

# Metro Waste Authority EMS Pilot Program Application

## CONTACT INFORMATION

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## DEMOGRAPHIC INFORMATION

Comprehensive Planning Area Description:	All cities and the unincorporated area in Polk County; the cities of Carlisle, Hartford, and Norwalk in Warren County; the cities of Mingo and Prairie City in Jasper County; the city of Jefferson in Green County; and the cities of Adel, Dawson, Linden, Minburn, Perry, Redfield, and Waukee and the unincorporated area in Dallas County.
Population Served:	475,401 (2006)
Number of Full Time Staff Employed:	60
Number of Part Time Staff Employed:	6
Comprehensive Waste Reduction Goal Progress (Last Approved):	35.59

Designated Landfill Service Area Description (if applicable):	Metro Waste Authority Metro Park East Landfill Service Area: All cities and the unincorporated area in Polk County; the cities of Carlisle, Hartford, and Norwalk in Warren County; the cities of Mingo and Prairie City in Jasper County.
Population Served:	433,999 (2006)
Number of Full Time Staff Employed:	53
Number of Part Time Staff Employed:	2

Total Annual Applicant Budget:	\$23.6 million
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## YARD WASTE MANAGEMENT

**Does the Comprehensive Planning Area and/or Designated Landfill Service Area currently have a Yard Waste Management Program?** Yes

**Briefly describe the current Yard Waste Management program(s) in place.** Metro Waste Authority (MWA) provides a “pay-as-you-throw” bag and sticker program (called Compost It!), as well as a premium annual subscription service with a wheeled cart (called Premium Compost It!) to member communities. To be eligible for the program, cities must have burn bans in place that are enforced. Twelve member communities and the City of Pella participate in the bag and sticker program. Of these communities, 8 offer the premium annual subscription service to residents. By having one yard waste collection program across the communities, MWA helps alleviate confusion among residents and increases economies of scale for collection.

The following items can be recycled through this program: leaves, green waste, twigs and branches (no larger than 18 inches in diameter or over four feet long), garden waste, and grass clippings. The Compost It! season traditionally runs from April through November, but we work specifically with cities who desire year round collection. The Compost It! program offers a Christmas tree pick up during January every year.

Once the yard waste is picked up from the curb, a hauler takes the yard waste to one of MWA’s two composting facilities to be turned into compost. When the yard waste has been fully composted, MWA then sells the Turf Gold Premium Compost back through selected retailers to offer residents the chance to reuse what they have helped to recycle.

MWA also accepts yard waste and brush from the general public at the landfill. This material is composted and used at Metro Park East (MPE) as a soil amendment for site improvements.

**Briefly describe a new program or proposed improvement(s) to the existing Yard Waste Management Program(s). Briefly summarize anticipated outcome(s) of the proposed Yard Waste Management Program improvement(s).**

- **Improvement.** In partnership with the City of Des Moines, expand and improve the conditions of the Metro Compost Center site to improve stormwater management and gain operational efficiencies. **Outcomes.** The current site is on an old landfill. Settling has led to depressions in the pad that pool water and impact the ability to compost the yard waste efficiently. The wet conditions mean compost has to be turned more often, using more fuel than necessary. Improved conditions will also ensure the best management of stormwater.
- **Improvement.** Expand the yard waste collection service to member communities not participating. **Outcomes.** Increased participation and, in turn, increased tonnages. Potential communities include Prairie City and Ankeny. Bringing the program to Prairie City will eliminate the need for the city to have a large yard waste pile.

## HAZARDOUS WASTE DISPOSAL/COLLECTION

**Does the comprehensive planning area and/or Designated Landfill Service Area currently have a program in place for the proper management and disposal of Household Hazardous Materials (HHM)?**

Yes

**Briefly describe current HHM collection/disposal program(s) in place.** The MWA Regional Collection Center (RCC) for Household Hazardous Waste in Bondurant is open year round Tuesday through Friday, 1 p.m.-5 p.m., and at least two Saturdays each month, 8 a.m.-12 p.m., for residents in the service area to drop off household hazardous waste. This collection center also provides household hazardous waste collection services to 19 other counties in Iowa. Since opening in 1994, RCC has diverted nearly 6.5 million pounds of household hazardous materials. In FY 2008-2009, RCC collected 407,177 lbs of material from 4,656 customers in our service area.

