

Report on Landfill Operation in the State

Completed as required by 2019 Act 69

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Agency of Natural Resources

Department of Environmental Conservation



Introduction

Pursuant to Section 4 of the 2019 Act 69 legislation, the Vermont Department of Environmental Conservation has prepared this report to address potential landfill disposal capacity of permitted landfills in the state and some of the impacts of having only one operating landfill in Vermont. Currently, in addition to the operating landfill located in Coventry, VT, there is one other site in Sheldon, VT that holds a conceptual landfill design certification. This conceptual site, and other potential, but unpermitted, landfill sites in the state face significant obstacles to being viable for operation. These include the financial costs associated with siting, designing, constructing and operating a landfill facility, limited ability to guarantee sufficient sourcing of waste due to the 1994 Supreme Court decision regarding flow control in *Carbone v. Clarkstown*, and significant uncertainty associated with the operation and long-term management of a disposal facility.

Current Landfill System

Federal and state solid waste management rules require that modern landfills be highly engineered facilities with double-liners, leachate control and collection, landfill gas recovery systems, and requirements for operations, monitoring and reporting. These systems and requirements are needed to protect human health and safety and the environment. However, they also come at a significant cost.

Landfill capacity as reflected in this report is only an estimate, as disposal rates can vary year-to-year based on a number of factors, including waste generation and disposal rates, operational conditions (e.g. waste settlement, daily cover application), and types of waste disposed.

In 2019, Vermonters disposed 445,000 tons of municipal solid waste within a landfill or at a waste-to-energy facility; this was the highest disposal amount since 2004. Of this waste, 79% was landfilled within Vermont, and 21% was transported out-of-state for management. Vermont does not currently accept any out of state residential municipal solid waste (MSW) for disposal within Vermont landfills, unless the area within which the waste is generated has a Vermont approved Solid Waste Implementation Plan (SWIP) demonstrating that the Vermont required waste reduction and diversion goals have been met. MSW is the trash most of us are familiar with that we produce in our homes, businesses, and institutions. No out-of-state entity has applied for SWIP approval and, as such, no out-of-state MSW is disposed of within Vermont. In addition to MSW, Vermonters landfilled 35,000 tons of other materials, such as wastewater treatment facility sludges, asbestos debris, paper sludges and other wastes.

Operating Landfills

New England Waste Services of Vermont (NEWSVT) –NEWSVT (located in Coventry, VT) is the only constructed and operating landfill remaining in the state. The landfill, owned and operated by Casella Waste Management, currently holds a [Solid Waste Facility Certification](#) for operations and an approved design plan that will provide 13,068,000 additional cubic yards of capacity, estimated to

provide disposal options for an additional 24 years through the construction and expansion of the 51-acre Phase VI portion of the landfill, which is currently under construction. Space for additional expansion does exist on the site within a potential Phase V area, which would involve the excavation and relocation of an unlined landfill on the property. This Phase V area remains hypothetical and has not been permitted; however other expansion options on this parcel are limited. In 2019, 537,400 tons of waste were disposed of in the NEWSVT landfill and the landfill is permitted to dispose of up to 600,000 tons a year. Of the waste disposed, 394,000 tons were MSW.

Un-built Landfills: Conceptual Design Permits

Currently, one site in Vermont holds an active conceptual design permit for the construction of a solid waste landfill (Sheldon, VT). Conceptual design permits involve demonstration of sufficient site review and a conceptual design plan to demonstrate that a proposed facility would be capable of meeting the siting and design requirements of the Solid Waste Management Rules. Any issued conceptual design permit includes a condition that an owner/operator submit an amendment prior to operations and such an amendment would require the submittal of additional and updated hydrogeological investigations of the site and updated design and operations plans. A conceptual design permit does not guarantee that a landfill would be capable of being constructed and operated at the parcel; it does indicate that, based off preliminary review, the property is capable of siting a landfill.

Sheldon, VT - The Northwest Vermont Solid Waste Management District Landfill site in Sheldon is the only current facility to hold a [conceptual design certification](#). The proposed landfill at this site would consist of two operational cells, totaling approximately a 13-acre portion of a 155-acre parcel. These two cells would be anticipated to provide 16 years of disposal capacity at a fill rate of 20,000 tons per year, as proposed by the submitted application materials.

