

Household Hazardous Waste Stakeholder Group

November 15, 2017

Prepared by:

**Solid Waste Management Program on behalf of the Household Hazardous Waste Stakeholder Group
Department of Environmental Conservation
Vermont Agency of Natural Resources
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I. Executive Summary

Household Hazardous Waste (HHW) was one of the priority materials recommended by the Beyond Waste Advisory Group for additional management strategies. The Beyond Waste Advisory Group (Advisory Group) was formed following the recommendation of the November 2013 ANR report: *Report to the Vermont Legislature: Act 148 Implementation*, and the statewide Materials Management Plan of 2014, which stated:

ANR will host a stakeholder process over the next year to direct legislative consideration of additional programs to increase diversion of difficult to manage materials and offset the expenses incurred by municipal solid waste districts and taxpayers.

HHW was one of the top materials chosen because of its hazardous nature, its listing in the 2012 Waste Composition Study as still being disposed of in VT landfills and the risk or stress it poses on Vermont's waste (materials) management system and natural resources.

As a result of being one of the top materials chosen by the Beyond Waste Advisory Group, a HHW Stakeholder group was formed in June 2017 to discuss the current state of HHW management system in VT, what is currently working well and what needs improvement and offer a recommendation to the Agency of Natural Resources on how HHW should be effectively and conveniently collected in a manner that is cost-effective for municipalities. The Group was comprised of solid waste haulers, lobbyists, solid waste districts, alliances and towns, hazardous waste contractors, non-profit environmental groups, trade associations and state representatives. (See the [Appendix](#) for meeting notes which include a list of participants).

Three meetings were held during the summer to discuss the following topics:

Meeting One- Why good management of HHW is important and how HHW is currently being managed

Meeting Two- Possible options for future management of HHW

Meeting Three- Prioritize management options and make a recommendation to the Agency

Over the course of the three meetings the group came to a consensus on a model of shared regional HHW facilities distributed throughout the state with possible rural events as the best option to consider and explore further. There was no consensus on the best option of funding to pay for this type of model, but various suggestions for funding were discussed and all agreed the options warranted further consideration.

II. The HHW Stakeholder Group Meetings

Meeting One- Goal of the Group, Why Good Management of HHW is Needed and Current State of Collection

Goal of the HHW Stakeholder Group: to make a recommendation to ANR on how HHW should be effectively and conveniently collected in a manner cost-effective for municipalities

- What does Success Look Like to ANR:
 - Vermonters are aware of risks with HHW, and either reduce use or divert from disposal.
 - There are convenient HHW collection options for all Vermonters.
 - The cost burden to municipalities and state are reduced.

- Over time, there are an increased number of non-hazardous products available to consumers, resulting in a decrease in HHW needing to be managed.

Why Good Management:

Four presentations from a solid waste district, landfill operator, DEC Sites Program staff, and a hazardous waste contractor explained to the group why proper management of HHW is necessary.

- 1.) Addison County Solid Waste Management District presented on the risks HHW poses at home and small businesses including to human and environment health, farms and water quality.
 - HHW hidden in a trash can be a safety hazards to facilities, haulers and workers and an issue for the landfill.
 - Improper storage can lead to site contamination and potential hazards to first responders.
 - Must provide affordable and convenient disposal options to both resident and small business.
 - Need outreach and education to encourage purchasing/using less toxic products.
- 2.) Casella as a landfill and transfer station operator presented on the potential for environmental issues at these facilities.

The landfill/transfer station does not want household hazardous waste for the following reasons:

- Not permitted to take it.
- When someone does dispose of it in their trash, the landfill incurs cost of proper disposal.
- HHW in trash is a safety hazard for transfer station and landfill employees and haulers.
- Leachate that comes back as hazardous waste would require whole tank to be treated as hazardous waste which is very costly.
- HHW spills can shut down facility, be very costly/time consuming/dangerous to remediate. (Example: gasoline tank spill at transfer station took months to clean up and, cost \$10,000.) There is a need to ensure convenient proper disposal options in order to prevent people from trying to hide HHW in their trash rather than wait for event.

Casella sees less HHW in loads than there used to be and attributes that to the success of product stewardship programs for electronics, paint, batteries mercury lamp and thermostats.

- 3.) A DEC Sites staff member presented on the high costs of clean up when HHW is not managed properly and disposed of improperly. Examples included:
 - an improper trash dumpster disposal that led to a large spill clean-up
 - gasoline being disposed of in a drain at a home-based business which contaminated an entire property and cost \$50,000.00 to clean up
 - and a high school lab fire with toxic fumes because of hazardous chemicals being present.
- 4.) A Hazardous Waste contractor, ENPRO, presented on their role in the HHW collection system.
 - Operation of a hazardous waste storage facility in Williston.
 - Hold contracts for operating many of the one-day collection events for municipalities in VT
 - Things that make it difficult and expensive to operate one-day events:
 - They want to assist with HHW collection, but in comparison with business waste- they receive about 3000 drums/month from businesses, etc. (VT, NE, NY) – HHW is small proportion
 - Hard to find staff to work events and high cost of employee training.
 - Saturday HHW event trucks that come in late tie up regular business Monday/Tuesday.
 - Multiple events on the same day throughout state make it a struggle to cover staffing and trucks
 - High Set up fees come from not knowing what participation levels will be and how much waste will be collected. This makes the staffing level unpredictable and because events are on

Saturday, overtime is required. Also, many staff are from out of state so travel and lodging are an added cost.

