity to perform “real” work projects. Assignments are completed onsite and include computer projects, mailings, customer service calls, document creation, surveys, data entry, and assembly projects.

Kimberly Shepard, volunteer coordinator for WPS, said in an email correspondence, “The Governor’s StayWarmNH Initiative provided an excellent opportunity for our Workplace Success Service Bureau participants to complete a volunteer project that truly made a difference to so many in their own communities. Our local CAP Workplace Success Facilitators trained participants in customer service skills, surveying skills, and data entry skills in preparation for this particular project. Workplace Success Service Bureau volunteers contacted 2,350 New Hampshire citizens to survey their weatherization needs and entered the information obtained on excel spreadsheet.... Our participants were moved and inspired by this project; which gave them an opportunity to gain work skills that are valuable for employment while providing volunteer work that directly benefits the community.”

Homeowners and their Homes

Homeowners receiving these services were vetted by the CAAs. They received fuel assistance, asked for weatherization services, and were in the demographic of elderly, disabled, families with small children, or had very high energy use. Approximately 16,000 homes were on the waiting list for weatherization this past winter. StayWarmNH’s target goal of 500 homes winterized by volunteers was missed, due to many obstacles already described, but not for lack of trying. The program did reach 413 households that otherwise would not have received any help this winter. Despite many obstacles, approximately 83% of the target was hit.

Of the 413 homes that have been winterized, 113 appear to have High Priority Needs; 96 have Medium Priority Needs; and 205 have Low Priority Needs. Laura Richardson, Project Director,

interpreted the subjective feedback from the volunteers while entering it into the document attached as Appendix Item C, "Products Installed". Homes getting the "high priority" designation had grievous problems reported about them, from broken windows and leaking roofs to exposed wires, mold, major structural dangers, and obvious fire hazards. The "medium priority" designation typically included problems like cracked, jalousie, or single-pane windows, inferior insulation, and heating systems that were reported to be on their last legs.

Low priority designations included situations like old appliances, or positive feedback on the condition of the home. Of the Product Installation Checklists returned to StayWarmNH by the volunteers, 66 had no visual inspection notes whatsoever. In some cases, inferences made through the number of products installed pushed for a designation other than "low priority," but for the most part, a lack of information led to a lower priority. This prioritization in itself will not lead to a shift in the waiting list for weatherization, but it provided insight into the types of problems being seen by the volunteers.

Stripped of identifying information, this data is available in its complete form in Appendix C. Many homeowners (47) declined or did not get winterization services despite being assigned enthusiastic volunteers; at least 6 had disconnected phones; 5 expected other services (weatherization, cleaning, basement insulation; or roof repair); numerous homeowners did not return phone calls; 1 volunteer had the door closed in his face upon arrival; at least 4 accepted kits as a Do-It-Yourself project instead of admitting the volunteer into the home; and 1 died between the assignment and the effort.

Volunteers, despite the best intentions, also let the ball down on occasion. While these volunteers felt the program was important, other personal situations often precluded them from following through on their commitments. Some then felt embarrassed about their absence, realizing after the fact that their withdrawal from the program impacted other volunteers and homeowners. That sheepishness compounded into deeper embarrassment and a reluctance to return to the program. Others that withdrew from a scheduled work day scrambled to build their own teams and reschedule with the homeowners. It is important to realize that the volunteers are just that: volunteers. StayWarmNH staff continue to be impressed with the volunteers who balance work, personal life, and community generosity, and continued on with the program.

Many homes were assigned to multiple teams over different weeks, and still did not actually receive services. According to StayWarmNH records, at least 105 homes were not winterized by volunteers despite having been assigned. Some of these were due to homeowners who were hard to reach or declined services, leaving volunteers with fewer homes on their lists. To improve the volunteers' success rate in winterizing three homes, StayWarmNH staff decided to assign 4 homes per team, with the hope that at least three would get done. This dramatically improved volunteer morale, however it confused the logistics of assignments somewhat, and resulted in homes being assigned but not winterized, through no fault of the volunteers *or* the homeowners.

Visual Home Inspection by the Volunteers

The majority of volunteers alerted StayWarm staff to issues they felt needed attention. The following lists of comments show the wide range of needs in these homes.

Visual Inspection Comments from Volunteers on Winterized Homes

1. all minimal and all poor, BAD outlet in sewing room, all very bad and leaky
2. could all use some work
3. needs insulation in basement; front door and basement door have problems
4. windows have problems throughout;
5. new metal roof last year
6. left kit with resident, refused volunteer effort
7. needs insulation in ceiling and weather sealing
8. handy homeowner thought vols would be working on outside of house; needs new roof
9. mobile home is old, uses a lot of electricity; spongy floors; fridge is a rental; old flat roof
10. older trailer; inaccessible heating/DHW; poor insulation; poor windows, no storms
11. no significant comments
12. needs insulation in flooring/crawl space
13. dire circumstances - no heat for last 1 1/2 years, AG's office is pursuing; CAA will overhaul
14. roof flashing broken; old appliances; heating system inaccessible; no batteries in smoke alarm
15. expected volunteers to completely reinsulate home, none in main house, only in kitchen
16. low priority, good shape, 10-yr old home, serviced every year
17. nothing remarkable
18. stains on ceiling from roof leak; otherwise in good shape
19. no battery in smoke detector; otherwise no notes
20. very high priority; ventilation problems, many air leaks; needs attic door;
major problems with heating system; critters in attic;
holes in siding; chimney flashing needs repair
21. roof leaking/needs to be replaced; mold/mildew on ceiling; rot; old appliances and
water heater; storm doors need adjusting;
windows are old/single pane
22. no notes whatsoever
23. ice damming, smoke alarms need replacing
24. needs another smoke detector in furnace room, ext doors leak, roof covered with snow,
otherwise good
25. homeowner was thrilled with the kit and will do the work himself
26. new appliances; homeowner will install remaining products; double pane windows
27. roof is rough; no storm windows; rotted spots on siding;
28. pretty good condition
29. better roof flashing needed; clean furnace filter;
30. rough shape: windows all rotting and rattling and inoperable; roof rotting;
jalousie windows; leaks in bathroom
31. roof needs replacing, is leaking
32. needs to have CO alarm checked if operating correctly, new roof
33. pretty good condition; problems with fridge temps
34. filter needs cleaning; limited insulation;
35. furnace and hot water heater need repair; otherwise okay
36. good candidate for focus group; otherwise nothing remarkable
37. no notes
38. leaks, gaps - windows and doors
39. doors and windows could use a little attention, otherwise in good shape
40. boiler checked out; could use a blanket for DHWH;
41. older leaky mobile home
42. needs attention, major air leaks, issues w/ chimney
43. no notes
44. insulation needed for ductwork and crawl space; hard to access a lot of the systems
45. log cabin, no furnace, only 2 propane heaters, basement could be insulated
46. everything in this house needs attention; safety and energy standpoint; lengthy comments
47. homeowner will install all products; insurance inspection revealed no problems
48. bedroom ceiling leaks; bulge in kitchen sheet rock; electrical shorts
49. volunteer had 2 kits for 4 sites; windows are major issue
50. doors need weatherstripping; fresh air needed for wood stove; left materials with homeowner
51. volunteer had 2 kits for 4 sites; smoke alarms don't work; needs insulation
under mobile home; floor near sink
52. volunteer had 2 kits for 4 sites
53. no notes whatsoever
54. no notes whatsoever
55. CO at dangerous levels; without power, evacuated homeowners, otherwise decent shape
56. bathroom mold, a lot of stuff in decent shape, roof had leaked but has been fixed
57. furnace needs cleaning; broken window needs fixing; "doors only issue"
58. not much info on form
59. closed off second floor, wants help wih a thermostat, plumbing
60. very cluttered, some new windows,
61. no notes whatsoever
62. low priority, good shape
63. no battery in smoke detector; otherwise no notes
64. contractor friend will install products
65. sealed up cellar window
66. no notes: "much was already done and energy efficient"
67. leaky windows and doors, needs pipe insulation
68. open window to attic in side shed; otherwise no notes whatsoever
69. no battery in smoke detector; otherwise no notes
70. new battery needed for smoke detector

