

Rural/Small Town Organics Management Case Study

Franklin County Solid Waste Management District, Massachusetts



Background

The [Franklin County Solid Waste District](#) (FCSWMD) is comprised of twenty-two member towns in western Massachusetts: Bernardston, Buckland, Charlemont, Colrain, Conway, Deerfield, Erving, Gill, Hawley, Heath, Leverett, Leyden, Montague, New Salem, Northfield, Orange, Rowe, Shelburne, Sunderland, Warwick, Wendell, and Whately. The towns range in population from Hawley (population 337) to Montague (population 8,437).

The District's governing body is its Board of Representatives, which includes representatives from each member municipality. The District is staffed by an Executive Director, Program Director, and Administrative Assistant/Bookkeeper. Each town pays an annual administrative assessment that covers approximately 60% of the District's administrative operating expenses. The remainder of the budgeted expenses is paid through a fee-for-service program and grant income.

Programs and services provided by the District to its member towns include:

- **Tracking and Reports:** The District tracks the quantity of recyclables, trash, bulky items, and metal shipped under the District's hauling contracts.
- **Grant Writing:** The District applies for state and federal solid waste management grants on behalf of its member towns.
- **Special Programs:** The District offers numerous special programs, including the operation of three regional permanent household hazardous waste collection centers; coordination of twice yearly tire, electronics, appliance, and bulky waste collections; sales of backyard compost bins and recycling bins; a free sharps collection program and free collection of mercury-containing products for residents. The District also provides technical assistance to residents, businesses, schools, and town offices on recycling, composting, waste disposal, and hazardous materials management.

The District currently administers four fee-for-services programs including: Recyclables Hauling; Waste Hauling and Disposal; Sludge Hauling and Disposal; and, annual Household Hazardous Waste Collection Events.

The District provides technical assistance for organics composting at schools and special events. Four Franklin County Middle School/High School complexes and eleven Franklin County elementary schools compost their kitchen and cafeteria food scraps. Organics are collected in a dumpster and hauled by Triple T Trucking to Martin's Farm in Greenfield, Massachusetts.

The District also manages four municipal organics drop-off programs at transfer stations in Whately (population 1,496), Northfield (population was 3,032), New Salem (population 990), and Orange (population 7,839). Food scraps and soiled paper are collected in each of the towns. All four towns have volume-based rate – pay as you throw (“PAYT”) trash disposal, with free organics disposal for residents.

Planning and Program Description

Town of Whately

The Whately Municipal Organics Program was launched in 2003 with a Massachusetts Department of Environmental Protection (MassDEP) technical assistance grant. The program was the first municipal source separated organics program in the state. The District purchased six, 68-gallon wheeled carts for collecting the materials. The collection is a drop-off program and takes place at the Whately Transfer Station. Also, with the grant funds, the District purchased 4-gallon collection pails for distribution to residents. Thirty-five pails and an instruction flier were distributed by District staff at the Whately Transfer Station.



Whately Municipal Organics Program

The collection carts are monitored by the Whately Transfer Station attendants. Signage describes acceptable materials. One cart is always filled with sawdust for residents to spread over the deposited food scraps. Residents are not charged a tip fee for organics disposal. The program was originally set up to just accept vegetable and fruit scraps, but in 2010, the processor (Bear Path Farm) began accepting all food scraps, including meat and dairy, as well as soiled paper.

In 2013, two new carts were added to the collection site. The carts were funded through a MassDEP Sustainable Materials Recovery Program grant. In addition, 25 “Sure-Close” kitchen compost collection pails were purchased through the grant for distribution to Whately residents, and 25 more were purchased by the town. Of the 375 town residents that use the facility, approximately 70 participate in the program.



The collected materials are composted at [Bear Path Farm](#) in Whately. The District used grant funding to subsidize collection for the first year of the program and continued to pay for the program with District funding for an additional two years. The town of Whately now pays a transfer station attendee (with his personal truck) to haul the collected organics to the farm for composting. Hauling is done when the carts are full, approximately every three weeks. The Whately Elementary School also sends food and nonrecyclable paper to Bear Path Farm; the town covers the costs of hauling the material to Bear Path Farm.

