Connecticut River Valley Household Hazardous Waste Management 2013

Upper Valley Lake Sunapee Regional Planning Commission

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Executive Summary

During 2012 and 2013, the Upper Valley Lake Sunapee Regional Planning Commission studied how household hazardous waste was being managed throughout its planning region and down the Connecticut River Valley. Recognizing that interstate 91 in Vermont and instate 89 in New Hampshire are transportation corridors and that towns on both sides of the Connecticut River share a watershed; it made sense to take a larger view of how to best manage household hazardous waste (HHW) properly and efficiently.

The goal of this study is to answer the following six questions:

1. Is UVLSRPC taking full advantage of the opportunities presented by current New Hampshire and Vermont Hazardous Waste Rules?

There is more work that could be done. The UVLSRPC works hard to educate its regional communities about opportunities to reduce HHW costs. Communities could do more to manage HHW at municipal transfer stations in New Hampshire.

Towns could be managing all universal waste at local transfer stations/recycling centers. Universal waste is hazardous waste that has less stringent State and Federal management requirements. Towns could develop programs for the collection and proper management of all the various types of universal waste. For example, many towns in the region are not collecting antifreeze which could reduce cost by diverting this material from more expensive HHW collection.

The commission could also benefit from partnering with nearby Vermont communities such as: Hartford and towns with the Greater Upper Valley Solid Waste District. The State of Vermont does provide more funding and has different rules for managing HHW than in NH. These differences provide an easier permit process for establishing collection centers in VT. The Town of Hartford, VT has a facility that could be used for managing HHW generated throughout the region.

2. Would a Rural Rover program work in the Upper Valley Lake Sunapee Region?

A rural rover program is not recommended for the region. There are a couple rural rover programs in Vermont and none in New Hampshire. A rural rover program is staffed by solid waste district or municipal personnel making brief stops in a number of towns in a day. Although this type of program would increase access to HHW collection services in the smaller towns in the region,

it is not considered a viable option due to safety concerns for personnel who may not be properly trained or do not have the experience to run such an operation.

In Vermont, these programs are subsidized by the State's Agency of Natural Resources. State subsidies are not available in New Hampshire to the same level as they are in Vermont. A rural rover program in New Hampshire would be expensive.

A recommended alternative is to develop "satellite collections" which are similar to the rural rover, but they are operated by trained professionals who set up in a small town and then take materials directly to a consolidation point rather than visiting another location. Developing satellite collection events with an effective advertising campaign seems to be the best option for the region.

3. What are the regulations and training requirements needed to operate an HHW consolidation facility?

The full report provides details on specific training needs for managing a HHW facility in both NH and Vermont. These training requirements are not burdensome.

4. What resources are needed to set-up an HHW consolidation facility?

Developing a permanent HHW collection facility could be a costly endeavor. The final report details the funds needed to establish a consolidation facility. Aside from needing funds, a facility will need a host community, land, trained staff and equipment.

5. Have other regions implemented HHW consolidation facilities and are they successful?

Yes, other facilities have implemented and been successful with their HHW programs. There are a variety of examples outlined in the report that show these success stories. Examples of successful programs can be seen in Goffstown, NH; Wolfeboro, NH; Rutland, VT; and in Chittenden County, VT.

The success of these programs is based on their longevity and ability to continue operating in difficult economic times. It should also be noted that the Goffstown, NH facility has a very low participation rate which may be related to a feeling of its residents that there is no rush to deliver their HHW compared to how they might feel if they could only deliver waste during a limited time frame.

Although the Wolfeboro facility is permitted as a permanent facility, it does not store any materials. Storing collected materials is a primary reason for having a permanent facility to save costs and provide greater access to the public.

6. Should UVLSRPC move forward in developing an HHW consolidation facility?

It would not make economic sense to build and develop a new facility, but the UVLSRPC should move forward in developing a cooperative venture with neighboring communities and involve the Town of Hartford's existing facility.

A permanent center would provide on-going options to residents and small businesses for properly managing the more dangerous wastes generated in the home or business. It would also provide storage for materials gathered that would not fit onto a truck after an HHW collection event.

The UVLSRPC should work with the Town of Hartford, VT to utilize their existing collection center to be used by area residents and small businesses. A partnership with Hartford, VT would require some site improvements/repairs and a memorandum of understanding between the two parties.

This partnership could increase access to proper HHW collection services and could reduce costs. The scenario discussed with the Town of Hartford involved sharing costs between the users and the towns involved.

By establishing a permanent collection option and encouraging towns to collect all universal wastes, costs could be reduced and access increased. The final report shows specifics about the associated regulations, market implications, and operational needs.

Introduction

The Upper Valley Lake Sunapee Regional Planning Commission (hereafter referred to UVLSRPC) is a regional planning commission serving 27 communities in the Connecticut River valley region in Grafton, Sullivan and Merrimack Counties of New Hampshire. For over 10 years, UVLSRPC has been helping its member communities organize one-day household hazardous waste (HHW) collections as well as ongoing universal waste collections. Although turnout for HHW collections remains relatively stable; the costs have steadily risen. This rise in cost is causing more towns to question the value of this program and seek alternatives to traditional management of HHW.

It is UVLSRPC's belief that its current one-day HHW collection programs need to be replaced with a more cost effective and flexible collection program to reflect the changing needs of their member communities. This will allow the removal of the maximum amount of HHW from the municipal solid waste stream with the least amount of expense.

As part of its 2012-2013 Solid Waste Technical Assistance Grant funded by USDA, UVLSRPC allocated resources to conduct a study of its current one-day HHW collections combined with its universal waste programs. In an attempt to impact program effectiveness, the UVLSRPC has partnered with two Vermont Solid Waste Districts along the Connecticut River in its evaluation of HHW management in the Upper Valley region.

The goals of this study were to answer the following 6 questions.

1. Is UVLSRPC taking full advantage of the opportunities presented by current New Hampshire and Vermont Hazardous Waste Rules?
2. Would a Rural Rover program work in the Upper Valley Region?
3. What are the regulations and training requirements needed to operate an HHW consolidation facility?
4. What resources are needed to set-up an HHW consolidation facility?
5. Have other regions implemented HHW consolidation facilities and are they successful?
6. Should UVLSRPC move forward in developing an HHW consolidation facility?

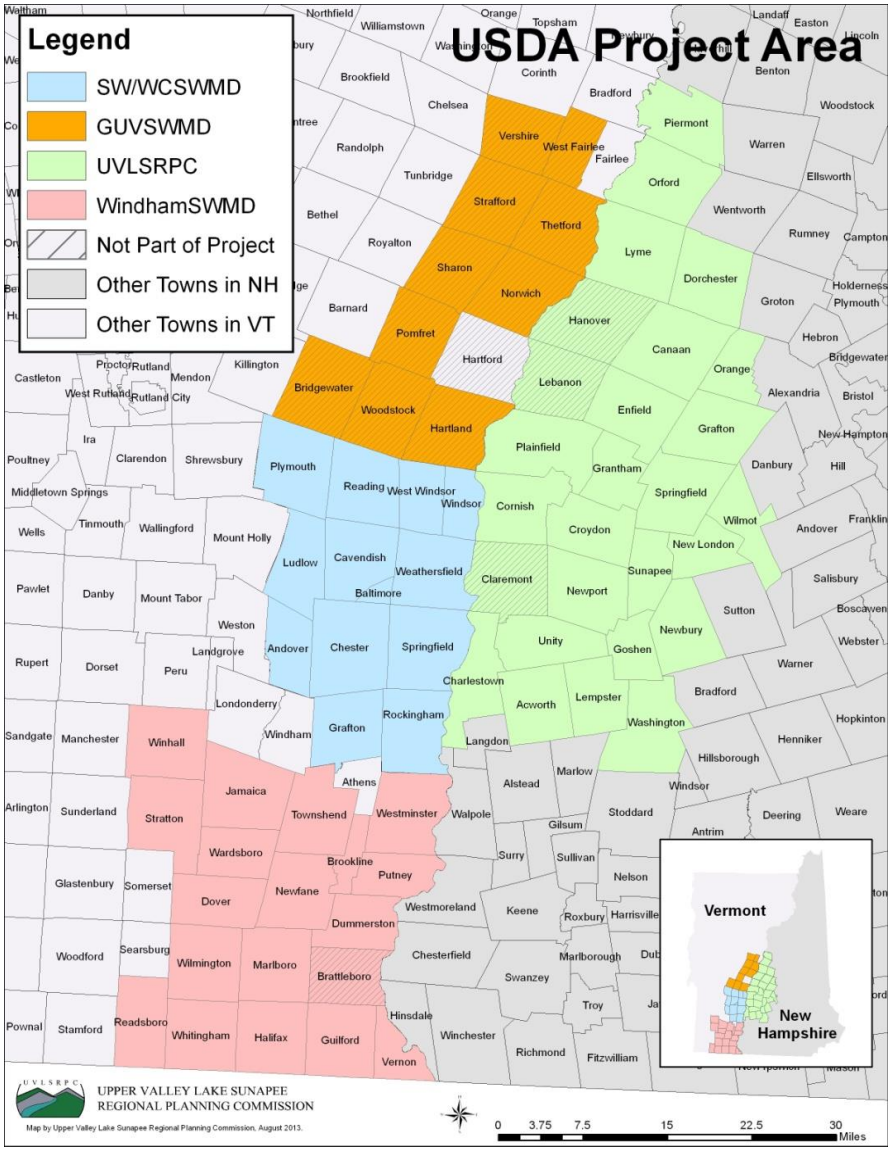
The end result of this study is to provide UVLSRPC with the information needed to implement a long-term management program for HHW in its planning region and participating Vermont Solid Waste Districts. The program should be cost effective, "user-friendly" and provide its residents with an infrastructure capable of removing as much HHW as possible from the municipal solid waste stream from both sides of the Connecticut River.

This report has made every attempt to establish a baseline so that the data provided may be interpreted in a fair and equitable manner. Doing so will hopefully provide UVLSRPC and others the opportunity to compare and evaluate HHW collection programs alongside those that are similar in design and service.

This report has not attempted to compile all the data from the different programs into a totally equivalent form. Instead, points have been chosen believed to be significant in order to provide a valuable comparison.

Service Area

The project service area ranges from Piermont, NH to Brattleboro, VT. Please see the map to the right for specific towns along the Connecticut River, on both sides.



Household Hazardous Waste

Since this project focuses on both New Hampshire and Vermont it is important to define "household hazardous waste" as it relates to both States. It is also important to realize that each community, district and regional planning commission manages HHW in a manner that is unique and works for them.

For this project, we will be using the USEPA's definition of household hazardous waste. According the United States Environmental Protection Agency, household hazardous waste is *leftover household products that contain corrosive, toxic, ignitable, or reactive ingredients are considered to be household hazardous waste Products, such as paints, cleaners, oils, batteries, and pesticides that contain potentially hazardous ingredients require special care when you dispose of them.* This project will also look at management of universal waste materials such as: mercury containing devices, fluorescent lamps, and antifreeze.

Photo of a Municipality's Management of HHW at Local Recycling Center

Current Household Hazardous Waste (HHW) Programs

New Hampshire and Vermont communities spend approximately $0.60/capita for HHW collection services one-day collection events. These funds are used to collect and transport the waste to disposal and recycling sites all over the country and even into Canada.

NH and Vermont HHW Collection Overview

State	Participation Rate	Cost/Participant	Total Participants	Total Cost
New Hampshire*	4.81%	$58.71	91,275	$5,358,755.25
Vermont**	8.87%	$55.90	24,672	$1,379,134.90

*NRRA 2012 HHW Report
**2008 Agency of Natural Resources Survey of HHW in Vermont

These one-day events, serving multiple communities, are the most popular way to collect HHW. According the recent NRRA study on HHW, the UVLSRPC is slightly less than the state average cost per capita (NH average at $0.58/capita and UVLSRPC at $0.57/capita).

According to United States Environmental Protection Agency, the average home generates 15 pounds of HHW annually. Within the UVLSRPC service area, this amounts to an estimated 378,175 pounds of HHW generated annually. Through the RPC's collection programs, an estimated 16% of HHW is collected for proper disposal.