This site last went through the conceptual design permitting process in late 2016. During the public comment period, no comments were received, and the certification was issued February 2017. The facility has not received Act 250 approval. As described in the [2016 application](#), a total estimated construction cost (in 2016 dollars) was \$5,930,000 for Cell I and \$3,040,000 for Cell II. These costs do not take into account any additional site evaluation that would have to occur in order to finalize the permitting process, or any additional permitting costs associated with receiving necessary approvals in order to be capable of constructing the landfill cells.

Hartland, VT – The Greater Upper Valley Solid Waste Management District (GUVSWMD) owns a parcel in Hartland, Vermont that was long regarded as a technically and environmentally promising location for the development of a regional lined landfill. Initial obstacles to construction of this facility included site access, which was remedied by investment in the construction of a road and bridge over Interstate-91. However, despite this significant expenditure, the GUVSWMD decided not to continue maintaining a conceptual design permit for the site and voluntarily revoked their standing certification prior to its expiration in 2015. The decision not to continue to pursue landfill development was made in

consideration of finances and the operation, existing disposal contracts with and competition from the nearby Lebanon, NH landfill. The proposed landfill was originally designed as a two phase 39-acre landfill; however only a portion of the 20-acre first phase, had been permitted. This Phase I portion of the landfill could have provided approximately 1.58 million cubic yards of disposal capacity, or capacity for approximately 479,000 tons of waste. As described in a 2013 [Preliminary Landfill Design, Economic Analysis, and Waste Evaluation Study](#) completed for the GUVSWMD, the previously issued conceptual design permit was for an operational capacity of 50,000 tons per year; however, it was estimated that 75,000 to 125,000 tons per year would need to be accepted in order for this landfill to make economic sense with consideration of potential capital and operating costs. This would translate into four to six years of capacity. The previously issued conceptual design permit was for an operational capacity of 50,000 tons per year.

Out-of-State Disposal Facilities

Approximately 20% of the MSW waste generated by Vermonters is currently managed at out-of-state (OOS) facilities, both waste to energy disposal facilities (incinerators) and landfills, and primarily in New Hampshire and New York (Figure 1). This Vermont waste is primarily derived in border communities where transportation to an out-of-state facility is of a shorter distance, or more cost effective than transporting to the NEWSVT facility.

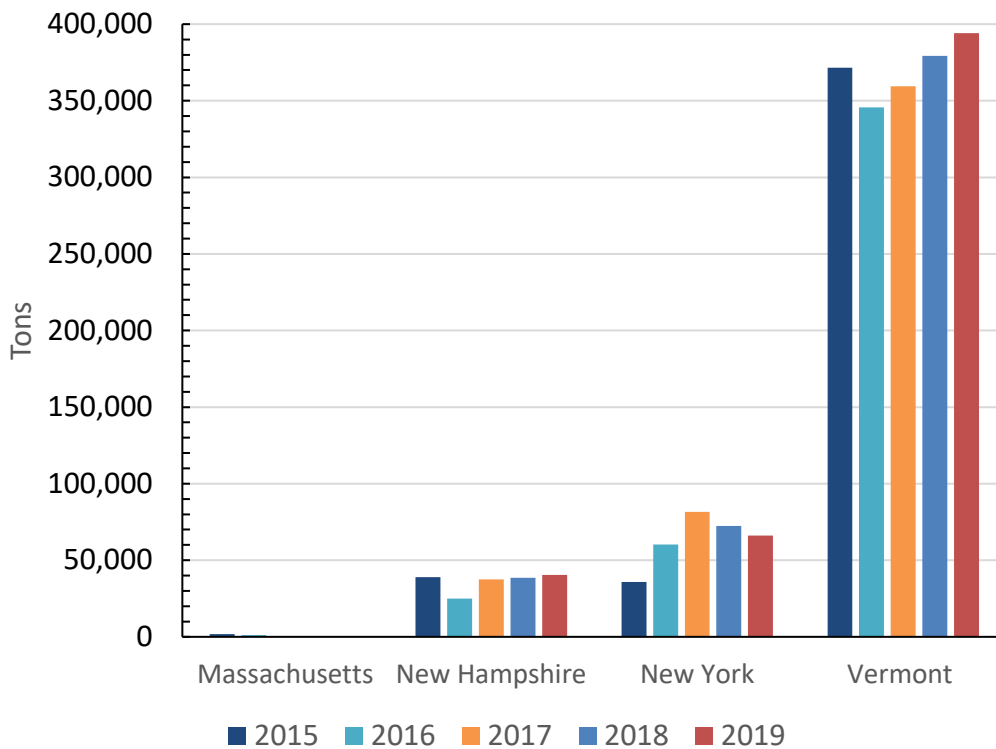


Figure 1 – Destination of disposed MSW that was generated in Vermont.