71. new windows and insulation needed
72. basement windows and insulation are problematic
73. foundation has cracks
74. desperately needs help - 5 broken windows missing glass, roof and BA venting needed, appliances in bad shape, rot throughout
75. vol rec: insulated box + ceramic heater with thermostat on it around expansion tank
76. no notes whatsoever
77. 52yr old furnace; needs new hot water tank; needs help cleaning up the house - fire hazard
78. furnace cracked, emitting smoke inside; welded by homeowner 3 years ago; needs insulation
79. brand new furnace and DHW heater; door is off center, son in law will fix; needs to put fresh batteries in smoke alarm
80. no notes whatsoever
81. good shape
82. bath fan not vented outside; otherwise in good shape
83. pretty good condition
84. air leaks around north-facing windows; winterized during icestorm = no electricity
85. needs attic insulation; needs new door; discussed fridge operation and efficiency; roof great
86. pretty good condition
87. needs ins in crawlspace + dist pipes; patio doors need wx-stripping; roof + sills need attn
88. didn't get literature
89. cracked windows, missing storms, windows painted shut;
90. installed section of home-owner supplied fiberglass into outside wall; roof is okay
91. jalousie windows in bad shape; couldn't access heating systems; outlet needs fixing
92. no smoke detectors, broken window in basement; otherwise good
93. left nozzle for faucet, could not get it on
94. new/good condition
95. "good"
96. basement needs work; roof okay for a few more years; windows not great
97. vacuumed fridge coils; opened baseboard dampers; homeowner to plug old chimney thimble; ceiling needs more insulation; needs a new smoke detector; needs storm inserts and latches for basement windows; basement needs lots of work
98. all in good shape - recently attended to
99. home built in 1899, but appears in great condition; needs hot water heater insulating blanket
100. roof, doors and insulation are very bad; windows are new; pellet stove
101. insulated 50 years ago; old appliances;
102. a lot of newish stuff, low priority
103. overall house is in great shape;
104. all materials left with homeowner; new boiler
105. overall house is in great shape; older furnace; could use attic door insulation;
106. basement door drafts
107. mobile home , some cracked windows, holes in skirting
108. mobile home needs skirting fixed and door seals
109. low priority, good shape
110. no notes; I am inferring that it needs work, be-- # of windows needing seals
111. needs smoke detectors, drafty
112. owner reports that she may be due a credit for a new furnace/boiler
113. owners/grandparents of applicants cancelled visit; left kit with applicant
114. roof leaks; doors ill-fitting; safety issues in basement and elsewhere with clutter
115. dire need of insulation; windows + doors need upgrade; looking for materials, will do work
116. CAA working on insulation; contractor looking into ice dam; no apparent air leaks
117. pretty good condition;
118. leaky bathroom faucet with stripped threads
119. left materials with homeowner; no notes whatsoever
120. poor insulation in walls and roof; no battery back up in smoke alarm; old fridge, air leaks in bathroom cabs and windows, icing and water leakage
121. needs new CO alarms
122. good shape
123. side door leaks, could use storm windows on picture window
124. no notes whatsoever
125. roof leaks; drafty windows
126. left materials with homeowner; no notes whatsoever
127. no notes whatsoever
128. left materials with homeowner; no notes whatsoever
129. no notes whatsoever
130. back door doesn't close; air leak in kitchen; materials given to homeowner
131. weatherstripping needed on exterior doors; in need of gutters
132. is expecting full weatherization from Southern NH Services
133. no notes whatsoever
134. fridge runs continuously; insulate basement; front door is warped;
135. needs insulation; siding missing on east side and garage; multiple fridges; massive to-do list
136. drafty windows; blinds block plastic shrinkwrap
137. insulated
138. furnace + woodstove disconnected; house heated by one wall-mounted propane furnace in LR and supplemented by misc electrical units.
139. no notes
140. very leaky, needs new windows and doors
141. no notes whatsoever
142. slider needs better weathersealing; otherwise pretty good
143. no storm doors; rotted sections on front; inherited old cookstove; concerns for CO and fire; vol supplied a lot of extra pipe insulation
144. very good condition; may have some insulating problems with attic updates; claims boiler on last legs; will give all leftovers to a needy neighbor
145. this site needs a lot of attention; needs new windows and insulation; old fridge; concern with

- addition and structural integrity
146. pretty good condition; uses electric space heater; 2 cracked storm windows
147. 20-yr old water heater; needs to install smoke alarms (she has them)
148. nothing remarkable
149. needs new smoke detectors, heat ducts don't connect,
150. no notes whatsoever
151. pretty good condition
152. fire safety issues; house very full of stuff; very tight
153. broken single pane windows; needs a new roof
154. house so full, hardly able to move about; doors need extensive WX; 3 refrigerators;
snow piles block air leaks;
155. very old furnace; needs insulation in attic and basement
156. roof leaks, they spend a lot for kerosene - 800 gallons; otherwise good
157. high priority: fire safety issues; roof is flat and leaks and has not insulation;
undependable furnace; inoperative smoke alarms;
158. **PRIORITY** - fire hazards, heavy creosote build up, broken windows, clutter - wheelchair
bound
159. fire hazards in basements; should insulate bulkhead; range should be replaced;
needs more pipe insulation; ducts not sealed or insulated; boots have fallen away from floor
160. needs insulation in walls, basement, ceiling, attic, windows and doors all need replacing;
many air leaks; roof leaks
161. nothing remarkable
162. **POOR INSULATION** throughout; ducts need sealing; doors and hatches need sealing;
some dry rot
163. kerosene smell when furnace runs; louver windows need replacing; needs duct insulation
164. kerosene smell when furnace runs; insulation fallen out of position; roof, windows,
appliances need replacement
165. one broken window upstairs; generally okay
166. small leak where hot water pipe fits into tank; storm windows MIA
167. no notes
168. rental unit in **VERY POOR** condition; leaks and backdrafting in boiler; windows need locks,
batteries needed in smoke alarm; doors don't seal
169. has a problem with kerosene leaking; water heater leak; needs Q-Lon on main entry
170. very rough shape; jalousie windows; clutter; old single-wide
171. no notes
172. doors need attention;
173. Needs a lot of attention, windows, insulation, appliances, insulation, asbestos;
lives on first floor, second floor like ice
174. faucet broken by volunteer/replaced by CAA
175. leaky mobile home;
176. could use some insulation in attic and crawl spaces, otherwise pretty good
177. needs new windows and pipes underneath insulated; can't get into walls to
insulate because of bad wiring
178. nothing remarkable
179. nothing remarkable
180. mold on walls
181. new boiler and hot water heater; sealed storms
182. low priority, good shape
183. **UNLIVEABLE**, major air leaks, wood stove needs professional inspection,
dirt basement, requires HHS visit
184. boiler recently serviced; smoke alarms need to be replaced
185. pretty good
186. house has new Pella windows
187. needs insulation in sills and basement;
188. new appliances, windows + roof; unknown about insulation
189. very high priority; corroded pipes, chimney has strong draft;
problems with siding; unsafe water temps
190. hole in furnace exhaust, no insulation in home; hot water temp 122.5;
all new windows
191. home is only 10 years old, in pretty good shape
192. 7 new smoke alarms
193. no visual inspection; garage door leaky; water in basement
194. claims to be fairly tight
195. left kit with resident, refused volunteer effort
196. 16x16 section of living room floor is uninsulated and very cool
197. main exit is restricted at night by sticky sliding door
198. good shape, late husband had been a handy man, son helps
199. roof needs replacing, is leaking, this place needs some work, old mobile home
gas-fireplace insert is very drafty; new windows
200. NEEDS smoke alarms; windows in disrepair, door sweep; basement sills are leaky;
sealed basement window
201. electrical outlet safety issues: a friend had worked on them; garage door into
basement is source of a lot of air leaks; old refrigerator
202. needs new room, 90-year old homeowner is shoveling snow off roof
203. son replacing shingles next week; otherwise in good shape
204. nothing remarkable
205. good shape except sills, siding and floors
206. son will install products
207. a bit too tight, condensation on windows, pellet stove
208. rough shape; broken windows; many leaks; no window to put in place of AC;
old doors, appliances; etc
209. roof, sills, windows, doors, and siding in desperate need of replacing;
questionable insulation
210. well insulated; 1 problem with electrical outlet floating in wall
211. kitchen door needs work, fireplace needs insulating
- 212.
- 213.

| | |
|------|---|
| 214. | brand new home; tightened seal on storm door; |
| 215. | not much info on form |
| 216. | needs a water heater blanket; Needs A LOT of attention, windows in terrible shape, unable to access bedrooms downstairs and upstairs |
| 217. | left kit with resident, refused colunteer effort |
| 218. | needs new windows and furnace; needs insulation in sewing room; bathroom under renovation; elderly couple has trouble keeping up with repairs |
| 219. | windows need replacement; drafty; needs attention although she may be moving to assisted living |
| 220. | homeowner is retired firefighter and wanted to install products himself; home in good condition |
| 221. | homeowner thrilled; will install most materials herself; needs new heattape on pipes underneath home; needs new storm door |
| 222. | no notes whatsoever |
| 223. | attic insulation is falling down; smoke detectors did not test properly |
| 224. | recommended routine cleaning/maintenance of heating system |
| 225. | walls need insulation; doors need seal; cracks and holes in sills/siding |
| 226. | recommends supplying batteries for smoke detectors |
| 227. | house needs insulation; pipe insulation; some windows broken/don't close |
| 228. | energy-safety maintenance needed, batteries for alarms, |
| 229. | lamp broken by volunteer, broken window in basement, possible leak on boiler |
| 230. | no notes whatsoever |
| 231. | needs pipe insulation in basement; attic needs insulation; did not examine roof; house is tight and in good condition |
| 232. | needs insulation and air sealing; smoke alarm needs attention |
| 233. | needs more insulation; |
| 234. | this family is out of oil |
| 235. | bulkhead and exterior doors need a lot of attention, |
| 236. | house is one zone, only lives on one of the three floors, should drain and seal-off areas |
| 237. | no notes whatsoever |
| 238. | homeowner to install kit, brief inspection seemed like place in decent shape |
| 239. | roof leaks; a lot of air leakage in kitchen cabs and bathroom |
| 240. | no insulation on outside walls, Asbestos siding |
| 241. | windows are a problem, 50-year old insulation |
| 242. | no notes |
| 243. | left materials with homeowner; no notes whatsover |
| 244. | high priority - boiler and hot water heater not serviced for 10 years, leaky skylight |
| 245. | nothing remarkable |
| 246. | no notes |
| 247. | no notes whatsoever |
| 248. | more pipe insulation in crawl space needed where pipes enter |
| 249. | french doors need a bold to keep them shut tight |
| 250. | last serviced furnace in 2004; sills need insulation |
| 251. | cracked windows and sills, didn't remove AC unit because of existing damage to windows/sills |
| 252. | needs smoke detectors, |
| 253. | back bedroom insulation under mobile home, they get ice on the walls inside |
| 254. | needs smoke detectors, needs insulating blanket; needs insulation; older appliances |
| 255. | hole in roof from ice storm |
| 256. | very high priority; broken windows, rot, needs many repairs, needs insulation and air sealing |
| 257. | limited insulation; a lot of air leakage; some trouble with roof |
| 258. | pipe insulation needed |
| 259. | needs roof work and insulation |
| 260. | broken windows in basement, |
| 261. | exterior door is undersized for frame |
| 262. | roof leaks - 10 years old. Needs batteries in smoke alarm |
| 263. | Good shape |
| 264. | insulation needs to be replaced |
| 265. | older appliances, roof has some problems, |
| 266. | no notes whatsoever |
| 267. | no notes whatsoever |
| 268. | looks good |
| 269. | no notes whatsoever |
| 270. | professional needs to look at suspect foundation; needs smoke detectors; old appliances; needs insulating blanket |
| 271. | all new windows, older appliances but functioning; |
| 272. | no notes whatsoever |
| 273. | needs insulation - attic, basement; storm door doesn't seal well; very old windows |
| 274. | no notes whatsoever |
| 275. | nothing remarkable |
| 276. | drafty windows; no insulation in mudroom; |
| 277. | no notes whatsoever |
| 278. | no notes whatsoever |
| 279. | needs mastic on ducts; things look pretty good; he has spent a lot of time winterizing |
| 280. | everything looks okay! |
| 281. | water heater needs replacing soon |
| 282. | refused CFLs because of mercury |
| 283. | broken windows; furnace needs servicing |
| 284. | in good shape |
| 285. | homeowner's caretaker will install; nothing alarming |
| 286. | owner will install kit; windows have storms and plastic; old appliances; doors are sealed |
| 287. | problems with exterior doors; needs insulation in attic; cleaned fridge coils |
| 288. | cleaned fridge coils |
| 289. | bad battery for smoke alarm; heating/DHW looks good/newish/ homeowner did some work |
| 290. | walls not insulated; furnace needs cleaning + new thermostat; smoke alarm batteries needed |
| 291. | faulty smoke alarms; needs furnace inspected, and insulation jacket for hot water heater; |