UVLSRPC provides household hazardous waste management services to its member communities. Each year, all communities are offered the opportunity to take part in the one-day HHW collection events coordinated by UVLSRPC. Annually, HHW events are offered throughout the region. The cost per participating household for the UVLSRPC is $39.16. This is low compared to the NH state average of $53.29.

Due to municipal budgetary constraints, not all communities take part every year. A number of communities raise the funds annually to participate while others take part every second or third year. There are a number of small communities that have not taken part in the program for a number of years.

The two Vermont Solid Waste Districts participating in this project include the Windham Solid Waste Management District and the Southern Windsor/Windham Solid Waste Management District. These two districts also offer HHW collection services to their district towns.

Both participating Vermont districts offer one-day collection events for area residents. The Windham district offers collection services at their solid waste/recycling facility in Brattleboro, VT as well as multiple collection locations throughout the year. Collection events in 2010 saw 330 participants. The Windham District also offers rural rover collection services. The rural rover programs are

"mini" collection events that saw 130 participants. The Windham district provides on-going collection of universal wastes, used oil and paint at its Brattleboro facility.

The Southern Windsor/Windham Solid Waste Management District offers its member towns multiple one-day collection events throughout the year. In 2012, these events served 458 households and three small businesses. These events collect a wide range of HHW. Member towns also offer recycling options for universal wastes and used oil.

The Southern Windsor District offers multiple collection events at various locations throughout the district. In 2010, the District provided HHW collection services to 460 residents. The District also encourages member town recycling centers to manage universal wastes on an on-going basis. The cost per participating household was $75.50. This cost is high compared to state averages. Costs for this District could be lowered with better participation.

For all of UVLSRPC's and Vermont district collections, the contractor assumes generator status of the material collected. (This is a contractual arrangement with the vendor. State law still places responsibility on the "host".) Collected materials are segregated and packed by class by the hazardous waste contractor. At the conclusion of the collection, the contractor transports the material back to its company's headquarters where the various types of waste are sorted for recycling or disposal in a special HHW landfill or incinerator.

The goal of this program has been, and continues to be, to provide Upper Valley and district residents an economical means to reduce the amount of HHW entering the solid waste stream and to reduce the threat of illegal dumping and improper disposal methods.

Program Evaluation Results

For the purpose of this study, we will examine the data from UVLSRPC's one-day collections, Vermont district collections and data gathered by the Northeast Resource Recovery Association during their HHW evaluation in 2011-2012. Significant differences exist between Vermont and New Hampshire collection events and at ongoing collection programs. Data analyzed was reviewed and evaluated based on three basic collection methods:

- ✓ One-Day Collection Events
- ✓ On-going Collection Programs
- ✓ Permanent Collection Centers

One-day collection events are the most common method of collecting and disposing of HHW in both New Hampshire and Vermont communities. Many communities rely on regional planning commissions and solid waste districts to organize and manage these events. There are some communities that do "single community" events,

however, these are infrequent due to their relative cost and complexity for just one town.

Costs associated with one-day events include set up fees, labor, supplies and disposal of collected HHW. The average cost per capita for one-day events is $0.60.

Participation rates at one-day events can also be low. Low participation is one reason for evaluating alternatives to these types of events. On-going collection services would aid in reducing the impacts of improper disposal of HHW.

On-going collection programs are found in many communities in New Hampshire and Vermont for some HHW products; classified as universal wastes and used oil. Typical items collected at municipal recycling centers include: fluorescent lamps, rechargeable batteries, mercury containing devices, antifreeze, used oil and paint (in Vermont communities typically). Collecting these waste products at municipal recycling centers on an on-going basis reduces per unit costs and increases access to recycling options.

An example of this can be seen with fluorescent lamps. Lamps collected at HHW events can cost up to $0.50/foot. Lamps collected at municipal recycling centers can be as little as $0.045/foot. That is nearly a tenth of the cost and access is much greater. Communities in New Hampshire and Vermont need to take advantage of collecting universal wastes, used oil and paint to reduce HHW collection costs and increase proper disposal.

Permanent collection centers are found in a few locations in both New Hampshire and Vermont. Communities in New Hampshire that have permanent centers include: Keene, Nashua, Wolfeboro and Goffstown. Solid Waste Districts in Vermont that have permanent centers include: Windham County (paint and universal waste only), Addison County Chittenden, Northeast Kingdom and the Town of Hartford (underutilized permanent collection center). The manner in which these facilities are managed are all different. Some are used to store HHW that is removed from the waste stream, others host collection events at the centers while others take advantage of storage allowances and reduce per unit costs associated with disposal.

Other One-Day HHW Collections:

Androscoggin Valley Regional Refuse and Disposal District

The Androscoggin Valley Regional Refuse and Disposal District (AVRRDD) coordinates an annual one-day HHW collection for its nine member communities, surrounding unincorporated communities and the Town of Shelburne. The District's collection is held annually in the City of Berlin during the month of June. The contractor is responsible for collecting, segregation, packing and consolidating the waste dropped off by residents. At the conclusion of the collection the

contractor transports the material back to its company's headquarters. Wastes are then sorted for recycling or disposal in a special HHW landfill or incinerator.

The population served by AVRRDD program is just under 20,000. The annual participation for AVRRDD collection since 2000 has ranged between .81% and 1.41% on a per capita basis and between 3.71 and 6.29% on a household basis. The participation rate in 2011 was 4%.

Town of Henniker, NH

The Town of Henniker, NH coordinates an annual one-day HHW collection for itself and four neighboring communities (Bradford, Hopkinton, Sutton and Webster). The collection is held at the Town of Henniker's Highway Garage. The service provided is handled by a NH licensed hazardous waste transporter.

The population served under Henniker's program is approximately 15,000. Since 2000 annual participation has been between 1.31% and 3% on a per capita basis and between 3.15% and 4.22% on a household basis . The Henniker program has had an average cost per participant of $61.98.

Comparison of One-Day Collection Programs

Region	Percent of Households Participating	Participating Households
UVLSRPC	3.8%	449
SWWSWMD	3.6%	1,342
WSWMD	1.7%	330
AVRRDD	4.2%	333
Henniker	2.6%	166

One-Day Collection Event General Recommendations

The UVLSRPC's HHW program services a number of communities. This requires multiple collection sites annually. Over the past five years, the UVLSRPC and VT solid waste districts have collected a substantial amount of HHW. The participation numbers and household numbers reported for the UVLSRPC collections do not tell the whole story. Many municipalities in the UVLSRPC region receive HHW year round as "gifts" after hours and deliver the waste during one-day collection events. In actuality, UVLSRPC's per capita and household participation rates may be higher than reported resulting in a lower participant cost. There is currently no

mechanism in place to track the number of people dropping material off at the municipal facilities. Many communities estimate the amount of material that is delivered from facilities during collection events.

There are only two locations in the UVLSRPC region that hold consistent collections. Those locations are Lebanon and the Sunapee region. Vermont districts have held events consistently in the same locations although, Vermont Solid Waste Districts also struggle with communities participating every year.

It is understood that not all towns can participate annually, however, predictable collection locations need to be established. This will have a positive impact on participation rates.

Locations to be considered for one-day collections need to be centrally located. The further away a town is located from a collection site, the lower the participation in the program. Holding collections in communities that are used by others for shopping and other business aid in increasing participation.

The UVLSRPC continues to develop programs that place greater control in the hands of participating communities. The collection of universal waste and paint for recycling are programs that aid at increasing diversion and reducing costs. These efforts should be continued. To monitor these programs, municipal facilities should track resident participation.

In developing new programs, the UVLSRPC needs to consider collection location, historical participation, and overall costs. The UVLSRPC should evaluate its current collection locations and develop a long-term schedule. Residents need to know when and where the collection will be held. This will have a noticeable impact on participation as can be seen in the Henniker and AVRRDD collections.

Ongoing Municipal Collections

Towns have been encouraged to collect materials that are non-acute and easily managed (used oil, oil and latex based paints, fluorescent light bulbs, antifreeze and rechargeable batteries). This provides residents more access to proper disposal options and allows municipalities more control in managing the collected wastes. Ongoing collections can also result in significant savings versus having the same materials disposed of at one-day collection events.

The table below shows 2013 pricing for those materials listed above. Column two shows the costs that would be expected for materials collected at a one-day collection and shipped with UVLSRPC's HHW contractor. Column three shows the costs of recycling the material through a specialized vendor.

HWW Costs* at Municipal Transfer Stations and Optional Pricing – 2013

Material	Cost at Collection Events	Other Options
Used Motor Oil	$105 per 55-gallon Drum	No charge if town uses the material as a fuel source for a municipal building
Anti-Freeze	$105.00 per 55-gallon Drum	$.75 per gallon
Fluorescent Light Bulbs	$.25 per foot	$.045 per foot**
Rechargeable Batteries	$95 per 5-gallon Pail	Free (Batteries 2 lbs or less)

** Costs derived from NRRA – HHW Report 2012*
***NH State Contract*

Paint Collection, Storage and Pickup

Not many communities in New Hampshire, other than permanent centers, are collecting paint. In New Hampshire, towns can legally collect paint; so long as it is going for recycle or is managed as a hazardous waste. There are a number of locations in Vermont that are collecting paint and stains for proper disposal. The rules are slightly different in Vermont and allow this practice. Recently, the State of Vermont has passed Paint Care legislation to set up paint collection locations through out the state.

Towns can use Paint Wranglers (polypropylene or cardboard cubic yard boxes) or 55-gallon drums for storage containers. Residents are asked to drop off their unwanted paint at a specified area of the facility where attendants bulk pack the collected paint cans in the storage containers or pour-off the material into 55-gallon drums.

Latex materials that are bulk packed in wranglers can be recycled. Oil-based materials that are bulk packed can be recycled or shipped for reuse as a fuels blend. Oil-based materials that are poured off into a 55-gallon drum must be shipped for reuse as a fuels blend. How a facility decides to manage its collected paint materials is usually determined by budgetary constraints and available staff.

Note: FUEL is NOT considered recycling in NH. This becomes HW management and is included in the HW generator status.

Used Oil

Like paint, used oil seems to be a material that residents generate more of than other types of household hazardous wastes. Many communities in New Hampshire have implemented used-oil collection programs at their municipal transfer stations. Vermont districts should encourage more collection of used oil at local recycling centers. The major benefit of these programs is that they provide residents year-round access for recycling this waste. A secondary benefit these programs provide is an affordable means to recycle this material as most communities either use the oil as a fuel source (heating a municipal facility) or recycle it through a contractor at no cost. If this material is disposed of at a one-day collection event the disposal costs are $80 or more per 55-gallon drum.

To aid towns in implementing used oil collection programs UVLSRPC encourages towns to apply to the State of NH's Do-It-Yourself Used Oil Collection Center Grants. Through this grant program, NH towns can request up to $2,500 annually to establish or enhance a used oil collection program. Two or more towns, working cooperatively, may apply for up to $5,000 annually.

Fluorescent Light Bulb Recycling

UVLSRPC has worked with its communities to implement fluorescent light bulb recycling programs in order to provide an accessible and convenient means for residents to recycle spent bulbs. Much like paint and used oil, collecting fluorescent lamps at individual transfer stations for recycling saves towns a significant amount of money.

Communities in New Hampshire should take advantage of a State contract for fluorescent lamps. The Northeast Resource Recover Association also offers recycling services at a lower rate than more hazardous waste vendors and collection events.

The State of Vermont has a fluorescent lamp program that allows for free recycling of lamps at participating recycling centers and hardware stores. This service is available to residents and homeowners.

Antifreeze Recycling

Although not as prevalent as leftover paint or used oil, small amounts of antifreeze will be brought to a one-day HHW collection event. With less expensive means

available for recycling this material, UVLSRPC and Vermont districts should begin developing local antifreeze recycling programs. Beginning in 2003, the towns in the Pemi-Baker Solid Waste District in New Hampshire refused to accept this material at their one-day collections. As an alternative, residents were directed to bring the material to their local recycling center where the material was collected for recycling at a later date. This allowed the District to save approximately 70% of the costs it would have incurred if it had this material collected at the one day event.

