

Dept. of Solid Waste & Sanitation's 2011 Year End Report

Madison County's Department of Solid Waste has embraced the "Go Green" initiative by taking full advantage of naturally occurring resources available at the Buyea Rd Landfill site.

What resources are we speaking of? Trash for one!

Methane gas is produced naturally when organic waste begins to decompose in a landfill. The Department of Solid Waste partnered with Waste Management to capture the methane gas produced by the closed eastside landfill, recently closed Westside landfill cells one through six and working cell number 7. The methane is used to produce electricity, but is also providing something called excess heat from the CAT engine used to operate the generator.

During the 2010/2011 winter heating season a mere three percent of the excess heat was used to off set the heating costs for three buildings at the Buyea Rd. Landfill site: the ARC MRF Recycling Center; the ARC Break Room Building and the Education/Scale House building.

"We are using green energy to save money and to make money," said Director James A. Zecca. The electricity produced from the methane gas is sold on the grid. Waste Management pays Madison County an average of \$9,000.00 a month.

The first business to take advantage of the remainder of the excess heat generated by the Gas-to-Energy plant is Johnson Brother's Lumber of Cazenovia. They plan to utilize the excess heat to dry lumber in kilns. In addition, Johnson Brothers were recently notified by the Central New York Regional Economic Development Council that they have been awarded a \$150,000 grant to develop a greenhouse and aquaculture facility with the excess heat their kilns will produce.

Johnson Brothers Lumber will partner with SUNY Morrisville to construct a demonstration scale greenhouse and aquaculture facility at the Madison County ARE Park as an add-on to the company's lumber drying kilns using renewable resources.

Johnson Brothers has received confirmation of a second grant, this one from NYSERDA, that will fund 40-to-50 percent of the \$1 million overall cost of constructing the drying kilns.

ARE Park

The Department of Solid Waste in conjunction with the Madison County Industrial Development Cooperation (IDA) continues to develop an Agricultural Renewable Energy (ARE) Park at the Buyea Rd. Landfill site.

Director James Zecca has contracted with Acumen Media to produce a video that can be used by the IDA to promote the ARE Park and the availability of low cost or no-cost heat at the Buyea Rd ARE Park site. The video can also be used as an educational tool by the Recycling Coordinator.

Waste Oil

Additional funds are being saved through the use of waste oil that is being used to heat the maintenance building at the Buyea Rd. site. The department was able to pass this savings on to residents by eliminating the charge to dispose of waste oil at the transfer stations.

Solar Panels

The second resource we are speaking of is trash and of course the sun! The closed Westside landfill cells one through four have provided the perfect venue for the new solar panels on the southern facing slope – a giant mountain of trash. Madison County is the first Municipal Landfill in the United States to incorporate this type of alternative energy technology on a landfill.

The solar panel project was made possible through a \$224,608.00 grant from the New York State Energy Research and Development Authority (NYSERDA). The power generated by the solar panels will be used to off set the electrical needs of the Madison/Cortland ARC Recycling Center. Construction of the solar panels began in the spring of 2011 and was completed on August 20, 2011.

The entire system is net metered, meaning that any power produced over and above the needs of the recycling center will be sold on the grid.

Landfill Capping Project

The Department of Solid Waste also completed its plan to cap landfill cells one through four on the west side landfill. The total capping project included approximately eight acres.

It should be noted that approximately \$300,000 to \$350,000 was shaved off both the solar panel and landfill capping projects as a result of using in-house-labor and equipment.

\$200,000 Savings

Rather than purchasing a new trash compactor at a cost of \$450,000, the Dept of Solid Waste opted to have a CAT certified power-train rebuild for its 1997 Landfill Trash Compactor at a cost of \$250,000. The rebuild includes a full warrantee as if the unit was brand new and saved the department \$200,000.

Recycling Coordinator's 2011 Year End Report

E-Waste

Madison County began a mandatory e-waste collection program long before anyone else in NYS. The program began its first full year in 2005, handing it over to LoJo's Technology, a subsidiary of the Madison/Cortland ARC, in April of 2011 when the E-Waste Product Stewardship law went into effect in New York State.

In all, Madison County collected 478 tons of computer monitors and televisions for recycling. LoJo's is boasting higher monthly numbers than those recorded by the Solid Waste Dept., but one must remember that LoJo's is taking in all types of electronics from Madison County and the surrounding counties.

