

State Solid Waste Districts Survey Responses, October 2007

The following solid waste districts (SWD) responded to the survey questions Chittenden County (CSWD), Central VT (CVSWMD), Lamoille (LRSWMD), Southern Windsor/Windham SWD, Solid Waste Alliance Communities (SWAC). Recommendations also received from the Vermont Business Material Exchange (VBMX) manager and UVM.

Briefly describe your existing infrastructure for organics waste reduction (include backyard compost bin sales and trainings and food reuse such as food shelves)?

CSWD

- 1) Backyard composting is promoted; discount bins and kitchen collectors available year round; occasional workshops.
- 2) On-site composting is conducted by some schools and businesses. Curbside collection of commercial food waste is available.
- 3) An unmeasured quantity of food reuse is practiced by most grocery stores and other generators through food shelf, day centers and other distribution programs.
- 4) Free technical assistance is provided to generators on setting up program (on-site or collection).
- 5) Curbside collection of residential food waste is offered by one hauler, I believe it is limited to Burlington households.
- 6) Drop-off composting is available to residents and small businesses at 5 drop-off locations in Chittenden County.

CVSWMD

Only In My Back Yard -- CVSWMD spent two years researching the use of Green Cones (food scrap digesters) in Vermont by piloting them in 4 of our 22 member towns. Both of these pilots were successful, and we learned that Green Cones do help families of owner-occupied homes divert their food scraps from the trash. We learned valuable information about how the Green Cones are optimized, and can now recommend guidelines for using them. For example, we learned that green cones are best utilized when installed close to the home, at a quantity of two per family (depending on size of family and if they have a compost pile in conjunction with the Green Cone). In July 2007 Dennis Sauer, our staff member developing the Green Cone program called "Only In My Back Yard", had the opportunity to transition away from the District and now works directly for Zero Waste Inc., a not-for-profit organization that is working to develop zero waste throughout Vermont. As Zero Waste Inc. is not tied to servicing only the 22 member towns of the District, it can hold Green Cone sales events open to all members of the public. While the sales of Green Cones

have been launched in the Central Vermont Region, it is not limited to this geography in the future. http://www.cvswwmd.org/green_cones.html

Business & School Organics Programs

Since April of 2004, CVSWMD has been developing a hauling route for food scraps collection from Business and Schools. Participating Businesses and schools receive all training, materials, and technical support directly from CVSWMD. We pickup the food scraps in 48 gallon totes, and haul them to the closest compost facility. In the Capital region, we deliver to the Vermont Compost Company, and in the Hardwick region we deliver to The Highfields Institute as part of the Northern Vermont Composting Partnership. In Bradford, a private hauler collects and composts the food scraps diverted through our program. In this program we have helped divert 1,409 tons of food scraps from the landfill from 52 businesses and schools.

http://www.cvswwmd.org/business/business_organics_program.html

http://www.cvswwmd.org/education/school_organics_program.html

LRSWMD

We sell Backyard Compost Bins year round; we have four Food Shelves in the District; Some restaurants were composting with Intervale via Allcycle Waste Hauling; Two schools have a viable composting program with help from AVR; The Village of Johnson has a Bio-solids composting facility that is dormant.

Southern Windsor/Windham

The District holds an annual springtime compost bin sale; this year we also offered kitchen scrap pails. The orders are pre-paid only, as we have no storage space for extra bins. So residents who miss the spring sale have to wait another year or go elsewhere.

I would guess that most District towns have a food shelf, although I only know of those in Windsor and Ludlow. Some of the transfer stations in the District accept yard waste which they chip and allow residents to take away.

SWAC

District sells backyard compost bins through the Rutland County Solid Waste District. The bins are advertised for sale throughout the county and are listed on the District's website. SWAC residents can go directly to the District to pick up the bins.

