

# **SKEENA – BVLD WOOD STOVE EXCHANGE PROGRAM**

---

## *Final Report*

PREPARED FOR

**BC Lung Association**  
Vancouver BC

FUNDED BY

**BC Ministry of Water, Land and Air Protection**  
Skeena Region Environmental Quality Section  
Smithers BC

PREPARED BY

**Footprint Environmental Strategies**  
Box 3746 Smithers BC  
Tel: 250 847 1670  
Email: [laurie@footprintbc.com](mailto:laurie@footprintbc.com)

**DECEMBER 14, 2004**

## Table of Contents

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.2	BACKGROUND .....	1
1.2.1	<i>Scope of problem.....</i>	2
1.2.2	<i>Regulatory context .....</i>	2
<b>2</b>	<b>PROGRAM DESCRIPTION .....</b>	<b>3</b>
2.2	TIMING AND BUDGET .....	3
2.3	QUALIFYING APPLIANCES .....	3
2.4	PARTNERS.....	4
2.5	INCENTIVES .....	5
2.6	EDUCATION, PROMOTION AND ADVERTISING SUPPORT.....	5
2.7	RECYCLING.....	6
<b>3</b>	<b>PROGRAM EVALUATION.....</b>	<b>7</b>
3.2	DETAILED EVALUATION OF EXCHANGE COMPONENT .....	10
3.3	RETAIL PARTNERS FEEDBACK.....	11
3.4	TRACKING FORM RESULTS .....	12
3.4.1	<i>Annual fuel use.....</i>	12
3.4.2	<i>Reason for purchase.....</i>	12
3.4.3	<i>How did you hear about this program? .....</i>	13
3.4.4	<i>New system.....</i>	13
<b>4</b>	<b>RECOMMENDATIONS .....</b>	<b>14</b>
4.2	REQUIRED FOR FUTURE COST-EFFECTIVENESS .....	14
4.3	EXPANDED SCOPE RECOMMENDATIONS .....	15
<b>5</b>	<b>NEXT STEPS.....</b>	<b>16</b>

# 1 Introduction

Reducing emissions resulting from wood burning appliances has been identified as a priority goal in the BVLD Airshed Management Plan released on June 30, 2004.<sup>1</sup> Delivery of a wood stove exchange program was recommended as a key strategy for meeting this goal, together with public education programs and local by-laws.

The two main objectives of a wood stove exchange program are:

- To provide meaningful incentives to homeowners to trade in conventional, inefficient, highly polluting wood stoves for cleaner and safer heating systems, including certified high efficiency wood stoves and pellet stoves.
- To raise awareness within the communities and educate homeowners about wood stove emissions and proper wood stove operation.

In February of 2004, Footprint Environmental Strategies submitted a report called “Time to Burn Smarter: Feasibility Analysis and Workplan for a 2004 BVLD Woodstove Exchange Program” to the Ministry of Water, Land, and Air Protection (WLAP). Subsequently, a request for proposals was issued by WLAP to design and deliver an exchange program under the administration of the BC Lung Association. Footprint submitted a proposal and was awarded a contract on June 11, 2004 to deliver and evaluate a program by September 30, 2004. The due date for the final report was amended to reflect the additional time needed by retailers to stock and install new appliances.

This report evaluates the 2004 Skeena-BVLD Wood Stove Exchange program and provides recommendations for improving the cost-effectiveness of future programs.

## 1.2 Background

The Skeena Region of BC covers the northwest third of the province and is characterized by valleys, mountains, rivers, forests and a sprawling coastline. The entire Skeena region is more than 254,000 square kilometres, with a combined population of more than 95,000 people<sup>2</sup>. There are twenty plus communities in the region including municipalities and First Nations communities, stretching from Endako in the east to Queen Charlotte City in the west and Iskut to the north.