In 2003, the District recycled 470 gallons of antifreeze at a cost of $317 ($.67/gallon). If this same material had been collected and disposed of at a one-day collection event it would have cost the District $1,125 (nine 55-gallon drums @ $125/drum).

Rechargeable Battery Recycling

For years UVLSRPC and Vermont districts have encouraged its member towns to participate in the Rechargeable Battery Recycling Corporation (RBRC) to promote the recycling of rechargeable batteries. RBRC provides collection boxes for rechargeable battery recycling. Collection boxes are set-up at municipal transfer stations or offices where residents can then dispose of their spent rechargeable batteries. Once the box is full, the individual town seals the box and then drops it off at the nearest United Parcel Service (UPS) pickup location. RBRC pays for the recycling and shipping charges associated with this program – there is no cost to the town. UVLSRPC then provides the town with a new collection box.

UVLSRPC encourages all towns to take part in this program because of the significant cost savings over disposing of these materials at a one-day HHW collection. The same material recycled free of charge through the RBRC program would cost $100 for each 5-gallon pail collected at a one-day event.

Mercury Containing Devices

Mercury containing devices include: thermometers, thermostats and some button cell batteries. There are other mercury devices, however, these are typically found at municipal facilities. These items can be easily collected using 5-gallon pails with proper labeling.

Communities collecting these devices at local recycling centers can expect costs ranging from free (thermostat recycling program) to $50/5-gallon pail. HHW collection events will charge up to $125/ 5-gallon pail. This vendor cost can be expected whether there is one device in the pail or it is full. Ongoing collection allows a community to fill a container and reduce its per unit costs.

On-going Collection General Recommendations

Communities in the service area of this project are currently managing a number of the waste products listed above. Typical wastes collected include: fluorescent lamps, used oil, rechargeable batteries and thermostats. The cost per capita for these services are difficult to quantify, however, as seen in the table above, the cost

to recycle the wastes is far less expensive per unit than managing through a HHW collection event.

Communities that will need additional assistance include: antifreeze, thermometers and used oil (primarily Vermont communities). Antifreeze recycling at municipal recycling centers needs some market development. Many recycling options come with a requirement to purchase the recycled antifreeze product. Some vendors collect antifreeze and manage it as a "flammable liquid"; this practice is not considered recycling in most states.

Thermometers have fallen through the cracks for recycling as well. Thermostats are recycled using an industry-supported program (Thermostat Recycling Corporation). Many universal waste recyclers will accept thermometers along with other mercury containing devices for recycling. The cost is higher than a direct recycling option.

Permanent Household Hazardous Waste Collection Programs

A permanent HHW collection facility is a dedicated facility for handling HHW that is open to the public on a set schedule during the year. An increase in the demand for HHW disposal services, beyond the realm of what one-day collections can provide, has been a major contributor for the increasing setup of these types of facilities. In 1989, only 39 facilities were operating in the US. In 1998, that number had climbed to 529. Cost and permitting of permanent collection facilities make establishing new operations difficult. In 2012, New Hampshire had four permanent collection facilities operating in the State. In Vermont, there are three permanent facilities for collecting HHW on an ongoing basis.

The growth in the number of permanent facilities can be attributed to a number of reasons but perhaps the three most significant reasons are the ability to remove a greater amount of household hazardous wastes from the solid waste stream, more control of program operation and increased demand by residents and small businesses.

This section will review the operations of five permanent HHW collection facilities operating in NH and Vermont. The facilities are located in Keene, Nashua, and Wolfeboro, New Hampshire and Northeast Kingdom's facility and Addison County Solid Waste District in Vermont.

Currently, the Upper Valley region does not have access to an operating permanent HHW collection facility. The Town of Hartford, VT does have a facility but it is not operated as a permanent facility available to the region. It is possible to increase access to collection services by partnering with the Town of Hartford to manage HHW on an on-going basis.

The UVLSRPC surveyed its member towns and participating VT solid waste districts to determine the most favorable location for a possible permanent collection site. The favorable location was loosely based on shopping destinations for each community. As could be guessed, the favorable locations with the project service area are Lebanon/White River Junction; Claremont/Springfield; and the Brattleboro region. There is already a HHW facility in the Brattleboro region at the WSWMD Transfer Station. The Town of Hartford, VT also has a facility that could be upgraded and service the Upper Valley Region. The gap is in the Claremont region.

The site that made the most sense in Claremont was the Wheelabrator Incinerator site. This site was considered because of the presence of on-site, trained staff and the facility management approach. Unfortunately, Wheelabrator has shut this facility down and it hasn't operated since September 2013.

The two existing sites within the region could be updated and improved to increase access to surrounding towns. The State of Vermont, Agency of Natural Resources was contacted regarding New Hampshire residents using a Vermont HHW facility.

Vermont Solid Waste Rules allow for importing of household hazardous waste because it is being transfer out of the state.

When considering improvement to existing facilities, the sites outlined below should be reviewed and visited to better understand the nature of permanent collection center.

It is important to note that the costs associated with permanent centers can be high. There are not only initial construction costs; but also annual operating costs. In New Hampshire, permanent centers are more expensive per capita than the current method employed by the UVLSRPC HHW collection program.

Construction costs will depend on the design and layout of a new facility. To build a simple steel structure to collect and store HHW, based on 2013 construction costs, is estimated at $105,000. This cost would include a steel structure, concrete work, electrical, plumbing and site work.

Operating costs would also be variable and depend largely on the number of staff as well as the number of participants using the facility. Typical operating expenses would be staffing (the largest operating expense and includes a compensation package), utilities (light and water), maintenance, equipment and disposal/recycling expenses. Operating expenses for a 2 FTE facility would be estimated at $150,000.

Operating costs could be reduced by contracting for labor. The UVLSRPC HHW vendor, Clean Venture, provided a quote for operating the Hartford, VT facility. The cost/day is $1,800.00.

Total annual expenses (construction and operating), when amortized for 10 years, is approximately $160,000. For many communities, this expense is very high and a barrier to establishing a permanent site. For this reason, improving existing sites should be considered and further evaluated. Partnering with multiple communities could also reduce costs.

Municipalities that self-transport HHW also stand to save a great deal of money. According to thetruckingreport.com, 2011 trucking costs were $1.38/mile. This estimate includes all staff time, maintenance, fuel and operating costs. Assuming a maximum distance of 50 miles for a municipality to travel, the cost to self-transport would be $138.00 per trip. This cost, is considerably less than site setup costs and transportation costs charged by HHW vendors. Self-transport is a viable option for communities that have vehicles and trained staff.

Drivers of vehicles containing HHW should have specific training associated with transporting HHW. Federal and State DOT regulations specify what is needed. Drivers should understand how to respond in the event of an accident or spill. They should also understand the proper method of loading and securing a load.

City of Keene, NH HHW Program

The City of Keene, NH operates a permanent HHW facility serving between 14 and 20 towns in a given "collection season". Located at Keene's solid waste facility, the HHW facility began operations in the summer of 1999. The total costs for construction and site work were approximately $165,000. The population served by this program is nearly 85,000. The maximum distance any one resident would need to travel from a participating community is approximately twenty (20) miles.

The facility coordinates a total of twenty-four (24) collections per year with collections held on Saturdays and Wednesdays from March through October. Residents may be able to bring material to the facility by appointment if arrangement can be made with the HHW contractor. Keene's HHW contractor, does all the sorting and bulking of HHW brought to the collection site. Waste that is collected may be stored on site up to 90 days before it is picked up for disposal. Keene's facility employees provide assistance with traffic flow, surveys and distribution of public education materials during the collection event.

Participating towns pay a lump sum fixed price based on population or residents pay the City of Keene facility directly. The City does operate a swap shop with the permanent facility with mixed results.

Keene has taken up the issue of liability in regards to having a permanent facility on city property with its attorney. The liability to the City is diminished because they are actively seeking to remove household hazardous waste from the waste stream as opposed to allowing it to be improperly disposed. Regardless, the City does not carry any special liability insurance. Any claims made because of a situation surrounding the permanent facility would be covered under the City's existing insurance policy.

The City of Keene was able to reduce its contract costs by going out to bid for services. This change can be seen in the 2003 spring collections; the average cost per participant dropped nearly 19%.

City of Nashua, NH HHW Program

The City of Nashua constructed NH's first permanent HHW collection facility in 1995. This facility was designed to divert household hazardous wastes from the City's municipally operated landfill. The collection facility is also permitted to accept Small Quantity Generator (SQG) waste.

The out-of-pocket costs for construction of the collection center are estimated at $35,000. The City of Nashua received a $25,000 grant from the EPA to help fund the project. The remaining funds were raised by the City. The $35,000 does not include "in-house" services, such as engineering, surveying, and construction labor, provided by the City.

The Nashua collection facility services twelve communities (Amherst, Brookline, Hollis, Hudson, Litchfield, Merrimack, Milford, Mont Vernon, Nashua, Pelham, and Windham) with a total service population of 212,615. There are three collection events in the spring and three in the fall. The SQG collection event takes place during one of the fall collections.

Events are managed by an employee from the City of Nashua and a designated staff member from the Nashua Region Solid Waste Management District (Nashua Regional Planning Commission). The HHW contractor collects the waste on the day of the events and inspects the facility once a week between events. The HHW facility is housed on the site of the Nashua Streets Department and there is video surveillance on site when City workers are not present on the site.

A variety of contractors have been used (Clean Harbors, Clean Venture, and Veolia). The five (5) collections are held on the 1st Saturday of every month except June, July and September (the June collection is held on Thursday for SQG waste and not in July and September because of the holidays).

The budget is established and approved annually by members of the Nashua Region Solid Waste Management District. The program budget is paid for by a combination of member town dues and a per capita charge. Participants of the collection events are asked to make a donation to offset the costs of managing HHW. Donations do not account for much of the budget.

On behalf of the member communities, the Solid Waste District/NRPC administers the collection events. In 2003, a per event fee was agreed upon with the contractor. The flat fee allows for less complicated budgeting and administration. HHW is only accepted during collection events. The presence of a flat fee for events does not leave room for savings associated with extended storage.

Currently, the facility does not have a swap shop. Organizers of the events are considering a swap shop. However, questions about funding need to be addressed. The contractor is required to maintain insurance that will address accidents related to the collections.

The City's program costs per capita and cost per household are in line with State averages. The program costs are lower than most other permanent collection facilities. This may be due to the fact that Nashua's facility is not managed as a permanent center. The collection events are more like the UVLSRPC's collection programs. Extended storage of HHW is not utilized at the Nashua HHW facility.

Town of Wolfeboro, NH HHW Program

The Lakes Region Household Hazardous Product Facility (LRHHPF) is a joint venture between the Towns of Wolfeboro, Alton and Tuftonboro. It was constructed in 2002 and began operating in 2003. Funding for the construction of the facility came from the NH Department of Environmental Services through a supplement environmental project (SEP). Operating hours for member towns and non-member towns are every third Saturday from 8:30-12:00, May - October. This

facility services nearly 12,000 residents in the Lake Winnipesaukee region of New Hampshire.

The facility is staffed by two paid employees; Site Coordinator and survey personnel (pharmacist, data entry and 2 police officers for medicine collections). These employees complete paperwork, schedule and organize collection events. The HHW contractor provides the on-site hands on work during collections.

The budget is established by the member towns. Annual costs associated with the facility are paid by the member towns (based on users) and contributions from non-member town users. In 2004, the facility handled approximately 4,220 gallons of HHW. The cost for disposal was $18,837.00. In 2011, the LRHHPF collected 26,878 gallons of HHW for a cost of $45,389.00. Material collected during events is placed in lab packs or bulked on site. The facility stores material until containers are full to reduce transportation costs.

The facility purchased a roll-off container, in 2004, to handle emptied paint cans generated during collection events. The facility now accepts cell phones and Ni-Cd batteries. They also provide mailing envelopes for ink jet recycling. Member towns are also considering collecting electronics along with HHW.

This facility continues to provide an on-going option for proper HHW disposal/recycling for communities in the lakes region. Households using the facility are largely from member towns (predominantly Wolfeboro). However, many non-member town residents opt to pay $40.00 for up to 5 gallons and $80.00 for 6-10 gallons. A 10-gallon limit is placed on participants from Tuftonboro due to budgetary constraints.