- It is expensive to pack and ship material. HHW is RCRA exempt, but still hazardous under DOT regulations so needs to be properly packed and shipped.
- One-day collection events pose safety risks with unidentified materials and large bulk drums showing up. Also, event locations are often rural and on dirt parking lots which can make for unsafe operation.

Current State:

Solid waste program staff and solid waste district staff presented on the current management system for HHW in Vermont.

Since 1992, solid waste management entities, SWMEs (districts, alliances and towns) have been required to manage “unregulated hazardous waste” also known as HHW via solid waste implementation plans. The 2001 VT Solid Waste Plan required at least 2 HHW events per year to be offered by each SWME. Some offer up to 20 events per year. There are five permitted HHW facilities (1 seasonal and 4 year-round) and over 70 collection events offered each year spring through fall.

In 2016, it cost solid waste management entities approximately \$1.6 million dollars to collect and manage approximately 1084 tons of HHW in Vermont. The solid waste program awards about \$400,000 in grants. The remainder of the cost is covered by the solid waste management entities. HHW collection tends to be the highest programming costs for many solid waste management entities.

Collection totals of HHW have shown a significant increase- for example 524.5 tons collected in 2013 to 1084 tons collected in 2016. Current participation rates for both HHW facilities and HHW collection events in VT range from .5% to 15% of households per region served. Nationally, 14% is considered a successful participation rate. The regions with permanent HHW facilities tend to have higher participation rates than those with only seasonal HHW events. Because of the toxicity of HHW, there is a need to increase participation in order to prevent it from being disposed of in the landfill or other improper disposal methods such down the drain or toilet. The 2012 VT Waste Composition Study showed that approximately 640 tons of HHW was still being disposed of in the landfill annually.

Three solid waste districts-Lamoille Regional Solid Waste Mgmt. District, Addison County Solid Waste Mgmt. District and Chittenden Solid Waste District presented on specific local costs and use of collection services. The various forms of collection and service included permanent facilities only with no events, permanent facilities with events and events only. Permanent facilities saw an increase in participation when they moved to operation of a permanent facility instead of or in addition to events. Participation rates in general have continued to increase at both permanent facilities and events. The operation of a permanent facility ranges from \$90,000.00 to \$650,000.00 annually. Districts, Alliances and Towns operating only events see costs ranging from \$1500.00 to \$60,000.00 depending on the size of the region served and the number of events. All serve both residents and Conditionally Exempt Generators (small businesses). It was stated that it is important to offer HHW collection for the benefit of public health and to keep HHW out of the trash. One solid waste district commented that they didn’t need state requirements to make them offer collection as they were seeing HHW in the trash that was coming into their transfer stations and knew they needed to divert it for safety, public and environmental health. All agreed that there needs to be education on the reduction of the use of HHW.

It was stated that events pose numerous safety risks and don't offer convenient access. Some districts who currently only offer collection events feel that a switch to access to a permanent facility is needed.

Meeting Two-

The second meeting looked at options for managing HHW and what the needs are.

A summary of the VT Agency of Agriculture Food and Markets Pesticide Program was given by Annie MacMillan. A discussion followed on the funding mechanism for the program.

The group discussed the need for convenient cost-effective options for HHW programming and collection.

A list of initial collection options was provided by ANR staff and group participants added Extended Producer Responsibility to the list. Participants took a non-binding vote on their top choices for a break out group discussion. Participants were asked to set aside funding for this discussion in order to focus on what the most optimal collection system would be.

There were 4 break out groups that discussed the following options:

- Regional facilities with Consolidation for Rural Rover Events managed by SWMEs
- Extended Producer Responsibility (EPR)
- Regional facilities managed by state contract (with private contractor)
- Regional Facilities-
 - managed by SWMEs
 - managed by private contractor
 - state operated

During the break-out group discussion participants considered the pros and cons of the options listed above. Evaluation include participation rates, cost, convenience, incentivization/motivation, safety and efficiency.

Meeting Three-

The group discussed what HHW services should look like and formed a consensus that a model of regional facilities spread throughout the state with possible rural events could provide the most effective collection and convenience. Access to regional facilities would need to not be limited to district, alliance or town regional boundaries but rather access would be shared by all solid waste management entities.

The group discussed population density as a possible method of deciding where to site regional facilities. Though some participants noted that rural areas would still need to be served and geographical boundaries would limit access.

All agreed that whatever funding mechanism is chosen, it would have to ensure fairness to those solid waste management entities who have already invested in HHW infrastructure and also provide equal access and service to all regions.

Permanent facilities noted an increase in collection volumes when they moved from only offering collection events to operation of permanent facility. All discussed the point that a permanent facility with convenient hours of operation increases participation by residents and Conditionally Exempt Generators (small businesses).

Participation rates were discussed. A 14% of households per region participation rate is considered nationally to be optimal participation (meaning all who have HHW to dispose/recycle are being served). The statewide 2016 HHW survey shows that programs operating permanent facilities on average have higher participation rates (12%-15% range) than those with collection events only.

Break out groups discussed the potential for a system of regional facilities with shared access and considered who would pay and would manage. The table below shows some of the main topics for consideration that the group discussed.