---

<sup>1</sup> Full report can be downloaded from [www.bvldamp.ca](http://www.bvldamp.ca)

<sup>2</sup> Adapted from statistics provided at <http://www.nwcc.bc.ca/about/about.htm#Top>

### 1.2.1 Scope of problem

Of the 11,500 homes within the Bulkley Valley and Lakes Area, approximately 7,200 are heating with wood. Of these, an estimated 58% (4,200) are using conventional technology wood burning appliances. Approximately 42% or 3,000 homes are using high efficiency (EPA certified) appliances.<sup>3</sup>

The barriers for owner/operators of inefficient heating appliances to switch over include:

- Lack of financial resources
- Perceived and real lack of financial incentives
- Lack of awareness of availability and/or operating ease of more efficient technologies
- Lack of awareness of the links between health and air quality

### 1.2.2 Regulatory context<sup>4</sup>

Under the Environmental Management Act (formerly the Waste Management Act), the Solid Fuel Burning Domestic Appliance Regulation specifies fine particulate emission limits (EPA emission certified appliances), labeling and testing requirements for new wood stoves, fireplace inserts and factory built fireplaces manufactured in BC, or sold or imported for use in BC. This regulation applies to any appliance manufactured on or after November 1, 1994 that is intended for use or sale in British Columbia. Fines of up to \$200,000 can be levied against manufacturers, wholesalers or retailers of solid fuel burning appliances who are out of compliance.

Local Government Building Bylaws regulate the installation of wood burning appliances. The BC Building Code specifies that a building permit can only be issued for Canadian Standards Association (CSA)<sup>5</sup> approved stoves. CSA approval is stated on the label of the wood stove or in the operator's manual. This safety standard is not an emission certification. Many municipalities within the Skeena region require a building permit before a wood burning appliance can be installed; where this requirement has been waived, municipalities leave it to the insurance agency to verify that safety standards are being met.

Bylaws specifically related to air quality typically cover smoke opacity limits, fuel prohibitions, noxious odours, "no burn" periods, and removal of uncertified appliances upon the purchase and sale of a building. There are no specific bylaws in any of the BVLD communities at this time regulating the use of wood burning appliances. Other BC communities have passed bylaws; for

---

<sup>3</sup> See BVLD Airshed Management Plan, p.8-1. Emission values for wood burning appliances are contained in Appendix H of the same document. These statistics are extrapolated from the provincial wood stove survey, available at [http://wlapwww.gov.bc.ca/air/airquality/pdfs/wood\\_emissions.pdf](http://wlapwww.gov.bc.ca/air/airquality/pdfs/wood_emissions.pdf).

<sup>4</sup> Adapted from BVLD Airshed Management Plan, p.8-2

<sup>5</sup> Canadian Standard (CSA) means the Performance Testing of Solid-Fuel-Burning Stoves, Inserts, and Low Burn-Rate Factory Built Fireplaces CAN/CSA standard published by the Canadian Standards Association. At this time it is CSA 415.1

example, the City of Prince George has a Clean Air Bylaw that prohibits the use of wood burning appliances, except as a sole source of heat, during Air Quality Advisories.

## 2 Program description

After studying the wood stove exchange programs carried out in the Cariboo and Central Okanagan, innovations and modifications were made to meet the specific needs of our region and to maximize available resources. The Skeena-BVLD program differs on three basic levels:

- Program coordination was contracted out since there was no capacity within existing local government or provincial government structures to provide this service
- High level of community input into program design details
- Additional financial incentives of low-interest loans from regional credit unions, waiving of building permit fees and recycling fees, and community draws for additional rebate of \$200.

Focus group sessions were held in Terrace, Smithers, Houston and Burns Lake with key stakeholders to determine program details such as timing, duration, incentives, recycling, qualifying appliances, and promotional support. As a result of these sessions, pilot projects were launched in five communities: Terrace, Hazeltons, Smithers/Telkwa, Houston and Burns Lake. These communities were chosen based on the following criteria:

- Previous contact to reduce communication overhead (i.e. located within scope of BVLD Airshed Management Plan, or hosted Burn It Smart workshops last year)
- Have willing community partners (i.e. retailers)
- Are priority communities for reducing woodstove related emissions within the Skeena Region

Terrace was included due to the support of the Regional District of Kitimat-Stikine for the BVLD Airshed Management Plan (their boundaries take in the Hazeltons) and also to lay the foundation for future air quality related initiatives.