- 292. boiler needs to be checked and cleaned
- 293. oil smell through vents; old woodstove; some porch windows stuck open
- 294. needs new thermostat and electric outlet needs repair
- 295. left kit w/ homeowner; has been waiting for weatherization for 6 years
- 296. big leak in laundry room; otherwise everything looks good
- 297. no notes whatsoever
- 298. no notes whatsoever
- 299. no notes whatsoever
- 300. "needs to have insulation, none currently"
- 301. homeowner very satisfied
- 302. exterior doors need V strip; basement houses day-care center
- 303. no notes
- 304. furnace and hot water heater ~15 years old; everything else is okay condition
- 305. nothing remarkable
- 306. no notes whatsoever
- 307. fairly new and in good shape
- 308. could use some insulation in sills and basement
- 309. hot water pipes need insulating
- 310. heating system needs repair/leaking pipe; pressure tank leaks;
windows bad; basement door bad
- 311. needs a new smoke alarm
- 312. nothing remarkable
- 313. exterior doors need replacement, otherwise in good shape
- 314. nothing remarkable
- 315. furnace needs new filter; hot water tank needs blanket; otherwise good
- 316. claims windows need replacing
- 317. no notes whatsoever
- 318. no notes; I am inferring that this place needs work from the number
of windows needing seals
- 319. no notes whatsoever
- 320. no notes whatsoever
- 321. mostly okay, but Dana requests an audit
- 322. very good, replace pie plate on woodstove
- 323. mostly okay, but Dana requests an audit
- 324. snow-covered roof; needs duct mastic on heating ducts, owner okay with home
- 325. inaccessible cellar because of snow build up; ice dams on roof;
needs to move smoke alarms
- 326. left kit with homeowner
- 327. owners received \$7500 USDA grant; Windows and doors need replacing
- 328. old house, just living downstairs;
- 329. priority home! Couldn't install most stuff because of clutter. Major accessibility
issues; couldn't find/verify many items like appliances; insulation is poor;
drafts everywhere
- 330. ice damming on roof; heating system needs cleaning;
- 331. insulation is MIA; smoke detectors don't function; very leaky
- 332. no notes whatsoever
- 333. no notes whatsoever
- 334. no notes
- 335. adjusted fridge temp; (old appliances), needs insulation in basement rafters;
roof needs some work
- 336. front window needs sealing; storm door doesn't fit; insufficient insulation in
crawl space
- 337. homeowner will replace smoke alarms; advised homeowner to shovel roof
and deck while on vacation
- 338. storm door needed; was this already winterized by other volunteers????
- 339. refused to open door; had police do a welfare check; she was there and fine,
just didn't answer the door...
- 340. high priority; very poor insulation, windows wet and leaky; ice jam and
uneven snow melt; basement has water
- 341. advised to buy smoke alarms; roof melts a lot of snow, probably needs more insulation
- 342. "already done" but not on our list, heat loss in roof,
- 343. house in good shape; not sure how she got n the list.
- 344. no snow on roof - probably needs roof insulation; sills and siding need painting;
well insulated, near airport
- 345. NEEDS STORM DOOR; Leak on porch; fire safety issues
- 346. smoke alarm works
- 347. good, tight house with new windows and efficient appliances
- 348. systems in good/adequate shape; appliances are old but still work; needs smoke alarm
- 349. no notes whatsoever
- 350. no notes whatsoever
- 351. mold; old building; lacks insulation; furnace needs checking; small holes in floor
- 352. a lot of needs here; volunteers spent 3 1/2 hours at this site
- 353. question on plumbing; otherwise not bad
- 354. needs styrofoam insulation in basement; needs smoke alarm;
otherwise systems and house appear to be in good shape
- 355. homeowner had already done everything; didn't need help;
pleasant but firm; how did he get on the list?
- 356. small ranch home with 3 adults and 13 dogs, stuffed with stuff/firetrap.
90yr old sleeps in basement; owner declined most help; 2 adults had homes
foreclosed on so everyone moved in together; couldn't get to walls
- 357. needs more pipe insulation; replaced faulty smoke alarm
- 358. could use more insulation for hot water pipes
- 359. more time needed for insulation and air leaks
- 360. very little insulation; needs new storm windows;
- 361. moisture build-up on windows and doors, mold in bathroom

| | |
|------|---|
| 362. | homeowner believes no insulation in walls; water heater needs wrap; windows don't lock; |
| | single pane; dryer vented through cardboard; doors in poor condition |
| 363. | no notes whatsoever |
| 364. | on-deman hot water not operating |
| 365. | rotting windows and sills; wood stove not in use |
| 366. | MH needs work: windows and doors are bad, roof leaks |
| 367. | MH very rough condition; jalousie windows; furnace and water heater starting to go; stove doesn't work; skirting, sills, side porch rim joists, decking all rotting; broken pane in front window; clutter |
| 368. | MH fairly good shape |
| 369. | MH rough shape per volunteers; skirting needs to be recaulked |
| 370. | MH: DIY kit; he claims home in rough shape and requested kit |
| 371. | MH: roof leaks in kitchen; needs replacement windows and doors; smoke alarm doesn't work |
| 372. | MH: home is 4 years old; furnace filter needs to be vacuumed; hot water heater not available to inspect |
| 373. | MH 30-years old; furnace needs service; DHW not accessible; owner says to airleaks |
| 374. | MH: windows and roof leaks; rot on door |
| 375. | MH: unsafe heating system; CO alarm reads 10ppm; heavy plastic on windows; advice on phantom loads |
| 376. | MH: sills, siding, roof leak/rot; ice dams; |
| 377. | MH: no notes whatsoever |
| 378. | MH: needs new furnace filter; 5 years old; everything pretty good. |
| 379. | basement door leaks; full insulation; sills, roof, furnace all look good; windows are 12 years old |
| 380. | front door leaks air; otherwise good |
| 381. | son will do more stuff from kit; older appliances; otherwise okay |
| 382. | son will install kit; older home with older systems, but everything works |
| 383. | no notes whatsoever |
| 384. | installed products herself; mostly new stuff from 2003 and 2006 |
| 385. | needs smoke detectors; mostly single pane windows, older appliances, cedar siding; roof is 5-30 years old; |
| 386. | rough shape: broken glass, windows in bad shape; roof leaks; plastic around sills |
| 387. | BLACK MOLD - kitchen faucet needs replacement - leaks onto walls; windows in bad shape; smoke alarms don't work |
| 388. | PRIORITY FIX: heating system leaks water!! Windows already covered in plastic. Otherwise everything okay |
| 389. | very drafty house, even with new windows; icicle problem; creosote around flasting on roof; heating and DHW systems need service or replacement |
| 390. | 5 broken windows; old stove (43 yrs old); needs 3 door sweeps; unknown insulation; |
| 391. | MH: PRIORITY: needs pitched roof asap; emergency egress not accessible; a lot of rot; heating and DHW systems not conencted; insulation is water damaged; window installed incorrectly |
| 392. | MH: fairly new mobile home |
| 393. | MH: okay condition |
| 394. | MH: no notes whatsoever |
| 395. | MH: no notes whatsoever |
| 396. | MH: new heating system with insulated pipes; otherwise no notes |
| 397. | MH: kit left with homeowner; <5yr old heating system; 10-12" insulation floor; new windows; new siding; metal roof - 5 years old |
| 398. | MH: couldn't find DHW system; otherwise no notes whatsoever |
| 399. | verbally explained: furnace needs cleaning; washer just quite; otherwise stuff in pretty fair condition |
| 400. | some air leakage around windows and doors; roof was done in 1980, otherwise fine; homeowner will intall most products |
| 401. | windows need replacing; homeowner will install most products; otherwise fine. |
| 402. | furnace piping insulated; pool room under construction and needs insulation; this home was winterized on Feb 23 |
| 403. | MH: furnace and hot water heater were replaced two years ago |
| 404. | very old doors;windows; appliances.Little insulation; fireplace problems |
| 405. | MH: old-loose windows, needs belly-blow insulation (very cold floors throughout) problemss w/ doors |
| 406. | no notes whatsoever; however the CLF targeted this site as a high priority |
| 407. | no notes whatsoever; however the CLF targeted this site as a high priority |
| 408. | no notes whatsoever; however the CLF targeted this site as a high priority |
| 409. | no notes whatsoever; however the CLF targeted this site as a high priority |

Figure 7: Volunteers reported relevant comments about the homes they winterized.

