

# A Feasibility Study of HHW Collection Options for the Rockingham Planning Commission Region

## Executive Summary

### Project Background

Household Hazardous Waste or HHW are products that contain corrosive, flammable, toxic, or reactive ingredients. The most common items received at HHW collections include oil-based paints, solvents and thinners, automotive products (antifreeze, used oil, old gas), household cleaners, pesticides, herbicides, and aerosols.

Most residents in the Rockingham Planning Commission (RPC) region only have access to one single-day HHW collection event per year. Furthermore, all HHW collections in the region are seasonal, providing no opportunities to dispose of HHW from late fall through spring. This infrequent and seasonal schedule means that residents often do not have a way to properly dispose of their HHW in a timely manner. It is particularly problematic when moving or cleaning out a home after a loved one has passed away.

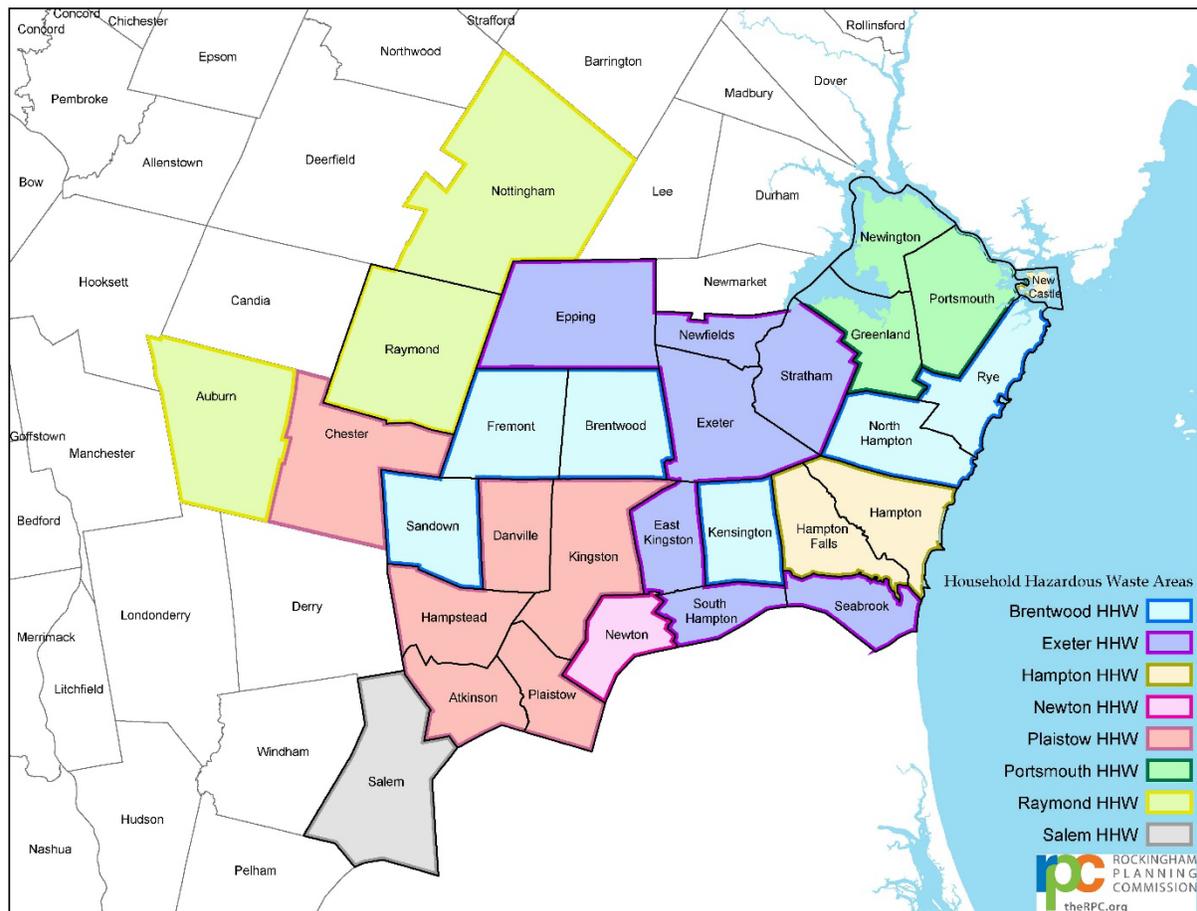
The limited and infrequent nature of HHW collections in the RPC region also increases the likelihood that residents will improperly dispose of their HHW. When HHW is improperly disposed of it can pollute water, threaten human health, and harm wildlife. The goal of this project is to determine which methods of HHW collection are feasible in the RPC region to provide residents with more frequent and convenient opportunities to properly dispose of their HHW. Specifically, this study examines the feasibility of adding single-day collection events, establishing a permanent HHW collection facility, and implementing a curbside HHW collection program.