### **2.2 Timing and budget**

Planning and partnership confirmation began June 11<sup>th</sup>, building on preliminary efforts conducted as part of the feasibility study in January. The retail component of our program ran from August 15 to September 15. The determination of these dates was influenced by availability of funding and input from retailers.

A budget of \$24,000 was allocated for the project including coordination and consulting fees, GST on services, promotion and advertising (\$5000), and travel.

### **2.3 Qualifying appliances**

From an administrative point of view, the range of eligible appliances for exchange is affected only by regulations and common sense. From the industry perspective, the range of eligible appliances is also affected by supply, profit margins, and installation requirements. In the interest

of keeping things simple, especially for a pilot project, recommendations provided by suppliers were used to determine appliances that qualified for a rebate.

In general, the program targeted all old technology woodstoves including home-made barrel stoves as well as fireplace inserts. Appliances that are EPA exempt (wood-fired furnaces and outdoor wood-fired boilers) were not included at the suppliers' request.

Replacement appliances included any EPA certified wood stove, pellet stove, and electric stove. Gas appliances and gas, pellet or electric inserts were discounted at the discretion of the retailer. Ineligible new appliances included EPA Wood Inserts and alternative heating systems.

## 2.4 Partners

A significant number of partnerships were created to develop a meaningful incentive and promotional package. The names and contributions of partners are detailed in the table below. It should be noted that due to the timing of the project, we did not have full participation of all suppliers.

Partner Name	Contribution
BVLD Airshed Management Planning Process	Provide input into program incentives and assist with local partnerships and promotions
Ministry of Water, Land and Air Protection	Provide funding for initial feasibility study and program implementation, emissions research and promotional support.
Western Hearth, Patio and Barbecue Association of Canada	Provide advice on setting up program and establishing guidelines.
BC Lung Association	Provide project management and funding administration, as well as input into program design.
Hearth products industry: <ul style="list-style-type: none"> <li>• Local retailers (9)</li> <li>• Suppliers (3)</li> </ul>	Provide discounts on appliances, provide input into program design, and assist with promotions and evaluation.
Regional District of Kitimat-Stikine	Holding yard and transportation for recycling of old stoves and waiving of tipping fees. Participation in program planning and identification of retailers.
Regional District of Bulkley-Nechako	Holding yard and transportation for recycling of old stoves.
Municipalities (5) Burns Lake, Houston <sup>6</sup> , Smithers, New Hazelton, Terrace	Promotional support and waiving of building permit fees where applicable. Telkwa, Granisle and Hazelton do not have retailers but did participate in promotions.
Home insurance brokers (2)	Agencies in Smithers and Terrace provided information on insurance rates related to wood burning appliance certification.
Regional media	BVLD Radio ran PSAs and interviews to promote program. Local newspapers ran ads and editorials.
Wood Energy Technicians of BC and NRCAN (federal government)	Provided free banners, brochures, magnets, decals, and fact sheets.
Bulkley Valley Credit Union Terrace and District Credit Union	Favourable financing options for members.
Richmond Steel Recycling	Provided specifications for how to prepare stoves for recycling and liaised with Regional Districts to ensure existing contracts covered wood stoves. Guaranteed decommissioning of stoves.

<sup>6</sup> Houston does not require building permits for wood burning appliance installation.

## **2.5 Incentives**

The most significant incentive was the discount provided by retailers and suppliers. Discounts ranged from 10% to 15% depending on brand names. We were very lucky to have such strong support by local retailers – a few of them offered discounts on “favourite” brand names even though suppliers chose non-participation.