The RCC Swap Shop is available to all residents and items are free to the public. Materials found in the Swap Shop include automotive products, cleaners, paint, varnishes, and adhesives that have been dropped off but are still useable. Each year approximately 65,000 pounds of materials collected are swapped, saving \$49,000 in handling and disposal costs.

RCC also helps businesses properly dispose of hazardous waste. The Conditionally Exempt Small Quantity Generator Program (CESQG) saves businesses time and money by identifying and disposing of hazardous waste through affordable programs, assessing purchasing procedures to find less hazardous alternatives, and establishing a maintenance program to prevent future stockpiles of hazardous waste.

**Briefly describe a new program or proposed improvement(s) to the existing HHM collection/disposal program(s). Briefly summarize the anticipated outcomes of the proposed HHM collection/disposal improvement(s).**

- **Improvement.** MWA occasionally receives complaints from residents in the western suburbs that the RCC is too far away from them to be a convenient drop off. MWA will seek to increase accessibility by providing opportunities for collection in the western suburbs of the Greater Des Moines area. **Outcome.** More residents will be reached, more household hazardous waste will be captured, and awareness will be increased among residents about the proper disposal of such wastes.
- **Improvement.** Expand the collection of oil, batteries, white goods, e-waste, and CFLs to other MWA facilities. **Outcome.** Increased accessibility will increase participation, ensure more of these wastes are properly disposed, and raise awareness among residents about the proper disposal of such wastes.
- **Improvement.** Actively market the program through presentations to Chambers of Commerce and other civic and business groups throughout the service area. **Outcome.** Diversion of hazardous waste from the landfill into recycling, reuse, or more appropriate places for disposal, and reduction of dangerous stockpiling.

## WATER QUALITY IMPROVEMENT

**Does the comprehensive planning area and/or Designated Landfill Service Area currently have a Water Quality Improvement Program?** Yes

**Briefly describe current Water Quality Improvement Program(s) in place.** MWA has multiple programs and practices in place to protect water quality.

- MWA has 800 acres of farmland that is part of the MPE landfill site. MWA's farm management program includes nutrient management, continuous no-till farming, terracing, and tiling to direct water to wetlands. These practices protect Camp Creek by keeping out harmful chemicals and capturing soil and sediment before it reaches the waterway.
- 74-acres of the farmland at the landfill have been converted to permanent, dedicated natural wetlands. No development will be permitted in this area for the life of the property. This includes a 600-foot wide buffer along the length of Camp Creek that runs through MWA property.
- MWA partners with government agencies and non-profits focused on cleaning up Camp Creek Watershed through public education and research.
- MWA manages Growing Green Communities, a 501c(3) designed to promote regional watershed protection. For three years running, up to \$25,000 in grants has been provided to one or two different area projects geared at watershed protection.

**Briefly describe a new program or proposed improvement(s) to the existing Water Quality Improvement Program(s). Briefly summarize the anticipated outcomes of the proposed improvement(s) to the Water Quality Improvement Programs.**

- **Improvement.** Partner with area landowners and conservation organizations to establish conservation easements in the Camp Creek watershed. **Outcome.** Prevent sediment and chemicals from entering the watershed.
- **Improvement.** Fund projects and educate service area communities on approaches for watershed management through Growing Green Communities. **Outcome.** Raise awareness and incrementally improve watershed protection.

