

2012 EMS Annual Report: Executive Summary

Executive Summary: FY12 Environmental Improvements & Beneficial Projects

Recycling Services & Water Quality The *Site #2 Sustainable Improvements Project*, initiated in 2010, continues to progress. The \$13 million project includes a new Resource Recovery Building that will house the recycling drive through for residents; the household hazardous materials collection & processing center; and the Swap Shop where useable materials are offered free of charge. The building will also provide drop-off and transfer for commercial recyclables including asphalt shingles, carpet, and recovered wood.



(Above)The centerpiece of the *Site #2 Sustainable Improvements Project* is the Resource Recovery facility. (Left) The project also includes remodeling the existing office building and adding an Environmental Education Center. The Center will enhance Agency efforts to educate students and the general public about recycling and other EMS aspects.

The Resource Recovery Building will be conditioned with heat recovered from the engines that will convert landfill gas to electricity. The LFG to Energy project is being constructed simultaneously.

In addition, the *Site 2 Sustainable Improvements Project* includes remodeling the Main Office and adding an Environmental Education Center as well as dramatically improving on site storm water management. Storm water management structures include rain gardens that will also serve as education tools.



Coe College students are monitoring surface water entering & leaving the Agency site at 1954 County Home Road, north of Marion.

Following completion of the *Site 2 Sustainable Improvement Project*, data will be collected again and compared to pre-construction information.

Recycling Services. In FY12, more than 7,000 tons of wood waste was converted to alternative fuel via the *Biomass Wood Recovery Program*. Initiated in 2009 as a pilot, the program is maturing as more residents and commercial customers learn about its advantages.

In November 2011, a pilot asphalt shingle collection & processing project was developed with a private, for-profit contractor. In just eight months Nov. 2011-June 2012, more than 3,000 tons of shingles were diverted from landfilling.

In June 2012, another pilot was started. The Agency began diverting carpet and carpet padding from the landfill. Initial response from customers has been far greater than anticipated. Glass containers are yet another resource that the Agency began collecting and handling differently in FY2012. Beginning January 1, glass containers are deposited at Agency sites where the material is picked up and processed by Ripple Glass and used in the manufacture of insulation and new containers.; over 400 tons has been collected. Finally, over \$100,000 in Agency grants was awarded in FY12 for recycling and other environmental projects in Linn County (Attachment ES2)



(Photos L-R) Asphalt shingles, glass containers, and carpet/carpet padding are materials being diverted from the Agency landfill. Shingles are used in asphalt road construction; glass is converted into insulation & new containers; carpet is processed and used as alternative fuel and in the manufacture of new products.

GHG Emissions In FY12, the Agency finalized the purchase of a generator set that will convert Site 2 landfill gas (LFG) to electricity. Currently, the gas is collected and flared. Carbon credits from the LFG have been verified and will be sold to the local utility that is also purchasing the power that will be generated. The Agency received a grant from the State Energy Program that helped underwrite the purchase of the generator set.

To further reduce its carbon footprint, the Agency purchased a hybrid car for staff travel, replacing a less fuel efficient vehicle. The Agency *Energy Team* evolved into *The Sustainables*, a group consisting of administrative and field personnel. *The Sustainables* meet monthly and implement projects that reduce the Agency's environmental footprint. During FY12, *The Sustainables* constructed on-site gardens using various compost growing mediums, continued monitoring energy usage, applied *Turn off Lights* stickers throughout Agency facilities, placed tire gauges in Agency vehicles and installed rain barrels.

Hazardous Materials Eight mobile HHM collection events were held in spring 2012. Appointments for the permanent facility are no longer required; the policy changed January 1, 2012.



As part of the Agency Environmental Management System, a committee of field & administrative staff was formed to develop and implement activities that reduce the Agency environmental footprint. *The Sustainables* meet monthly to initiate and report activities identified as benefiting the environment. **(Photo)** A staff member hooks a hose to the rain barrel to water employee garden boxes, a strategy that worked well until the draught hit this summer.

Water Quality Erosion is a perennial concern of the Agency. Measures taken in FY12 to reduce erosion and manage storm water – both on Agency property and elsewhere in Linn County – include the following.

- A demonstration project in which thousands of seed balls were dispersed on the shoreline of the man-made pond at Site 2 was implemented. The seeds were dispersed in November 2011 and emersion evaluated during spring 2012. The project was deemed partially successful; plants emerged on portions of the shore.
- Agency grant funds were awarded to Coe College <http://jade.coe.edu/~mstclair/RainGarden/RainGarden.htm> and Habitat for Humanity for rain garden/water quality projects. Agency compost was utilized in both projects.
- In an effort to enhance soil and plant growth, more than 11,000 tons of Agency compost was donated to non-profit and city of Cedar Rapids flood properties during FY12.
- Surface water monitoring was initiated at Site 2. Beginning in June 2012, Coe College students began collecting water samples from streams entering and leaving the Agency site .

Environmental Education The media campaign “Recycle More Linn County” www.recyclemorelinncounty.com continues with Agency partners City Carton Inc. and the City of Cedar Rapids. As a result of surveys and other evaluation tools, the campaign is revised and renewed annually.



The Agency employs a full-time Education Coordinator who conducts site tours (left photo) and partners with other organizations in Linn County to promote reuse and recycling. (Right photo) The annual style show in spring 2012 with Goodwill Industries drew over 300 audience members.

During the spring of 2012, more than 3,000 students were given tours at Agency sites by staff with assistance from Green Americorp. Other education activities: Video is being added to the Agency website and the Recycle in Style show, in partnership with Goodwill Industries, held its fourth successful event.

Yard Waste The Agency re-started its composting project with WalMart produce; from 8-20 tons of produce are delivered weekly. The Agency has been seeking other grocers to participate.



Walmart consistently began depositing produce at the Agency compost in FY12. During the past year, the Agency has been educating other area grocers about the benefits of diverting food waste from the landfill.