Town of Northfield

The Northfield Municipal Organics Program was launched in 2008. A three-cubic yard organics dumpster is rented by the town for organics collection at the town transfer station. The dumpster is equipped with a locking bar to detour bears. The dumpster is serviced weekly by [Triple T Trucking](#) and hauled to [Martin’s Farm Compost and Mulch](#) in Greenfield, Massachusetts for composting. The Northfield Elementary School and Pioneer Trail Regional Middle School/High School also divert organics. Triple T Trucking provides a three-cubic yard dumpster and collection services to the schools. The weekly collection for the transfer station is provided at a flat rate of \$105 per month, paid for by the town.

Town of New Salem

The New Salem Municipal Organics Program was initiated by the District in July 2009. Three, 20-gallon barrels are used for collection at the town transfer station. The barrels are owned and serviced by [Clear View Composting](#), a composting company located in Orange, Massachusetts. Due to concerns about bears, the barrels are contained in a “bear-resistant,” lockable wooden box designed and installed by the company’s

owner. Clear View Composting paid for all materials to customize and construct the box for the town. The bins are collected on a weekly basis

Before the program was launched, a survey was conducted at the transfer station to gauge interest in such a program. Residents overwhelmingly supported the program. The Swift River Elementary School, which serves the towns of New Salem and Wendell, also launched an organics program at the same time. Both locations are serviced by Clear View Composting.

Town of Orange

The Orange Municipal Organics Program was begun in May 2011. Three, 20-gallon barrels are placed at the town transfer station for collection. As with the town of New Salem, due to the concern over bears, Clear View Composting customized and installed a lockable wooden box to house the barrels. Clear View Composting paid for all materials for the construction. The barrels are collected weekly by Clear View and transported to the company's compost site in Orange.

Acceptable Materials and Program Participants

The District coordinated organics programs collect food scraps and soiled paper. Yard trimmings are handled by backyard composting programs or town collections.

Acceptable materials include:

- All food scraps
- Meat, poultry, fish, bones, eggs, dairy, etc., and
- Non-recyclable paper, paper towels, napkins
- Soiled or waxed paperboard or cardboard (including pizza boxes, egg cartons, and paper bags)

See attached flier from the Northfield program for more details.

Cost/Funding

Whately

In 2008, the town of Whately reported that it saved approximately \$720 in disposal fees by diverting nine tons of food scraps through the composting program¹. The Town pays a transfer station attendant to haul the materials approximately every three weeks. Bear Path Farm does not charge for processing the collected materials. The Whately solid waste budget includes \$1,250 to pay for compost hauling.

Northfield

The annual cost of the compost dumpster collection and rental is approximately \$1,260.

Avoided disposal costs (from processing the organics as compost instead of trash) estimated as \$2,760:

- Tip fees: 36 tons x \$60/ton for trash = \$2,160
- Hauling fees: about \$200/haul (10-14 tons/ haul), about 3 hauls saved/ year= \$600 Total: \$2,760

Amount saved on hauling and tip fees: \$2,760 – \$1260 = \$1,500 saved/year

Note: The town does “lose” pay-as-you-throw trash revenue (residents pay \$1.50 per 33-gallon bag of trash).

¹ Additional cost information is not available from the town.

New Salem and Orange

The towns of New Salem and Orange are billed directly by Clear View Composting for their collection services. Each community is charged a compost processing fee of \$36/ton. A “per-pickup” collection fee is also charged. For the Town of Orange, the amount is \$3.50 per pickup if pickup frequency is once a week or less, which has generally been the case. That amount would lower to \$3.00 per pickup for more than once per week.

The “per pickup” fee for New Salem is higher due to the longer haul distance. Also, the charge varies depending on whether or not the Swift River School is in session. If the school is in session, the Clear View collects the school’s organics as well, and splits the haul charge between the school and the town. The per pickup charge to the town is \$7.80 when the school is not in session and \$4.20 when it is.

Outreach and Education

The District is primarily responsible for education about the composting programs. Fliers are also left with transfer station attendants for distribution.

Whately

- 2003 - 2005: Fliers distributed and posted at the town transfer station on multiple occasions. Fliers also posted and handed out at the Town Hall. Laminated fliers were placed on collection carts at the transfer station
- July 2010: Article in the Whately Scoop newsletter
- 2011: Metal sign installed in collection cart area
- 2013: New District “compost” stickers were applied to all collection carts. Articles about the 10-year anniversary of the composting program and the availability of new kitchen collection pails were posted in the in town newsletter and area newspapers, including: “[Whately, Bear Path Farm mark 10th anniversary of successful municipal compost program](#)” in the *Springfield Republican* newspaper and “[Whately compost program marks 10 years](#)” in the *Daily Hampshire Gazette*
- Ongoing: Fliers distributed at the transfer station