Survey of Solid Waste Professionals

In preparation of this report, the ANR-DEC undertook a survey of the Vermont Solid Waste Management Entities (SWMEs) and members of the private solid waste industry with regional operations. It is reasonable to anticipate that this group of participants would be directly involved with discussions regarding any new disposal facility siting in the state. Four questions were asked to obtain their perspective on additional potential landfill sites within Vermont and their opinions regarding the current benefits and barriers to the creation of additional disposal capacity within Vermont. A full copy of the responses received from 15 respondents can be found at the end of this report in [Appendix A](#). The primary benefits of additional landfills within Vermont were identified as, decreased transportation distances and the potential for more competitive pricing. The primary barriers were cost, community opposition, and state and local permitting constraints.

Potential for Reduced Environmental Impact by Siting Additional Landfills

Environmental risks associated with a landfill depend significantly on the operational and management practices of the individual facility. Trucking waste to the landfill is also a consideration. Presuming that any future landfill construction includes sufficient gas production such that the landfill gas can be managed for the production of energy (as opposed to directly flaring landfill gasses) some of the most significant greenhouse impacts would be derived from decreasing the trucking distance that waste must be transported for disposal.

The NEWSVT landfill reported within their 2013 [Traffic Impact Assessment](#) that approximately 25% of the truck traffic arriving at the landfill in Coventry come along western routes and approximately 45% of the incoming traffic is from eastern and southern Vermont, utilizing the Interstate-91 corridor. Therefore, the greatest potential to reduce environmental impact from transportation is associated with siting an additional landfill within Vermont along these higher traffic routes.

Estimates of the Impact on Greenhouse Gas Emissions

The Environmental Protection Agency (EPA) maintains a Waste Reduction Model (WARM) which is intended to assist in determining what the potential greenhouse gas (GHG) emissions reductions, energy savings and economic impacts might be from various waste management scenarios. For this assessment, the WARM tool was used to evaluate the potential GHG emissions changes associated with transporting MSW to locations other than Coventry, VT through the hypothetical siting of an additional landfill. The changes in GHG emissions reflected in the table below solely reflect changes in the transport distance of MSW tonnages and do not account for emissions associated with the operation of an additional landfill, the construction of a landfill, or potential GHG emissions associated with potential future changes to the waste types and tonnages generated by Vermonters.

Impacts on Greenhouse Gas Emissions from Other Waste Management Changes

When considering changes to the waste management system, the opportunities for environmental benefit are greater from reducing and diverting waste when compared to pursuing alternative disposal options. Even before implementing Universal Recycling, Vermonter’s diversion efforts resulted in GHG emission reductions, when compared to disposing of the recyclables and organics. According to the 2013 [Systems Analysis of the impact of implementing the Act 148 on Solid Waste Management in Vermont](#), completed by DSM Environmental Services, these diversion activities resulted in reduce total GHG emissions (not just the impact from transportation changes) of 70,000 metric tons carbon equivalent, which would be the equivalent of removing 55,500 cars from the road annually, when compared to landfilling generated solid waste and recyclables. There have been, and will continue to be, even more gains in GHG emission reductions as Universal Recycling continues to be implemented and additional reduction and diversion opportunities arise.

Impact of a Single Landfill on Transportation Infrastructure

Impacts to transportation are reviewed under Act 250 criterion 5: “Transportation”. The 2013 Act 250 approval of the NEWSVT landfill to increase disposal tonnage to 600,000 tons/year included a review of the impact to transportation. As described in that Act 250 application ([Project Number: 7R0841-12](#)), this would equate to a peak daily acceptance rate of 2,500 tons/day, which is estimated to be approximately 150 round trips a day. There is no question that this results in increased use of local transportation infrastructure. However, the majority of these roads are state roads, maintenance of which is funded through the gasoline tax, which the truck traffic does contribute to. The siting of a(n) additional landfill(s) in the state would likely reduce the total miles traveled for the transportation of Vermont waste to a disposal facility; however, a more distributed approach to the location of disposal facilities could potentially lead to decreased consolidation of waste at regional transfer facilities and a potential increase in the number of round trips made by smaller transport vehicles.

