VT ACT 148

Closed loop recycling
What does the law do?

Universal Recycling provides consistent and convenient collection services across the state. Over the next seven years, it will become illegal to throw away mandated recyclables, leaf and yard debris, clean wood scraps, and food scraps everywhere in Vermont. The law is phased in by material and generator type and allows time for the services and infrastructure to be developed over the next seven years. The full extent of the law will be in effect by 2020.
VT ACT 148 – Solid Waste Management

- The Vermont Legislature adopted sweeping changes to Vermont’s solid waste legislation in 2012, designed to dramatically increase diversion of materials from landfills. The most far-reaching change is to the way Vermonter’s will manage food residuals and other organics over the next eight years. Act 148 also attempts to significantly increase diversion of recyclable materials by requiring a parallel infrastructure for recycling and solid waste collection, and the implementation of variable-rate pricing (Pay-As-You-Throw or PAYT) for residential solid waste as an incentive for households to divert more materials.

- Act 148 also requires additional evaluations and planning by the Vermont Agency of Natural Resources (ANR), including:
  - Adoption of a new statewide Solid Waste Management Plan (now called a Materials Management Plan) by November 2013, and then every five years;
  - An assessment of solid waste management costs and infrastructure for the current system, and one or more systems that meet the requirements of Act 148;
  - A report to the Legislature every two years on the status of solid waste and packaging; and,
  - An evaluation of the costs and benefits of expansion of the beverage deposit redemption program and an alternative single stream recycling system.
What materials are being banned from the landfill?

- 1 Other materials are already banned from the landfill in Vermont
- ⚫ Mandated recyclables:
  - o Aluminum and steel cans
  - o Aluminum foil and aluminum pie pans
  - o Glass bottles and jars from foods and beverages
  - o PET and HDPE plastic bottles and jugs
  - o Corrugated cardboard
  - o White and mixed paper
  - o Newspaper, magazines, catalogues, paper mail, and envelopes
  - o Box board
  - o Paper bags
  - ⚫ Leaf/yard debris and clean wood debris
  - ⚫ Food scraps continued ▶
STATE OF VERMONT
SOLID WASTE PLANNING ENTITIES

Contact your Solid Waste Planning Entity for information on waste services in your area.

- Addison County SWMD (802)388-2333
- Bennington County Reg. Commission (802)442-0713
- Central Vermont SWMD (802) 229-9383
- Chittenden SWD (802)872-8100
- Greater Upper Valley SWMD (802)296-3688
- Lamoille Regional SWMD (802)888-7317
- Londonderry Group (802)824-3306
- Mad River Resource Mgmt. Alliance (802)244-7373
- Northeast Kingdom SWMD (802)626-3532
- Northwest Vermont SWMD (802)524-5986
- Rutland County SWD (802)775-7200
Larger Facilities

- Addison County SWMD (Year-Round)
- Chittenden SWMD (Year-Round)
- Northeast Kingdom (Seasonal)
- Northwest SWMD (Seasonal)
- Rutland County SWMD (Year-Round)
What collection services will be required by the law?

- Facilities that offer trash services must also provide services for managing:
  - Mandated recyclables by 2014
  - Leaf and yard debris by 2015
  - Food scraps by 2017
- Trash haulers that offer curbside service, must also provide services for:
  - Mandated recyclables by 2015
  - Leaf and yard debris by 2016
  - Food scraps by 2017
- Facilities and haulers cannot charge a separate fee for collecting mandated
What is the timeline of the law for residents?

- July 1, 2015: Mandated recyclables (listed above) are banned from landfill
- July 1, 2016: Leaf and yard debris and clean wood are banned from landfill
- July 1, 2020: Food scraps are banned from landfill
- Large generators of these materials, such as food processors and restaurants, will be banned from sending these materials to the landfill sooner, beginning with the largest producers in 2014
FOOD RESIDUALS MANAGEMENT
VT ACT 148

• “It is the policy of the state that food residuals collected under the requirements of this chapter shall be managed according to the following order of priority uses:

• ‼ Reduction in the amount generated at the source;
• ❓ Diversion for food consumption by humans;
• ❓ Diversion for agricultural use, including consumption by animals;
• ❓ Composting, land application, and digestion; and,
• ❓ Energy recovery.”
What is the food scrap reduction hierarchy?