Who Manages?	Who Pays?
<ul style="list-style-type: none"> • State RFP – District and/or private sector could bid 	<ul style="list-style-type: none"> • Consumer fee at point of purchase

<ul style="list-style-type: none"> • Not each district – border issue • Build onto existing infrastructure • EPR Plan – Identify needs public/private 	<ul style="list-style-type: none"> • EPR – nonspecific • Unclaimed bottle deposits (\$1.3-1.4M/yr) • Bag fee • Facility user fee • Label fee on Toxic products
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III. Recommendations

The majority of stakeholder meeting participants agreed that the discussion regarding collection of HHW and the work from this stakeholder group should continue. The group came to a consensus that the best option to improve HHW collection would be to have shared regional HHW facilities distributed throughout the state with possible rural collection events and that this option should be explored further.

IV. Conclusions and Next Steps

Conclusions:

- The group has a better understanding of the risks these materials pose in homes and collection.
- All participants recognize it's very costly to manage HHW.
- All participants agreed that a regional facilities model is most attractive.
- There was an agreement that the infrastructure ideally would be without municipal borders that limit access.
- Some participants favored an Extended Producer Responsibility(EPR) funding model.
- There was an informative discussion of what regional facilities might look like, consolidation of material collected, leveraging resources and year -round facility access.
- All agreed funding will be challenging and there was no consensus on how to pay for HHW management.
- These meetings were important for informing various stakeholders in the event the legislature considers any action this upcoming session regarding HHW collection and management.

V. Appendix

Minutes of all HHW Stakeholder Meetings and List of Group Participants

HHW Stakeholder Group Meeting Dates

1. June 22, 2017
2. August 2, 2017
3. September 7, 2017

Meeting 1- Household Hazardous Waste Stakeholders Group Minutes – June 22, 2017

Group Members Present:

Cathleen Gent	Central VT Solid Waste Mgmt. District
Carl Witke	Central VT Solid Waste Mgmt. District
Christy Pion	Town of Lowell
Heather Shouldice	William Shouldice and Associates
John Leddy	Northwest Solid Waste District
Jeff Frederick	ENPRO Services of VT-NRC
Johanna de Graffenreid	VT Public Interest Research Group
Shaina Kasper	Toxics Action Center
Corey Raymond	Northeast Kingdom Waste Mgmt. District
William Driscoll	Associated Industries of VT
Esther Fishman	The Londonderry Group
Allison DeMag	Morris and DeMag
Cheri L'Esperance	William Shouldice and Associates
Erin Sigrist	VT Retail and Grocer's Association
Matt McMahan	MMR

By phone

Representative David L. Deen
House Natural Resources Fish and Wildlife Committee

ANR Staff Present:

Rebecca Ellis	DEC Deputy Commissioner
Cathy Jamieson	Solid Waste Program Manager
John Fay	Solid Waste Program
Rebecca Webber	Solid Waste Program
Dennis Fekert	Solid Waste Program
Karen Knaebel	Solid Waste Program
Mary Clark	Drinking Water and Groundwater Protection Division- Indirect Discharge

Presenters:

Andy Johnson	ENPRO Services of VT- NRC
Don Maglienti	Addison County Solid Waste Mgmt. District
Jen Holliday	Chittenden Solid Waste District
Kim Crosby	Casella Waste Systems
Joyce Majors	Lamoille Solid Waste Mgmt. District
Matt Moran	Sites Management Program
Mia Roethlein	Solid Waste Program

Minutes

- 1:05pm – Rebecca Ellis started the meeting by describing the “2015 Beyond Waste Stakeholder Group” process and that HHW was one of the materials identified as a top priority to be further evaluated
- Cathy Jamieson continued with group introductions, goals for the series of meetings and gave overview of current situation with HHW management.
 - Problem: *HHW is toxic, flammable, or highly acidic/basic; it is very costly for solid waste management entities to collect/manage and we’re not capturing all of it.*
 - Goal: *Group to make a recommendation to ANR on how HHW should be effectively and conveniently collected in a manner cost-effective for municipalities*
 - What does Success Look Like to ANR:
 - *Vermonters are aware of risks with HHW, and either reduce use or divert from disposal.*
 - *There are convenient HHW collection options for all Vermonters.*
 - *The cost burden to municipalities and state are reduced*
 - *Over time, there are an increased number of non-hazardous products available to consumers, result in decrease in HHW needing to be managed*

Presentations

- 1:25pm-
 - **What is HHW and Why good management is important- Don Maglienti, ACSWMD**
Don presented on the risks HHW poses at home and small businesses including to human and environment health, farms and water quality.
 - HHW hidden in trash can be a safety hazards to facilities, haulers and workers and an issue for the landfill.
 - Improper storage can lead to site contamination and potential hazards to first responders.
 - Must provide affordable and convenient disposal options to both resident and small business.
 - Need outreach and education to encourage purchasing/using less toxic products.
 - **Environmental Issues at Landfill- Kim Crosby, Casella**
Landfill does not want household hazardous waste for the following reasons:
 - Not permitted to take it.
 - When someone does dispose of it in their trash, Casella incurs cost of proper disposal. Don’t like to encourage employees to get out and pull out HHW from tipping floor (employee hazard).
 - Leachate that comes back as hazardous waste would require whole tank to be treated as haz waste (very costly).
 - Spills can shut down facility, be very costly/time consuming/dangerous to remediate. (Example: gasoline tank spill, took months, cost \$10,000; asbestos dump-quarantine, contractor, move working face; pool chemicals react with water—looks like fire.)