Northeast Kingdom Waste Management District

The Northeast Kingdom Waste Management District (NEKWMD) serves 34 communities in the Northeast region of Vermont. The total population of the District members is approximately 30,000.

Located in Lyndonville Vermont, the District began operations of its permanent HHW facility in 2001. The District operates the permanent facility by appointment only between June 1st and October 1st including two “open” Saturdays. The District supplements the operations of the permanent facility by conducting one-day collections throughout its geographic area. The one-day collections provide residents whose towns are a considerable distance from the permanent facility an opportunity to properly dispose of HHW. It is estimated that the maximum distance a resident would have to travel to use the permanent facility is 45 miles. In coordinating the one-day collections, the District tries to site the collections so that the maximum distance needed to travel is less than 20 miles.

The District staffs the permanent facility and its one-day collection events with

specially trained employees. This provides a considerable cost savings to the District. Having trained staff can help reduce site set up fees and contractor labor. Wastes collected at the permanent site and the one-day collections are consolidated into drums or waste packs by District staff and stored in the permanent facility until a sufficient amount of material is collected. At that time the District's HHW contractor is contacted to arrange a pickup.

The cost of participating in the HHW program is included in the District dues assessed to each member. Fees are not charged to participants at the time of drop off at either the one-day collections or drop off at the permanent facility.

The District does not operate a formal "swap shop" with the permanent facility. However, the District will redistribute specific items upon request, i.e. a resident is looking for an oil-based primer. In such instance the staff will look through the inventory to find what is requested – residents themselves are not allowed to browse the contents of the facility. In some instances schools or non-profits may request materials as well. No fee is charged for material taken from the facility.

The cost for HHW services at the NEKWMD's HHW facility was nearly $90,000.00. The program is subsidized by a grant ($45,000) from the Agency of Natural Resources – Vermont.

Addison Solid Waste Management District

The Addison County HHW facility is located in Middlebury, VT. The facility serves 31,170 resident from their 19 member towns; approximately 12,495 households.

Residents and conditionally exempt small quantity generators are able to drop off HHW 6 days a week at this facility. There is no cost to residents associated with the service. A $2.00 charge is accessed for disposal of latex paint and/or joint compound. These items can be disposed at the transfer station with regular trash. Small businesses that participate in the program are responsible for the full cost of disposal for their material.

In 2012, Addison County had 308 collection days (Monday through Friday 8AM to 12PM and Saturday 9AM to 12PM). There were 1,338 participants using HHW collection services; yielding a 10.7% participation rate. More than 100 small businesses took advantage of this service as well. Nearly 44 tons of HHW collected at the facility during 2012.

Costs associated with the HHW facility in 2012 included $37,542 in contracted disposal costs. Other costs include advertising for $2,104 and $6,292 in other expenses. This program is also supported by Agency of Natural Resources funds.

Permanent Collection Center General Recommendations

The UVLSRPC service area is quite large and diverse. There are three distinct "centers" within the RPC region; Lebanon, Claremont and New London. Within the project service area there are six "centers" that are major destination locations; the RPC center plus White River Junction, Springfield and Brattleboro. These areas are visited by residents for shopping and employment. If a permanent center is to be constructed, these locations would serve well.

Although permanent collection centers do have greater access for area residents; the cost per capita is quite high. In Vermont, the Agency of Natural supports many HHW programs with grants. Unfortunately, State support is not available in New Hampshire. Many of the New Hampshire facilities were started with State or Federal funds to offset costs and actually came as a result of an enforcement action against a business with the region. The cost to establish a new permanent facility is prohibitive.

Given the high startup cost of establishing a new permanent facility, the RPC should focus on working with the town of Hartford, VT to improve access to the existing HHW facility at the town's RT 5 recycling center.

Final Conclusions and Recommendations

For years, the Upper Valley Lake Sunapee Regional Planning Commission has provided administrative support for HHW collections serving participating communities the region. The UVLSRPC recognizes the need for more regular HHW disposal/recycling options, reducing costs, and decreasing health and environmental impacts associated with improper handling of HHW. With that philosophy, the following conclusions and recommendations are being made.

All of these recommendations are submitted based on the current rules and markets as they pertain to HHW collection and management in NH and VT. Costs laid out in previous sections are based on current year dollar amounts.

Recommendations

1. The service area for the UVLSRPC is large (27 communities). The HHW collection events include member towns and a few non-member towns as well. The project area communities offer this service to many residents annually. These collections take place in between four and eight different locations throughout the region.

The UVLSRPC should work with communities to develop a fixed and predictable schedule for collection centers. For example, fall collections are held on the third Saturday in October at the Lebanon Solid Waste Facility on 12A in West Lebanon, NH. This will allow residents to plan for collections and know when and where they will be. The town of Henniker has used the same location for many years. Participating towns always know that it will be at the Henniker water treatment facility in the fall.

2. With some towns experiencing participation levels below 5 residents, the UVLSRPC should train/inform municipal facilities as to what materials they can collect without additional permits. This could be accomplished in conjunction with the NH Department of Environmental Services, Solid Waste Operator Training Program and VT Solid Waste District workshops/trainings. Towns could handle items such as universal wastes and paint at a much lower cost than to be collected at one-day collection events.

The RPC does provide training workshops and has scheduled a class on "Hazardous Waste Awareness" as part of this project. Other workshops and trainings have included universal waste training, special waste handling and ongoing lunch meetings. Additional training could involve onsite technical assistance to address specific needs such as signage, labeling, storage, direct training and appropriate containers.

3. Outreach to communities is vital. Participation depends on it. Collection events organized by the UVLSRPC and VT Solid Waste Districts in the project area have average to above average participation compared to other NH and VT community

collections. Residents need to know when and where collections will take place. Recently, the Windham District used direct mail postcards to announce a rural collection event in the Brattleboro, VT region. The response was very positive. Direct mailing is costly; however, it is very effective. Trying new techniques to get the word out can aid in increasing participation. Other techniques would include newspaper inserts, ads in regional direct mail catalogs, and Face Book.

Communities in the Connecticut River Valley are growing. This region is a popular place to live and work. This equates to more HHW and more people to inform about programs. It also indicates an increased need for outreach. A proactive and diversified approach needs to be taken in regards to outreach.

Current outreach methods inform residents about upcoming events. In the past, the most effective method of informing residents regarding upcoming collection events has been at municipal recycling centers. Participating communities are expected to also educate residents about proper handling and disposal/recycling options associated with HHW. Unfortunately this can result in misinformation and confusion.

Flyers and brochures have been developed for participating communities to ensure consistency with information. Communities are responsible for distributing educational information to residents.

Hotlines have been used in other communities to educate the public. Many times residents have questions and don't know whom to ask or may have questions that are not answered in flyers and brochures. Residents can call their community, solid waste district or the UVLSRPC for additional information.

Websites can also aid in educating residents. More and more people are turning to the Internet to educate themselves. Towns should either develop web pages, link to other pages (like the UVLSRPC website), or inform residents to visit pages. The UVLSRPC HHW website is an excellent tool that is under utilized. Participating communities should create a link to the UVLSRPC or solid waste district sites. The use of Face Book cannot be underrated. Face Book can reach many people to educate residents about upcoming events for minimal costs.

4. Cooperating with other collection event organizers can increase access to services for homeowners and small businesses. There are other collection events organized region; Androscoggin Valley Regional Refuse Disposal District, the North Country Council, the Town of Hartford, VT, the Greater Upper Valley Solid Waste Management District and the two project partners working on this evaluation (Southern Windsor and Windham Solid Waste Districts). These events use hazardous waste contractors for their collections as well. The UVLSRPC should approach the organizers of these collection events and consider developing a cooperative contract that would service all three entities. This could aid in reducing costs associated with collections for all involved.

Event organizers should also develop an understanding to allow residents from outside their service area to participate. New Hampshire residents can utilize collection events in Vermont, and vice versa, without any need to notify host States.

Collection event organizers that allow this (i.e., the UVLSRPC and Wolfeboro, NH) will sometimes charge non-member town residents to participate at a cost. Allows nonparticipating towns to attend events can help to generate funds for the event.

5. Currently, there are no organized reuse programs for HHW in the service area. Programs such as the City of Keene's have been successful at avoiding disposal. This is also an opportunity to educate the public about the program and proper disposal of HHW.
Reuse programs should be developed within participating communities. These programs should be on going and accessible to residents. UVLSRPC will need to train and inform communities regarding proper management of a reuse program and the liability concerns associated. (i.e., reuse of pesticides in NH would require a license from the NH Department of Agriculture to distribute pesticides.) It will be important to note the significant disposal cost avoidance for reused material.

Many communities employing reuse have started with products such as paints and thinners. Eventually, the program expands to include cleaners and even some pesticides (see Department of Agriculture for permits needed to distribute pesticides).

6. Regular program evaluation is critical. Doing resident and program participant surveys will aid in determining program success. Areas to consider will be cost, participation, amount collected and participant satisfaction.

Once the program has been evaluated, changes can be made and successes publicized. It will be important to use this information to encourage participating towns as to how the program is going.

7. Once the resident programs are established and working well, UVPSRPC and VT solid waste districts should consider working with small quantity generators. As mentioned in the "rules" section of this report, SQGs are required to managed hazardous waste and properly dispose of it. SQGs can use one-day collections for proper disposal. This service should be promoted to small businesses.

Vermont has an allowance for conditionally exempt small quantity generators (CESQG). The rules are comparable to homeowners and encourage small businesses to manage their wastes properly. CESQGs can utilize HHW collection events, some fees may apply.

The UVLSRPC Solid Waste Districts should work with member communities and VT regarding ordinances. Sample ordinances could be created to reflect the refined

HHW program. Ordinances developed could include: fee structures, collection schedules, mandatory separation, and/or allowance of collection of HHW at a municipal facility.

8. Another option includes working directly with other communities to reduce HHW management costs. In 2013, the Town of Canaan, NH began evaluating the possibility of providing HHW collection services to area towns.

The town set aside training funds for employees to provide the service. Canaan also purchased equipment to do on-site collection services for HHW events. Costs are presumed to be less than contractors by using municipal employees and self-hauling HHW to municipal facilities in either Keene, NH or Rutland, VT. The UVLSRPC should "wait and see" if this project works. This may be an option in the future for the RPC and a way to reduce one-day event costs.

9. Developing satellite locations is an option that was piloted in 2013 at Piermont, NH. Satellite collection events would provide increased access to HHW services in rural communities.

The impact of distance on collection event success was shown within the town of Washington, NH. When a collection was held within the town, participation was high. When events were held in neighboring towns (Newport, NH) participation was very low (less than 5 residents attended).

Permanent Collection Center Explanation and Recommendations

Considering the cost of development and construction, a permanent collection center is not recommended for the UVLSRPC planning region at this time. Utilizing the Hartford, VT facility could be an option. The Hartford facility could provide on-going collection options without the need of brick and mortar expenses.

A committee of participating communities should be established. This committee will consider what materials will be collected, cost structure, management of the facility, and address liability issues. The UVLSRPC will work directly with the committee in creating and organizing this part of the HHW program.

Establishing a working operating budget will be key to the project. The UVLSRPC should work with the committee to develop a budget that reflects the goals established.

There are funds available to offset construction costs. These funds include grants and supplemental environmental projects (SEP) monies (see "funding" section for specifics). These are not guaranteed funds, but could be an option.

With a committee, budget and available funds, the RPC will need to investigate potential sites for the collection center. Consider population density, available structures, and staffing when looking at sites. The host community will also have questions on liability and financial responsibility for the facility.

Participating towns will need to be made aware of the proposed changes. Using a memorandum of understanding with participating towns and the town of Hartford would need to be established to define/outline costs and responsibilities. Gaining consensus can be accomplished by keeping towns informed of the facility's progress. Inform communities on a quarterly basis and as deemed necessary as to changes to the program that are coming.

After the first year of operation, the program should be evaluated. Be sure that training is up to date, compliance is maintained, costs are in check, and participants are pleased with the program. Make changes as needed to reflect the goals established by the committee and the UVLSRPC.

