The ORGANICS

April, 2013

Pilot Update

Tell us what you think

One of the reasons for the pilot program is to learn from the experiences of our volunteers. We want to hear from YOU. Please take a few minutes to visit our online forum.

Tell us what you like and don't like about the program. Rate your kitchen collector and the compostable bags. This feedback will be important as we plan a city-wide program.

What's Next for Organics?

The Streets Division is looking to expand the pilot program to include some restaurants, a grocery store, and a large employer with a food service operation this year. We plan on including these large generators of organics in our city-wide program and it is important for us to get a sampling of these businesses in the pilot program.

Later this year, we are going to be conducting several tests on the material we collect. These tests will give us information on the amount of biogas that will be produced in an anaerobic digester and the characteristics of the compost. This data is very important for estimating the potential revenue our digester could generate.

We will also be hiring an engineering consultant to assist us in writing technical specifications for the digester and analyzing potential sites for the facility. This consultant will remain working for the City during the bid process and construction of the digester.

Finally, we hope to be able to present a final proposal to the Mayor and Common Council for approval in early 2014. Before we can put this proposal forward, we will need to know the cost of constructing and operating a digester, as well as the cost for collection of the organics. Staff is hopeful we can develop an affordable plan to divert organics to a higher and better use.

THE GOOD NEWS

It has been almost two years since the organics pilot program began in June of 2011. During that time, we have successfully diverted over 300 tons of material from the landfill. Thank you for your participation.

We have conducted several studies during the pilot project and we have several more planned for this year. What have we learned so far?

We are recovering an average of 13.8 pounds per household every week. If we could maintain those numbers for every one of the 70,000 households served by the Streets Division, we could divert over 25,000 tons from the landfill each year.

As good as those numbers are, we could do even better. A sampling of trash from pilot participants showed that there were still more organic materials that could be recovered. In fact, the number one component of trash remained organics. So, we can do better.

We learned that the material we will collect will be excellent feed stock for an anaerobic digester. If we are able to capture 30,000 tons per year of material from households and area businesses, we can produce over 350,000 gallons of fuel we can use to replace diesel to power our collection fleet. This will dramatically cut air pollution and reduce green house gasses. It will also cut our fuel costs saving us $250,000 a year or more.

THE BAD NEWS

We have been conducting extensive research on anaerobic digesters, the uses for the biogas they produce and how best to utilize the compost from the system. We are excited about the possibilities for a digester and what it can do for our community. However, we have encountered an issue with the feedstock we are currently collecting in our pilot. While most of the material we are collecting will be acceptable in a full scale program, we are fairly certain that we will not be able to include diapers and pet waste.

Until recently, most compost produced in large scale facilities in Wisconsin was from yard waste. Yard waste is fairly simple to compost with few contaminants and odor-causing agents. With the growing interest in diverting organics from the landfill, the Department of Natural Resources (DNR) was interested in developing rules that allow organics to be composted on a large scale.

The new DNR regulations have established rules for operating a compost facility that accepts large quantities of food waste and other household organics. They have also established long-awaited standards for the compost produced in Wisconsin. These rules and standards are important for the compost industry, but they rule out incorporating human waste into the compost. This rules out diapers from our program.

In order for the City of Madison to operate an anaerobic digester as cost effectively as possible, we will need to get maximum value for the compost we produce. In order to do that, we will have to meet the standards set by the agencies that oversee organic farming in the United States. At this time, those organizations do not allow including pet or human waste in the compost that can be used by certified organic farmers.

These rules and regulations are based upon the best science we have at this time. They are in place to protect human health and the environment so we will have to follow them.

Based upon these rules and standards, we do not think we can go forward with including diapers and pet waste in a full-scale program. We are looking at incorporating technologies such as pasteurization into our proposed system so that we can include this material. However, at this time, it is highly doubtful we can go forward with taking diapers and pet waste as we had hoped.