Table 1. Estimates of GHG reductions associated with various waste management scenarios.

Scenarios Baseline: 430,000 tons of MSW transported to Coventry, VT		GHG Emissions (MTCO2E)	Equivalent to removing annual emissions from _____ passenger vehicles	Equivalent to conserving _____ gallons of gasoline
Reduce MSW transported to Coventry by 25% and transport that 107,500 tons 40 miles for disposal (Williston to Sheldon).		-530	42	59,590

Reduce MSW transported to Coventry by 25% and transport that 107,500 tons an average of 10 miles.		-1,059	156	119,175
Reduce MSW transported to Coventry by 20,000 tons (current permitted annual acceptance for Sheldon landfill), transport that 20,000 tons 40 miles (Williston to Sheldon).		-99	7	11,086
Reduce MSW transported to Coventry, by 125,000 tons (estimated acceptance rate for Hartland landfill to be viable), and transport that tonnage an average of 55 miles to Hartland.		-1,129	157	127,028

Potential Future Landfill Systems

The economic viability of any potential future landfill or disposal facility project is potentially one of the greatest barriers to pursuing a new disposal location beyond the conceptual stage. As stated previously, the costs associated with designing, constructing and operating a modern, double-lined landfill to meet state and federal requirements are substantial and increasing. Landfill costs will be site specific and dependent on the hydrogeology, soil types, siting restrictions, permitting issues and anticipated waste volumes and disposal rates. Review work in [MSW Management](#) (Duffy, 2005; updated 2016) places a range of cost between \$300,000 to \$800,000 per acre associated with the construction of a landfill. These upfront capital expenditures are a potentially high-risk investment, particularly when permitting, local approval, sufficient capture of the waste stream, and potential future regulatory requirements (impact of contaminants of emerging concern) lend significant uncertainty to the process.

The potential landfill sites in Sheldon and Hartland are not the only locations within Vermont that could potentially host a landfill. Sites that would meet the siting and design requirements of the Solid Waste Management Rules, could be found in many locations. However, the barriers to pursuing development plans have not supported any additional consideration of landfill development and has

forced development projects to halt prior to pursuing a conceptual design permit. The Town of Randolph constructed and then closed a lined landfill in the late 1990's, and there was an additional portion of the property that a conceptual design had been developed for; however economic and operational considerations lead to that project not moving forward. Chittenden Solid Waste Management District acquired land in Williston for a landfill development project, through a lengthy eminent domain process in the mid-1990s. Plans for development of a landfill on that site have been discussed and brought before the public, multiple times within the last 15 years, and have faced significant opposition, to the point that development of a design plan has not been pursued. Development of this site is also complicated by legal agreements with the previous owners that would significantly increase the cost of developing a landfill on this parcel. However, the property is being utilized for other waste management activities, such as composting.

Activation of the conceptually designed landfill facility in Sheldon, or of other facilities, such as Hartland, Randolph, Williston or other Vermont locations is difficult to estimate without knowing the timeframe associated with the funding mechanisms for a project. As a point of reference though, the most recent expansion of the NEWSVT landfill began the permitting process with the Solid Waste Management Program and Act 250 in 2017, following the previous application and receipt of permits specific to that site location (wetlands, set-back variance approval). The site received a Solid Waste Management Facility certification in late 2018, and Act 250 approval in 2019. Construction started soon after all approvals were received, and the landfill cell is anticipated to be approved for waste acceptance in October 2021. A smaller landfill construction project would take a correspondingly shorter period of time from conception to operation; however, it is reasonable to anticipate that it would be a multi-year process.