## GREENHOUSE GAS REDUCTION

**Does the Comprehensive Planning Area and/or Designated Landfill Service Area currently have a Greenhouse Gas Reduction Program? Yes**

**Briefly describe current program(s) in place.**

- In 1994, MWA in partnership with Waste Management and Mid American Energy opened the methane recovery facility. More than 100 gas recovery wells collect methane gas that is piped to the recovery facility and converted to energy. The electricity generated powers more than 10,000 homes, schools, and businesses.
- MWA uses synthetic oil rather than petroleum based oil in its truck fleet, thereby reducing reliance on fossil fuels and reducing the frequency of oil changes by 75 percent. MWA also has an idling policy. Upon implementation in 2005, the policy reduced emissions of CO<sub>2</sub> by 49 percent. This policy remains in effect, and training on the policy occurs on a regular basis.
- The 5,600 square-foot MWA Regional Collection Center uses an U.S. EPA approved waste-oil burner that yields double benefits by providing heat for the building and minimizing the need for waste-oil recycling and disposal.

**Briefly summarize the anticipated outcome(s) of the proposed improvement(s). Briefly describe a new program or proposed improvement(s) to the existing Greenhouse Gas Reduction Program(s).**

- **Improvement.** Over the past 15 years, the volume of methane produced by the breakdown of garbage at the landfill has exceeded the capacity of the generators that convert it to energy. Methane is now being flared rather than converted to energy. MWA proposes capture this additional methane and convert it to energy. **Outcome.** Methane gas will be converted to energy rather than being flared.
- **Improvement.** MWA has conducted a baseline assessment and plans to make energy conservation improvements at MWA's 45,000 square-foot office building at 300 E. Locust Street in Des Moines. Under consideration are improvements to the HVAC system, the addition of a wind generator to provide renewable energy directly for the building, efficient lighting, and solar shading to reduce demand on HVAC. **Outcome.** Reduced energy consumption and reliance on fossil fuel-based energy.

## RECYCLING

**Does the Comprehensive Planning Area and/or Designated Landfill Service Area currently have a Recycling Program(s)?** Yes

**Briefly describe current programs in place.** MWA offers a multitude of recycling programs directed at different target audiences. Curbside, automated single-stream recycling collection is provided to all eligible residents in 4-plex units or less throughout the service area. Residents have the option of a 96-gallon or 48-gallon wheeled cart. Recyclables are collected every other week. Accepted items are paper products, cardboard, necked plastic bottles, margarine and yogurt containers, wire hangers, aerosol cans, tin and aluminum cans, and colored and clear glass food jars.

MWA has multiple self-haul recycling facilities in Polk County that serve residents and businesses alike. They are located in Des Moines, Elkhart, Polk City, at the Regional Collection Center (RCC) in Bondurant, and at Metro Park East (MPE) Landfill in Mitchellville. They accept the same items that are collected through the curbside program. The facility in Des Moines also accepts metals, clean wood, textiles and tires. MPE also recycles scrap metal; and, for a nominal fee, tires, electronics and appliances. RCC recycles passenger tires and electronics for a nominal fee. RCC also recycles or finds uses for some of the hazardous materials that are collected by using them as alternative fuel sources or putting them in the Swap Shop (see household hazardous waste).

MWA is working with Des Moines Public Schools to expand mixed paper recycling in the classrooms. Recycling mixed paper is an easy way for schools to do their part in reducing the amount of waste sent to landfills. Des Moines Public Schools recycled more than 130 tons of mixed paper during the 2008-2009 school year – that's 22 tons more than the previous school year!

MWA's event recycling program provides a step-by-step guide for setting up recycling at outdoor events for small groups (Polk City Annual Lobster Fest) to large events (Drake Relays). By leaving a deposit, event organizers can check out recycling containers, litter grabbers, and gloves from MWA to use at the event. The deposit is fully refunded if items are returned in a clean, reusable condition.

**Briefly describe a new program or proposed improvement(s) to the existing Recycling Program(s). Briefly summarize the anticipated outcomes of the proposed improvement(s).**

- **Improvements.** Make recycling more available and affordable for small businesses, churches, daycares, and schools by leveraging the single-stream recycling program and approaches. Standardize self-haul recycling centers and find additional locations to make recycling more available and accessible. **Outcome.** Increased participation and increased recycling volumes.
- **Improvement.** Partner with Iowa grocers and Keep Iowa Beautiful to promote plastic bag recycling and use of reusable bags. **Outcome.** Increased recycling, decreased littering at MPE Landfill and throughout the service area and state.
- **Improvement.** Provide for recycling of shingles by collecting the shingles as a separate commodity at MPE Landfill and then process them for use in hot-mix-asphalt road projects. **Outcome.** Diversion of shingles from MPE landfill into a proven market for reuse.