Need to ensure convenient proper disposal options as people are likely to hide in trash rather than wait for event. Landfill sees less HHW in loads than there used to be: attributes that to success of e-cycles, paint, lamp, battery stewardship programs.
- 1:45pm - **Potential costs of site cleanup -- Matt Moran, DEC Sites Program**
Ways his work interacts with HHW (State hazardous materials team, Spill Response Team, Contaminated Sites Program).
 - High School lab fire with toxic fumes
 - Hazardous materials team and spill team both responded to an elder woman with multiple containers in basement, including picric acid that was crystallized. This can explode if moved so VT State Bomb Squad became involved.
 - Improper Disposal into trash dumpsters leads to bigger clean up issues and costs.
 - If able to identify disposer then they must cover costs. If not, there is some available funding in an Environmental Contingency Fund.
 - Auto garage business at residence with drain going to dry well, gasoline going down drain and migrating to curtain drain, contaminating house. Cost approximately \$50k to clean up.
 - Proper disposal in all situations would have prevented high clean-up costs and health risks.
- 2:10 **HW Contractor’s role in collection system -- Andrew Johnson, ENPRO Services of VT-NRC, Williston**
 - Operate a hazardous waste storage facility in Williston.
 - Hold contracts for operating many of the one-day collection events for municipalities in VT

- Things that make it difficult and expensive to operate one day events:
 - They want to assist with HHW collection, but in comparison with business waste- they receive about 3000 drums/month from businesses, etc. (VT, NE, NY) – HHW is small proportion
 - Hard to find staff to work events.
 - Saturday HHW events trucks that come in late tie up regular business Monday/Tuesday.
 - Multiple events on the same day throughout state make it a struggle to cover staffing and trucks
 - High Set up fees come from: it is a gamble as to how many cars and waste will be collected, staffing level unpredictable, Saturday is overtime, distance from Williston facility (add the travel time to time of event), trucks and fuel. Out of state staff need lodging.
 - High cost of employee training
 - Packing and shipping of material – HHW is RCRA exempt, but still hazardous under DOT regs—needs to be properly packed and shipped (he tries to send 2 trucks to separate out certain materials).
 - One day collection events pose safety risks with unidentified materials and large bulk drums showing up. Best handled onsite by one of their staff.
 - Hard to operate an event well on a dirt parking lot and many event sites are.
 - Bags of trash mixed with HHW pose issue for workers

- Williston Facility tours are available for those interested.

- 2:25pm **Factual Info about current HHW collection system and costs- Mia Roethlein**

- VT Materials Management Plan
 - 1992: SWMEs required to manage “unregulated haz waste” via SWIPs
 - 2001 state SWMP required at least 2 events per year, some offer up to 20
 - 5 permitted HHW facilities (1 seasonal or 4 year-round), over 70 annual events spring-fall
 - SWIP grants offset a portion of costs. State issues about \$400,000/year that can be used towards HHW programming.
 - Permitted facilities have more convenient service hours, able to consolidate materials.
 - One day Events are costly, but convenient for rural.
 - Current participation rate – range from .5% to 8% (15% is considered a successful participation rate nationally.)
 - Want to encourage participation by making access convenient and affordable.
 - As of 2012 Waste Comp study, 640 tons of HHW still being disposed of in landfill annually. 2018 Waste Composition study will show us how much (if any) may still be going into landfill.
 - Need to also consider other improper disposal methods such as down drain or toilet.

 - 2014 Materials Management Plan(MMP) requirements
Increase from 2 to 4 events (over 5 years of the MMP) or access to permanent facility and 15 mile convenience year 4 requirement
 - We are currently in Year 3, access to 3 events or permanent facility.
 - SWMEs can choose to share access to events or facilities with others.
 - Must ensure year-round collection: batteries, lamps, thermostats, 1-20lb propane tanks, electronics, paint, used oil (can refer to private retailers—not needing to be owned, operated by muni)
- Survey of SWMEs re: Amount of HHW collected and collection costs
 - Collection totals are going up significantly (524.5 tons in 2013 to 1084 tons in 2016).
 - Total collection Costs in 2016: \$1,518/ton or \$1,645,832.00 total.
 - HHW collection tends to be the highest programming costs for many SWMEs.

- **Examples of specific local costs and use of collection services**

- **Jen Holliday, CSWD**

- CSWD Environmental Depot serves Businesses 5days/wk by appt and Residents 4 days/wk
- Important to provide service to CEG Businesses as there are options are limited and using a HW contractor directly can be very costly.
- Mobile seasonal collection “Rover” – Rover goes to 16 towns (1x/yr per town). This allows CSWD to bring HHW back to their facility for consolidation and not be dependent on HW contractor to run event.

- 4 full time staff at HHW facility. 400 seasonal hours. Program in place since 1991.
- Combination of roving events and facility is one of most convenient ways to ensure access.
- 40-45% of what is collected is paint so very good that there is a paint stewardship program to offset some costs– but won't typically pay for labor, outreach and education, so doesn't cover all costs of collecting paint.
- Even though paint is highest volume, not necessarily correspondingly largest cost for disposal.
- i.e. some materials are very high to process- one 2-part insulating foam cylinder tank might cost \$300.00.
- Participation rates increasing- close to that 15% = success goal
- Good but less participants would be better if need/use of HHW went down.
- CSWD has \$914,893 budget for FY18. See slides for detail.