This project focuses on the Rockingham Planning Commission region, which includes the municipalities of Atkinson, Brentwood, Danville, East Kingston, Epping, Exeter, Fremont, Greenland, Hampstead, Hampton, Hampton Falls, Kensington, Kingston, New Castle, Newfields, Newington, Newton, North Hampton, Plaistow, Portsmouth, Raymond, Rye, Salem, Sandown, Seabrook, South Hampton, and Stratham.

## Current Status of HHW in the Region

Every municipality in the RPC region has access to HHW collection. All HHW collection in the region is conducted as single-day events; there are no permanent HHW collection facilities. There are 10 single day collections each year and 11 events every other year. 57% of the region’s population has access to 1 collection event per year and 41% of the region’s population has access to 2 collection events per year. Newton, which represents 2% of the region’s population, has access to 1 collection event every other year. There are no collection events in the region during the months of January, February, March, June, July, August, November, or December.

Newton and Salem are the only municipalities in the region that do not collaborate with other communities to run their HHW collections. The remaining communities are organized as shown on the map.



Map Credit: Rockingham Planning Commission

## 2024 Statistics

3,428 households participated in collection events region-wide in 2024. That year, the region spent a total of \$366,543.96 on HHW disposal. The cost per event varies widely across the region. In 2024, the lowest cost event was \$11,742 while the highest cost event was \$50,000. The average cost per event in 2024 was \$33,322.18. Cost per participating household also varies widely across the region, from a low of \$38 per participating household to a high of \$217 per participating household. The average cost per participating household in 2024 was \$106.93.

## Options for Expanding HHW Collection in the Region

### Adding Single-Day Collection Events

Single day HHW collection events are typically held on publicly owned sites, such as parking lots, transfer stations, schools, fire stations, public works buildings, or wastewater treatment plants. They are often scheduled on a Saturday in the spring or fall and appointments may or may not be required. Municipal staff usually provide traffic control and signage and are responsible for participant registration and surveys. Municipalities hire a qualified hazardous waste vendor to handle the HHW collection, transportation, and disposal of the materials collected.

### Advantages of Single-Day Collection Events

- Set dates can provide motivation—some people respond well to an imposed deadline, making them more likely to participate in a collection event rather than utilize an ongoing facility.
- Manageable Cost—there is no need for large capital expenses. Municipalities have control over their budget by limiting the number of participants and events held.
- Sustainable—HHW vendors are likely to continue offering this service.
- Limited Liability—most of the liability falls on the vendor, who assumes generator status for the waste.
- Politically Acceptable—elected officials and the general public already support these events.
- Easy to Implement—these events are limited in duration, can be run as a turnkey operation by the vendor, follow the same procedures each event, and can be set up in a wide variety of locations.
- Easy to Promote—residents already have a good understanding about how single day events work.

## Disadvantages of Single-Day Collection Events

- High Cost—single-day events have a high cost to volume collected ratio, as well as significant setup charges.
- Limited Participation—even the best single-day events only serve 5% of their households per year (Nightingale, 11/2/20). A significant amount of advertising is required for reasonable participation rates and weather can impact participation.
- Event Limitations—the need for quick operations sometimes comes at the expense of efficient packing, which can add to costs. In addition, the short duration of the event means there is not time to set up a donation/reuse center.
- Weather Dependent—single day events are not typically held in winter months. In addition, inclement weather can decrease participation rates.
- Safety/Liability at the Event—managing hundreds of households in a single day can be chaotic. The fast pace and large volume of waste make accidents more likely. Traffic congestion is also a concern.
- Safety at Households—if residents have to wait upwards of a year to dispose of their HHW it can create unsafe storage conditions for homeowners.
- Inconvenient—single-day collections provide limited opportunities for participation. Some people do not have flexibility in terms of when they need an event. They may be moving or they may have come from out-of-town to clean up a relative's estate. The timing of a single-day collection may not coincide with their needs and they would be more likely to participate in an ongoing, permanent facility. In addition, single-day collections can have long lines and wait times, making them less convenient for residents.
- No Ongoing Educational Opportunities—single-day events require a concentrated outreach effort on a tight schedule. Outreach and education then typically stops until the next event, which can be up to a year later.