Prior to the establishment of a permanent collection center, it will be important to address liability issues associated with the facility. Even though State and Federal regulations identify the generator/transporter as the liable party in the event of a spill or accident, a lawsuit against the sponsoring entity (UVLSRPC, host community, or county) is possible.

Areas that will need to be addressed include: work safety training, proper handling of materials, current insurance coverage, and compliance with State and Federal regulations. With many insurance policies the building, equipment and people employed would be covered. However, the insurance provider may not cover any "pollution" that may occur as a result of spill or mishap at the waste facility. Such is the case with UVLSRPC's current insurance provider the New Hampshire Local Government Center (LGC).

By preventing incidents, liability is reduced. Compliance with regulations, proper training and supervision will be the best protection for the facility and the community. It should be noted that national studies have verified that injuries related to workers at permanent HHW facilities are typically physical, not chemical, workplace hazards.

In New Hampshire, training of staff and volunteers is not only a good idea; it is required according to Env-Wm 508.03 (g)). This rule states that a "*generator shall ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies*".

The specifics of the training are not outlined entirely in the Rules. However, some specifics are provided. These include:

- Telephone numbers of the emergency coordinator (both home and work), the fire department, police department, emergency response team, NH DES emergency response, and any other relevant local emergency contact information.
- Location of fire extinguishers and spill control material

Additional information to be provided during training would include:

- Lifting procedures
- Waste identification
- Labeling of containers
- Storage requirements
- Emergency procedures in the case of a spill or injury

The training provided is also characterized in NH Env-Wm 509.02 (d). The trainer must be an outside hazardous waste trainer or an in-house employee that has completed a hazardous waste management course or provides documentation demonstrating their capabilities as a trainer. In Vermont, a Solid Waste Operator Manual has been developed by the Windham Solid Waste District. This manual should be used to train all staff and volunteers working during collection events and at facilities.

It may be possible to incorporate the collection center into the community's existing insurance policy. It will also be important to understand the current policy and its

limitations. For example, the Local Government Center (LGC) provides many of NH's municipalities with insurance for buildings and employees. However, the LGC will not cover the cost of environmental remediation associated with a spill.

The permanent facility in Wolfeboro did not experience an increase in insurance costs. This was due to a reduced concern regarding HHW incidents at the solid waste facility. In essence, the reduced incident concern covers the increase in building coverage resulting in a $0 change.

The cost of insurance for environmental remediation will be expensive for any community. Prevention of spills and injuries will be the more cost-effective approach. Maintaining compliance and providing training will aid significantly in prevention of spills.

Storage Unit Costs

The cost of a permanent HHW storage unit ranges from $8,000.00-$33,750.00. This range is due to the type and size of structure. The cost of the storage building in Wolfeboro and Nashua was paid for with the help of federal and/or state assistance. The cost to construct a steel building would be considerably higher.

The low cost ($8,000.00) is an estimate for retrofitting an existing building in Goffstown, NH. Goffstown uses an existing structure located at the Recycling Center for storage of HHW. The proposed storage building has the approval of the town's fire chief.

The higher cost ($33,750.00) is for a prefabricated chemical shed. These sheds are equipped with explosion proof lighting, fans, sump shelving, fire rated doors and walls, built-in secondary containment, and all required signage. This is a turnkey operation with some site work required for leveling. These sheds have been used in Keene, Nashua and Wolfeboro.

Construction Costs

Current construction cost estimates are lower than they were a few years ago. In this current economic down turn, many contractors and construction companies are looking for work. This results in a reduction in overall construction costs.

Estimated Construction Costs for One (1) HHW Collection Center

ITEM	COST
Concrete Pad – Building (10x28x6")	$1,240.00
Concrete Pad – Shed (12x12x6")	$750.00
Site Preparation	$2,000.00
Crushed Gravel	$840.00
Water Service	$1,800.00
Electrical Extension	$6,000.00
Access Drive & Parking Area	$4,000.00
Asphalt (Collection Area)	$2,000.00
Chain Link Fence	$6,600.00
Erosion Control (Silt Fence)	$1,500.00
Loam & Seed	$2,000.00
Office Building (12' x 12')	$10,200.00
Pole Structure for Supplies (20' x 20')	$18,000.00
Sub-Total	$56,930.00
20% (Contingency & Inflation)	$11,386.00
Total Construction Costs	**$68,316.00**

Total Estimated Capital Costs for One (1) HHW Collection Center

ITEM	COST
Construction Costs	$68,316.00
Pre-Fabricated Storage Building	$33,750.00
Total Capital Costs	**$102,066.00**

Estimated Annual Operating Costs

ITEM	COST
Annual Bond Payment	$11,000.00
Disposal	$20,000.00
Site Setup Fees	$3,200.00
Labor/Administration	$110,000.00
Telephone	$900.00
Electricity	$3,000.00
Maintenance	$2,500.00
Training	$3,000.00
Total	$150,900.00

This estimate is based on 2 FTE and a Supervisor for the facility. Labor could be reduced by cross training employees to do additional tasks at the site.

On Going Considerations/Recommendations for Improved HHW Management

The following are considerations to be made on an annual basis.

1. Maintain a working relationship with the NHDES HHW Coordinator and the VT Agency of Natural Resources. The State of NH is proposing changes to the Hazardous Waste Rules that could impact the propose program. Changes include storage time limits, quantity thresholds, and training requirements. Vermont has also recently passed Paint Care legislation that will impact NH communities located along the Connecticut River. New Hampshire communities interested in collecting paint for proper handling and/or recycling may contact the Paint Care contractor (phone call with Paint Care, July 3, 2013) New Hampshire is considering similar legislation. The UVLSRPC should support legislation in New Hampshire that encourages better management of HHW.

The NHDES is also continuously adjusting its budget. This impacts the available grant funding in programs such as the HHW grant program and the used oil grant program.

2. Outreach will be an on going need for this program. Using newspaper articles, websites, brochures, postcards and flyers will be the beginning. These methods focus on the residents. Outreach will be needed to address concerns from area Select boards and municipal facility operators. These groups can be kept informed during Council meetings, letters, training workshops, and during technical assistance.

3. The Connecticut River Valley service area provides technical assistance to member communities. The assistance will need to be continued. As the HHW program changes technical assistance will need to be done to inform communities. Staff will also need to work with communities on changes to the State's rules associated with HHW and any market changes the occur that could effect the program.

4. Regular evaluation will aid in keeping program costs down and satisfaction up. Monitoring these aspects of the program will maintain success. Being mindful of new proposed rules changes, market fluctuations, new facilities, and/or new available programs will help keep the program in check.

The NH Department of Environmental Services is reviewing the State's Solid Waste Rules in 2013 – 2014. Comments and proposed changes should be forwarded to the Solid Waste Management Division of NHDES.

5. Staff does an excellent job at maintaining awareness of new and upcoming developments in all aspects related to HHW. This should continue. Time should be

allotted to staff to attend conferences, subscribe to trade journals and maintain necessary licenses and training.

Funding the Costs Associated with Construction/Infrastructure of Managing Household Hazardous Waste

LOCAL FUNDING OPTIONS

As shown earlier, the construction and other costs associated with developing a permanent facility can be significant. Those costs can be shared when a number of communities or a District work together on a project. Potential drawbacks may occur if a town has committed funds initially but some years later decides to withdraw from project cooperative. Other issues might arise as well and could lead to confusion and potential conflicts.

There are many grant programs (federal and state) as well as foundations that could potentially fund a project such as a permanent HHW collection facility. A sampling of possibilities is listed below.

DEPARTMENT OF AGRICULTURE, RURAL UTILITIES SERVICE

Water and Waste Disposal Systems for Rural Communities

Objectives: To provide basic human amenities, alleviate health hazards and promote growth of the rural areas of the nation by meeting the need for new and improved rural water and waste disposal facilities.
Information contact:
USDA Rural Development regional or local offices, or: For information concerning grant applications and procedures: Assistant Administrator, Water and Waste Rural Utilities Service, Department of Agriculture Washington, DC 20250

ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE

Superfund Innovative Technology Evaluation Program (SITE)

Objectives: To establish a comprehensive and coordinated Federal program of research, development and demonstration of the purpose of promoting the development of alternative and innovative treatment technologies that can be used in response actions under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) program and to provide incentives for the development and use of such technologies.
Information Contact:
EPA Regional or Local Offices, or: Requests for assistance, contact: EPA SITE Demonstration and Evaluation Branch, Risk Reduction Engineering Laboratory, 26 W. Martin Luther King St., Cincinnati, OH 45268.

Solid Waste Management Assistance

Objectives: To promote use of integrated solid waste management systems to solve municipal solid waste generation and management problems at the local, regional and national levels.

Information Contact:
Regional or Local Office, or: For information concerning grant applications and procedures, contact: EPA Headquarters Office, Grants Administration Division, PM-216, Washington, DC 20460.
For program information, contact:
EPA Solid Waste management Program, Office of Solid Waste OS-301, Washington, DC 20460.

Supplemental Environmental Projects
Along with Federal grant funding options, funding through a Supplement Environmental Project (SEP) is available. A SEP is an environmental project, approved by the EPA, that is funded in part by fines paid by companies, organizations, or Agencies that are out of compliance with Federal environmental rules.

SEPs are for specific projects with a measurable and definite end. Funding, with the use of a SEP, is not for administrative costs. They are designed to aid in developing solutions associated with the violation.

To be eligible for a SEP, a project proposal should be submitted to the Regional Administrator for consideration. Approved SEPs are held on file until a violation of like nature occurs with the service area of the proposed project.

NH DEPARTMENT OF ENVIRONMENTAL SERVICES

Compliance Assurance Response Policy (CARP):
The legal unit at NH DES has a similar program to EPA. SEPs are available through the Department. A project proposal should be sent to the Department's Legal Unit for approval. The permanent facility located in Wolfeboro, NH was partially funded through a SEP from the Department.

VERMONT AGENCY OF NATURAL RESOURCES

Vermont Solid Waste Districts are the typically used to organize HHW collection events. Some communities do schedule their own, such as the Town of Hartford, VT. These districts use per capita assessments and State and Federal grant funds to pay for collection services.

Grants available to Districts and communities in Vermont are shown below:

- Hazardous Waste Facility Grant – This grant is available to assist municipalities in assessing the impacts of a proposed hazardous waste management facility within the municipality

- Solid Waste Assistance Grants are also available for household hazardous waste programs. See the VT – HHW grant program for details.
- Supplemental Environmental Projects (SEP) may also be available through the Agency of Natural Resources. Projects may be funded due to enforcement actions placed on an entity in the District service area. Contact the solid waste division at ANR for details.

Appendix A: New Hampshire and Vermont Household Hazardous Waste Rules

HHW Rules Impacting the Upper Valley Project Service Area

This project's service area spanned the Connecticut River and addressed HHW issues in both New Hampshire and Vermont. Below is a table that outlines the rules that impact the management of this special waste material.

Vermont	New Hampshire
Satellite Collection	
Mobile HHW/CEG Hazardous Waste Collection Units must meet the requirements of 6-1206(d)(1) and the following requirements (A) The operator of the mobile collection unit must be a permitted hazardous waste transporter when CEG hazardous wastes are collected; (B) The mobile collection unit must return to a solid waste facility certified to support it upon completion of each collection event; and (C) Collected HHW and CEG hazardous wastes may remain in the mobile unit while at the vehicle's support facility for no more than 10 days before it must be transferred to another permitted hazardous wastes transporter, a certified hazardous waste treatment, storage or disposal facility, or to a HHW/CEG hazardous waste collection facility or a semi-permanent HHW/CEG hazardous waste collection unit. All transfers of collected HHW and CEG hazardous wastes to another permitted hazardous waste transporter must occur at a certified facility or a certified collection site.	This is a multiple-town event but, in the case of a satellite collection, the professional hazardous waste hauler only sets up at a single, central site. Surrounding "satellite" towns then use their own staff to collect the HHW and "self-transport" it to the site where the hauler accepts and loads it onto their truck for transport to a disposal facility. This format offers the same service as multiple events but eliminates unreasonable travel time for satellite town residents who would normally have to travel to the central location. This format is also extremely cost effective because it minimizes or eliminates expensive set up fees and overhead costs charged by a professional hazardous waste collection team. This approach does require town staff to be properly trained but DES provides the training to municipalities free of charge.
One-Day HHW Collections	
The Vermont Solid Waste Management Rules (SWMR) authorizes the Secretary of the Agency of Natural Resources (Agency) to allow certain wastes to be collected and stored for up to one (1) day pursuant to an Insignificant Waste Management Event Approval	Throughout New Hampshire, HHW is typically collected using one-day collection events. The relatively low cost of these collections, the

(IWMEA). Section 6-1206 (d)(1) of the SWMR allows household hazardous waste (HHW) and conditionally exempt generator (CEG) hazardous waste collection events to be conducted at sites approved pursuant to Section 6-301(c) of the SWMR.