Don Maglienti, ACSWMD

- Permanent facility (within Transfer station) opened 2005. Before that, they were doing 22 events per year (very expensive). Started 3 days a week plus Saturdays, have now expanded to 6 days a week, most of day that TS is open.
- Consolidate most of the waste collected. Hire contractors for lab packs and unidentified materials.
- Serve residents and CEG businesses
- Count "special wastes" separately (batteries, etc.) – his graph doesn't include them for continuity
- Participation rate is 15.9% (14,219 households)
- Total costs: \$105,317 see slides for detail.
- Currently do not operate events, but will have to offer some next year to meet 15 mile convenience requirement.

Joyce Majors (Lamoille Regional SWMD) – collection events

- The district offers 2-3 collection events per year, soon to go up to 4 events per year.
- Small event: 20-50 cars. Big event: might be 300 cars in 3-4 hours.
- Mostly in parking lots. Should have good ingress/egress, good signage. Cars could be lined up around block, so need to plan for that.
- Keeping same location, same time of year, people look for it, grateful to have them.
- Might get 4-5 proposals from RFP for HW contractors. Setup can be 1700-2000 or 3200-4000.
- Average disposal cost: \$16,000-\$35,000
- Outreach, admin, trash and recycling roll-offs, equipment rental are all extra costs
- Why collect HHW?
 - Right thing to do.
 - Schools depend on them for cleanouts.
 - Didn't need state requirements to know they needed to collect HHW. It was becoming a blatant issue as they were seeing HHW in trash coming into their 6 Transfer stations.
- Need a permanent facility. Events are not the best way to go for safety and many reasons. Not sure how long the event only scenario can be maintained.
- Need education on reduction.

2:50 Next Steps

Next meeting, Aug 2nd 1-3pm CAPS VT College, Montpelier
 ANR to post on website the agenda, meeting notes, presentations
 Strategies and options in advance so folks can prepare for next meeting's discussion.

Homework:

- Look over information provided today. Will be posted on website.
- Email us any strategies and options you would like considered for the next meetings.

Meeting #2: August 2nd, 1 pm

Purpose: to discuss potential options and strategies for managing HHW

Meeting #3: September 7th, 1pm

Purpose: to prioritize options, make recommendation(s) to ANR

Meeting 2 - Household Hazardous Waste (HHW) Stakeholders Group Minutes – August 2nd, 2017

Group Members Present:

Cathleen Gent	Central VT Solid Waste Mgmt. District
Carl Witke	Central VT Solid Waste Mgmt. District
Christy Pion	Town of Lowell
Jeff Frederick	ENPRO Services of VT-NRC
Shaina Kasper	Toxics Action Center
Corey Raymond	Northeast Kingdom Waste Mgmt. District
William Driscoll	Associated Industries of VT
Esther Fishman	The Londonderry Group
Allison DeMag	Morris and DeMag
Tess Kennedy	William Shouldice and Associates
Heather Shouldice	William Shouldice and Associates
Erin Sigrist	VT Retail and Grocer's Association
Toby Howe	MMR
Annie Macmillan	Agency of Agriculture
Kim Crosby	Casella Waste Systems
Don Maglienti	Addison County Solid Waste Mgmt. District
Jennifer Holliday	Chittenden Solid Waste District

By phone

Representative David L. Deen	House Natural Resources Fish and Wildlife Committee
Greg Noyes	Town of Canaan
Joyce Majors	Lamoille Regional Solid Waste Mgmt. District
Jim O'Gorman	Rutland Solid Waste District
Bob Vahey	Town of Hartford
Pam Clapp	Solid Waste Alliance Communities

ANR Staff Present:

Rebecca Ellis	DEC Deputy Commissioner
Chuck Schwer	Waste Mgmt. and Prevention Division Director
Cathy Jamieson	Solid Waste Program Manager
John Fay	Solid Waste Program
Rebecca Webber	Solid Waste Program
Marissa Porcellini	Solid Waste Program Intern
Mary Clark	Drinking Water and Groundwater Protection Division- Facilitator

Minutes

1:05pm – Cathy stated the goal of this group and provided a Meeting One summary.

- Reminder that the goal of this HHW Stakeholder Group is: to make a recommendation to ANR on how HHW should be effectively and conveniently collected in a manner cost-effective for municipalities

- What does Success Look Like to ANR:
 - Vermonters are aware of risks with HHW, and either reduce use or divert from disposal.
 - There are convenient HHW collection options for all Vermonters.
 - The cost burden to municipalities and state are reduced
 - Over time, there are an increased number of non-hazardous products available to consumers, resulting in a decrease in HHW needing to be managed

Meeting 1 discussed how much it costs to manage this waste appropriately and how much it costs when it is mismanaged.

Mismanagement can lead to much higher costs and negative environmental and human health impacts.

The estimated annual current cost of HHW programming is \$1.6 million to collect and manage approximately 1084 tons of waste.

The solid waste program awards about \$400,000 in grants. The remainder of the cost is covered by the solid waste management entities.

Meeting 2 is to discuss options for collection and management.