Because the leadership of the Department of Solid Waste is conscientious; concerned about the residents of Madison County and about the environment; collection of e-waste continued at the County's transfer stations after the April turn over date. This continuing collection was especially important in communities located the furthest from LoJo's Technology, which is in the City of Oneida.

The Department of Solid Waste has partnered with the Department of Social Services to take advantage of a traveling crew of folks that are unemployed and learning new work skills. One of their assignments is to travel to the Cazenovia, Hamilton and Sullivan transfer stations to pick up e-waste, batteries, cell phones and inkjet cartridges. All items are taken back to the main landfill site (Buyea Rd.). The e-waste is then transported to LoJo's for pick up by RCR&R of Victor, NY.

The new collection system is working well according to ARC Director Mike Hulland. From April 2011 to mid-November 160 tons of e-waste has been collected and diverted from the waste stream. Included in that number, is a four hour event that was co-sponsored by the Dept of Solid Waste and LoJo's Technology that took in just under 19 tons of e-waste for recycling.

Household Hazardous Waste

In 2011, the Recycling Coordinator processed 110 applications to dispose of Household Hazardous Waste. This represents an increase of approximately 40% over the previous year.

Each year the Recycling Coordinator writes and submits a grant to the Department of Environmental Conservation (DEC) that reimburses the County for half of the funds spent on the Household Hazardous Waste Program.

Safe Pill Collection

The Safe Pill Collection program continues to take on a life of its own – When the program was first introduced many residents did not know anything about the problems associated with disposal of this type of waste. They did not know that flushing medications was damaging the environment. They did not know that teens were raiding parents, grandparents and friends medicine cabinets so that they could have what are called “pharm” parties.

Now, here it is 2012 – three years have passed since everyone – the Department of Solid Waste, the Madison County Sheriff’s Office, Bridges, Madison County’s Promise and RSVP, put forth a tremendous effort to keep prescription drugs out of our environment and out of the hands of our children. As of September 24, 2011 five Safe Pill Collections have been held at the Buyea Rd Landfill site and 1,277 pounds of pills have been safely collected and incinerated.

Those involved know that, although, 1,277 pounds of medication is a lot, it is just a drop in the bucket. However, as this program grows, spreading to other counties across New York State and across the country more and more people will be participating and more medications will find their end life in an incinerator rather than in our drinking water or in the hands of our teenagers.

Landfill and Recycling Center Tours

Tour numbers were down in 2012 for several reasons – first the price of gas continues to hamper the ability of area schools to conduct field trips. Second – the Recycling Coordinator was dealing with some major health issues. Despite these complications, approximately 700 students and adults visited the ARC Recycling Center, Gas-to-Energy facility and the solar array in 2012.

Reuse Store

Director James A. Zecca and Sharon A. Driscoll have been working to establish a reuse store at the Buyea Rd. Landfill site. The store will be pulling items of worth out of the scrap metal site and from other areas of the landfill.

The store will be housed in the former maintenance building on the east side of Buyea. A DSS Maintenance crew, under the supervision of Doug Holdridge Sr. has been working to clean the building from top to bottom and will be painting the shelving during the first part of January 2012. Once the shelving is painted, it will be erected and items that are cleaned and repaired can be tagged and arranged for sale.

One of the overhead doors will be secured in the up position and the space formerly covered by the door will be studded in and sheet-rocked on the inside and sided on the outside. Double man doors with windows will be installed. This will become the main entrance to the Reuse Store.

The store's signs are already made and ready to be place on the building. An office has been constructed in the building and the office furniture is on site and ready to be installed. Point of Sale software has yet to be purchased, but if a grant can not be secured for this purchase, Driscoll will ask the Solid Waste Committee if they could approve this purchase, which should not run more than \$1,500 and will include the software, a cash register, label maker or price tag that will contain a bar code and a hand held scanner to read the bar codes.

During 2011, Zecca and Driscoll toured reuse stores across New York State during 2011 to gather information and make contact with those who are running successful reuse stores.

Establishing a reuse store is one component of Madison County's 10-Year Solid Waste Management Plan required by the DEC.

Projects for 2012:

- A Reuse Store
- New Gas Wells
- Continued promotion of the ARE Park
- Develop Agriculture Plastics Recycling Program
- Construct a new sewer line from the Landfill site to Oneida