An IWMEA may only be issued if the Secretary finds that: (1) the collection event(s) will not result in a threat to public health and safety or to the environment, and will not create a nuisance; and (2) if CEG hazardous waste is being collected during the event(s), an EPA Site Identification Number has been assigned to the facility or event location prior to the date of the event(s). An EPA Site ID# must be obtained for any event that includes the collection of CEG hazardous waste. While a permanent EPA Site ID# is required for any such event conducted at a certified Solid Waste Management Facility, a temporary EPA Site ID#, which is active for a period up to six months, may be obtained for CEG hazardous waste collection events conducted at other locations.

A permanent EPA Site ID# may be obtained by submitting a Vermont Hazardous Waste Handler Site ID Form to the Waste Management Division (WMD) at least three (3) weeks prior to the date when CEG hazardous waste is first scheduled to be collected at a certified Solid Waste Management Facility. Any facility that obtains a permanent EPA Site ID# is required to keep an up-to-date Vermont Hazardous Waste Handler Site ID For filed with the WMD.

A temporary EPA Site ID# is obtained from the WMD through the IWMEA application process. If you have questions about how to obtain an EPA Site ID# and/or the Vermont Hazardous Waste Handler Site ID Form, please call (802)479-8741. The Vermont Hazardous Waste Handler Site ID Form, along with instructions, is also available at:
http://www.anr.state.vt.us/dec/wastediv/rcra/handlers.htm

availability of grant funding, and limited requirements makes them attractive for municipalities. One-day collection events can service a number of generators ranging from individual residents to Small Quantity Generators (SQG's). An SQG is defined as an entity generating 220lbs or less of hazardous waste in any one month or it stores hazardous wastes for up to a year under extended storage provisions. It should be noted that the event organizer has sole discretion in allowing SQG's to participate. If an SQG is allowed to participate, it must furnish the hazardous waste vendor a list of all materials prior to the event.

To help encourage one-day collections, permits are not required. Event coordinators are asked to obtain a temporary EPA number from the Reporting and Information Management Section, Waste Management Division at the NH DES (271-6350). This EPA number is assigned to the generator. The generator is responsible for securing the EPA number, which in most cases is the hazardous waste vendor. In addition to the EPA number, some communities may require a local permit for assembly. As a best management practice it is advised that local police and fire personnel are notified of the

event.
When transporting HHW to one-day events, the state does not require residents to obtain any special licenses or permits. Municipalities and SQG's are required to transport hazardous materials in a company or municipal vehicle operated by an employee. All materials must be packed in accordance with US Department of Transportation guidelines (40 CFR). If the amount of materials is greater than 55 gallons, the transporting employee must maintain a solid waste operator's certification and have taken the three-day HHW training course offered by New Hampshire Department of Environmental Services (NHDES). NEED TO VERIFY Certification may be obtained from an authorized training facility outside of NHDES. Although not required, a bill of lading should be with the driver and appropriate placards placed on the vehicle. Any wastes that are destined out-of-state need to be shipped by a licensed hazardous waste transporter. Another key element to hosting one-day collections is most fees associated with hazardous wastes are avoided. Manifested HHW is exempt from the state's $0.03/lb hazardous waste fee as well as the SQG self-

certification fee and EPA Number Notification fee. Out-of-state charges by the hazardous waste transporter are not eligible for exemption.
The relaxed rules imposed by the state for one-day HHW collections provide the greatest opportunity for generators to safely dispose of HHW. Allowing residents, municipalities, and SQG's to self-transport has increased the participation rates of collections held throughout the state.

Paint

A recent law passed in Vermont regarding paint product stewardship will make paint a universal waste as of July 1, 2014. Thus, paint will be able to be managed in accordance with Subchapter 9 "Universal Waste Management Standards".

Latex paint is non-hazardous. Instruct your residents to dry out the liquid in the can and then dispose of it as solid waste. Oil based paint may contain flammable constituents and should be managed as a hazardous waste. Go to www.des.nh.-gov/hhw/PaintTipBrochure.pdf for information on purchasing, using and disposing of household paint.

Applications/Grants

A completed IWMEA application must be submitted to the Solid Waste Management Program at least three (3) weeks prior to the date of collection event. An application, which is specific to the site where an event is to be held, consists of: the application form; a Safety, Accident and Contingency Plan; and a site map. If a submitted application is found to be incomplete, the Agency review will be suspended until all required information is provided. Application may be submitted to Solid Waste Management Program at 103 South Main Street Waterbury, VT 05671-0404. If you have any

Applications for Household Hazardous Waste Collection Grants can be obtained by contacting the Household Hazardous Waste program at the Department of Environmental Services at (603) 271-2047 or hhw@des.nh.gov, or download the application packet from www.des.nh.gov/hhw/hhwgrant.htm. The packet contains the application form, example forms,

questions, please call (802) 479-8731. The application form, along with this Guidance Document, is available at: http://www.anr.state.vt.us/dec/wastediv/solid/permit.htm It is recommended to contact the Permit Specialist assigned to the Region in which the collection event site is scheduled to occur. The Permit Specialist will assist in the identification of any other state permits that may be needed for the event.

and a link to applicable hazardous waste rules, a list of hazardous waste contractors and other useful information. Submit a completed application to the Department of Environmental Services by the grant deadline of February 1. The application must include letters of commitment from all towns participating in the event. DES will mail you an original contract agreement following receipt of your application. A municipal official must complete and sign the contract before having it notarized, and then return it to DES at least 10 weeks prior to the event for processing. The contract must include a notarized Certificate of Authority indicating who has legal right to accept and expend funds under the grant contract. Following approval, your town will be provided a single, signed contract for town files.

Manifest Requirements

A manifest shipping document must be utilized when CEG hazardous waste is transported from a certified Solid Waste Management Facility and when collected CEG hazardous waste is transported from a collection event to a permitted hazardous waste facility. A manifest must be completed and submitted as outlined in the manifest instructions which may be obtained at the following web site: http://www.anr.state.vt.us/dec/wastediv/rcra/manifests.htm

Signed facility copies of the manifests must be received by you in order to ensure you that the wastes collected were received at their final destination for proper disposal. Copies of these manifests must be submitted to DES as part of the HHW Grant Program requirement. For more information on manifests and manifest requirements, log on to www.des.nh.gov/rims/rims_forms.

Additional Reporting

On or before January 15th, the Applicant must submit a completed HHW/CEG Survey Form for any collection events held during the preceding calendar

Major invoices that total greater than 50 percent of the grant amount are required to be

year. The form can be sent to 103 South Main Street Waterbury, VT 05671-0404. This survey information is used to oversee SWIP compliance, evaluate HHW/CEG event participation rates over time to identify waste management trends, to evaluate and consider future SWIP implementation grant funding, and to improve the SWIP/IWMEA process. The survey information is also shared with Vermont's Hazardous Waste Program for the purposes of reconciling manifest information and hazardous waste tax records.

submitted to DES in order to be eligible for the total grant amount. These invoices must be pertinent to the collection and disposal of the HHW, or part of the required public education requirements. All the manifests and invoices will be reviewed and compared and any discrepancies will be noted.

Multiple Collection Events at the Same Site

A single application may be submitted for multiple collection events being held at the same site (on different dates) during a calendar year. The start and end date(s) for each collection event must be identified on the application form.

This format generally consists of a single grant applicant setting up a collection event that allows participation by residents from more than one community and/or collection events offered on several dates throughout the year. This type of collection needs to be organized a little earlier than a one-day event because the hazardous waste hauler will need to schedule a team on multiple dates and at multiple locations throughout the year. Because the combined populations from participating towns are being served, the HHW grant reimbursement is calculated based on the entire participating population rather than only the population of the town where the event is provided. Additionally, multiple events grants are awarded reimbursement at a higher per-capita rate than for a one-day event. All of the events' tasks and responsibilities fall on the grant applicant, although it is not unusual for participating towns to share the workload.

Collection Events at More Than One Site

"Application packages" may be submitted for multiple collection events to be held at different sites. While this is encouraged, each package must include separate applications for each site where an

This is a variation on a multiple event format. In reciprocal events, two or more organizers each organize and provide a collection

event is scheduled to occur.	event or events in their community that is/are accessible to residents in each of the other participating towns. The events are scheduled for different days, throughout the year. This format allows residents access to a variety of collection dates and locations even though the organizational requirements for each applicant are no different than for a one-day event. As with multiple events, this format provides a greater level of service to a greater population than a one-day event and is, therefore, awarded grant reimbursement at the same rate as for multiple events collections.
Contact Person	
The Contact Person is a person who represents the Applicant and may be contacted by the Solid Waste Program for information about an application or planned collection event and to who questions from the public concerning the event may be directed.	This person will be the lead/contact person for the event. This person is usually the recycling coordinator, solid waste or department of public works (DPW) staff member, or a planning assistant. The coordinator makes the key decisions concerning the event and ensures that all aspects of the event are properly administered.
Prohibitions	
Disposing of universal waste & diluting or treating universal waste, except by responding to releases.	Dispose of universal waste or dilute or treat universal waste, except by responding to releases as set forth in Env-Hw 1102.06 or by managing specific wastes as provided in Env-Hw 1109.03, Env-Hw 1111.03, Env-Hw 1113.03, and Env-Hw 1114.03.
Destination Facility	
A facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in § 7-912(d)(3). A facility, at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste.	A facility that treats, disposes of, or recycles universal waste, except those management activities described in Env-Hw 1109 through Env-Hw 1114. The term does not include a facility at which universal waste is only accumulated.

Battery

Means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

There are a number of types of batteries and not all are universal wastes. Since May 13, 1996, household alkaline batteries contain a lesser amount of mercury. These batteries, along with zinc carbon and zinc chlorine batteries may be disposed of in household trash. Batteries listed as universal waste include: nickel cadmium (Ni-Cd), small sealed lead acid, lithium (Li), lead acid motor vehicle batteries. Batteries should be stored in a manner that reduces the chance of a discharge. Lithium batteries discharge rapidly and improper storage has caused fires at solid waste facilities. Electrodes should not be exposed to other electrodes or a metal object. To reduce the risk of hydrogen gas build-up containers storing batteries should not be closed tightly. Broken batteries should be stored separately from unbroken batteries.

Fluorescent Light Ballast

Means a device that electrically controls fluorescent light fixtures (i.e., provides starting voltage and stabilizes electrical current) and that includes a capacitor containing 0.1 kg or less of dielectric material. Manage universal waste PCB-containing fluorescent light ballasts in a way that prevents releases of any universal waste or component of a universal waste to the environment.

Fluorescent lamps contain mercury and a number of other hazardous materials (lead and phosphorus). Facilities collecting fluorescent lamps should store them in a manner that reduces breakage. Broken lamps should be stored separately. If a facility crushes or dismantles fluorescent lamps, a standard permit is required, in accordance with Env-Wm 353.

Mercury Containing Device

Means a device or part of a device (excluding batteries, thermostats, and lamps) that contains elemental mercury necessary for its operation. These items need to be stored in a manner that prevents breakage and release of mercury. Both small and large quantity handlers must manage universal waste mercury containing devices in a way that prevents releases of any universal waste or component of a universal waste to the environment.

Mercury-containing devices include items such as thermostats, thermometers, switches, and relays. These items need to be stored in a manner that prevents breakage and release of mercury.

Pesticides

Means an "economic poison" as defined under 6 V.S.A 911, 10 V.S.A 6602, and 7-103. The term pesticide does not include substances that are new animal drugs in accordance with 201 of the Food, Drug and Cosmetic Act (FFDCA) or animal drugs regulated by the Secretary of Health and Human Services. Both small and large quantity handlers must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment.