UVM

The University of Vermont (and other institutions in Chittenden County such as the hospital and public schools) are completely reliant on Intervale Compost Facility to accept our food waste. The shut down of this facility- for the unspecified amount of time- has been a huge burden on our program. We had previously diverted 5 tons per WEEK of food waste to ICF and all of this has been landfilled for the past 4 weeks.

What's working well about these programs and why?

CSWD

Great participation in backyard composting probably due to high level of participation in gardening and environmental awareness as well as promotion.

Logistics of drop-off compost have worked well.

The food reuse programs in Chittenden County appear to be working well due both to the kind contributions by the generators and volunteers involved in the distribution. Perhaps the generators should be approached to ascertain whether all the food they make available is being distributed or is there any significant quantity that is not due to the lack of a distribution system.

CVSWMD

As both of the programs are new in the last three years, we have successfully entered the food scrap diversion arena by providing quality service and reliable products through testing and development. We have developed strong relationships with our business participants. We have provided organics diversion opportunities to 9,973 students. We have helped about 200 households divert an average of 760 pounds of food from their trash a year.

LRSWMD

The District's sales of compost bins make it easy and relatively inexpensive for the general public to buy a bin all year round. The District donates bottle redemption money to the Lamoille Food Share and United Way (Over \$3,000 each per year). Association of Vermont Recyclers is an important component to the District's education program and has been concentrating on composting programs the last two years.

Southern Windsor/Windham

The compost bin sales work as well as they can within the limited availability. I haven't had any complaints from customers about the quality of the "Earth Machines." The kitchen pails were fairly popular. We sold 40 bins and 20 pails. But in a District with over 39,000 residents, those sales numbers barely merit mentioning. As far as the food shelves go, I believe they are like those across the country - too many askers for too little food. More and more residents need the services of food shelves but the supply hasn't been able to keep apace.

SWAC

It works well in the sense that SWAC provides education to residents via its website but the District takes on the actual burden of sales.

UVM

At the moment, nothing.

What's not working well and why? How could the challenges be addressed?

CVSWMD

One challenge with our Business and School Organics program has been developing on-farm partnerships with farm partners who are not only interested in developing composting as a viable addition to their farm business and revenue, but, who also have the money to prepare their land and time to understand permit related issues. On-farm partnerships are crucial for the delivery and processing of food scraps to compost, and for keeping local farms diversified and healthy. One way to address this challenge would be for the ANR and the Dept. of Agriculture to have agreeing permitting requirements for such enterprises. Also, the two agencies could jointly make funds and technical assistance available for those farmers who wish to develop this capacity.

With the "Only in My Back Yard" program, advertising and distributing have been difficult, given that the rural demographics of Central Vermont make advertising costly, and make it difficult to target only the towns in our District. Zero Waste Inc is able to advertise more widely, without excluding residents of neighboring towns.

LRSWMD

The closing of the Intervale has had statewide repercussions. Restaurants may be unwilling to take on a program now.

The Village of Johnson needs technical assistance and incentives to resurrect the bio-solids facility. The District is having discussions with the Village to determine if the Village is willing to have the District operate the facility or to help them contract with someone who can run a food composting operation.

More restaurants need to be composting. The LRSWMD rate for organics in the waste stream is 30%, a bit higher than the national/state average. The towns of Stowe and Cambridge have many restaurants that could be composting if a facility was located within a reasonable hauling range.

Another weak link is hauling. The initial attempts at commercial composting programs fell apart at the hauling level.

CSWD

- 1) Lack of growth in commercial collection due to on-site challenges, unwillingness of main hauler to expand capacity beyond one truck, and cost savings not always evident to generator. Need greater economic incentive through solid waste service pricing. A ban (with proper phasing) on organics would guarantee demand for haulers and improve route density and, therefore, economics of collection.
- 2) Limited growth in drop-off program. Not convenient for residents that don't use drop-offs for their regular trash and recycling. The Yuk Factor.

Southern Windsor/Windham

If the District had money and the Board's agreement to build a storage shed at one of the transfer stations, we could offer compost bins for sale year round. Money and a shift in values to support the food shelves adequately, would address that shortage issue.