The First Weekend of Winterization

Preparing for the first Volunteer Winterization weekend was challenging. StayWarmNH staff were given the opportunity to postpone the efforts until all could be in better order, but staff forged ahead, recognizing that the logistical problems of the staff and volunteers would still be minor in comparison to the needs of the homeowners.

The volunteer liability forms did not get final approval from the attorneys involved until the Wednesday before the efforts. All volunteers were required to read, sign, and return the one-page form to StayWarmNH staff, either via email, fax, or in person *prior to* stepping into a home on their assigned lists. The fax machine at OEP was not up to the task, so all faxed waivers went across town to the NH Charitable Foundation. The training video, which was required viewing for volunteers, stressed the importance of these waivers (which were not approved at the time the video was made), and the program's inability to deliver the waivers in a timely manner both confused and complicated the process.

Volunteers registered right up until that Friday morning; other volunteers extracted themselves from the program that Friday afternoon. StayWarmNH staff scrambled to match up individuals into teams based on where they lived and what their skill sets were (a team leader/handyman and two others). As teams fell apart, they needed to be rebuilt. Communications with the volunteers were further complicated because of staffing issues, (see below).

Meanwhile the CAAs delegated communications with homeowners to Workplace Success volunteers.¹⁶ They called homeowners on the weatherization waiting list, asking if they would like to have these winterization measures installed in their homes and if they were available on the appropriate dates. These calls, while very important, also caused confusion. Homeowners could not differentiate between the types of volunteers nor weatherization and winterization, and in many cases the possibility of being helped turned into the promise of being helped. Once the CAAs received lists of homes from the WPS volunteers, they passed them along to StayWarmNH. At that point, StayWarmNH could assign the homes to the volunteers. As the teams were built and homes in their areas assigned, the volunteers needed to connect to each other and get possession of the StayWarm kits, which arrived just three days prior to the first volunteer weekend, via tractor trailer.

Volunteers descended on OEP to pick up their StayWarm kits, get final instructions, and sign waivers. Often, they did not leave with contact information about the homes they would be winterizing because it was not yet available to StayWarmNH staff. In fact, many assignments did not get made until late that Friday evening. Many volunteers did not know if they had been assigned teams, as teams were built and then collapsed. Many homeowners contacted by the WPS volunteers were not in areas of volunteer clusters, and so did not get attention. Some of the names provided to StayWarmNH from the CAAs/WPS were duplicated. These lists were not adequately double-checked because of the scramble to distribute kits, assign teams, assign homes, and solve other problems. The double lists provided for additional confusion. Apparently, some information had been entered first-name first, while others had been entered last-name

¹⁶ In exchange for job-force training, these Work Place Success volunteers help with community service projects.

first, or the last names of applicants were different, and so were duplicated on the list. In a rolling list of 16,000 names, these duplicated names were hidden.

Fortunately that problem was not repeated on other weekends and the hectic pace settled. The overarching system remained the same and problematic, although assignments were made earlier, thus allowing volunteers a bit more time to prepare and contact the homeowners. Despite it all, the majority of volunteers continued on with good cheer and did what they could do. An improved data management system would address this type of problem.

In total, at least 574 sites were assigned. Approximately 25 homes received services even though the volunteers never returned the checklists to StayWarmNH. At least 24 kits are still out in the field, with volunteers promising to install the kits as time allows, bringing the anticipated total to at least 462. Many volunteers returned unused kits directly to the CAAs, to be turned into Level 4 Do-It-Yourself kits.

| Fast Facts | |
|---|--------|
| # Registered volunteers = | 486 |
| # Volunteers in the field = | 513 |
| # Checklists returned, documenting winterization = | 413 |
| # Outstanding checklists = | 50+/- |
| # DIY kits distributed = | 3,400+ |

The pilot project was admittedly a very messy process. The program shed a number of volunteers during the first few weeks, mostly because they expected a higher level of organization. A large percentage of the individual volunteers that didn't participate lived in geographic areas without other volunteers as neighbors. Teams could not be built as a result. This upset a lot of volunteers who were unable to assemble their own teams, or hoped that this effort

would connect them to other volunteers. StayWarmNH had no control over this situation; more recruiting time would help increase the number of volunteers and give those individuals time to self-assemble teams.

The organizational problems did improve over the following weeks, although it needs to be recognized that the program needed to be flexible. Also, many volunteers helped with the program one or two early weekends, and felt that was a sufficient effort. The intention was never to monopolize all of the volunteers' weekends. With that said, many volunteers became "addicts," winterizing homes for three, four, or five weekends. The Fast Facts Block above shows that 486 volunteers registered. Of those, about half actually participated, but many for multiple weekends.

Throughout the program, the SurveyMonkey.com internet surveying tool provided interesting insight, as StayWarmNH staff asked volunteers about their experiences. They showed improved contentment with the program over the four periods, and of those who remained with the program and continued to offer insight and commentary, the experiences proved to be very positive and supportive.

The Final Overview Survey is included as Appendix E of this report.

Staffing

Hundreds of volunteers supported this part of the program that benefited thousands of homeowners, all run by a very small group of people. While the steering committee laid the foundation for the program, and the leadership of Amy Ignatius from OEP and Richard Ober from NHCF gave general advice and support, four people specifically made the program happen. Each of these people brought to the program special skill sets and drive.



Figure 8: The StayWarmNH team: Amy Ignatius, Richard Ober, Laura Richardson, Dana Nute, Mary Downes, and Kara Swedlow

Laura Richardson, Project Director for StayWarmNH, was brought aboard the team after the program had been designed, funding had been secured, and commitments had been made. As an independent contractor with Empowered Answers, LLC, she took over coordination of the program. She was the point person whose sole focus was to pull all the loose ends and ideas together – fast – and get results. She handled the volunteer training, kit development, logistics, overall direction of the program, recruitment and mobilization of volunteers, and morale building for the volunteers and all of the collaborators. While OEP hosted this position, she shared an office, phone, and computer network cable with Amy Ignatius, OEP Director, from October-January, adding to some of the logistical (and fun) challenges. She maintained contact with volunteers and some disgruntled homeowners throughout the program. As the program progressed, she coordinated the volunteer teams and matched them to homes. She also wrote the reports required by HB1653, and maintained almost daily contact with the CAAs, touching base about efforts on all four of the program's Levels.

Mary Downes, Energy Efficiency Specialist for OEP, had only recently joined the OEP team. She and the Project Director had worked together through the NH Sustainable Energy Association on other projects, and knew that they could complement each others' skills. She handled massaging the database, matching up volunteers and homes, coordinating with several groups, providing reality checks, while also juggling the responsibilities of a new position. StayWarmNH consumed a significant portion of her time from October through December, including several late evenings of calling volunteers, and the program succeeded as a result.

Dana Nute, Director of Housing Rehabilitation and Energy Conservation for the Belknap-Merrimack Community Action Agency, was very involved with all four levels of this program. Even though the six CAAs work independently, Dana's proximity to Concord, his willingness to take on additional projects, his insight, his sense of humor, and his work ethic made him a natural fit with Laura and Mary. Dana oversaw the statewide efforts on Levels 1 and 2, and reported status, questions, or problems to Laura on a regular basis. He delegated homeowner-notification efforts to the call center at Workplace Success, and coordinated the information back to StayWarmNH. The BM-CAA stored the Level 3 kits until their final disbursement to the volunteers, and stayed atop distribution of Level 4 kits via the other CAAs. He provided insight,

advice, and stepped in to solve complex problems that went beyond the role of StayWarmNH. He also organized his own volunteer teams to winterize more than a dozen homes.

Additionally, **Kara Swedlow**, the VISTA/VolunteerNH volunteer dedicated to the initiative provided early leadership, volunteer recruitment, database management, and other logistical support. While she was a pleasure to work with, distance issues precluded her from day-to-day, in-person operations and crisis intervention. It was also confusing having three people (Laura, Mary, Kara) all working in parallel, when two were at one location and the other worked off site. As the program evolved, her efforts played a smaller and smaller part.

OEP staff, family members, and volunteers also contributed to this initiative in manners that are not necessarily duplicable. They drove kits all over the state, often meeting volunteers – strangers in fact – in parking lots or along stretches of road. Some kits found their volunteers only after being handed off from one team to the next, tapping various networks of friends and colleagues. Others brought kits home and instructed volunteers from their regions – again, strangers – to come by to pick them up at mutually convenient times. While “Staying Connected” was part of the slogan, this was not intended, and a better distribution system for the volunteers needs to be in place next time.