Pesticides that have been recalled or suspended under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) can be managed as a universal waste. Communities in the North Country Council planning region consist of more farms and have more pesticides to dispose of. Obtaining an updated list of universal waste pesticides may aid in reducing costs at its one-day HHW collections.

Small Quantity Handler (SQH)

Means a universal waste handler who does not accumulate 5,000 kilograms (11,000 pounds) or more total of universal waste other than CRTs (batteries, pesticides, thermostats, ballasts, lamps, or mercury-containing devices, calculated collectively), and who does not accumulate 36,288 kilograms (40 tons) or more of CRTs, at any time. (7-911)

Accumulates less than 100 kg (220lbs) of hazardous waste per month or one kg of acutely hazardous waste per month (Env-Wm 508).

Large Quantity Handler (LQH)

Means a universal waste handler who accumulates 5,000 kilograms (11,000 pounds) or more total of universal waste other than CRTs (batteries, pesticides, thermostats, ballasts, lamps, or mercury-containing devices, calculated collectively), or who accumulates 36,288 kilograms (40 tons) or more of CRTs, at any time. This designation as a large quantity handler is retained through the end of the calendar year in which either 5,000 kilograms (11,000 pounds) or more total of universal waste other than CRTs, or 40 tons or more of CRTs, is accumulated. (7-911)

Means a universal waste handler who accumulates greater than or equal to 5,000 kilograms, but less than 20,000 kilograms, combined total of universal waste listed in the definition of "universal waste" in Env-Hw 104, on-site at any one time.

Very Large Quantity Handler (VLQH)

Vermont currently does not support Very Large Quantity Handlers.

Means a universal waste handler who accumulates greater than or equal to 20,000 kilograms combined total of universal waste listed in the definition of "universal waste" in Env-Hw 104, on-site at any one

time.

Accumulation Time Limits

Small or Large Quantity generator may not accumulate for longer than a year from the date the universal waste is generated, or received from another handler. One may store the universal waste for a longer than a year if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the bu5rdon of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.
A SQH or a LQH who accumulates universal waste must be able to demonstrate the length of time that the universal waste in the container became a waste or was received.
This can be done in the following ways:
A. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received.
B. Marking or labeling each individual item of universal waste with the date it became a waste or was received.
C. Maintain an inventory system on-site that identifies the date each universal waste became a waste or was received.
D. Maintain an inventory system on-site that identifies the earliest date that any universal waste became a waste or was received.
E. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received.
F. Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.
(7-912)

(a) If accumulating universal waste, a universal waste handler shall:
(1) Not accumulate universal waste for longer than one year from the date the universal waste
becomes a waste or is received from another handler, unless the requirements of (b) below are
met; and
(2) Demonstrate the length of time that the waste has been accumulated from the date it becomes a waste by:
A. Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
B. Marking or labeling each individual item of universal waste with the date it became a waste or was received;
C. Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;
D. Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal
waste became a waste or was received;
E. Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
F. Any other method that clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.
(b) A universal waste handler may accumulate universal waste for longer than one year from the date the universal waste becomes a waste or is received provided that:
(1) The sole purpose of accumulation of such quantities of universal waste is

necessary to facilitate proper recovery, treatment, or disposal; and
(2) The handler provides proof thereof, such as, a letter or contract from a destination facility, confirming the purpose identified in (b)(1), above. A very large quantity handler shall not store universal waste outside within a 100-year floodplain as identified based on the latest Flood Insurance Studies or flood hazard boundary maps prepared by the Federal Emergency Management Agency.

Off-site Shipments

(1) Both small and large quantity handlers of universal waste are prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.
(2) If a small or large quantity handler self-transports universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of 7-913 while transporting the universal waste.
(3) If a universal waste being offered for off-site transportation meets the definition of a hazardous material under 49 CFR Parts 171 through 180, the small or large quantity handler must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180;
(4) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.
(5) If a small or large quantity handler sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the

(a) A universal waste handler shall not send or take universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.
(b) If a handler self-transports universal waste off-site, the handler shall comply with the requirements of Env-Hw 1106 while transporting the universal waste.
(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 through 49 CFR 180, 10-1-07 edition, the handler shall comply with the applicable US DOT regulations under 49 CFR 172 through 180, 10-1-07 edition.
(d) Prior to shipping universal waste to another universal waste handler or to a destination facility, the handler who originated the shipment shall obtain approval from the receiving handler or destination facility.
(e) If the transporter is unable to deliver all or part of the universal waste shipment or if the receiving handler or destination facility rejects all or part of the universal waste shipment, the handler who originated the shipment shall either:
(1) Receive the waste back when notified that the shipment has been rejected; or
(2) Designate an alternate destination facility to which the shipment will be sent and ensure the rejected universal waste is

originating handler must either: (A) Receive the waste back when notified that the shipment has been rejected, or
(B) Agree with the receiving handler on a destination facility to which the shipment will be sent.
(6) Small and large quantity handlers may reject a shipment containing universal waste, or a portion of a shipment containing universal waste received from another handler. If a handler rejects a shipment or a portion of a shipment, the handler must contact the originating handler to provide notification of the rejection and to discuss reshipment of the load. The handler must:
(A) Send the shipment back to the originating handler, or
(B) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.
(7) If a small or large quantity handler receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the Secretary of that shipment, and provide the name, address, and phone number of the originating shipper.

shipped to the designated destination facility.
(f) A universal waste handler who rejects a shipment or a portion of a shipment shall notify the handler who originated the shipment that the shipment has been rejected, and either:
(1) Send the shipment back to the handler who originated the shipment; or
(2) Send the shipment to the destination facility designated by the handler who originated the shipment.
(g) If a universal waste handler receives a shipment containing hazardous waste that is not a universal waste, the handler shall:
(1) Immediately notify the department of the shipment;
(2) Provide the name, address, and phone number of the originating shipper; and
(3) Comply with the applicable requirements of Env-Hw 400 through Env-Hw 800 for managing the hazardous waste.

Tracking Universal Waste Shipments

(1) A small quantity handler is not required to keep records of shipments of universal waste.
(2) A large quantity handler is subject to the following tracking requirements:
(A) Receipt of shipments
A large quantity handler must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:
(i) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;

(a) A large quantity handler of universal waste shall keep a record, which may take the form of a log, invoice, manifest, bill of lading, or other shipping document, of each shipment of universal waste received at the accumulation site.
(b) The record for each shipment of universal waste received shall include the following information:
(1) The name and address of the originating handler from whom the universal waste was sent;
(2) The quantity of each type of universal waste received; and
(3) The date of receipt of the shipment of universal waste.
(c) The records required by (a) and (b),

(ii) The quantity of each type of universal waste received; (iii) The date of receipt of the shipment of universal waste.	above, shall be retained for at least 3 years from the date a universal waste shipment is received. (Same shipment standards apply to VLQH).

Shipments off-site

A large quantity handler must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent must include the following information: (i) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent; (ii) The quantity of each type of universal waste sent; (iii) The date the shipment of universal waste left the facility.	(a) A large quantity handler of universal waste shall keep a record, which may take the form of a log, invoice, manifest, bill of lading, or other shipping document, of each shipment of universal waste sent from the handler to another facility. (b) The record for each shipment of universal waste shall include the following information: (1) The name and address of the universal waste handler, destination facility, or foreign destination to which the universal waste was sent; (2) The quantity of each type of universal waste; and (3) The date the shipment of universal waste left the handler's facility. (c) The records required by (a) and (b), above, shall be retained for at least 3 years from the date a universal waste shipment left the handler's facility. (Same shipment standard apply with VLQH).

Notification

Small Quantity handlers are not required to notify the Secretary of universal waste handling activities. A Large Quantity handler must have sent written notification of universal waste management to the Secretary, and received an EPA ID number before meeting or exceeding the 5,000 Kilogram storage limit. Notification must include: A. Large Quantity handler's name & mailing address B. The name & business telephone number of the person at the LQH's site who should be contacted regarding universal waste	A small quantity handler of universal waste shall not be required to notify the department of universal waste handling activities. (a) Before accumulating greater than or equal to 5,000 kilograms of universal waste, a large quantity handler shall notify the department by submitting to the department a completed New Hampshire notification form as described in Env-Hw 504.02. (b) Notification shall include the following information: (1) The company name of the handler; (2) The mailing address of the handler;

management activities.
C. The address or physical locator of universal waste managed by the LQH.
D. A list of all of the types of universal waste managed by the LQH.
E. A statement indicating that the LQH is either accumulating 5,000 kg or more of universal waste other than CRT's (Cathode ray tubes) or 36,288 kg or more of CRT's at one time and the types of universal waste the handler is accumulating above this quantity.

(3) The street address of the universal waste accumulation site;
(4) A contact person, title, and telephone number;
(5) The name of the company owner;
(6) The name of the property owner of the accumulation site;
(7) Generator classification pursuant to Env-Hw 503, if applicable;
(8) A list of all the types of universal waste to be managed at the accumulation site;
(9) Universal waste handler classification indicating whether a large quantity handler or a very large quantity handler; and
(10) Certification by an authorized company official as to the accuracy of the information provided on the notification form.
(c) A large quantity handler shall submit a notification form in accordance with (a) and (b), above, for each on-site location where universal waste is accumulated.
(d) An EPA identification number shall be issued by the department to a large quantity handler not already possessing an EPA identification number.
(e) The EPA identification number assigned pursuant to (d), above, shall:
(1) Be site specific; and
(2) Remain valid until the handler notifies the department in writing that universal waste is no longer being accumulated on-site.
(f) Unless the handler becomes a very large quantity handler, the designation as a large quantity handler of universal waste shall be retained through the end of the calendar year in which greater than or equal to 5,000 kilograms total of universal waste is accumulated at any one time.
(All the same notification for a VLQH.)

Employee Training

Both small and large quantity handlers must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures,

A small quantity handler of universal waste shall inform all employees who handle or have responsibility for managing universal waste of proper waste handling and

relative to their responsibilities during normal facility operations and emergencies.	emergency procedures appropriate to the type(s) of universal waste handled at the facility.

Sources: New Hampshire Code of Administrative Rules1 Env-Hw 1100 chapter Env-Hw 1100 requirements for universal waste management. Vermont Hazardous Waste Management Regulations Subchapter 9: Universal Waste Management Standards.

Used Oil Defined

"Used Oil" means any petroleum product that has been refined from crude oil (in whole or in part), or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil is a free-flowing liquid at standard temperature and pressure and has a flash point of greater than 100 degrees (F). Used oil includes oils used as lubricants, heat transfer fluids, hydraulic fluids, and for other similar uses, but does not include materials derived from crude or synthetic oils that are fuels (e.g., gasoline, jet fuel and diesel fuel), cleaning agents or solvents (e.g., naphtha or mineral spirits). These materials are subject to regulation under subchapters 1 through 7, as applicable.

As defined in RSA 146-A:2, III, namely "petroleum products and their byproducts of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity and which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term 'oil' shall not include natural gas, liquefied petroleum gas or synthetic natural gas regardless of derivation or source." "Used oil" means any oil that has been refined from crude oil which, through use or handling, has become unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties.

Storage

A) Used oil shall be stored only in containers or tanks specified by subsections (B) through (D) if this section. B) Containers holding used oil shall be managed as follows: 1) Containers shall be kept closed at all times, except when adding or removing oil. 2) A container holding used oil must not be opened, handled, or stored in a manner which may rupture the container or cause a release. If a container begins to leak, the used oil must immediately be transferred from the leak9ing container to a container that is in good condition, or the used oil shall be managed in some other way that complies with the requirements of this section. 3) A container holding used oil must be in good condition. 5) Containers holding used oil must be labeled or marked with the words "Used Oil" or "Used Oil Fuel" as appropriate, such that the label or marking is visible. 6) Containers holding used oil must be stored on an impervious surface. 7) A container holding used oil may be stored out-of-doors only if the container is placed within a structure that sheds rain and snow.