• Universal Recycling includes a hierarchy for managing food scraps and other organics:
  • 1. Reduce waste with strategies including planned shopping lists and improved storage methods
  • 2. Donate to food rescue organizations
  • 3. Divert food scraps for agricultural uses, such as feeding animals*
  • 4. Compost or process in anaerobic digesters
  • 5. Recover for energy

• * See VT Agency of Agriculture Policy on Swine Feeding: http://www.anr.state.vt.us/dec/wastediv/solid/documents/SwineFeedingPolicy
Individual Responsibility Timeline

• Beginning July 1, 2014, a person whose acts or processes produce more than 104 tons per year of food residuals;
• Beginning July 1, 2015, a person whose acts or processes produce more than 52 tons per year of food residuals;
• Beginning July 1, 2016, a person whose acts or processes produce more than 26 tons per year of food residuals;
• Beginning July 1, 2017, a person whose acts or processes produce more than 18 tons per year of food residuals; and
• Beginning July 1, 2020, any person who generates any amount of food residuals.
Costs

- Disposal Costs: 18%
- Recycling Collection: 9%
- MSW Transfer Station: 36%
- Organics: 10%
- MRF: 27%
VT ACT 148

• Act 148 requires parallel collection of recyclables, refuse, leaf and yard residuals and food residuals at curbside and at all solid waste collection facilities. Specifically, haulers that offer services for managing trash must also offer services for managing mandatory recyclables by 2015, leaf and yard residuals by 2016, and food residuals by 2017. Haulers cannot charge a separate fee for residential mandated recyclables; rather the cost must be embedded in the refuse collection fees.
Types of Establishments Generating Food Residuals

Full-service restaurants
Grocery stores
Colleges, universities, and professional schools
Limited-service eating places
Elementary and secondary schools
Bakeries and tortilla manufacturing
Specialty food stores
Caterers
Fresh fruit and vegetable merchant wholesalers
Dairy product (except dried or canned)
  merchant wholesalers
Confectionery merchant wholesalers
Special food services
Fish and seafood merchant wholesalers
Meat and meat product merchant wholesalers
IMPACT OF ACT 148 ON ORGANIC SOLID WASTE MANAGEMENT IN VERMONT

• Reduction is related to a combination of increased delivery of useable food to food shelves and other food distribution outlets, as well as an effort by ICI generators to reduce food residuals generation as a result of public education programs (funded in the model). Note that while this may seem like it would have a relatively small impact, it results in a cumulative reduction of 18 percent of current ICI food residuals generation by 2022. Given the limited success of attempts to reduce waste generation over the past 30 years, this level of reduction in ICI food residuals generation would be significant.

• For residential waste it is assumed that there will be a 2 percent per year increase in the amount of back yard composting of residential food residuals from 2014 through 2020. The 2 percent per year reduction results in a 13 percent cumulative reduction in off-site residential food residuals disposal by 2020.

• If 5 percent of households choose to use drop-off food residuals recycling options and/or subscribe to separate food residuals curbside collection from 2014 to 2017, moving to 10 percent by 2018. Then, when the ban on organics disposal applies to all organics in 2020 it is assumed that a total of 60 percent of all food residuals are either managed on-site or diverted through new collection programs.
Evaluation of current composting activities in the state shows there is currently the food-scrap recycling capacity to handle 34,944 tons of food-scrap (22% of CTL 2017 Goal) or 672 tons/week, which represents significant unused capacity, as diversion is currently estimated to be 545 Tons/week (see fig. 7). This is very likely an underestimate as it is not within our capacity at this time to assess small-scale diversion by pig farmers or livestock feeding and anaerobic digestion, which is more common in the food processing/manufacturing sectors.
Transportation Infrastructure

• It is likely that collection of organics will be in a mixture of vehicle types with many haulers opting to collect mixed organics in existing (or newly purchased) garbage compactor trucks because these trucks are versatile and can be used for MSW and recycling as well. However, larger haulers are likely to invest in trucks with rendering bodies which don’t leak and don’t compact, reducing costs because food residuals by themselves are heavy enough that compaction is not important while liquids leaking from the truck is problematic
VT ACT 148

- What are the benefits of the law?
  - Creates ‘green’ jobs
  - Supports the local food system
  - Fosters stronger community connections
  - Lowers Vermont’s greenhouse gas emissions (estimated 38% improvement)
  - Increases recycling (estimated increase from 33% to 60%) and reduces the need for landfills
  - More recycling conserves resources and reduces energy consumption