A wall of StayWarm kits filled the hallways of OEP, cluttering and disrupting normal operations, as volunteers filtered through the office throughout the initiative to pick up kits. This could be duplicated on a limited basis; however, it should not be the preferred method of distribution. That said, the StayWarm kits were quite a bit tidier than a buffet-style effort would have been.

Budget

The budget for Level 3 was \$78,600 from the Green House Gas Emissions Reduction Fund (GHGER Fund) from RGGI, plus the salary for StayWarmNH Project Director Laura Richardson, who was paid by the NH Charitable Foundation. OEP covered a lot of hidden costs and support staff, particularly during the apex of activities. Less than \$45,000 was spent on the products, training materials, and literature. Unused portions of this funding and funding from Level 4 will be returned to the GHGER Fund, for redistribution to other worthy projects.

The StayWarm Kit

StayWarmNH staff chose a concise and tidy box to contain all the products for the program, instead of a buffet-style product pick up, or a reimbursement coupon program which were also considered. The kits improved the logistics, although they in themselves were not perfect. Each kit cost the program \$28.80, plus literature and training materials. CO alarms, an additional \$40, were an important part of the Level 3 program; they were not included in the Level 4 DIY StayWarm kit because of their cost.

| Products in the 2008 StayWarm Winterization Kits | <u>Included in all StayWarm Winterization Kits</u> |
|--|--|
| <p><u>Exclusive to the Volunteer StayWarm Kits</u></p> <ul style="list-style-type: none"> 1 Carbon Monoxide Alarm 1 Homeowner Waiver (2-part form) 1 Product Checklist (2-part form) 1 Self-addressed Stamped Envelope 1 Literature Envelope, 9x12 <p><u>Exclusive to the Do-It-Yourself StayWarm Kits</u></p> <ul style="list-style-type: none"> 1 Letter to Homeowners 1 Product Installation DVD | <ul style="list-style-type: none"> 1 Information Sheet: "25 Tips" 1 Information Sheet: "Home Heating Safety Tips" 1 information Sheet: "How to Winterize Your Home Now" 1 Information Sheet: "Clean Up Procedures for Broken Fluorescent Bulbs and Lamps" 1 Information Sheet: "Automobile Energy Saving Tips" 2 Compact Fluorescent Lightbulbs - 20W = 75W equivalent 2 Compact Fluorescent Lightbulbs - 14W = 60W equivalent 4 Hot-Water Pipe Insulating Foam, 18" 1 Low-Flow Showerhead, 2.0 GPM 1 Replaceable Window Insulation Kit (covers 5 windows) 1 Deluxe Dual Swivel Spray Kitchen Aerator 2.0 GPM 1 Bathroom Aerator with on/off Switch 1.5 GPM 1 Switch & Outlet Gasket Pack (10 outlets & 10 switch plates) 1 Energy Wheel: Educational Tool 2 Boxes of Rope Caulk 1 Vinyl Foam Weatherizing Tape 1 Toilet Tummy 1 Magnetic House Thermometer 1 Refrigerator Thermometer 1 LED Night Light 1 Pipe/Teflon Tape |

Figure 9: Products in the 2008 StayWarmNH Winterization Kits

During the planning phase of the program, StayWarmNH staff determined that a two-hour timeframe would be appropriate for each home to be winterized by volunteers. Of the volunteers who responded to the Final Overview Survey, 89.7% claimed they spent between 1-3 hours per home, and 10.3% spent less than 1 hour per home.

Students and Other Young People

StayWarmNH was very happy to include volunteers from many sources – Local Energy Committees, faith-based groups, the NH Student Conservation Corps, CityYear and students from UNH, Dartmouth, and the Community College System of NH (CCSNH). While StayWarmNH staff did not keep track of what demographic winterized which homes, we did notice two areas of concern.

Ideally, teams of three volunteers winterized homes: one team leader and two workers. The job of the team leader was to prioritize the projects in the home as well as install the more technical products. Many people who have owned or rented homes for a number of years intuitively know how those systems work, or at minimum when there appear to be problems. The volunteers were not expected to do home inspections per se, but feedback was sought on the condition of the heating and hot water systems, appliances, windows, roof, and other important parts of the home.

Often times, younger people have not been exposed to these systems, and may be timid about inspecting them. Certainly, there are exceptions to this stereotype, however a majority of the younger volunteers – UNH and Dartmouth students, CityYear and the NH-SCA volunteers focused more on installing the products than reviewing the systems. On the positive side, we know the products in the kits were installed, probably effectively and efficiently. StayWarmNH staff tried to recruit leaders for these students from local construction companies, who expressed disinterest. Those professionals considered the request, unfairly perhaps, to be working and

babysitting for free. As a result of the forms missing the visual inspection information, the CAAs do not know the real condition of those homes and will therefore not be able to assess their needs without a follow-up visit. To be fair to these younger volunteers, some of them were assigned to mobile homes, which have their own structural challenges.

The other point of concern was some feedback about maturity levels of these volunteers. It takes courage to allow strangers into your home, assess its systems, and install “superior” products. While these complaints were minimal, they did raise concerns, and for that reason promoting the program more to older and more sensitive volunteer groups makes sense, stressing the importance of the 18-year-old age limit for everyone, for liability as well as maturity issues. With that said, a number of parents very much wanted their children to accompany them so that they could “see how others live.” StayWarmNH staff continues to feel strongly that while community connection is a critical component to the program, discretion, sensitivity, and respect for privacy trump all else.

Pilot Programs – NH-SCA and CLF

Because the initiative got started later in the heating season than would have been ideal, and StayWarmNH goals called for 500 winterized homes, StayWarmNH staff worked with the NH Community Loan Fund (NH-CLF) and their cooperatively owned manufactured housing members. These homes were physically close together, thus the efficiency of the volunteers was improved. The NH-CLF has helped the residents of 92 mobile home parks in the state take ownership of their communities, thus empowering them to make decisions about infrastructure upgrades, lot rental, and association fees. Some of these communities are very proactive and interested in providing extra value to their residents.

In mid-January, StayWarmNH matched volunteers from the NH Student Conservation Corps to Medvil, a manufactured housing community in Goffstown. With 302 homes in it, 82% of which were income qualified by the NH-CLF’s low-income eligibility criteria, we anticipated a quick wrap-up to the program. However, many were not involved in the fuel assistance program, many were away for the winter, or otherwise not interested. Since this program continued to move at a very quick pace, and there wasn’t lengthy organizational time, we had the volunteers proceed and accomplish what they could. Two van loads of volunteers arrived at the Medvil community and were able to disperse quickly and install the products effectively. Members of the community accompanied the volunteers thus improving the community connection. All told, the NH-SCA volunteers winterized 17 homes. This model was very successful because of the enthusiasm from the volunteers, the supervision from the community members, the matching of young volunteers with older residents, and having StayWarmNH staff on site.

Feedback from the community was highly complimentary. John Burpee, president of the community wrote in a follow-up email: “It was fabulous. There were about 20 volunteers and one coordinator here on Jan. 9th. We also had 9 guides from the co-op to go with the volunteers to the homes. The community was very happy with this program and I have heard nothing but good news from everyone. The guides were very impressed with the spirit and attitude of the volunteers and the chemistry was very positive. This is a wonderful program and I hope the means are there to make it available to many more resident-owned communities. They

did 17 homes and left 3 extra kits which I have needs for. At 20 homes, this is about 7% of our community. Overall it is pretty awesome.”

In mid-February, StayWarmNH tried another concept, once again tapping the NH-CLF for support and advice. Together NH-CLF and StayWarmNH chose three cooperatively owned mobile home communities – in Rochester, Tilton, and Allenstown – and encouraged volunteers to join larger groups and winterize targeted homes. Forty homes were winterized on that Saturday, and a number of Do-It-Yourself kits were distributed.

Targeted versus Scattered Winterization

The effort at Medvil was intended to boost numbers of winterized homes – and quickly. By targeting a community for focused efforts, the program lost some of its grassroots feel. It also appeared that StayWarmNH was picking winners and ignoring other communities, thus undermining the more scattered efforts happening throughout the rest of the state. The map of winterized homes, in Figure 2 on page 17 highlights the success of randomness, and the general statewide approval that many communities (82) received some attention. The Monadnock area, and Carroll and Coos Counties received very little attention because volunteer clusters did not surface there. In our January 10 effort, concerted effort to recruit more volunteers was made for those areas, but few stepped forward to volunteer.

StayWarmNH staff recommends thorough discussions about the pros and cons of targeted versus scattered efforts. It should be noted that many volunteers prefer to remain in their communities, and many even more specifically want to winterize in their specific towns. Local Energy Committees will probably balk at assignments in other towns. As such, future programs should take this into consideration, while also recognizing that a concerted and focused effort in a few locations with many homes requiring attention will help hit target numbers faster.

Feedback on the StayWarm kits

In planning the program, StayWarmNH staff determined that a kit with basic winterization products in it would logistically be the easiest way to get materials into the field. AM Conservation Group from Charleston, SC specializes in this type of fulfillment, and made two shipments to NH, the first 500 kits for the Level 3 – Volunteer Winterization component, and 3500 kits for the Level 4 – Do It Yourself StayWarm kits.