Additional incentives were offered and promoted as follows:

- Building permit fees waived by participating municipalities (up to \$75 value)
- Low-cost financing by area credit unions (maximum loan of \$5000, interest rate at prime plus 0% for 3 years)
- Annual fuel savings (new appliances burn up to 1/3 less fuel; average cord of wood costs \$100 resulting in \$600 savings on average in first three years)
- Additional \$200 off retail price through a community draw for residents who traded in old stove and received discount

## **2.6 Education, Promotion and Advertising Support**

A comprehensive marketing program was provided before, during and after the retail sale dates as follows:

- Website and Toll-free Hotline
- Information kits for retail and local government partners (all program details, forms and support materials)
- Creation and distribution of posters
- Brochures, leaflets, magnets, video and other promotional material
- Print advertising (Half page ad in the fall fair pullout (appears in the Interior News, Houston Today and Lakes District News) and block ad in classified section of the Terrace Standard and the Bulkley Browser
- Radio Advertising: Public Service Announcements and radio interviews as available
- Bulkley Valley Fall Fair and Houston Tradeshows (displays and handouts, cost-sharing with local retailers)
- Direct Marketing (door to door) for Burn It Smart workshop in Smithers
- Creation and distribution of Skeena-BVLD Wood Stove Exchange brochures with community specific information for each participating community.
- News Releases sent to the Interior News, Houston Today, Lakes District News and the Terrace Standard
- Announcement letters and/or posters sent to local associations and community groups, including Realtors, Chambers of Commerce, Cattlemen’s Association, Insurance Companies, Local Governments, First Nations, Northern Health Authority, Fire Departments, EnerGuide Contractors, Credit Unions, and Community Futures of Nadina.
- Burn It Smart Workshops (November)

## **2.7 Recycling**

Ensuring that inefficient appliances are not re-used in another location is a prime mandate of this program and rebates were contingent on trading in the old appliance. A recycling system for old stoves was arranged with the two Regional Districts and the City of Terrace who operate the local landfills, transfer stations and recycling holding areas as well as with their contractor Richmond Steel Recycling. A memo was sent out to all registered retailers with instructions as follows:

1. Have customer clean out stove (no ashes or other debris).
2. Ensure door is removed. If possible, stockpiling the doors and bring them in for recycling at the end of the program to reduce the risk of salvaging for reuse.
3. Arrange for old stove to be delivered to the scrap metal recycling pile at one of the Regional District facilities (locations and hours were given).
4. **No Salvaging Policy:** Under no circumstances will salvaging be permitted once stoves are delivered to recycling facilities or at any other point in the stove exchange. This program is specifically designed to take old stoves out of circulation. Persons wishing to use stoves for a purpose other than space heating (i.e. planters, BBQs etc) should be directed to the Program Coordinator at 1-877-847-4701.

### 3 Program Evaluation

The following table lays out the project objectives with our strategies and indicators. Our ultimate goal is to replace all old technology woodstoves in the Skeena-BVLD Region by 2010. Evaluation results are based on 4200 stoves in the BVLD area.

Objective	Strategies	Indicators	Results
De-commission old appliances, take them out of circulation	Recycle old stoves; Rebates will not be given without verification of this event.	No. of stoves changed out No. and content of anecdotes about smoking chimneys from targeted neighbourhoods	Total exchanges 35, plus a minimum of 45 additional sales. <sup>7</sup> If we remove Terrace sales, our rate of replacement for Year 1 in the BVLD is 0.57%. <sup>8</sup> Total of 35 stoves avoids 1750 kg of smoke, ash and gaseous compounds in the 2004/05 burn season. <sup>9</sup>
Efficiently target and communicate with homeowners  (communications plan created with key messages and delivery strategy)	<ul style="list-style-type: none"> <li>• Don't focus on mass media but use publicity whenever possible</li> <li>• Be creative in advertising</li> <li>• Piggyback on local events, newsletters and meetings</li> <li>• Use local retailers to distribute communications materials and leaflets</li> <li>• Create "index neighbourhoods" and conduct door to door canvassing.</li> </ul>	Quality and quantity of media coverage  No. of homeowners contacted  Number of phone calls to Footprint office  Number of website hits  Qualitative impressions  "extra" advertising by registered retailers	Media loved the project – lots of good coverage. Unfortunately best coverage came too late in program, and Terrace Standard omitted name of a participating retailer.  <b>Phone</b> calls – approx.30 <b>Website</b> hits – unable to track but based on conversation content, site was mostly used by project partners (retailers, media), other program coordinators and airshed planners, and project team. Used by some residents to look up availability of specific brand names and discounts. <b>Door to door</b> canvassing not done – nobody on project team had time.  Overall, outreach that was done was good with exception of Fall Fair display; retailers were happy with paid advertising and publicity. Frustration over getting information from partners in timely fashion ie. brand names and discounts. "Extra" advertising by retailers was minimal – some retailers did put up booths at local trade shows.