Regionally, the New England states have primarily managed MSW through in-state disposal, with limited exports to other New England states, and growing export to non-New England states (Figure 2). As landfills are closing and expansion or new landfill permits are delayed or not obtained, there is an increasing pressure on the region's remaining disposal capacity. As reported in the State of New Hampshire's 2019 [Biennial Solid Waste Report](#), New Hampshire expects a shortfall in disposal capacity beginning between 2025 and 2034, and the 2019 [Massachusetts Materials Management Capacity Study](#) identifies that the Massachusetts waste-to-energy facilities and landfills are functionally operating at capacity. Disposal capacity, though scarce in New England, is more widely available in locations like New York, Pennsylvania and Ohio, which some New England states are already utilizing. The national solid waste management system needs to shift to remain sustainable. Consideration of disposal capacity within a region must also consider the capacity of that system to divert materials away from disposal through the development of waste reduction, recycling, organics diversion, and reuse infrastructure.

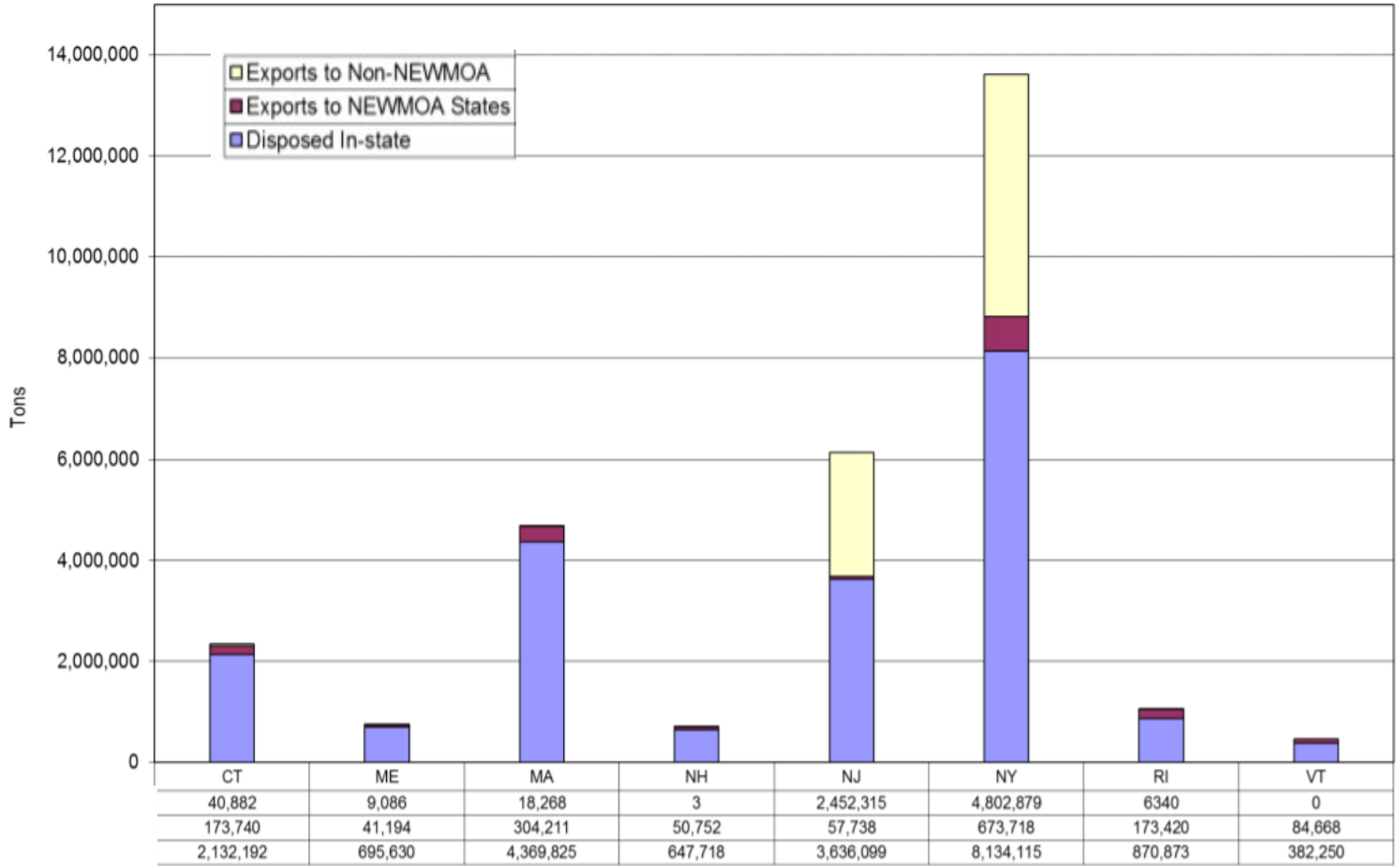


Figure 2: From the Northeast Waste Management Officials Association 2017 Report: [Presentation on Municipal Solid Waste \(MSW\) Interstate Flow in the Northeast in 2014.](#)