## ENVIRONMENTAL EDUCATION

**Does the Comprehensive Planning Area and/or Designated Landfill Service Area currently have an Environmental Education Program(s)?** Yes

**Briefly describe current program(s) in place.** MWA's educational programs include presentations, websites, advertisements, brochures, briefing papers, facility tours, newsletters, news releases, competitions such as school recycling challenges, wraps and decals on vehicles, cross country runs, environmental stewardship awards, and formal classroom programs. Audiences include students of all ages, business groups, civic groups, member community elected officials and city staff, legislators, and the residents in our service area (i.e., the general public). Topics include waste reduction, recycling, business green teams, event recycling, watershed protection, construction and demolition recycling, overviews of MWA services, composting, methane gas conversion, household and business hazardous waste disposal, and more. MWA also has a full-time, certified teacher who serves as our education specialist.

MWA has partnered with Des Moines Water Works, Wastewater Reclamation Authority, the City of Des Moines Stormwater Utility and with associate member cities to form the Urban Environmental Partnership (UEP). UEP offers 16 free programs where students learn about water pollution and prevention, household hazardous waste, recycling and waste reduction. Our presentations by certified teachers include hands-on learning activities and follow-up student activities, as well as teacher follow-up packets containing a variety of resource materials. Area teachers also can check out UEP's environmental educational kits, or trunks, filled with environment-related literature, books of science experiments, games and hands-on activities. Water Trunks are packed with materials to use with students as educators teach about water, pollution, recycling and taking care of our environment. The Trash and Treasure Trunk explores recycling, composting, landfilling and proper household hazardous waste disposal. UEP also offers tours of MPE Landfill where students learn about garbage, recycling, composting, methane gas and other environmental issues.

In partnership with Southeast Polk Community Schools, MWA converted an old farmstead on MPE property into a hands-on science laboratory, called the Ecology Field Station. High school science classes are held there throughout the school year.

**Briefly describe a new program or proposed improvement(s) to the existing Environmental Education Program(s). Briefly summarize the anticipated outcome(s) of the proposed improvement(s).**

- **Improvement.** Improve adult environmental education by (1) surveying adults to assess level of understanding of EMS environmental issues, (2) developing education program to address significant gaps in understanding, and (3) marketing educational programs to civic, trade, and other business groups. **Outcome.** More informed public will lead to better environmental stewardship, including waste reduction and diversion.
- **Improvement.** Build an observation deck at MPE Landfill with educational information. **Outcome.** More informed tours at the landfill by providing a stopping point to demonstrate key information.

## **How do you feel being designated an EMS pilot project would benefit your planning area?**

MWA prides itself in being a leader in environmental stewardship and cost-effective waste management. The philosophy of continuous improvement is fundamental to our operations. Being part of the EMS pilot would provide us an opportunity to be recognized for the breadth of our environmental initiatives and the support to continue to grow and expand upon them. It would also provide a forum for us to share experiences with, and learn from, other participants. For instance, MWA would be able to share its experience with using an EMS at key facilities.

Through EMS, MWA will be able to evaluate the overall environmental benefits and services of programs that serve nearly 500,000 people. We can establish baselines, set specific goals, and develop measurable objectives and targets. As we look to improve on various aspects, the end result will be a significant and measurable improvement to our environment. Recycling and diversion will be a major component of this effort. But instead of success being based on diversion numbers alone, it will now be based on how and what improvements we make to our environment.

Lastly, MWA is well positioned to be a regional environmental leader. Being designated an EMS pilot will provide the regulatory “authority” and rationale to lead and carry out partnerships in the areas of water quality and greenhouse gas reduction that weren’t otherwise considered key elements of a regulatory paradigm based on diversion. Similarly, we can use the “authority” to assist member community public works departments in adopting an EMS approach that will help how they do business and protect the environment.