Joyce from LRSWMD commented that one-day events are very costly and there is a high safety risk associated. Her recommendation is that there are year-round permanent regional facilities where waste can be collected and aggregated to eliminate the need for events. This would provide more convenience and offer safer collection.

Bruce from CVSWMD asked that we consider as part of the discussion how to capitalize the cost of permanent facilities.

Cathy requested that for Meeting 2, participants try to not think about funding or current state plan requirements, but rather think about what would be the most efficient and effective system for collection and management.

1:15pm- Annie Macmillan from Agency of Agriculture provided an overview of the Pesticide Disposal Program

- This program began in 1993 and requires manufacturers of pesticides to register their products sold in VT and pay an annual \$175.00 fee. Currently over 11,000 products registered. \$5.00 of the 175.00 registration is applied to disposal.
- The Agency contracts with solid waste districts, alliances and towns to reimburse them for pesticide disposal costs at their HHW facilities and events.
- 100% of pesticide disposal costs covered.
- Over 1,000,000 pounds have been collected since 1996.

1:30pm- Options for managing HHW Discussion

Mary listed the initial options provide to group via email and asked for other suggestions and a discussion.

- Unified contract with hazardous waste contractors for collection events
 - Permanent regional facilities managed by solid waste management entities
 - Permanent regional facilities managed by state contract
 - Program modeled after Agency of Agriculture pesticide grant disposal program
 - Privatization
 - Different funding models
 - Other?
-
- Jen Holliday, CSWD recommended adding Extended Producer Responsibility(EPR) for HHW to the option list.
 - There was some discussion of the Agency of Ag. pesticide program model and how that could apply to HHW.
 - Esther from the Londonderry Group stated that if permanent facilities were able to conduct events rather than a private contractor it could reduce costs.
 - Corey, NEKWMD commented that services could possibly be expanded to towns beyond their district borders but it would need to be funded and maybe EPR could do that.
 - Greg Noyes, Town of Canaan supported the regional facility idea as long as there were not district, town boundaries that prohibited access.
 - Chuck Schwer, Waste Mgmt. and Prevention Division commented would a statewide contract for HHW services save money, with ANR managing a state contract.
 - Bill Driscoll, AIV suggested a consumer fee at point of purchase on all HHW products.
 - No current registration of HHW products like there is for pesticides.
 - Carl Witke, CVSWMD commented regional facilities would offer more efficiency and reduce the challenges and dangers of remote one-day collection events.
 - Jen, CSWD commented that her district looked at cost for rover events versus permanent facility and the facility is much less expensive. She doesn't think one-day collection events provide adequate convenience.
 - Some commented on a need for both regional permanent facilities and rural events to accommodate large rural areas.

1:45pm Mary offered a list of Evaluation Options to be considered when looking at the pros and cons of various HHW collection options

- Cost (who pays, include externalities-carbon footprint)
- Convenience
- Participation Rates
- Incentivizing/Motivating
- Safety
- Efficiency

Group Discussion

2:00pm Mary requested all participants to vote by sticker for their preferred option listed.

3 major options were chosen:

- Regional facilities with consolidation for rural events managed by SWME
- EPR
- Regional facilities with consolidation for rural event managed by state contract

2:20pm Participants were asked to move into break out groups and that each group have a variety of representation. Groups were tasked with discussing the pros and cons of the above options.

2:35pm Report Outs from break out groups

There were 4 break out groups that discussed the following options:

1. Regional permanent facilities with Consolidation for Rural Rover Events managed by SWMEs

Pros

- Lower Cost
- Increased Convenience
- Safer to Travel with HW shorter distance to a rural event
- More efficient for contractors to schedule pick-ups of HW at regional facility than one-day event
- Year-round convenience

Cons

- Districts resistant to sharing a facility due to funding issues (surcharge, per capita, etc.)
- Hard to get coverage in rural areas
- Facility needs to be heated in order to operate all year round.

2. Extended Producer Responsibility(EPR)

Pros

- Funding mechanism for infrastructure
- Strong education and outreach
- Increased efficiency statewide
- No regional boundaries
- Pollution prevention and waste reduction
- Convenience and increased participation

Cons

- Legacy waste/products that are obsolete-who would be responsible for
- Capitalizing infrastructure would be challenging
- How to control out of state waste

3. Regional permanent facilities managed by state contract (with private contractor)

Pros

- Could led to high collection rate like e-waste
- Could invite competition
- Cost saver

Cons

- Logistics would be complicated
- Geography issues

With Rover Rural Events

Pros

- Cost savings for consolidated staff, certification- no set up fee, equipment fees, etc.
- Having convenient consolidation location for waste

Cons

- Legal and safety costs are high
- Costs in general high for one-day events

4. Regional Facilities-

- managed by SWMEs

- can replicate current infrastructure of the existing 5 facilities (NWSWMD, RCSWD, NEKWMD, ACSWMD, CSWD)

- managed by private contractor
 - issue of waiting for private sector to initiate
 - private could be more nimble
- State Run
 - Pro
 - Consistency and convenience for all counties
 - Cons
 - State lacks experience in managing
 - How would it be funded

2:50pm Wrap Up and Next Steps:

Email any further thoughts you would like considered.