Conclusions

There is a need to ensure that Vermont has sufficient capacity in place to manage our waste both now and into the future. This requires a broader view of materials management, beyond disposal capacity. The reliance on a single in-state operational landfill is limiting and does correspond to environmental impacts and local transportation infrastructure stresses. However, the siting of additional landfill(s) does not significantly reduce these impacts in comparison to those of waste reduction and diversion. With the consideration that there is not currently a viable landfill construction project being proposed, or entities interested in pursuing this type of construction and operation, ongoing monitoring of regional capacity issues should be maintained, but greater environmental impacts may be achievable through the continued restructuring of our sustainable approach to materials management.

In recent years, ANR- DEC has focused on supporting Vermonters in reducing waste production and diverting generated waste away from disposal by increasing recycling, composting, and other special recycling (Extended Producer Responsibility) programs. While siting new, additional, landfills may provide more disposal options for Vermont's waste, there is not currently a viable project being planned. ANR-DEC believes more work needs to be done to fully realize and implement the Universal Recycling law and improve waste reduction, recycling systems and markets, composting systems and markets, and food scrap processing capacity. These efforts reduce GHG emissions and decrease the need for additional regional MSW landfill capacity, which have been state goals before even the passage of Act 78 in 1989.

Appendix A

2019 Survey Responses

1. **In the last 10 years has your organization (district, town, business, etc.) completed any investigation or planning in development of a new landfill site? If so, describe these efforts and, if possible, share any related documents that were produced as part of that work?**
 - A. WSWMD has not investigated development of a new landfill site in the past 10 years. A review of files reveals an extensive effort by WSWMD to develop a regional landfill over 20 years ago, but local opposition prevented this from happening in a number of communities.
 - B. We have been asked periodically so supply a town or other local jurisdiction with the technical expertise to evaluate the completion of waste placement activities and/or install final cap systems for other landfills. Often, municipal landfill owners have not set aside the appropriate level of funds to complete the closure and post-closure care required for the facility.
 - C. No, CVSWMD has not completed any investigation into a new landfill site in the past ten years.
 - D. No, the ACSWMD has not investigated nor planned for the development of a new landfill site. Instead, the ACSWMD has focused its efforts on waste reduction, reuse, recycling, composting, HHW reduction and expansion of Transfer Station capacity.
 - E. No (*multiple responses*)
 - F. Randolph town management has held general conversations with personnel from a local engineering firm, Dubois and King (D&K), about a potential reopening of the Randolph Landfill complex. The town and D&K have identified a 17-acre site within the existing landfill complex to serve as a new landfill. It has been determined – through general estimates and calculations completed by personnel from D&K – that the proposed 17-acre site within the Randolph Landfill Complex may accommodate up to 3.2 million cubic yards (or 2.5 million tons) of trash.
 - G. Yes, we submitted a permit application for the expansion of Moretown that was subsequently withdrawn at the request of VDEC. They have all relevant documents.
 - H. Our last known planning effort in this regard occurred in the early 1990's. I'm not even sure if the criteria used then would still apply. I think we have some sort of engineering report kicking around that suggested the Town of Glover had an appropriate location to site a landfill. I'm happy to share that with the Agency if you are interested.
 - I. Being new to this position, I am not aware of any planning of a new landfill site. I believe there has been some planning in other parts of the State. If another site can be developed it will probably need regulatory assistance to ensure it is profitable if a for profit business takes it on. I would be interested in seeing a solid waste district oversee such a project. Please endure they are funded to do so.

- J. No, Salisbury closed our unlined landfill in the past few months.
- K. No, CSWD has not undertaken any investigation or planning towards developing a new landfill.