Northfield

- May 2008: Press releases distributed; front page article in the *Greenfield Recorder*
- May 2008: Radio interview on local radio station
- Spring 2008 and winter 2009: Northfield town newsletter article
- Summer 2008: Fliers distributed at the transfer station; composting demonstration conducted at the transfer station; metal sign placed in the collection area
- Summer 2008: Fliers disseminated at the Town Hall and library
- October 2008: Fliers distributed at bulky waste collection day event
- December 2008: Energy Fair tabling and presentation
- February 2009: Elementary school presentation
- February 2009: Handouts sent home with Northfield Elementary School students
- Winter 2009: Slides aired on local cable television
- Winter 2012: Article in Northfield newsletter; slides aired on local cable television
- Ongoing: Signs posted at transfer station; fliers distributed at transfer station.



Sample signage
(metal, on post)

New Salem

- Spring/Summer 2009: Survey of residents at the transfer station to assess interest and support for the composting program
- July 2009: Press release sent to local newspapers; article in New Salem newsletter
- Ongoing: Signs posted at the transfer station; fliers distributed at the transfer station
- July 2013: “Sure-Close” compost pails purchased by town and distributed to residents

Orange

- Ongoing: Signs posted at the transfer station; fliers distributed at the transfer station

Equipment and Collection

Whately

The Town of Whately uses six, 68-gallon wheeled carts for organics collection. One cart is always filled with sawdust to cover the food scraps. A Town employee hauls the full carts with a pickup truck (equipped with a Tommy-Lift) to Bear Path Farm in Whately for composting.



Northfield Organics Dumpster

Northfield

The Northfield Municipal Organics Program uses a three-cubic yard organics dumpster for collection. The dumpster is rented by the Town. It is equipped with a locking bar to restrict access by bears. The dumpster is serviced by Triple T Trucking, using a front-loader truck, and hauled to Martin’s Farm in Greenfield, Massachusetts for composting.

New Salem & Orange

Three, 28-gallon barrels are in place at the New Salem and Orange Transfer Stations. Clear View Composting designed and installed a “bear-proof,” lockable wooden box to contain the barrels. Clear View paid for all materials to customize and construct the box for the town. The barrels are owned and serviced by Clear View.



Bear-resistant Box for Collection Barrels

Results & Impacts

- Whately composts an estimated nine tons of food scraps and soiled paper each year and an additional three tons from the Whately Elementary School.
- Northfield composts an estimated 36 tons per year.
- New Salem has composted an estimated 11 tons (45 cubic yards) since the program inception.
- Orange has composted an estimated 4 tons (15 cubic yards) since the program began.

Lessons Learned

- Original concerns at the transfer station collection sites about bears and other potential vermin being attracted to the compost seem to have been prevented through installation of the bear-proof container boxes; no problems with wildlife have been reported
- The use of sawdust for spreading over the food scraps helps detour odors and insects
- When necessary, flies are managed with 1-gallon Victor Fly Magnet traps
- No handling or contamination issues have been reported by the hauling or processing service providers

Shelburne Falls Compost Collaborative

In addition to the residential programs described above, the District provides administrative, educational, and technical support for the commercial collection of food scraps and soiled paper from several restaurants in Shelburne Falls, Massachusetts; known as the Shelburne Falls Compost Collaborative (SFCC).

Planning and Program Description

In early 2010, Shelburne Falls, Massachusetts initiated an assessment of energy, waste, and water systems for five local businesses. Reducing waste disposal costs was considered high on the list of concerns.



In the summer of 2010, the District, the [Greater Shelburne Falls Area Business Association](#) (SFABA), and Environmental Compliance Services, Inc. (ECS) approached ten food service establishments with a proposal for composting food scraps and non-recyclable paper. An innovative and cost-effective solution for promoting commercial composting in a small town was proposed—sharing a centrally located dumpster.

Prior to program start-up, interested businesses were asked to complete a solid waste survey and to measure the amount of organic waste they generate. Participants were provided with 5-gallon buckets for collecting food scraps and soiled paper from food preparation areas as well as customer plate scrapings. Participants were asked to record each full bucket and then to throw away the contents. Businesses were also asked to estimate how much waxed cardboard they generated. The reported measurements were totaled by estimated volume generated for each participating establishment, compared to the total space available in the dumpster, and each prorated to assess how much each business would be charged for participating.