<sup>7</sup> Three of the nine retailers reported selling additional stoves which they attributed to the time of year and the program advertising. One retailer stated that sales tripled over last year's numbers when there was no exchange program.

<sup>8</sup> Calculated by dividing the number of changeouts (35 less 9 from Terrace) by the number of old stoves in the BVLD region (4200) as per the emissions inventory (see p.2).

<sup>9</sup> Calculated using a rate of 50 kg per stove (figure taken from 2002 Cariboo Region wood stove exchange summary report)

SKEENA - BVL D WOOD STOVE EXCHANGE PROGRAM  
FINAL REPORT

Objective	Strategies	Indicators	Results
Provide meaningful incentives to homeowners	Partner with retailers, manufacturers, wood suppliers, local mills, local government and WETT BC to create a suite of short term and long term incentives.	No. and diversity of incentives in the package No. and dollar value of monetary incentives No. and value of non-monetary incentives	Good mix of incentives but non-participation and late registration of some suppliers and retailers compromised effectiveness of rebate. Also, hike in metal prices coinciding with exchange promotion offset savings. Community draws are a good idea but came too late to be properly integrated into program. With more planning it can be used with greater effectiveness next year. Nobody used financing option from Credit Union this year. Free load of wood idea not pursued this year – will be good for future programs to get people into workshops etc.
Raise awareness within communities re: wood stove emissions and proper woodstove operation	Partner with WETT BC technicians and offer Burn It Smart workshops Provide brochures and information on health to local retailers, for display in their shops and at trade shows and local fairs. Creative PSAs for local radio stations	No. of brochures distributed No. of letters and presentation to community groups No. of participants in Burn It Smart workshops Media coverage	Based on number ordered and amount given to retailers for stores and trade show booths, 300 – 500 brochures distributed. All local governments (10) and their respective Councils and Boards received a letter and a presentation; and four chambers of commerce received information about the program. Some cable television coverage as well. Approximately 36 people in total attended 3 Burn It Smart workshops in Burns Lake, Houston, Smithers and Terrace. Houston had a zero turnout although the Chief Administrative Officer (CAO) and a local media reporter did drop in to cover the story and talk with organizers. A promotional program targeting government officials or general audiences backed up this program (i.e. program information sent to all area appliance retailers, local governments and about 30 First Nation contacts). Every newspaper and radio station ran at least one editorial or interview in response to our press release. Paid advertising in alternative publications and locations (Bulkley Browser, NorthWord, classified ads in weekly community newspapers) was very effective. A good foundation for future exchanges and better burn habits has been laid.
Develop a means for repeating program until all old stoves are decommissioned.	Record what we did and create a “Woodstove Exchange Coordinator’s Toolkit” for future coordinators in our region.	Checklist of key elements for a successful exchange. Contact list of key partners. Communications plan.	Using this report, the feasibility study, our project binder, and materials on the website, future coordinators have a giant head start. Checklists, posters, websites, press releases, letters...at least ½ the work for future exchanges is already done. Even with a change in project scope, at least 1/3 of the work is done.

SKEENA - BVLD WOOD STOVE EXCHANGE PROGRAM  
FINAL REPORT

---

Objective	Strategies	Indicators	Results
To reduce cost and effort of setting up future annual exchange programs.	Establish and build partnerships. Link program with compatible community projects and community information centres throughout the Skeena region.	No. and quality of partners No. of community groups and individuals aware and volunteering with program. No. of meetings and information centres that promote woodstove exchange program.	A total of 33 partnerships were formed which can be used again.  Approximately \$300 was spent for every wood stove exchanged or replaced. This number is affected by the number of stoves, the amount of money spent on promotions, and the amount of time spent on planning and administration. <sup>10</sup>  A key link has been established with CFDC Nadina and with the Energy Centre of the North working group. A BVLDAMP education subcommittee is also being formed.