## Permanent HHW Collection Facility

Unlike single day collection events, a permanent HHW facility is operated at the same location on a regular schedule and can receive HHW from residents on a continuous basis. Residents enter the site and drive their cars under a covered unloading area. Staff come out to the car, take the participant's contact information, and unload the HHW materials onto a cart. Residents then exit the site or park in designated spaces to visit the swap shop, if one is established. Next, staff log the materials and move them to a designated holding/sorting area. This is also the area where lab testing would occur if needed. Once the materials are identified and sorted, they are either lab packed or bulked in the processing area. Materials are then moved to a main storage room and stored by hazard type. Flammables and other high hazard materials are moved from the main building to a prefabricated hazmat storage building. Finally, the materials are transported from the permanent HHW collection facility by a licensed hauler when storage capacity or storage time limits have been reached.



Fresno County, CA HHW Facility—this photo illustrates where cars enter the covered unloading area at a permanent facility. Also visible are the blue carts used to unload vehicles and the tan prefabricated hazmat storage buildings.

*Photo Credit: Fresno County Division of Public Works and Planning*

### Advantages of Permanent HHW Facilities

- Convenient—residents can dispose of HHW when they want or need to, rather than having to wait 6-months to a year for a single day collection event. In addition, because permanent facilities are open on an ongoing basis, there are not long wait times to drop off materials once residents arrive at the site.
- Higher participation rates—it is not uncommon for permanent HHW collection facilities to serve 10% of households per year, with some well-established facilities serving as high as 14-17% of households (Nightingale, 11/2/20).
- More opportunities for reuse—it is easier to set up a swap shop at a permanent HHW collection facility.
- Ongoing education—unlike single-day collection events where there is a limited timeframe for outreach and education, permanent facilities allow for year-round educational opportunities.
- Lower Cost—once permanent HHW facilities are established they tend to have a lower cost per pound of HHW collected and a lower cost per household than single-day events (Nightingale, 4/30/21) and (Nightingale & Ellis, 2000).

- Sustainable—of the 20 pioneering permanent HHW collection facilities that were established in 1990 or earlier, all are still in existence. “Once a community established a permanent HHW collection facility, they keep it operating” (Nightingale, 5/30/21).
- Not Weather Dependent—permanent HHW collection facilities can be designed so they are operational year-round, unlike single day events that are not typically held in winter months.
- Safety at Households—residents can dispose of HHW whenever they want to, which decreases the need for potentially unsafe storage conditions in homes.
- Safety/Liability at the Facility—permanent HHW collection facilities can spread out participant arrivals, allowing for a slower pace that makes accidents less likely. The smaller volume of participants at any one time also decreases traffic congestion concerns.

## Disadvantages of Permanent HHW Facilities

- Capital Costs—unless a community enters into a public/private partnership, capital costs must be raised to construct a permanent HHW collection facility.
- Operating Budget—permanent HHW collection facilities require larger annual operating budgets than single-day events due to higher participation rates.
- Driving Distance—depending on where the facility is located, it may be a further drive for some residents than their current single-day event.
- Siting—finding a suitable location for a permanent HHW collection facility could be challenging.

## Curbside HHW Collection

A curbside HHW collection program allows residents to dispose of their HHW directly from their home, rather than traveling to an event or a permanent HHW facility. Municipalities contract with a vendor to provide all aspects of curbside HHW service. Residents contact the vendor to schedule a home pick-up of their HHW items. The vendor sends a collection kit to the resident and the resident prepares their materials for collection. On the set collection date, the vendor picks up the packaged materials directly from the resident’s home. Curbside HHW pickup is offered year-round.

While there are currently no examples of curbside HHW collection in New Hampshire, it is widely used across the country. Waste Management is in the early stages of offering its “At Your Door” curbside HHW collection service in the RPC region.



Curbside HHW Collection—this photo shows HHW materials packaged in a special collection kit provided by Waste Management and placed outside a home for pickup.

*Photo Credit: Waste Management*

### Advantages of Curbside HHW Collection

- Most Convenient Option—residents can schedule unlimited pickups, year-round, on a day and time of their choosing. They do not even need to be home when the pickup occurs.