Meeting #3: September 7th, 1:00pm – 3:00pm

Purpose: to prioritize options, discuss funding and make recommendation(s) to ANR

Meeting 3 - Household Hazardous Waste (HHW) Stakeholders Group Minutes – September 7, 2017

Group Members Present:

Cathleen Gent	Central VT Solid Waste Mgmt. District
Carl Witke	Central VT Solid Waste Mgmt. District
Bruce Westcott	Central VT Solid Waste Mgmt. District
Johanna de Graffenreid	VT Public Interest Research Group
Corey Raymond	Northeast Kingdom Waste Mgmt. District
William Driscoll	Associated Industries of VT
Esther Fishman	The Londonderry Group
Tess Kennedy	William Shouldice and Associates
Toby Howe	MMR
Kim Crosby	Casella Waste Systems
Don Maglienti	Addison County Solid Waste Mgmt. District
Jennifer Holliday	Chittenden Solid Waste District
Joyce Majors	Lamoille Regional Solid Waste Mgmt. District
Michael Batchter	Bennington County Solid Waste Alliance
John Leddy	Northwest Solid Waste District
John Malter	Mad River Resource Mgmt. Alliance

By phone

Greg Noyes	Town of Canaan
Pam Clapp	Solid Waste Alliance Communities

ANR Staff Present:

Rebecca Ellis	DEC Deputy Commissioner
Cathy Jamieson	Solid Waste Program Manager
John Fay	Solid Waste Program
Mia Roethlein	Solid Waste Program
Mary Clark	Drinking Water and Groundwater Protection Division- Facilitator

Minutes

1:05pm – Mary started with welcome and introductions and invited Jen Holliday to speak briefly to an incident that took place at a Chittenden Solid Waste District(CSWD) HHW event in Jericho the prior weekend.

- CSWD HHW Rover Event was held at the town garage in Jericho. A resident brought two cans of diethyl ether to the event. The cans showed evidence of crystalizing meaning the material could be unstable and shock sensitive. The CSWD event staff

called 911 and the fire department evacuated the event and would not allow anyone on site. VT Bomb squad was contacted and deemed the material as a non-emergency over the phone since the material had already been moved once by the resident and had not exploded. This left CSWD staff with no option but to move the cans to a shipping container on site in order to secure and research how to handle the unstable material. The Town of Jericho was not pleased with the situation as their staff were not able to access the garage and the surrounding trails were closed to resident access. CSWD followed up with VT Bomb Squad members who did come to the town garage to detonate the material on Tuesday.

- Cathy stated the goal of this group and provided summaries of the first two meetings.
 - Reminder that the goal of this HHW Stakeholder Group is: to make a recommendation to ANR on how HHW should be effectively and conveniently collected in a manner cost-effective for municipalities
 - What does Success Look Like to ANR:
 - Vermonters are aware of risks with HHW, and either reduce use or divert from disposal.
 - There are convenient HHW collection options for all Vermonters.
 - The cost burden to municipalities and state are reduced
 - Over time, there are an increased number of non-hazardous products available to consumers, resulting in a decrease in HHW needing to be managed
 - The first meeting went over current situation with HHW collection in VT. The estimated annual current cost of HHW programming is \$1.6 million to collect and manage approximately 1084 tons of waste. The solid waste program awards about \$400,000 in grants. The remainder of the cost is covered by the solid waste management entities.
 - The second meeting looked at options for managing HHW and what the needs are.
 - Summary of AAFM Pesticide Program was given by Annie MacMillan
 - Need Convenient cost-effective options for residents and CEGs
 - Discussed a list of collection options.
 - Extended Producer Responsibility(EPR) was added to the options list by participants.
 - Participants took a non-binding vote on their top choices for a break out group discussion.

There were 4 break out groups that discussed the following options:

- Regional facilities with Consolidation for Rural Rover Events managed by SWMEs
- Extended Producer Responsibility(EPR)
- Regional facilities managed by state contract (with private contractor)
- Regional Facilities-
 - managed by SWMEs
 - managed by private contractor
 - state run

1:15pm Mary opened discussion of **What should services look like?**

Mary asked which of the listed options should the group be focusing on and which could they all form a consensus on.

- Greg Noyes asked if a Rover be at each town 4 days a year in order to meet the MMP Year 5 four- event requirement.
- Cathy Jamieson requested that the current requirements be put aside for purpose of discussion. The Agency may revisit the MMP requirements after this stakeholder process and could consider changes provided that convenience is met.
- Jen Holliday commented that optimal convenience is a regional facility within 15-20 miles of every town. Events only aren't convenient enough. Other programs in the country offer curbside pick-up of HHW.
- John Malter, MRRMA said that facilities need to be open to all residents, not limited by solid waste district, alliance or town boundaries.
- Carl Witke, CVSWMD asked aren't essentially Rover and Events the same for this discussion.
- John Leddy, NSWMD commented that the difference is cost, events are more costly as a contractor is hired whereas a Rover refers to a District using its own staff to operate an HHW event and bringing waste back to their facility.
- Bruce Westcott, CVSWMD inquired whether or not state boundaries are relevant to this discussion
- Mia explained that the Town of Hartford is looking into working with some NH towns on establishing a facility to be used by all in surrounding region. There are some differences in how CEG Hazardous waste is regulated from state to state. Windham County Solid Waste District might also have looked into working with Keene, NH.
- Corey Raymond, NEKWMD commented that if regional facilities are established then who would operate them. If paid for by SWMEs, who's paying the proper surcharge or other fees to ensure fairness.