<sup>10</sup> Based on the contractor's total budget of \$24,000 but not including internal WLAP and BC Lung costs. Questions regarding the effectiveness of this "indirect" subsidy have led to a desire to investigate the feasibility and effectiveness of a direct subsidy for future programs. While the idea of direct subsidies were discussed in the planning stages for this program, institutional barriers and legal concerns prevented this strategy from being included in this year's initiative.

### 3.2 Detailed Evaluation of Exchange Component

Nine retailers participated in the program from Terrace, New Hazelton, Smithers, Houston and Burns Lake. Each retailer displayed a program banner (some retailers made their own banners), poster and brochures in their store and at trade shows if they had a booth.

In total 35 stoves were “changed out” during the campaign, which is an average of 4 exchanges per retailer. The number per retailer actually varied from 0 to 10.

Since our data on old technology wood stove is currently limited to the BVLD area, calculations on percentages of old stoves replaced were done by removing Terrace sales. Based on 4200 stoves, our rate of replacement for Year 1 in the BVLD is 0.06%. A total avoidance of 1750 kg of smoke, ash and gaseous compounds in our airshed has been achieved for the 2004/05 heating season.<sup>11</sup>

The following table breaks down the number of exchanges and sales combined that occurred within the Skeena-BVLD region and at each participating store:

<b>West (Hazeltons and Terrace)</b>		<b>Central (Houston and Smithers)</b>		<b>East (Burns Lake)</b>	
<b>Store</b>	<b># of Sales</b>	<b>Store</b>	<b># of Sales</b>	<b>Store</b>	<b># of Sales</b>
Bruce’s Plumbing and Heating	8	Emberson Plumbing and Heating	4	Flying Dutchman	14
Acadia Northwest	2	North Central Plumbing and Heating	32	Burns Lake Building Supplies	9
Terrace Builders Rona	7	Quality Appliance	4		
Aqua Plumbing and Heating	0				
<b>TOTAL</b>	<b>17</b>	<b>TOTAL</b>	<b>40</b>	<b>TOTAL</b>	<b>23</b>

---

<sup>11</sup> Calculated using a rate of 50 kg per stove (figure taken from 2002 Cariboo Region wood stove exchange summary report)

### **3.3 Retail partners feedback**

An evaluation form was distributed to all nine retailers and comments were collected throughout the program. Highlights of retailer feedback are presented below.

- Some customers did not want to let go of their old stoves, as they preferred to keep them for a secondary use rather than trade them in for the 15% discount.
- Calls were taken by retailers in Kitimat and Prince Rupert. The program should be extended to include these communities in the future.
- Some retailers feel it would be good to push for WETT certification of registered dealers, as the correct installation and knowledge of safety is very important.
- Timing was not the best, as many people were just coming back from summer holidays and setting up heating systems was not on the top of their list. Later in the fall, ie October and November would be a better time from the customer point of view.
- Almost all retailers agreed that they will only participate in future programs if all suppliers are on board.
- Funding for future programs may be available through energy efficiency and greenhouse gas reduction programs. We should expand the scope of our program to include any old, low-efficiency appliance and any new, high efficiency appliance or system.
- Wood boilers and wood furnaces specifically should be included in the program.
- There is some appetite to pay a \$75 registration fee up front to cover the costs of extra advertising – this varies by retailer based on this year’s sales.
- It would be good to increase the 15% rebate, but additional rebates will have to come from sources other than industry. The direct subsidy approach is favoured by retailers and resulted in the community draw<sup>12</sup> concept.
- There was mixed feedback on the value of the community draw for increasing upfront exchanges but it should be noted that in-store promotions of this draw was either non-existent or minimal (i.e. fact sheets provided by contractor included community draw information, but customers didn’t necessarily read the fact sheet.)