StayWarmNH briefly considered creating a product “buffet” for products, where volunteers would pick and choose materials they thought would be appropriate for the homes they would be winterizing. While the kits proved to be imperfect, under the time and space constraints, the buffet concept would have been utter chaos. Some volunteers claim they would have preferred assessing the needs of the homes prior to doing the work. This would have meant additional time to schedule with the homeowners – some of whom work two jobs and are difficult to reach for one visit – and thus exceeding the ideal 2-hour time period. Another idea considered had been having a voucher to local hardware stores for purchase of appropriate materials. This would have posed very challenging logistical accounting and monitoring, not to mention the need to

expeditiously establish relationships with those franchisees. Once again, this scenario would exceed the time limits we thought appropriate for the volunteers.

The StayWarm kits that were eventually selected are small, manageable, and have a variety of different energy saving and energy safety products in them. They are a good introduction to the products available and while some of the contents were not installed, many were. Homeowners, once introduced to the products, could then purchase similar products if more were needed. The vast majority of the products in the StayWarm kits were installed by the volunteers, according to the checklists, as shown in the Appendix C.

| Measures Taken/Products Installed |
|--|
| 186 - Existing storm windows put in place/made tight |
| 639 - Insulating Plastic put on windows |
| 298 - Switch and Outlet insulators installed, # packages |
| 152 - Toilet Tummies installed (water displacement) |
| 354 - LED nightlights installed |
| 57 - Air conditioners removed |
| 151 - Furniture/draperies moved off heating ducts and away from radiators |
| 227 - Low-flow kitchen sink aerator installed |
| 214 - Low-flow bathroom sink aerator installed |
| 177 - Low-flow showerhead installed |
| 1,047 - Compact fluorescent lightbulbs installed |
| 246 - Water pipe insulation installed |
| 546 - Rope Caulk installed |
| 321 - Weatherseal installed |
| 351 - Energy-saving handout packets provided |
| 349 - Carbon monoxide alarms installed |

By far the most popular products installed consistently were the compact fluorescent lightbulbs (4 were provided in each kit and 1047 installed), the LED nightlight (354 installed), and the carbon monoxide alarm (349 installed). Window plastic (639 windows) and rope caulk (546 windows or other areas needing sealing) were also installed at high rates, although not without some negative feedback¹⁷. All sites received the StayWarmNH literature. The least popular items, related to water conservation. Plumbing systems are fragile in many of these homes. The threading sometimes did not match between the existing faucets and the new aerators (227 kitchen aerator/faucets installed; 214 bathroom sink

Figure 10: Volunteers installed these products.

aerators installed; 177 shower heads installed). Many elderly and disabled people prefer hand-held shower heads. The toilet tummies – to displace toilet-tank water – often did not fit because either the fixtures were very old, the mechanics interfered with the pouch, or because they were low-flow toilets and thus didn't need the water displacement tool. Some toilets already had water reduction products such as bricks or milk jugs in the tanks. Toilet cleanliness issues may have also played a role in the low numbers of these products. Only 152 toilet tummies were installed.

Training the Volunteers

Training of the volunteers moved quickly and concisely. StayWarmNH staff developed a training video so that information on the Program Overview, Expectations, and Program Installation would be consistent for all volunteers, and so that they would be able to receive this information at a time convenient to them. In one week, the script was written, the filming was started, finished, and edited, and the product was available for viewing. How to install most of the products in the kits was self-evident and only needed a few sentences of explanation. However, a clear explanation of the program and expectations of volunteers and information

¹⁷ The window plastic tore easily, it is not permanent, and windows were often cluttered or not clean; the rope caulk did not easily stick to cold or dirty surfaces.

about what they should expect needed to be conveyed. Feedback on this system was generally favorable. The video was available through online downloads, DVDs, or in-person trainings.

More than 50 training DVDs were taken by volunteers and either kept or returned to StayWarmNH. As of January 30, 2009, the volunteer training video has been downloaded from the www.StayWarmNH.org website in entirety: Overview – 530 times; Expectations – 315 times; Product – 538 times. Production work on the training DVDs was done by EVP Media and Marketing, who turned around a fine product in an unheard of period of time. Furthermore, because of their enthusiasm for the program, they gave the initiative a reduced price.

In-person trainings, led by Project Director Laura Richardson, were held in Plymouth, Merrimack, Manchester, and Littleton, all using the training video. Time for questions and answers, as well as insight gained as the program ran, added to this service. A total of 65 volunteers were trained via the in-person sessions.

Volunteer Recognition

As a pilot project that accomplished most of its goals in a short period of time, some recognition of everyone's effort was called for. On April 10, 2009, about 80 people who had participated in the program gathered in Council Chambers at the State House in Concord for hearty thanks, and appetizers paid for by the NH Charitable Foundation.

Governor Lynch thanked the volunteers for their efforts and the generous community that makes New Hampshire special. He recounted stories he had heard throughout the program, including the extraordinary efforts during the ice storm. Richard Ober from NHCF and Amy Ignatius from OEP also heartily thanked the volunteers and staff that made this initiative a success. Laura Richardson similarly thanked everyone involved, reported outcomes and metrics, and distributed Certificates of Appreciation to the volunteers. She presented a special gift of recognition to Dana Nute for all his efforts, and she was presented the pen used by Governor Lynch to sign House Bill 1653 (the bill that created StayWarmNH) in a beautifully carved wooden box made by a local artist.



Figure 11: Volunteers mingle and share stories at the April 10, 2009 StayWarmNH Volunteer Recognition Event. Governor John Lynch thanks StayWarmNH volunteers for their efforts and contributions.

Level 4 – Do-It-Yourself StayWarm Kits

Encouraging homeowners to take control of their energy usage empowers them to save energy and therefore money. Low-income homeowners sometimes resort to creative, unsafe, or less than efficient ways of keeping warm in the wintertime, while struggling to pay bills for energy, housing, food, healthcare, and other necessities. Despite expanded weatherization efforts through the GHGER-funded StayWarmNH program, the majority of low-income homeowners seeking help with winterizing or weatherizing services did not actually receive them. Thus, an outreach effort was made to provide StayWarm kits to those seeking to install the products themselves.

Do-It-Yourself (DIY) StayWarm kits were made available to 3,500 households throughout the state, starting in mid December. The original distribution plan for this part of the initiative included tapping volunteers to handout the StayWarm kits to income-eligible homeowners in a voucher-exchange program on scheduled days in the early winter. It quickly became apparent that the logistics of such an effort were inefficient and counterproductive. These homeowners already have relations with the CAAs, who agreed to help distribute the kits for StayWarm. The CAAs distributed them to eligible homeowners through their regional headquarters and satellite offices. As of May 1, 2009, ninety-seven percent of the kits had been distributed, and the balance is expected to find homes shortly thereafter.

The DIY StayWarm kits include the same 30 energy-saving and energy-safety products and literature as the kits provided in the Level 3 Volunteer Winterization part of StayWarmNH, but not the CO alarms. An abridged version of the StayWarmNH volunteer training video was edited and manufactured in bulk to include in kits for the homeowners so they could learn how to successfully install the products. StayWarmNH staff referred many homeowners to their local CAAs for the kits, particularly when it was obvious that volunteers would not be in their area to winterize homes for them.

Twenty-five pallets of StayWarm kits arrived in early December, and were stored at the Department of Transportation's Stickney Avenue facility in Concord. This heated and secure space provided peace of mind for materials that cost the program \$122,500. PSNH then distributed the pallets to the CAA sites around the state. The CAAs and PSNH both assisted with this program without remuneration.

There are no metrics on what products from the kits were installed in the homes, or passed on to other homes, or thrown away, or put in the junk drawer for later installation. Future efforts should include some type of feedback and/or metrics so that staff will know what products were installed, and thus the energy, money, and emissions savings. Feedback on the kits, through the CAAs and the occasional homeowner who calls StayWarmNH staff, has been very positive. Each product in the kit was selected to provide energy savings and safety enhancements.

Feedback about the kits from the general public has also been positive, as well as envious. Many volunteers and others have made inquiries as to how they can get their own StayWarm kits and/or high-quality CO alarms. Future programming should consider an income-blind StayWarm kit, to help introduce homeowners to products that can easily improve the energy efficiency, comfort, and safety of their homes.

IV. Results

Without doubt, the 2008-09 StayWarmNH initiative can be considered a success on myriad levels. Additional funding allowed homes that would not have been weatherized or air-sealed by the CAAs to receive attention. The CAAs were able to invest in much-needed equipment to expand their efforts. While this had not been planned, this equipment will help the CAAs respond to the ARRA Weatherization funding. The CAAs learned to quickly ramp up their production numbers, reorganize some of their offices, and work together with other collaborating partners.

Hundreds of volunteers across the state joined in common effort to help their neighbors prepare for a cold, New Hampshire winter. Exposure to their plights awakened many to the needs within their own communities. It also highlighted the need for additional future efforts. While energy costs soared and then dropped in 2008, residents across the state recognized that they could save energy with only a little effort.

Of the volunteers that responded to the survey, 43.1% have purchased winterizing materials and installed them as a result of this program. Exposure to new products in an empowered manner often makes them less intimidating. While there are no metrics on the savings realized from this, it certainly is notable, and one of the intangible outcomes of this program.

StayWarmNH staff have heard multiple stories of volunteers teaching non-volunteers about the benefits of winterizing, recommended products, and the increased comfort and energy savings. These success stories help build the credibility of this program and will probably help boost volunteer recruitment and retainment efforts for future years.

