



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

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October 5, 2018

Vice Mayor Jan Devereux, Chair  
Councilor Quinton Zondervan, Chair  
Health & Environmental Committee  
Cambridge City Council  
Cambridge City Hall  
795 Massachusetts Avenue  
Cambridge, MA 02139

Dear Vice Mayor Devereux, Councilor Zondervan and other distinguished members of the Health & Environmental Committee,

The Massachusetts Department of Environmental Protection (MassDEP) appreciates this opportunity to comment publicly on the City of Cambridge's voluntary food waste collection program, in light of the October 9<sup>th</sup> hearing of the Cambridge City Council Health and Environmental Committee.

MassDEP is the state regulatory agency charged with developing the Commonwealth's Solid Waste Master Plan pursuant to M.G.L. c. 16, §21. The Solid Waste Master Plan is the Commonwealth's blueprint for reducing solid waste and managing solid waste that is generated, reused, recycled, or disposed by Massachusetts residents and businesses. It establishes a broad policy framework for solid waste management in Massachusetts over a span of 10 years (2010-2020), including a current state assessment, a policy vision, and concrete goals and strategies for the near and long term vision of higher reuse and recycling rates, and reduced disposal. The City of Cambridge is taking a leadership role in reducing waste disposal through its food waste collection program.

MassDEP is pleased to provide information to the Council regarding the benefits of collecting and adding Cambridge's food waste to the organic materials managed by the Greater Lawrence Sanitary District (GLSD). Both the City of Cambridge's program and GLSD's processing of

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

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organic material at its facility advance MassDEP's 2010 Solid Waste Master Plan goals of diverting an additional 350,000 tons of food waste from landfill disposal and supporting new infrastructure to handle that food waste, including both anaerobic digestion (AD) and composting facilities. In 2012 MassDEP modified solid waste regulations to support the goals of organics diversion and renewable energy generation. The changes were completed after two years of deliberative development, with the benefit of significant public involvement. AD facilities provide capacity for food waste diversion, which reduces the amount of waste that must be landfilled, incinerated or sent out-of-state for disposal. Anaerobic digesters also provide the additional benefits of generating clean biogas and energy, offsetting energy costs for facilities and producing fertilizer products.

The City of Cambridge has been a leader in establishing its food waste collection program – first as a pilot and now as a voluntary city wide service. As noted on the City's website, in its first four months of operation, more than a million pounds of food scraps have been diverted from landfills and the City's trash has been reduced by 4 percent. It should be noted that large scale curbside food waste collection programs always include some degree of contamination from materials such as plastic bags or film, which means this material must be processed before it can be composted or digested. The Cambridge program effectively addresses this need by having this material processed at the Waste Management facility in Charlestown, ensuring a high quality feedstock for the anaerobic digestion process.

There are both local and statewide benefits of Cambridge and GLSD collaborating to co-process food waste and wastewater sludge. Organic materials are diverted from landfills and incinerators, and the addition of food waste to GLSD's operation results in a significant increase in biogas generation, reducing the need for power from the grid and decreasing GLSD's energy costs. Increased power generation capacity on-site can assist with maintaining wastewater treatment operations even during large power outages. Although the addition of food waste has increased the energy output from GLSD's digesters, it is not expected to increase the total volume of sludge from the AD process due to improved digestion efficiency. Finally, the collaboration supports GLSD's goal of operating at "zero-net-energy" by using renewable energy resources, including the resources in the organic materials from the Cambridge food collection program to generate all of its power.

Another benefit of the collaboration between Cambridge and GLSD is to capture and reuse nutrients contained in the fertilizer end product. MassDEP's regulations for Land Application of Sludge and Septage (310 CMR 32.00) were put into place to ensure that biosolids products generated by wastewater treatment, such as the fertilizer pellets produced by GLSD, do not pose a risk to human health or the environment. Key points of these regulations and their application to GLSD's biosolids product are as follows:

- Any sludge product that is used, sold, or distributed for land application in Massachusetts requires a Suitability Approval from MassDEP or "AOS".
- The AOS classifies the product into one of three different types based on treatment and product quality.

- Sludge produced at GLSD has been approved by MassDEP and classified as Type I, which ensures quality of the sludge that allows for the least restricted uses. Type I biosolids can be used, sold, or distributed as a fertilizer product, and can be used for growing any vegetation (eg on a farm or in a garden).
- GLSD's product is required to be tested monthly and meet specific limits for a number of parameters to address environmental and human health risk. GLSD's monthly sampling results have consistently complied with the requirements for a Type I product.

In summary, MassDEP supports Cambridge's food waste collection program, as well as its partnership with Greater Lawrence Sanitary District for co-processing its food waste with wastewater sludge. Combined, these efforts reduce solid waste being landfilled or incinerated, produce clean reliable and renewable energy, reduce energy costs, and generate a product for beneficial reuse.

If you have further questions about MassDEP's Solid Waste Master Plan goals or MassDEP's Biosolids program, please contact Greg Cooper at [Greg.Cooper@mass.gov](mailto:Greg.Cooper@mass.gov) or Lealdon Langley at [Lealdon.Langley@mass.gov](mailto:Lealdon.Langley@mass.gov), respectively.

Sincerely,



Stephanie Cooper  
Deputy Commissioner, Policy & Planning