(a) A tank which has been removed shall not be reinstalled for the purpose of oil storage unless it meets all applicable standards for new tanks contained in Env-Wm 1402.18 and Env-Wm 1402.20 at the time the tank is to be installed. Such tanks shall be reinstalled and tested in accordance with this part. (b) If a used tank meets the standards for new tanks, it may be reinstalled for oil storage only after:
(1) A thorough internal and external cleaning and inspection determines that it is free of pinholes, cracks, structural damage, or excessive corrosion; and(2) The tank is determined to be structurally sound by an API or STI certified inspector or a professional engineer with knowledge of tank testing procedures.(c) If a shop-fabricated tank is to be disposed of as scrap, it shall first be tested for vapors, rendered vapor free, if necessary, and punched with holes to make it unfit for storage of liquids.
(d) Tanks or AST systems shall not be reused for the storage of food or potable water.(e) A tank which has been designed

8) A container holding a mixture of used oil and water shall be placed within a structure that protects the container from freezing. C) Underground Storage Tanks (UST's) holding used oil shall be managed as follows: 1) UST holding used oil must be permitted, operated, and maintained in accordance with the Vermont Underground Storage Tanks Regulations. 2) Fill pipes used to transfer used oil into an UST must be marked or labeled to clearly indicate used oil storage. 3) Any residue removed from within an UST system being used (or that was last used) to hold used oil, that is generated as a result of normal operation, maintenance or closure of the UST and that cannot be managed as used oil under this subchapter, must be evaluated to determine if it is a hazardous waste and managed as a hazardous waste when applicable. D) 1) Installed and operated in accordance with Vermont Department of Labor Standards. 2) Clearly marked with the words "Used Oil" or "Used Oil Fuel," as appropriate. 3) Managed in such a manner as to prevent rupture of the tank and to ensure that no release occurs. If a tank begins to leak, the owner or operator must immediately either transfer the used oil from that tank to another tank or to containers that are in good condition, or manage the used oil in some other way that complies with the requirements of this section. 4) If located out-of-doors, equipped with secondary containment as specified in 40 CFR 279.45(e) and (f).

for installation as an underground storage tank shall not be installed or used as an AST.

Tank Standards for New AST Systems.

(a) All new ASTs regulated under this part that do or will contain oil shall:(1) Be constructed of steel; and(2) Meet or exceed the following design or manufacturing standards, as applicable: a. UL 142, for shop-fabricated steel tanks;

b. API Standard 620, for field-constructed, low pressure steel tanks; c. API Standard 650, for shop-fabricated and field-constructed atmospheric steel tanks; d. UL 142 and UL 2080, for fire resistant tanks; e. UL 2085, for protected tanks; f. UL 2245, for below-grade vaults; g. PEI/RP 200, for motor fuel dispensing facilities; h. PEI/RP 300, for vapor recovery systems at motor fuel dispensing facilities; i. PEI/RP 800, for bulk storage plants; and j. API Standard 2610, for AST facilities and terminals. (b) Pursuant to Saf-C 6000, the State Fire Code, all new AST systems shall be located, designed, and installed in accordance with the following requirements, as applicable:(1) NFPA 30A, for AST systems used in the storage of oil at automotive and marine service stations; 2) NFPA 31, for AST systems used in the storage of oil directly associated with on-premise-use heating of the facility, pursuant to RSA 146-E:4; or (3) NFPA 30, for all other AST systems subject to this part.(c) All new ASTs in contact with the ground shall be placed on an impermeable barrier. The integrity of the barrier shall not deteriorate due to exposure to the elements or soil in the presence of oil.(d) Tank barriers shall be constructed of:(1) An impermeable material such as a 60 mil high-density polyethylene or a material of similar or more stringent specifications; or (2) A double bottom with the annular space continually monitored for the presence of leakage in accordance with Env-Wm

	1402.25.(e) Continuous corrosion protection shall be installed in accordance with Env-Wm 1402.20 for any steel or other metal in contact with the ground.(f) Each AST regulated under this part, other than 55-gallon drums having no piping, shall be marked with information regarding the product stored and system specifications, as follows:(1) All lettering shall be at least 2 inches high and shall be painted in a color contrasting with the color of the tank;(2) The appropriate national fire rating system symbol as established by NFPA 704, Identification of the Fire Hazards of Materials for Emergency Response, 2001;(3) The tank number, which corresponds to the tank number identified on the facility registration(s) as described in Env-Wm 1402.05; and (4) The safe fill volume or safe fill height of the tank which corresponds to the height at which the high level alarm is activated, in the same units as indicated on the tank gauge.
Transportation	
(a) This section applies to used oil transporters as defined under 7-802 of this subchapter. (b) With the exception of persons transporting used oil on-site, do-it-yourselfers, used oil generators self-transporting up to 55 gallons of used oil according to the provisions of 7-807(d), and persons transporting used oil pursuant to tolling agreements that meet the requirements of 7-807(e), persons transporting used oil must comply with the following: (1) Used oil transporters shall notify the Secretary of such activity and obtain an EPA identification number using a Vermont Hazardous Waste Handler Site ID Form provided by the Secretary pursuant to the requirements of 7-104 and 7-406(d)(1) and (2). (2) Used oil transporters shall obtain a permit from the Secretary according to the requirements of subchapter 4 of these regulations. (3) Used	(a) Transporters of used oil being recycled shall be subject to all of the requirements for hazardous waste transporters under Env-Hw 600, except that generators transporting up to 110 gallons at a time of their own used oil shall be exempt from complying with Env-Hw 600. Generators transporting their own oil shall comply with (b) and (c), below (b) A bill of lading shall be used for transportation of used oil in accordance with Env-Hw 807.06(b)(13) in lieu of the uniform hazardous waste manifest required by Env-Hw 604, except in cases where used oil is being shipped to another state or jurisdiction that regulate s used oil as a hazardous waste and requires the use of a hazardous waste manifest.(c) A transporter shall keep a copy of the bill of lading for each shipment on file for 3 years from the date of shipment. The 3 year record retention period shall be extended

oil transporters who operate transfer facilities shall comply with the requirements of 40 CFR § 279.45 (Used Oil Storage at Transfer Facilities). (4) Used oil transporters shall comply with all applicable requirements under the U.S. Department of Transportation regulations in 49 CFR Parts 171 through 180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR Parts 171 through 180. (5) Rebuttable presumption for used oil (A) To ensure that used oil is not a hazardous waste under the rebuttable presumption of § 7-805(f), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 parts per million. The transporter must make this determination by: (i) Testing the used oil; or

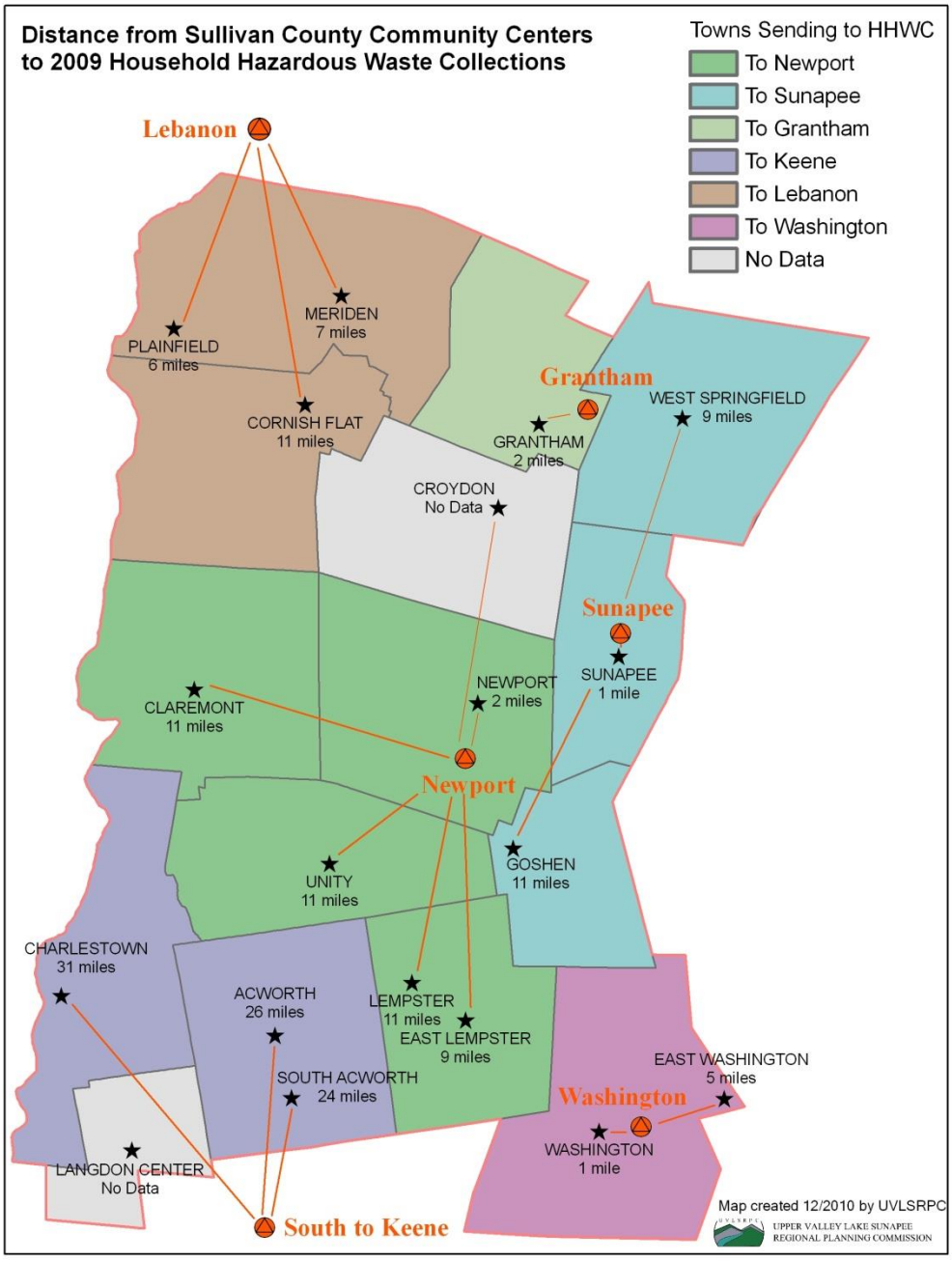
during the course of any enforcement action until such action has been resolved. (d) An annual used oil activity report, which summarizes a transporter's used oil transportation activity during the calendar year, January 1-December 31, shall be submitted by any registered transporter who transported used oil pursuant to this section in that calendar year. (e) The report shall include the following information on a form provided by the department:(1) The name, New Hampshire transporter registration number, and EPA identification number of the transporter; (2) The reporting year; and (3) The total amount of used oil which has been transported within the reporting year, including: a. The total amount of specification used oil; and b. The total amount of off-specification used oil. (f) A responsible company official shall attest in writing to the accuracy of the report. (g) The report shall be submitted to the department by March 1 of the year immediately following the report year.

Sources:

Vermont Hazardous Waste Management Regulations, Subchapter 8: Used Oil Management Standards.

New Hampshire Code of Administrative Rules, Chapter Env-Wm 1400 Petroleum Storage Facilities

Appendix B: Map of UVLSRPC 2009 HHW Collections with Distances


Distance from Sullivan County Community Centers
to 2009 Household Hazardous Waste Collections
Towns Sending to HHWC
To Newport
To Sunapee
To Grantham
To Keene
To Lebanon
To Washington
No Data
Lebanon
MERIDEN
7 miles
PLAINFIELD
6 miles
CORNISH FLAT
11 miles
Grantham
GRANTHAM
2 miles
WEST SPRINGFIELD
9 miles
CROYDON
No Data
Sunapee
SUNAPEE
1 mile
NEWPORT
2 miles
CLAREMONT
11 miles
Newport
GOSHEN
11 miles
UNITY
11 miles
CHARLESTOWN
31 miles
ACWORTH
26 miles
LEMPSTER
11 miles
EAST LEMPSTER
9 miles
SOUTH ACWORTH
24 miles
EAST WASHINGTON
5 miles
Washington
WASHINGTON
1 mile
LANGDON CENTER
No Data
South to Keene
Map created 12/2010 by UVLSRPC
UPPER VALLEY LAKE SUNAPEE
REGIONAL PLANNING COMMISSION