SWAC

SWD provides a very minimalistic approach to tackling composting. We lack funding, infrastructure, training, and transportation to put into place a better program.

UVM

There is not enough capacity and not enough back-up sites to accept post-consumer food waste. Relying on a sole-source vendor to handle all the organic waste is risky. Essentially we are beholden to one private hauler and one private composting facility. What can the state of Vermont do to encourage more well-run legitimate composting operations? What can the state of Vermont do to CLARIFY the rules and regulations of what is involved in composting food scraps? What can the state do to ensure long-term capacity of facilities to handle this waste stream?

How do you quantify waste reduction through your programs and what recommendations do you have to improve data collection?

CSWD

- 1) Tonnage data from Intervale Compost Products is compiled.
- 2) Estimates for backyard composting are made using local and national survey data.
- 3) No estimates are made for diversion through institutional and commercial on-site composting, nor for food reuse, but this could be done.

No recommendations about data collection.

CVSWMD

To measure the success of our programming, we identify the number of participants, we track their participation levels, we identify the number of students participating per school, and we record how many participants have successfully renegotiated their waste hauling contracts, among other factors. We also keep track of the tonnage of organics diverted from landfills through this program, and use this data to help businesses and schools further reduce their waste. As we see organics diversion numbers increase initially, we also focus on the long term decrease of this waste through suggesting possible ways to achieve reduced waste levels in businesses and schools. We aim to achieve the highest percentage of diversion from the trash, not the highest diversion numbers. Looking at diversion numbers alone is not a complete picture, and we recommend improving data collection to also track how a participant's (and the State's) waste stream is reduced overall.

LRSWMD

I don't.

Southern Windsor/Windham

The only way I quantify organics waste reduction currently is by the number of compost bins and kitchen pails sold annually. I don't know if the transfer stations keep track of how much yard waste they process.

SWAC

We cannot collect data on the organics that are diverted. The only numbers we have are the number of composters sold.

UVM

We can measure "how many carts" of food waste are diverted each week.

What's needed to take diversion to the next level?

CSWD

Determine or estimate the collection and processing cost scenarios for organics and then compare the economics and environmental impact of a desired program to disposal. Educate the public and various government entities as to the results of the comparison including the expected recovery rates. Should the decision be to go forward with organics collection and processing, then consider a phased-in ban on organics disposal with the development of additional processing capacity—windrow composting, anaerobic digesters, gasification.

Revised composting facility permit regulations and assistance in obtaining permits.

CVSWMD

The Central Vermont Solid Waste Management District worked with Stone Environmental to develop a GIS linked Access Database of health department license records to help us identify locations and quantities of food for the Business and School Organics Programs. We use the Access Database to track all of our participant information, diversion totals, hauling data, and billing records. We recommend that a state-wide internet based map and database of all food establishments and compost facilities be created so that a state-wide approach to organics diversion will be possible in the future. Also, a state-wide ban of organics from the landfill will be necessary once the organics diversion infrastructure is in place.

Capital investments; Grants to help with capital investments; Haulers willing to do the job right; Ease of permitting; More farms in the vicinity; Training programs for food rescue.

SWAC

Landfill ban on organics - Training, funding, infrastructure, transportation

UVM

Make composting/food waste diversion cost competitive.

Southern Windsor/Windham

A couple of things would kick diversion rates higher. First, get all grocery stores on board to recycle unused produce. The economics of diversion/composting vs. disposal should make a convincing case. Maybe by addressing the issue through the Grocers' Association or another industry group, stores would feel inclined to stop landfilling and start composting.

Secondly, the public needs to be made aware of the fact that food waste is unnecessarily adding to the landfill burden. Composting is easy and it is something people can do to prevent greenhouse gas emissions from organics decaying in landfills.

Vermont Business Materials Exchange

Most especially for large scale production of organic waste, we would like to be considered an option of being a "virtual" composting facility. The use of VBMX in posting organics needs has declined significantly in the past several years. I'm concerned we have become so focused in our marketing on C&D, electronics, and Office Equipment, people forget about organics.