The Collaborative currently has five food service establishments participating in the program: The Baker's Oven Bistro, Mocha Maya's, Mo's Fudge Factor, Blue Rock Restaurant, and West End Pub. The program is managed by the District with assistance from the Shelburne Falls Area Business Association. Two offices also add shredded paper to the collection dumpster: Mirick Insurance and Trailside Health. In 2012, the Bridge of Flowers joined the SFCC and adds garden clippings. The offices and Bridge of Flowers are not charged for their materials, as their shredded paper and garden clippings cover up the food scraps, therefore helping mitigate insect problems.

All types of food scraps wastes are accepted in the program, including meat, poultry, fish, bones, dairy, fats and oily foods, as well as non-recyclable paper, such as napkins, towels, cups, plates, and waxed cardboard. Biodegradable Products Institute (BPI) certified compostable plastics, such as cold cups made of PLA, are acceptable. Shredded paper, regular paper, and cardboard can also be added as these materials help to control odor and insects in the collection dumpster.

Cost/Funding

The monthly hauling fee for the compost dumpster is \$140. Tipping fees for source separated organics are \$45/ton, compared with an average of \$75/ton for solid waste in western Massachusetts. Participating businesses also benefit from significantly reduced hauling charges due to the relatively close proximity of the compost operation (as compared to the landfill which is located in another county).

The District provides billing services for the Collaborative. Triple T Trucking bills the District and the District in turn invoices the restaurants. In March 2012, the District asked participating businesses to reevaluate their organics volume. Invoices are prorated according to these new calculations, as well as seasonal variations.

The District also keeps track of when to switch the service from weekly in summer to every other week for the balance of the year. The District ensures that the dumpster is locked and provides troubleshooting for any problems that arise.

Outreach and Education

The District provides outreach and training on the program. All participating businesses are provided with fliers to post on their walls and collection containers for acceptable and non-acceptable materials. District staff provides an introductory training of staff at participating businesses, as well as occasional additional trainings as new staff come onboard or if problems with contamination arise.

Equipment and Collection

Participating restaurants either collect organics in small pails (4 or 5-gallon) or a regular trash barrel lined with a compostable bag. Restaurant personnel use a hand-cart or a vehicle to transport the containers to the centrally located dumpster.

An initial challenge for the Collaborative was locating a suitable site for the shared dumpster, as participants are scattered around the town. Currently a four-cubic yard dumpster is located at the Shelburne Falls VFW's parking lot (the fee for use of the lot is waived by the VFW). Program participants have been supplied with a key to the dumpster, which is locked to prevent illegal dumping.

The dumpster is serviced weekly in summer and every other week in the winter by [Triple T Trucking](#) of Brattleboro, Vermont and the material is taken to [Martin's Farm Compost and Mulch](#) in Greenfield, Massachusetts.



Compost and trash receptacles at Mo's Fudge Factor



Results & Impacts

With funding from the Massachusetts Department of Housing and Community Development, under a Downtown Initiative Program Grant, a program assessment was done during the spring and summer of 2011.

Participating businesses were asked to complete a survey to identify the following:

- Weekly trash volume
- Weekly compostable waste volume
- Components of the compostable waste
- Cost effectiveness
- Convenience of the program
- Available times for training staff

Paul St. Martin, owner of West End Pub, said his establishment participates by “keeping separate buckets and having employees put all the compost scraps in one and all the non-compostable items in the other. The best part is we cut our garbage in half.”

The assessment also sought to determine if the program was still fully supported by participating businesses, if and how the program needed improvement, and if participants felt the program could be expanded to include additional businesses.

Survey results indicated that participating restaurants were diverting, on average, about 50% of their solid waste; for some participating businesses the diversion was as much as 75%. There was strong support to continue the program and potentially expand the Collaborative to include additional businesses. Participants felt that the program created a “sense of pride” for the businesses.

Lessons Learned

Some “Challenges and Areas for Improvement” reported through the assessment (see above):

- Improve cost effectiveness
- Illegal dumping and lock vandalism/misuse
- Pests/nuisance odors/clean-up
- Dumpster access during winter months (due to snow blocking access)
- Recognition of program participants and overall marketing of program

The larger restaurant participants are realizing more of a benefit from the program through increased diversion and reduction in waste disposal costs. Most of the participating businesses felt the program was cost-effective and reported reducing their disposal cost savings by at least 30%. One of the challenges noted to achieving higher cost savings was reported as the lack of flexibility in pre-existing trash disposal contracts. The contracts are with the property owners, not the participating business tenants.