- Agreement by all that a model of regional facilities spread throughout the state with possible rural events is the option to look at.

1:30pm Discussion on a map of current facilities and the regions they serve

- Michael Batcher, Bennington County Solid Waste Alliance said that some communities go to Massachusetts; 15 mile distance in his region can be 35 minutes by road.
- Don Maglienti, Addison County Solid Waste Mgmt. District has a permanent HHW facility open 308 days a year. They are considering adding events but it would be a substantial cost and might not serve many.
- Esther Fishman, The Londonderry Group: A mobile staffing unit might be able to be in different locations around the state on different days.
- Joyce Majors commented that the paint stewardship program which has convenient take back is terrific, and hardware stores are where you buy your HHW. Could this be an option? Need to also consider that siting HHW facilities may be difficult.
- Discussion about population density and shopping areas that would be good hubs for siting facilities. Areas were circled on the paper map.
- John Leddy, Northwest Vermont Solid Waste Mgmt. District commented that residents get used to the convenience of a facility open 200 days a year over having it at their town garage as an event once a year.
- Don, ACSWMD said that the cost of one day events is too high when you might only get 12 cars. Maybe in the state requirements the days the facility is open should off set the mileage requirement.
- Esther, The Londonderry Group commented that there will be some resistance to change even if it provides better service.
- Johanna de Graffenreid, VT Public Interest Research Group inquired about the volume collected at permanent facilities.
- John, NWVSWMD explained that they saw a 100% increase in volume when opened a permanent facility. Now seeing more visitors with less material.
- Don, ACSWMD: Participation has almost doubled since 2005 when they stopped events. Volume collected still going up too. Currently, their district doesn't have statistics on use by outlying towns but is looking into that.
- Carl, CVSWMD commented that some folks say they never leave their hometown.
- Joyce, Lamoille Solid Waste Mgmt. District commented that people will call in fall after their events are over, but they are usually desperate because they are moving. Thus, are happy to go to the Environmental Depot in South Burlington.
- John, NWVSWMD: Folks are more upset at having to wait a year to get rid of their HHW than to having to drive several towns away.
- Jen Holliday, CSWD commented that a 14% participation rate is considered nationally to be optimal participation (all needing to get rid of HHW being served). The 2016 HHW survey shows that all permanent facilities have much higher rates than events only, in the 12%-15% range. Only three areas served by events (Londonderry, Salisbury, and a third) have participation over 10%.

1:45pm Break Out Group discussion

Thinking about the potential for regional facilities with shared access, groups consider Who Pays and Who Manages?

Four Groups were formed. Among the responses from each group were:

Group 1: a point of purchase fee to make it transparent to the consumer. Use of the collection system would be free.

Group 2: Strong consensus on the system not being tied to SWME borders. Should not be run by municipalities directly – RFP for running each facility, allows for private sector to run, or a district to run as an enterprise. Costs include 3 distinct parts: capitalization of site, staff and management, and disposal. Considered EPR, Pre-fee, and finding existing funds from \$6 state fees fund.

Group 3: Build on existing infrastructure, EPR best funding mechanism – both possible: costs shared according to sales, or costs shared according to what is received for disposal. Assess location needs for new facilities, and RFP for development.

Group 4: EPR could be considered thoughtful and fair system, but could be a heavy lift given broad array of producers. Can we focus on particular products by quantity, toxicity? Ideas for funding include: Unclaimed bottle bill escheats, fee on plastic bags, partial customer burden too. HHW should be managed at state-wide level. Local management limits convenience. Consider a labeling law that labeled toxic products requiring collection.

KEY POINTS posted on the boards:

Who Manages?	Who Pays?
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<ul style="list-style-type: none"> • State RFP – District and/or private sector could bid • Not each district – border issue • Build onto existing infrastructure • EPR Plan – Identify needs public/private 	<ul style="list-style-type: none"> • Consumer fee at point of purchase • EPR – nonspecific • Unclaimed bottle deposits (\$1.3-1.4M/yr) • Bag fee • Facility user fee • Label fee on Toxic products
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2:40pm Discussion on Next Steps and Actions Needed

- Many agreed that this discussion and work from this stakeholder group must continue.
- Both Deputy Commissioner Ellis and Cathy explained that the goal of the Department for this stakeholder group is to gather all of this input, synthesize and make public. Before any action is taken on recommendations given by this group, upper management must support. These meetings are also important for informing various stakeholders in the event the legislature considers any action.
- Discussion regarding the differences of events versus facilities and staffing needs. And on the requirements for permanent facilities related to storage of materials.
- Johanna, VPIRG commented that the use of bottle bill escheats could help fund a regional collection system.
- Cathy responded that it has been brought up in legislative session for funding various initiatives in years prior and hasn't been supported.

3:15pm Wrap Up, Cathy Jamieson

Themes heard:

- Better understanding of the risks these materials pose in homes and collection
- recognize it's very costly to manage
- All agreed that a regional facilities model is most attractive
- Understand that the infrastructure ideally would be without municipal borders that limit access
- Some favored EPR funding model
- Good discussion of what regional facilities might look like, bulking, sharing staff, open year round
- Funding will be challenging, no consensus on how to pay for HHW management.

Cathy explained that a summary report of this stakeholder group would be provided to all and thanked everyone for their participation.

Johanna, VPIRG offered her thanks to the group for the work many are doing and for taking public health and safety into consideration.