Maybe, as a start, if the SWDs accept organics at their locations, they could have a permanent posting on VBMX stating they "WANT" organics. I know it usually isn't the role of the SWDs to post WANTED listings, but it could help raise the awareness that these are entities that can channel organics out of the waste stream.

I also feel there is a lack of understanding in the general public and business community on exactly what is organic and compostable. I don't know how VBMX can play a role in this (maybe a special pull out in our VBM ad a couple times a year?).

October 1, 2007 Interview with Vicky Viens, State Composting Specialist

Existing organics waste reduction infrastructure

- Existing infrastructure for waste prevention is the Vermont Food Bank and the local food shelves. The Vermont Food Bank has a kitchen for turning any cookable fresh food material into frozen meals (how many food shelves have freezers?).
- Backyard composting: districts/alliances sell backyard bins in much of the state. Some have occasional composting classes.
- Association of Vermont Recyclers teaches composting in schools. AVR assists schools to set up composting programs.
- Master Composter statewide program out of ANR (funding, technical, and educational support) and UVM Extension (administers class, oversees volunteer opportunities and work, maintains databases and website).
- More in-depth classes for individuals are taught statewide through Vermont Interactive Television. Those who wish to receive and maintain their Master Composter certification are required to do a number of hours of volunteer community work per year.
- Composting facilities (commercial and on-farm) that accept food waste (and other organic waste) are located in Chittenden Co. (Intervale), Franklin Co. (Two farms), Lamoille Co. (Two farms certified), Washington Co. (Vermont Compost Co.), Caledonia Co. (one farm), Addison Co. (Vermont Natural Ag.) and Rutland Co. (one farm). Food waste collection for these are all focused on commercial food waste from grocery stores, institutions (primarily schools and universities, but occasionally hospitals), and restaurants. Chittenden County has residential collection at three Chittenden Solid Waste District drop-offs and possibly at Intervale Compost facility. In Brattleboro and some of the surrounding area, a private hauler picks up commercial food waste and other organics and brings it to MA (5-10 facilities).

Challenges & Issues

- Lack of funds for facilities and equipment
- Lack of storage space for collection by some generators (particularly small restaurants).
- Business concerns about odors and vectors. *Note: CVSWMD has gone to one pickup/week with use of sawdust.*
- Training staff and large staff turnover (language problems)

- Difficulty maintaining school composting programs due to staff changes and/or staff loss of interest.
- Siting problems
- Permitting issues (regulations are confusing related to ANR and Act 250).
Note: Composting Association of Vermont is working on these issues

Measureables used

- Categorical certification reports (ANR requires these for certified facilities) *Note: RSWMD used a portable mail scale to weigh organics*
- Direct contact with exempt facilities (provide conservative estimates)
- Number of backyard bins sold

Recommendations to improve data collection for measureables

- "Permit by Notification" to learn who the exempt facilities are

What's needed

- More funding for start-up and capitol equipment
- General education about composting
- Define how we can reuse more food through the Food Bank

Waste Prevention Hierarchy for Organics Waste Prevention - presentation by Vicky Viens at the first organics subcommittee on 8/29/07

- **FARM ONLY WHAT IS SELLABLE.**
- **MINIMIZE TRANSPORTATION**
- **MINIMIZE PROCESSING**
- **PROCESS EFFICIENTLY**
- **SHIP PROPERLY**
- **SHIP EFFICIENTLY**
- **BUY ONLY WHAT YOU NEED**
- **STORE PROPERLY**
- **USE WHAT YOU BUY (ORGANIC FOODS OFTEN LAST LONGER)**

- **GIVE AWAY EXTRAS (NEIGHBORS, SHELTERS, FOOD SHELVES, VT
FOODBANK**
- **USE SAFE NON-EDIBLE FOODS TO FEED ANIMALS**
- **COMPOST THE REST**