- No Transportation Required—this is the only option that allows participation from residents who cannot leave their homes or who do not have transportation. It also eliminates the chance for accidents associated with self-transporting HHW materials to collection sites.
- Immediate Implementation—municipalities can begin participating in the program immediately, assuming there is a vendor who is operating in their area. There are no capital costs to raise or facilities to site and construct.
- Turnkey Service—it is very easy for municipalities to administer the program. Waste Management takes care of scheduling pickups and answering questions from the public. Municipal staff are only responsible for educating residents about the program.
- Individual Contracts—each municipality contracts directly with the vendor, so there is no critical mass of municipalities needed to participate.
- Education—curbside collection offers opportunities to provide education directly to all residents.
- Curbside collection has a higher participation rate on average than single day events.
- Relatively low cost per household—households would pay \$15 to \$30 per year for unlimited usage. By comparison, participants currently pay \$15 to attend one single-day collection in Exeter.

## Disadvantages of Curbside HHW Collection

- Curbside collection has a lower participation rate on average than permanent facilities. The national average participation rate for Waste Management’s At Your Door program was 6.6% in 2024.
- No Public Investment—the money residents pay for curbside collection service is primarily being invested into a private company rather than into a public asset, as would be the case with a publicly owned and operated permanent facility. At a 6% annual participation rate, most of the money collected by Waste Management is profit. The \$15-\$30 per year paid by each household could easily cover operating costs for a publicly owned and operated permanent facility.
- Curbside HHW collection conducted by a private company would not be eligible for NH DES HHW grant funding.
- All residents in a participating municipality must pay into the program. There is no option to “opt out.”

## Feasibility Analysis

RPC examined 4 metrics to calculate the feasibility of each collection method—Market, Technical, Financial, and Governance. Each metric was evaluated based on the following set of questions:

### Market Feasibility Questions

1. How much support is there for this option among residents and municipalities?

2. Does this option typically have better participation rates than what is currently available?
3. Is this option more convenient and safer for residents than what is currently available?
4. Does this option allow for the program to expand?

#### Technical Feasibility Questions

1. How difficult would it be to quickly implement this option?
2. How difficult would it be to find a site for this option?
3. How difficult would it be to find a vendor with the technical expertise to operate this option?
4. How difficult would it be to find a vendor who has the capacity/availability to implement this option?

#### Financial Feasibility Questions

1. How does the annual cost for this option compare to what municipalities currently spend on HHW?
2. How likely is it that grant funding is available to support this option?
3. How easily can costs be predicted and managed with this option?

#### Governance Feasibility Questions

1. Does this option require a critical mass of municipalities to participate?
2. Does this option require a governance agreement among participating municipalities?
3. Would appropriations for this option be part of a town's annual operating budget or would it require an independent warrant article at town meeting?

#### How much support is there for this option among residents and municipalities?

The Rockingham Planning Commission conducted three surveys to gauge support for each collection method among members of the public and municipal staff and officials. The first was a survey of residents from across the region as part of RPC's Regional Master Plan update. The survey was available online from March 15 to May 15, 2025. A total of 902 residents took the survey, which included several questions about opportunities for expanding HHW collections in the region.

The second survey was sent to town administrators, elected officials, and DWP staff from each of RPC's 26 member municipalities in personalized emails. The survey was open from September 4-19, 2025 and received 20 responses.

The third survey was administered to residents who attended the 2025 Exeter Area HHW Collection. The survey was open from July 1 to October 4, 2025 and received 400 responses. Respondents represented the towns of Exeter, Stratham, Epping, Newfields, East Kingston, Seabrook, and South Hampton.

The following table summarizes responses to key questions across all three surveys.

Question	2025 Regional Plan Survey	2025 Municipal Officials Survey	2025 Exeter HHW Survey
Would you like additional opportunities to dispose of HHW?	Yes = 63% No = 22% Unsure = 15%	N/A	Yes = 74% No = 26%
Would more single-day collection events from April-October be beneficial?	Yes = 33%	Yes = 63% No = 6% Unsure = 32%	Yes = 55%
Would a year-round, permanent HHW facility be beneficial?	Yes = 68%	Yes = 65% No = 24% Unsure = 12%	Yes = 58%
If a few sites could be identified, would you like to see a detailed cost estimate for constructing and operating a permanent facility?	N/A	Yes = 100% No = 0%	N/A
Would curbside HHW collection be beneficial?	Yes = 22%	Yes = 25% No = 50% Unsure = 25%	Yes = 17%

Input was mixed on the benefits of adding single-day collection events. Only 33% of Regional Master Plan survey respondents stated it would be beneficial to have more collections from April through October. Yet 63% of municipal respondents and 55% of Exeter HHW participants said it would be beneficial.