2. What would you consider to be the primary benefits of having additional landfills sited within the State?

- A. Stabilize long-term landfill costs compared to current situation.
- B. As in Europe, a VT landfill should only accept waste that has been processed for recovery and recycling, known as mechanical, biological treatment.
- C. The existing food waste and yard waste bans should be enforced for all generators using the landfill, including out-of-state.
- D. Landfills provide good jobs, a solid tax base, economic benefits to local communities and businesses, and valuable waste management services to the communities in which they are located.
- E. Closer proximity to areas where MSW is generated, which has environmental and potential cost benefits
- F. Having multiple landfills owned and operated by multiple entities might lead to reduced costs through competition.
- G. More than one landfill would foster competition and lower rates (assuming both landfills are not owned by the same company!). It might also result in a facility that is closer and as a result, less time and fewer carbon emissions to transport the waste.
- H. Competition for pricing, fewer trucks going north, longevity of capacity
- I. Increase landfill capacity within the State of Vermont may lead to a decrease in existing costs for disposal of trash. A decrease in cost for disposal of trash may lead to a greater amount of trash disposed of properly and fewer instances of trash dumped illegally on public lands and rivers. Furthermore, a lower cost for disposal may reduce the amount of trash or waste that is burring on private property – trash or waste that may be harmful to the environment and local populations.
- J. It provides disposal options and would reduce disposal costs. Reduction in transportation would have benefit local expense to residents and businesses and reduced greenhouse gas emissions.
- K. Hopefully it would increase competition and drive down tipping fees. I think we as a state should be cautious about pursuing this because another in-state landfill will attract more out-of-state waste. Landfills are profit driven and will need to seek sources of wastes from throughout New England. This might be a good thing if these wastes are subject to the \$6.00/ton tax.
- L. Providing for disposal of materials that can't be recycled due to technological or economic forces.

- M. Smaller carbon footprint and less cost to municipalities if closer to many transfer stations. Currently Coventry is far to the north while we're far to the south.
- N. If constructed properly, it might reduce the cost of trash that has to be transported so far away.
- O. The primary benefits would be price stabilization (presuming different entities owned the different landfills), continuity of service in the event of natural disasters, preserving capacity in the state's largest landfill, and reducing transportation costs (economic and environmental) associated with moving waste to Coventry.

3. What are the primary restrictions or challenges that you see as impacting a decision to site and operate a landfill in your region?

- A. NIMBY
- B. CVSWMD has a set of landfill criteria, which includes 1) a general buffer zone, 2) a special distance from schools, registered daycares, elder or child care, hospital, nursing home, trail systems, etc. 3) and a host town agreement in place.
- C. Permitting, building and operating a landfill correctly requires significant engineering and technical expertise, including availability of resources in safety, sustainability, maintenance, and management.
- D. Improperly operated landfills cause impacts to surrounding areas, as demonstrated by the operation and eventual early closure of the Moretown Landfill in 2013.
- E. Including the 30-year post-closure period and the potential custodial care period, the development and operation of a landfill requires a large investment of resources over many decades.
- F. Landfills must be sited in a community that recognizes and values the importance of the facility as an essential service to the residents and businesses of Vermont.
- G. Curbside collection of waste is provided by the private sector, not the ACSWMD. (2) The ACSWMD's mission is to prioritize the reduction of waste going into the disposal facility. (3) Economies of Scale: ACSWMD tonnage (approx. 22,000 tons/yr) is insufficient for financially supporting a lined landfill. Much higher volumes would be required to make such a capital-intensive facility function economically. The ACSWMD would therefore have to import waste from out-of-District, and function as a regional facility. The ACSWMD evaluated such an option in the first few years after its formation in the early 90's. This resulted in the withdrawal of two towns with potential landfill sites - Bristol and Salisbury - and their continued operation of their unlined landfills. Subsequent ACSWMD boards have not pursued a lined landfill site, instead opting for development of a full-service Transfer Station in Middlebury. Only in the past 5 years have the Towns of Bristol and Salisbury closed their unlined landfills and rejoined the ACSWMD. Any new development would be to offer an expansion of our drop-off and transfer station

services, and to site/design/construct a new HazWaste facility that could possibly serve as a regional facility for the collection of Household Hazardous Waste.