The following are the best-of stories fitting under the umbrella of the StayWarmNH slogan: Stay Warm – Stay Safe – Stay Connected. There were countless stories of epiphany and outrage, humility and community connection. These stories surfaced weekly, if not daily, and are too numerous to highlight here.

Stay Warm

During the mid-January deep freeze, StayWarmNH assigned a volunteer team to several homes in Allentown, one of which was “without heat.” Assuming the homeowner had run out of fuel, the team leader notified StayWarmNH, who then alerted OEP and the CAA. That phone call to schedule winterization raised the flag that the problem was far more complicated. The home had been without a heating system or running water since the Mother’s Day Flood in 2007. Despite frigid temperatures, the volunteers met with the homeowner, discussed the materials in the kit, and marveled at her buoyant optimism. Within days, the CAA had assessed the home, installed a new heating system, and developed a plan to bring all of the systems up to acceptable levels. Two months later, the home had been completely insulated, repaired, had heat and running water, and received its occupancy permit from the building inspector. For almost two years, this homeowner had struggled to fix the home she loved, had tried to get resolution from various other agencies and resources, and StayWarmNH and the CAA got her back on her feet.

Stay Safe

On December 13, 2008, the second day of the ice storm¹⁸, the third scheduled StayWarmNH date, saw some dedicated volunteer teams persevere with their commitments to the program and the homeowners who awaited them. In spite of cold temperatures and no electricity, volunteers from a Chichester team installed the StayWarm kits, and the (battery-powered) carbon monoxide alarm. Almost immediately, the alarm registered unsafe levels of CO. The homeowners, one of whom was “on oxygen” were heating their chilly home by boiling water on their unvented gas stove. Candles burning for a little light and ambience added to the hazard. The volunteers, knowledgeable about building science and the hazards of carbon monoxide, called for technical support. While discussing options with the homeowners, emergency service personnel approached the home on a safety check. It was quickly determined that the family could not remain in the home under those conditions and they were evacuated to the home of a relative. Carbon monoxide, odorless and invisible, is the silent killer. General consensus is that intervention by those volunteers saved these lives.

The December ice storm challenged the majority of New Hampshire residents in some way. Warming shelters opened across the state in unprecedented levels to accommodate people in crisis. James VanDongen of the New Hampshire Department of Safety – Emergency Management, and a member of the StayWarmNH Communications Committee, used every form of media to warn residents about the dangers of carbon monoxide, the proper ways to thaw frozen pipes, and how to contact local authorities about problems. While StayWarmNH cannot get the credit for this outreach, the collaborative effort had prepared agencies and utilities to work together.

Stay Connected

The Stay Connected component of StayWarmNH refers to strengthening community networks and connecting residents to information and resources available to them. The StayWarmNH website provides information sheets, links to relevant organizations and services, and training information for volunteers. This was the original intended outcome for the Stay Connected part of the program, however other connections surfaced.

One energy committee in Colebrook has taken this project on with a vengeance, planning to winterize over 20 homes; they sought a program that could help their neighbors in need and give them concrete direction. Other community members matched up to work together have made arrangements to snowshoe. Others report getting to know community members they only knew in passing. While these connections have no immediate financial value associated with them, they do add to the social fabric of the community and reflect favorably on the State of New Hampshire. And finally, many volunteers have made a personal connection to their own energy habits, reporting purchases of similar winterizing materials to improve the efficiency of their own homes. StayWarmNH staff anticipate many of these volunteers will continue with this program in the years to come. The feedback from volunteers, homeowners, and the media has

¹⁸ On December 13, 2008, New Hampshire was devastated by an unprecedented ice storm. Electric utilities reported 430,000 outages, disabling the state and normal operations. StayWarmNH had previously scheduled a “major volunteer push” for that weekend. Many volunteers canceled or postponed their efforts until normalcy returned.

been very positive, creating a favorable connection and reflection on the state. While volunteers are an important part of the program, 10 volunteers have inquired about working for the CAAs as they expand their programs under ARRA.

Media, PSAs, and Other Outreach

Positive media coverage of StayWarmNH efforts, particularly the Level 3 Volunteer Winterization effort, helped recruit additional volunteers and give credibility to the program. Some homeowners reported wariness of the program, having thought it was a scam, until they saw media coverage.

Newspaper clippings of the coverage are provided in Appendix D. Articles ran in the following papers:

- www.NH.GOV website Press release: Gov. Lynch, Lawmakers Announce Action Plan to Help Keep New Hampshire Families Warm this Winter – September 15, 2008
- www.NH.GOV website Press release: Gov. Lynch: Applauds Passage of Special Legislation Aimed at Keeping NH Families Warm – September 24, 2008
- www.NH.GOV website Press release: Gov. Lynch: Volunteers Needed to Help New Hampshire Families with Weatherization – October 14, 2008
- *Nashua Telegraph* – StayWarmNH aims to help residents over the winter – November 21, 2008
- *Concord Monitor* – They keep the cold at bay: State weatherization help comes as a warming visit – November 23, 2008
- *Manchester Union Leader* –Neighbors fan out to keep others warm – November 23, 2008
- Governor Lynch – press release: Stay Warm NH efforts to help families stay warm are continuing – November 24, 2008
- *New York Times*, on line, Green Inc. – Eight Energy Suggestions for Obama, from SunEdison’s Founder – December 12, 2008
- *Nashua Telegraph* – New Hampshire homes are getting warmed up – December 12, 2008
- *Laconia Citizen* – Volunteers learn how to help residents stay warm – January 11, 2009
- *Concord Monitor* – For Obama to community: Volunteers refocus their efforts in honor of inauguration – January 14, 2009
- *Nashua Telegraph* – State hopes to plug holes in homes – January 21, 2009
- *Laconia Citizen* – Sanbornton Congregational Church featured speaker – March 21, 2009
- The Community Loan Fund’s newsletter *The Cooperator: Helping residents StayWarm: Statewide volunteer effort comes to NH cooperatives* – March 22, 2009
- NH-Student Conservation Corps – Newsletter – March 27, 2009

NH Public Radio’s *The Exchange* program on September 24, 2008, focused on these issues and featured Amy Ignatius from OEP, Dan Feltes from NH Legal Assistance, and Dick Henry from The Jordan Institute, titled “Tough Choices for Heating the Granite State’s Homes.”

On October 14, 2008, Governor Lynch visited a Concord home as it was being weatherized by the CAA to draw attention to the CAA-run program and promote the volunteer effort. WMUR-TV covered the event.

WMUR and NHPR both mentioned or covered the program in their news stories. Amy Ignatius, Director of OEP, was interviewed on the Arnie Arnesen Show on November 14, 2008, about the StayWarmNH initiative and the show was aired two days later.



Figure 12: The logo and slogan: Stay Warm – Stay Safe – Stay Connected

The logo and slogan for StayWarmNH branded the initiative as something credible and understandable. That marketing effort led to promotional posters, brochures, and Public Service Announcements, all that were created by the Communications Committee. Governor John Lynch read the PSA for air-time on the radio. Louis Karno & Company Communications underwrote spots on NHPR throughout the winter promoting the initiative.

Other outreach and referrals included cross visibility efforts with 2-1-1, the new 24/7 toll-free information line for those seeking help with a variety of social service needs.

New Hampshire Public Radio generously donated logistical support for an interactive map, to highlight communities with warming centers, cordwood banks, and other resources to stay warm in the cold. Unfortunately, only a few communities stepped forward to share their information, and this potentially dynamic and important resource languished. This product has the potential for significant enhancement if StayWarmNH continues.

StayWarmNH also participated in community events or was actively promoted at:

- Businesses for Social Responsibility (Mary Downes) – October 21, 2008
- UNH Cooperative Extension Training (Mary Downes) – October 23, 2008
- Henniker Energy Fair (Jack Ruderman) – October 27, 2008
- Women Building Community: Taking Action with Our Time, Talent and Treasure – a collaborative program of the Women’s Fund of NH, the United Ways of NH, and the NH Charitable Foundation – (Amy Ignatius) – November 21, 2008
- Environmental Business Council – NH Chapter (Amy Ignatius) – November 6, 2008
- Granite State Conservation Voters Alliance Policy Roundtable Event: Meet the Commissioners (Amy Ignatius) – October 21, 2008
- Bethlehem Energy Fair (Gil Richardson, Empowered Answers, LLC) – November 15, 2008
- Nashua Regional Planning Commission – Energy Round Table (Laura Richardson) – November 18, 2009
- UNH-CE Energy Answers Stakeholder Forum (Laura Richardson) – December 2, 2008
- Business and Industry Energy Conference (Amy Ignatius and Jack Ruderman) – December 3, 2008
- North Country DHHS Meeting, Littleton, (Laura Richardson) – December 3, 2008
- NHSEA Home Energy Conference (Laura Richardson) – December 6, 2008
- Gilford Energy Fair (Joanne Morin and Kathy Brockett, DES) – January 17, 2009

- Keep the Heat On – Fuel Assistance Fundraiser – Plymouth (Laura Richardson) – January 21, 2009
- Hudson Green Team Energy Committee StayWarmNH presentation – (Laura Richardson) – February 23, 2009
- Sanbornton Congregational Church’s Peace and Justice Committee (Dana Nute) – March 25, 2009

The branding effort for StayWarmNH has been very effective, with the logo visibly placed on the www.nh.gov website, as well as the homepages of countless other collaborators.