The District has increased monitoring of the dumpster to ensure that the lock is always on it and secure. Restaurants are regularly reminded about the importance of keeping the container locked to prevent illegal dumping.

During the first summer of the program, a persistent fly problem emerged. Participating restaurants did not generate as much paper as a school or market would, exposing the food scraps to the air and the growth of fly larval. In response to the problem, local offices were approached about adding shredded paper to the dumpster. Currently two offices contribute loose shredded paper to the dumpster. This has helped to control both the insect issue and odor issues. In 2012, the Bridge of Flowers gardeners were invited to join the Collaborative free of charge as the addition of garden waste may also assist with insect control, as it covers up the food waste. A 1-gallon non-toxic flytrap located near the dumpster serves as an additional insect control

measure. Future measures may include the layering of sawdust (supplied for free from a local business) and the possible addition of powdered lime to the dumpster. Businesses adding food scraps are asked to use compostable bags (BPI certified) during the hot summer months.

Better snow removal around the dumpster will be addressed.

The program is promoted on the Shelburne Business Association website. The District has also released several press releases to promote the program.

Conclusion

The Franklin County Solid Waste Management District presents a model for rural and small town implementation of source separated organics. The District's success at receiving grant funding to initiate programs and continue ongoing improvements in the programs has allowed them to undertake innovative programming such as collection of food scraps. The District staff's ability to provide technical assistance to support program development and provide ongoing education and training offers a cost-effective and sustainable approach for organics management. The fifteen public schools in the District participating in source separated organics is also indicative of the dedication the District has to advancing organics management.

The commitment of the District, the Shelburne Falls Business Association, and the participating businesses in the Shelburne Falls Compost Collaborative has made the program highly successful. The commercial organics effort presents a cooperative, regional model for other small towns to divert food scraps from their waste stream.

The commitment of Triple Trucking to haul separated organics and of the compost operations involved in the District's program—Bear Path Farm, Clearview Composting, and Martin's Farm—supports the District's efforts and allows for a sustainable and cost-effective solution for the collection of food scraps.

Appreciation goes to Jan Ameen, FCSWMD Executive Director, and Amy Donovan, Program Director for their contribution to writing this case study.

For more information, contact the Franklin County Solid Waste Management District: 413-772-2438 or info@franklincountywastedistrict.org. MA Relay for the hearing impaired: 711 or 1-800-439-2370 (TTY/TDD), or visit their website at www.FranklinCountyWasteDistrict.org.

The Northeast Recycling Council (NERC) is a non-profit organization that conducts research, hands-on projects, training, and outreach on issues associated with source reduction, recycling, composting, environmentally preferable purchasing, and decreasing the toxicity of the solid waste stream.

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FOOD & PAPER WASTE COMPOSTING

FREE! At Northfield Transfer Station



Yes - DO Compost:

ALL food wastes:

- Meat, poultry, fish, bones
- Eggs, eggshells
- Cheese, dairy (no liquids)
- Fruits, vegetables
- Bread, rice, pasta, cereal
- Tea bags, coffee grounds & paper filters

***Non recyclable** paper and cardboard:**

- Paper towels, napkins
- Paper plates, cups (*no plastic lids or straws!*)
- *Soiled* or waxed cardboard
- *Soiled* pizza boxes**
- Soiled or waxed paper
- Paper egg cartons
- Paper bags, flour/sugar bags
- Compostable clear cups (PLA)
- Wooden chopsticks, skewers

***Recyclable** paper and cardboard should always go in the paper recycling bin.

****Clean** pizza boxes are *recyclable*.

No - DO NOT Compost:

- **NO plastic bags,** wrappers, cling wrap
- **NO liquids**
- **NO Styrofoam**
- **NO plastic cups, plates, utensils, straws**
- **NO aluminum foil, metal, glass**
- **NO chemicals, haz. waste**
- **NO beverage cartons/ aseptic cartons** (recycle with containers)



DO NOT PUT FOOD IN PLASTIC BAGS!

Compostable wastes are collected from Northfield residents **free of charge** in the designated dumpster and sent to Martin's Farm in Greenfield for composting.

Questions? Contact **Franklin County Waste District: 413-772-2438** or info@franklincountywastedistrict.org

MA Relay for the hearing impaired:
711 or 1-800-439-2370 (TTY/TDD)
The District is an equal opportunity provider.