- H. Coventry landfill is within reasonable distance to LRSWMD so it would not be prudent to seek additional landfill space in this region
- I. State and local permitting is not amenable to a quick permitting process and the costs would be prohibitive to proceed with permitting at this time.
- J. A local barrier to opening a landfill in Randolph or our immediate region would likely be a truck route that travels directly through Randolph (Route 66 to Route 12), which traverses Randolph's Village and a local neighborhood. A potential solution would be to instruct all trash trucks to use primarily Exit 3 and travel northbound/southbound on Route 12. A second potential barrier is related to a cost-benefit scenario: will the town generate revenue greater than what will be needed for long-term monitoring/care of the landfill complex. It may be a challenge to obtain approval from local residents to open a landfill in Randolph if there is no direct benefit to local tax payers.
- K. I doubt an additional landfill site would or could be sited in the Northeast Kingdom since the existing landfill is here. Siting will be a challenge anywhere in the state. From an efficiency standpoint, it would make sense to site a landfill near the source of the greatest generation...i.e. Chittenden County, but I'm not sure how easy that would be.
- L. Residents would likely oppose a landfill.
- M. No, but I would think NIMBY would hold true.
- N. Startup cost and having enough volume to be cost effective.
- O. Residents in the area will be opposed to the idea. It would probably take years before it would open.
- P. There are numerous challenges to citing a landfill in Chittenden County; Naming just a few:

1) The property CSWD acquired through eminent domain still has valuable resources that are owned by the previous owner. The previous owner has the legal right to access the resources (sand) on the property for another 19-20 years. If CSWD were to site a landfill on the property much before 2035, the District would need to remove the sand and store it so that the previous owner could still access it. This expense would add millions to the cost of building a landfill.

2) The overall property owned by CSWD that is potentially available for landfill use is approximately 50 acres. Of that acreage, fully 1/3 would be consumed by access roads, storm water features, buffer zones, etc. At current disposal rates, the remaining available disposal area would be short-lived.

3) The cost to construct a modern sanitary landfill requires that the landfill be active for long enough to generate sufficient revenue to build a satisfactory closure and post-closure reserve fund. It is unclear at this time if the remaining acres would

provide adequate landfill longevity to justify the cost of construction and post-closure maintenance.

Any additional thoughts or comments?

- A. A host community benefit package should be required.
- B. An evaluation of mining closed landfills should be required in order to recover recyclable materials, and convert closed landfills into a state-of-the-art lined landfill.
- C. Energy production from methane should be a component of the required design, especially anaerobic digestion of recovered organics, as well as new sources of organics.
- D. A new landfill should be developed as one component of an onsite, or off-site, integrated waste management and recycling facility, known in Europe as mechanical, biological treatment (MBT), with only processed residue landfilled.
- E. Out of state MSW and biosolids should be allowed and encouraged to make a new landfill an attractive investment for private developers.
- F. The design capacity of the landfill should be large enough to be financially feasible.
- G. A variety of materials should be allowed for use as daily cover, such as contaminated dirt, processed C&D, and biosolids/sludges.
- H. State financial assistance should be provided for landfill feasibility studies.
- I. The shift from many unlined landfills to fewer, highly-engineered facilities is not unique to Vermont; the same trend has occurred in nearly every state due to the complexity and regulatory requirements for a properly engineered solid waste landfill.
- J. Given the low population of Vermont and the regulatory limitations on inter-state waste flows, the size of the existing landfill is comparable or smaller than landfills in most other states.
- K. Given the small geographic size of Vermont, the distances that waste material travel to the existing landfill are comparable or less than the distances in most other states.
- L. Randolph is open to exploring all options that will decrease costs and taxes to Randolph residents and increase availability of services. Randolph is a hub community and a leader in our region of Vermont; we would likely search for opportunities to extend benefits to towns within our region that may come from the reopening of the Randolph Landfill Complex.
- M. I'm not sure why Vermont feels compelled to site additional landfill capacity in-state. I think someone needs to take a long look at landfill capacity in the region and see if sufficient capacity exists.
- N. The town of Canaan has used New Hampshire landfills for quite some time and continue to do so as they are close to our location and we have never had any issues with them and their prices are reasonable. We have no intention or need to go to another landfill. It is my understanding that they are certified to operate for the next 25 years and beyond.

So for the town of Canaan and I would assume most of Essex County which borders NH we would not want to leave our current landfill.

- O. Chittenden Solid Waste District does not plan to construct a landfill in Williston at any time in the next 10 years.