---

<sup>12</sup> Retailers wanted to know if their direct subsidies would be matched by other project partners. Since this was not possible under existing constraints by either the provincial government or private foundations because of the “direct benefit to a private citizen” as well as to “business owners”, the idea of a community draw was hatched. The community draw concept is to have one draw per community (5 in total for our exchange) where each customer who exchanged a stove is eligible to win and additional \$200. The total of \$1000 came out of the contractor’s promotional budget. Awarding of this prize was contingent on retailers providing names and numbers of exchange customers in a timely manner.

- Government and non-profit funding for this type of project should focus on administration, promotion and education. Sale dates and discount levels should be determined by retailers, manufacturers and suppliers.

### **3.4 Tracking form results**

As part of the responsibility of being a registered retailer, tracking forms had to be completed for each stove sold. The tracking forms included an Emission Reduction Survey which collected information on the amount of fuel burned annually, the reasons for purchasing a new system, how the customer heard about the program, and information on both the old system and the news system. Unfortunately, we were only able to retrieve 20 tracking forms in time for this report.

The delay in tracking form submission is caused by two factors:

- Retailers are too busy for additional paperwork during October and November
- Retailers are still installing stoves and so don't have all the information to complete the forms

#### **3.4.1 Annual fuel use**

Given the low sample size, conclusions about fuel use are not meaningful. However of these twenty respondents, 57 total cords were reported as being burned on an annual basis.

#### **3.4.2 Reason for purchase**

The tracking forms indicated the factors that influenced people to participate in the Wood Stove Exchange Program – these are summarized below. Environment/Health and Efficiency were rated highest. It is reasonable to conclude that the 30 customers (some customers purchased two stoves) are not as challenged by finances as other future customers. In addition, many of the customers are known to the program coordinators and we know that finances are not a major barrier. For this reason, it may be beneficial to consider a two-tier subsidy system if resources are limited and we want to target residents who are most challenged. This might be achievable on a neighbourhood basis.

Reason for Purchase	Respondents (20)	%
Efficiency	13	65
Environment/Health	15	75
Safety	10	50
Money	4	20
Energy	3	15
Aesthetics	4	20
Price	6	30
Convenience	6	30

### 3.4.3 How did you hear about this program?

Method	Number	%
TV	0	0
Poster	0	0
BVLDAMP website or member	1	5
Newspaper ad	9	45
In-store promotion	6	30
Municipal office	0	0
Radio	2	10
Word of mouth	2	10
Trade show	2	10

### 3.4.4 New system

Of the 20 exchanges, 16 were changed out for wood burning appliances, 1 for a pellet stove and 3 were not indicated.

## 4 Recommendations

At the outset of this project, we set a goal of reducing the cost and effort of setting up future annual exchange programs. The coordinators overspent their time allocation by about one-half due to the difficulty of tracking down retailers and retrieving information. At the same time, we were disappointed with the number of exchanges.

The recommendations that follow reflect the contractor's analysis of factors leading to the number of exchanges, as well as feedback from project partners. All recommendations focus on improving cost-effectiveness and emission reduction results.

### **4.2 Required for future cost-effectiveness**

1. Have funding and project team in place 12 to 15 weeks ahead of advertised exchange dates (i.e. if program occurs from March 1 to March 31, project launch should occur December 1).
2. Work closely with suppliers from outset of program to establish exchange dates, qualifying appliances, and discounts. Once all suppliers are on board, approach retailers with the list of suppliers, qualifying appliances and discounts.
3. Streamline amount of paperwork to be completed by retail partners and provide incentives for retailers to submit information on time and with less prompting. For example, a registration fee of \$150 could be charged, with half refundable upon the timely submission of tracking forms.
4. Do not run program in September and October – retailers are too busy with regular sales and installations.
5. Set up displays at trade shows and fall fair – provide “discount coupons” (i.e. 15% off) as advertisements for future exchanges.
6. Wood boiler and wood furnaces should be included in the program. Discussions should be initiated or continued to remove current exemptions from the Solid Fuel Burning Domestic Appliance Regulation.
7. Focus on in-store promotions, newspaper advertising, and trade shows for advertising and increase radio advertising.
8. Repeat community draw with modifications. Modifications might include:
  - running the contest prior to sale dates
  - running the contest during Burn It Smart workshops
  - adding on more cash prizes and also free , properly seasoned firewood.