V. Details and Insight

Time and People

Time was as big a character in this initiative as any other. Winter loomed, and then we were in the depths of it, everyone scrambled to be safe and warm during the ice storm. The weather motivated many people to help with this project, and they empathized at the short ramp-up and resulting confusion. Other volunteers and homeowners were less forgiving, and had much higher expectations, despite these time constraints. The holidays and other winter responsibilities also interrupted continuity of the project. And then, anecdotally, people just got tired of winter. Participation dropped off. However, waiting for the perfection would have meant that nothing would have been accomplished. The alternative, considered seriously as the first weekend of service approached, was to call the volunteer effort off, due to the not insignificant logistical challenges. To have done so would have meant many fewer positive outcomes.

Without doubt, this program was a great exercise and experiment for the CAAs to ramp up their operations, build collaborative partnerships, and provide additional services to their clientele. Under the ARRA, they will be expected to provide dramatically more services and measures for weatherization, keep accounts separate and transparent, and employ many new professionals. The \$23.2 M that will go to New Hampshire's CAAs will make a big difference to the homeowners whose houses will be improved, and they are better prepared to meet the challenge thanks to StayWarmNH.

As with any new initiative, there were logistical challenges and learning curves, surprises and assumptions proven wrong. Starting the volunteer program much earlier in the season, or making it a year-round initiative with other relevant projects, would allow for better promotion, recruitment, training, and logistics. The free labor and community diversity provided by the volunteers balanced out or was more important than the lack of reliability. The social capital value of the program was enormous and reflects very well on the State of New Hampshire, and as such the 2008-09 investment in building this program needs to be continued.

Financial and In-Kind Support

This initiative certainly would not have succeeded without the support it received from many sources. The chart below highlights supporters whose generosity should earn them space on the front page of this report.

The Local Energy Committees are maturing and are now expressing interest in participating in a program like this, particularly if the materials can be provided.

Button Up, a new and successful program in Vermont, appears to be moving to New Hampshire. By training certified Energy Auditors to teach homeowners how to make the easiest energy improvements in a home, and teach them how their home actually functions, an empowered and educated volunteer force will soon be available, and a natural fit for the StayWarmNH model.

StayWarmNH has received questions or requests for advice from nascent programs in Cambridge and the Cape and Islands, MA, and Burlington, Vermont.

Overall Energy Impacts and Cost Effectiveness

Now is the time. While saving energy through efficiencies and conservation has always led to financial savings, these types of programs have never been timelier or more promoted. Energy costs and availability will become more volatile, and New Hampshire's most vulnerable residents are very affected by this.

For \$1.2 M, StayWarmNH showed a lot of impact, although determining realistic cost and energy savings is difficult or impossible to assess, with so many variables. With that said, the learning experiences for the CAAs to ramp up with their weatherization programs and investing in much-needed tools, the vetted information about the clients the CAAs serve, and the thousands of people impacted by the program this year – energy, safety, community connection – has a return on investment of more than \$1.2 M. The people saved from avoiding CO poisoning surely would agree.

The M. Blasnik & Associates report determined that New Hampshire's weatherization programming has a Benefit/Cost Ratio of 1.14 for energy savings alone. While saving energy, money, and lives were the primary motivators in creating this program, they are not the only outcomes. That point should be fairly clear at this point. In fact, on page 32 of his report, Blasnik writes, "Clearly any cost-effectiveness analysis that does not consider the value of non-energy benefits is understating the benefits of the program."¹⁹

Data Management

A strong recommendation from the experiences over the last six months is that a new interconnected data management system should be incorporated for the CAAs, OEP, and StayWarmNH should the program continue. It would make LIHEAP in-takes easier, improve the weatherization tracking for the CAAs, allow all six CAAs to communicate better, have consistent programming and reporting, improve monitoring by OEP's weatherization and fuel-assistance managers, and allow for more streamlined logistics if a similar volunteer mobilization effort is put in place. OEP and the Belknap-Merrimack CAA have been in discussions about this already. Investment in such a system should be supported.

¹⁹ Blasnik Report, page 32.

Efforts for the 2008-09 initiative were challenged because of the archaic data management systems. The on-line registration form for volunteers was quite rudimentary and required importing and exporting of data in order to use it, thus complicating that component of the program. Future efforts should include a more modern and interconnected database for tracking and responding to volunteers, as well as accessing information from the CAAs.

Errors and Hindsight

StayWarmNH staff considered this program to be a pilot, a learning experience, and a triage effort, getting as much accomplished as well as possible in as short a period of time as possible and with a limited (albeit realistic) budget.

Because of the compressed timeframes and unanticipated challenges throughout the program, there certainly were problems. Miscommunications with some volunteers and groups, were unfortunate, but at the same time not surprising.

In hindsight, better software, more staff, and more time to recruit and nurture volunteers would have made the biggest positive impact. However, of the volunteers that stuck with the program, it appears most of them would like to see it continue and claim they will remain with the program, and as such, that is positive feedback.

StayWarmNH staff estimate about half the volunteers that initially stepped forward to participate in the program never actually fulfilled that goal. Often times it was because of schedule conflicts, that when a major push was scheduled, they had a conflict. Many people did actively want to participate, but because they volunteered individually – without partners or a team leader – StayWarm staff were unable to assign them teams or homes to winterize. Others left the program because it was not organized enough for them. These volunteers missed out on a meaningful experience, and lost some perspective: the homeowners who sought winterization had been waiting many years for services. The complaint that they received information at the last minute – StayWarmNH staff agrees it was a challenge – pales in comparison to those who went without “promised” attention for years. Instead of dwelling on these situations, staff let them go and focused on the work at hand and the volunteers that focused on the positive.

One North Country community started a similar outreach winterization effort to low-income homeowners and volunteers, through the local Welfare Office, Senior Center and NH Catholic Charities. They raised concern that StayWarmNH was undermining their efforts. Several clarifying phone calls tempered the threat they felt and led to some collaboration of volunteers and infrastructure.

Representatives from the North Country were upset that most communications for the initiative happened through email and the internet. They pointed out that many volunteers in the northern communities are older and/or have no access to high-speed internet, thus they were not able to communicate as easily with StayWarmNH staff, and it was difficult for them to register on line. It was nearly impossible for many of them to download the training video, although DVDs for training were provided. Early discussions about the program quickly evolved in directions they

didn't know about: decisions were made early on to eliminate small stipends for the crew leaders, in order to offset their transportation costs. This stipend would have required each person to become a state "employee" and therefore create a lot of paperwork. The would-be volunteers from the North Country remained unaware of this development, and had been promoting that aspect of the program unbeknownst to StayWarmNH staff. In addition, they had expected that the products would be "more significant" than what appeared in the kits, having been involved in the earliest discussions of buffet-style product distribution but not those where that model was scrapped as logistically impossible. They were alienated and angry. In order to address some of these concerns and compensate for missteps, StayWarmNH held a special training event in Littleton that was scheduled two weeks in advance and would allow for in-person registration. The outcome was a disappointing turnout of just two new volunteers.

That issue aside, others from Littleton, Bethlehem, Landaff, and Haverhill winterized 26 homes.

VI. Conclusion

The 2007 NH Weatherization Report

High praise for writers of reports is to be quoted in other reports, signifying that they are read and the information is relevant. In 2007, Michael Blasnik from M. Blasnik & Associates submitted a report to the NH Office of Energy and Planning on the efficacy of the state's weatherization program²⁰. In it, he made a number of recommendations that bear repeating. His report should get the credit for these recommendations, but the StayWarmNH experience leads to the same conclusions.

- Improve energy education for homeowners.
- Improve data management systems at the CAAs.
- Re-evaluate and expand the services, for example: fuel blind eligibility.
- Encourage ownership of energy, requiring homeowners to commit to certain behavior changes in exchange for the free weatherization services.

StayWarmNH's position is unique. A public-private, highly collaborative effort, this initiative can disseminate information and programming at unprecedented levels, if given the opportunity. Additional metrics would be relatively easy to gather if time is provided. Requesting energy-use comparisons for each of the homes receiving services is the next logical step.

American Recovery and Reinvestment Act

New Hampshire's Office of Energy and Planning will be receiving approximately \$59 M through ARRA with the goal to improve energy efficiency in various sectors. Of the total, \$23.2 M will be dedicated to further expand the low-income weatherization programs run by the CAAs. In light of this development, StayWarmNH's efforts now appear relatively insignificant, but they are not. The program helped highlight the need for these services in the state, created buy-in from thousands of residents who previously may not have considered the value of these investments, and funded expansion of services, basically doubling the number of homes that received weatherization services. Accounting requirements under ARRA will challenge the low-income weatherization program as it is currently run, making even more urgent the need for investment in a data management system.

The volunteer and do-it-yourself components of StayWarmNH created a new level of programming that probably will not be funded through ARRA. Even though a number of volunteers for the program have applied to the CAAs to help with the energy auditing and weatherization work, the volunteer component will not employ the thousands of people that ARRA seeks to employ. Additionally, the invested cost per housing unit is quite low, compared to the \$6,500 cap allowed per unit.

Even with this additional funding, it is important to remember that many thousands of homes remain on the waiting list; despite ARRA funding that will address the needs of about several

²⁰ Blasnik Report

thousand of them. A program to reach out to others on the waiting list should be considered, as a bridge until those homeowners move up on the waiting list.

Conclusion

In conclusion, this program has touched many NH residents in meaningful ways, through saving money on energy, through staying warm in the winter, through learning about the hazards of carbon monoxide, through the enhanced community connections. The general sentiment is that StayWarmNH should seek funding to continue next year, albeit with changes.