There was strong support among all three surveys for establishing a permanent facility. 68% of Regional Master Plan survey respondents, 65% of municipal survey respondents, and 58% of Exeter HHW participants stated it would be beneficial to have a permanent facility that would allow them to dispose of HHW on an ongoing, year-round basis.

Support was low across all three surveys for curbside HHW collection. Only 22% of Regional Master Plan survey respondents, 25% of municipal survey respondents, and 17% of Exeter HHW participants stated it would be beneficial to have curbside collection of HHW at their home.

There was strong support for obtaining more cost information on a permanent collection facility. 100% of municipal survey respondents said they would like to see a detailed cost estimate for constructing and operating a permanent collection facility.

## Overall Scorecard

After the feasibility scores for each method were calculated, each criteria—market, technical, financial, and governance—was given a weight to reflect its importance.

Method	Market Feasibility Score (50%)	Technical Feasibility Score (20%)	Financial Feasibility Score (20%)	Governance Feasibility Score (10%)	Total
Add Single Day Collection Events	1.50	0.84	0.74	0.45	<b>3.53</b>
Establish a Permanent HHW Collection Facility	2.30	0.66	0.64	0.28	<b>3.88</b>
Implement Curbside HHW Collection	1.50	0.66	0.40	0.43	<b>2.99</b>

## Recommendations and Next Steps

Based on the results of the Feasibility Analysis, RPC recommends moving forward with the establishment of a permanent HHW collection facility in the region. The following steps should be taken to implement this recommendation:

### Short Term Steps (6-12 months)

1. Secure funding for Rockingham Planning Commission to develop a Permanent Facility Program report. The report will identify program goals, materials to be collected, desired facility features (ex. swap shop), whether VSQGs will be eligible to participate, and ideal operating schedule. The report will also gather data on the types and quantities of waste that have historically been collected among interested municipalities to better understand storage requirements for a permanent facility.
2. Conduct additional outreach to municipal staff and elected officials across the region about permanent HHW collections facilities and answer questions they have.
3. Reassess which municipalities are interested in participating in a permanent HHW facility.
4. Identify up to 3 potential sites for a permanent HHW facility. The geographic scope of the search area will depend on which municipalities express interest in participating.

### Medium Term Steps (1-3 years)

1. Research and write the Permanent Facility Program report.
2. Secure funding for and hire a design firm to develop a conceptual design based on the needs and desires outlined in the Permanent Facility Program report. If there are still several sites being considered, the firm can also conduct site assessments to identify the optimal site.
3. Conduct public outreach regarding the findings of the Permanent Facility Program report and Conceptual Design study. Public outreach should be ongoing throughout the process.

### Long Term Steps (3-7 years)

1. Issue a RFP for permanent facility design-build proposals and evaluate proposals.
2. Establish required governance agreements among participating municipalities.
3. Secure funding for the permanent facility.
4. Hire building contractor and construct the permanent facility.
5. Issue a RFP for a HHW vendor, evaluate proposals, and hire vendor.
6. Hire and train municipal staff for the facility.
7. Open and operate the permanent facility.

Given the long timeframe needed to implement a permanent HHW collection facility, RPC also recommends adding additional single-day collections in the interim. Focus on the Exeter, Brentwood, and Raymond programs, which currently have lower participation rates and only one event per year. Interested municipalities may also consider trying a mid-week, evening collection in June, July, or August. Finally, RPC recommends that Newton partner with an existing HHW collection program in order to reduce its costs and provide at least one collection opportunity per year for its residents.

## Acknowledgements

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This project was guided by an Advisory Committee comprised of HHW project managers, municipal staff, and elected officials from each of Rockingham Planning Commission's member communities as well as the municipalities of Auburn, Chester, and Raymond, who participate in HHW collections held within the RPC region. The Advisory Committee also had representatives from the Seacoast Drinking Water Commission and NH Dept. of Environmental Services (DES) staff.

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The full report and associated documents can be found at <https://www.therpc.org/hhw>.