9. Plan for and deliver the Index Neighbourhood project<sup>13</sup> well ahead of exchange dates (4-8 weeks).
10. Ensure that First Nation Reserves and trailer parks are targeted in future programs for custom-designed programs with input into appropriate marketing, education, incentives and energy-planning.
11. Explore opportunities for direct subsidies, including the concept of a two-tiered subsidy program that dovetails with the Index Neighbourhood project.

### **4.3 Expanded Scope Recommendations**

1. Expand the scope of our program to include any old, low-efficiency appliance (i.e. outdoor boilers) and any new, high efficiency appliance or system. Promotion and education, discounts and specials for appliances not handled by the hearth industry can be arranged with groups that specialize in energy efficiency such as the Energy Centre of the North, the potential new Alternative Energy committee of BVL DAMP, local suppliers, and contractors specializing in energy efficient retrofits (i.e. EnerGuide agents).
2. Invite municipalities and regional districts to contribute financing to improve incentive package. For example, a matching contribution of \$50 for every exchange or a contribution to the “community draw”.
3. Explore opportunities for cost-effectiveness through partnerships with exchange program coordinators in other parts of the province.
4. Extend western boundaries of program service area to include Kitimat and Prince Rupert if there is sufficient demand – including more communities raises administrative costs. Brochures and posters can be sent to two or three strategic partners as an effective but low cost method to include these communities and Terrace retailers can continue to be suppliers.
5. Provide registration discount for WETT certified dealers as an incentive for this certification.
6. Initiate/continue dialogue with local governments and insurance agencies regarding mechanisms to address conflicting mandates of fire protection service, public health, risk management, and safety.

---

<sup>13</sup> The Index Neighbourhood project involves identifying neighbourhoods with a high concentration of smoky stoves. These neighbourhoods are the target of direct marketing as well as providing visual data on the success of our efforts.

## 5 Next Steps

For a future exchange program to be truly cost-effective, all suppliers and retailers must be on board. All indications are that suppliers will only play in the month of March.

### **Option 1: Implement a March 2005 exchange program.**

A March 2005 program is possible with no changes in scope. Minimizing communication overhead time would be essential for a smooth program that at least matches the 2004 results. Funding would need to be place so that a program launch of January 9 could be guaranteed. Two weeks to set up the supplier and retail partnerships and prepare advertising material, followed by a five week lead up promotion period is the absolute minimum amount of time needed for a worthwhile initiative. Recommendations for cost-effectiveness should be incorporated.

### **Option 2: Implement a 2005 education program only and run a replica March 2006 exchange program.**

Run an education and promotion campaign in 2005, and begin planning for a March 2006 program the last week in November. As with Option 1, do not expand scope but incorporate recommendations for cost-effectiveness.

### **Option 3: Implement a 2005 education program only and run an expanded scope March 2006 exchange program.**

Run an education and promotion campaign in 2005. An expanded scope will require more lead in time. An October start will allow us to build new partnerships and explore opportunities for working with other exchange program coordinators to increase cost-effectiveness of common program elements.

### **Option 4: Cancel Wood Stove Exchange Program**

WLAP can cancel support of the exchange program in their work plan. In this case, the responsibility would fall to a community group to organize and fund the project. WLAP could provide technical support and deliver specific program components such as the Burn It Smart workshops and the Index Neighbourhoods project.

### **In all cases: Communicate with partners by January 15<sup>th</sup>, 2005.**

Sending out communications to all of our project partners with program results and our intentions for program repetition before January 15<sup>th</sup> would be mandatory for a 2005 program, and recommended in any event to maintain good relations.