

# ENVIRONMENTAL MANAGEMENT SYSTEM



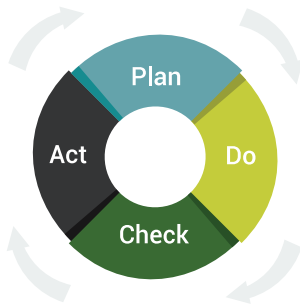
ANNUAL REPORT  
FISCAL YEAR 2023

[www.iowa.dnr.gov/swems](http://www.iowa.dnr.gov/swems)

The Solid Waste Environmental Management System (EMS) program is a continuous improvement program—measuring environmental performance in six program components. Participating solid waste agencies implement a management system throughout their operations and organizations—following a framework of 10 elements.

The EMS program—an approach that rewards environmental stewardship efforts beyond waste reduction—is an alternative to Solid Waste Comprehensive Planning. Fourteen solid waste agencies—serving more than half of Iowa’s population—voluntarily participate by pursuing local environmental goals.

## FOLLOWING A CYCLE OF CONTINUOUS IMPROVEMENT



## ACTIVELY PURSUING 6 PROGRAM COMPONENTS



## IMPLEMENTING A FRAMEWORK OF 10 ELEMENTS



## DNR PROGRAM SUPPORT

DNR supports program participants with grant opportunities and by providing training workshops, an annual conference, technical assistance and external auditing services.

In FY2023, DNR developed the EMS Program Guide and held a special workshop to introduce this new, 24-page resource that features an overview of the program, guidance for each of the system elements and a summary of best practices. The guide outlines the program’s requirements and incentives for those considering applying for EMS designation or are new to the program and is an all-inclusive reference for seasoned staff of designated participating agencies.

## FY2023 EMS PROGRAM COSTS

Third-party external auditing	\$33,230
Technical assistance and participant training/support	\$65,282
Grant awards	\$327,339
<b>TOTAL</b>	<b>\$425,851</b>

# ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) PROGRAM PARTICIPANTS

## CRLCSWA

Cedar Rapids Linn County  
Solid Waste Agency

## DMASWA

Dubuque Metropolitan Area  
Solid Waste Agency

## GRRWA

Great River Regional  
Waste Authority

## HCLC

Harrison County Landfill  
Commission

## ICLF

Iowa City Landfill and  
Recycling Center

## LNI

Landfill of North Iowa

## MCSWMC

Mahaska County Solid  
Waste Management  
Commission

## MWA

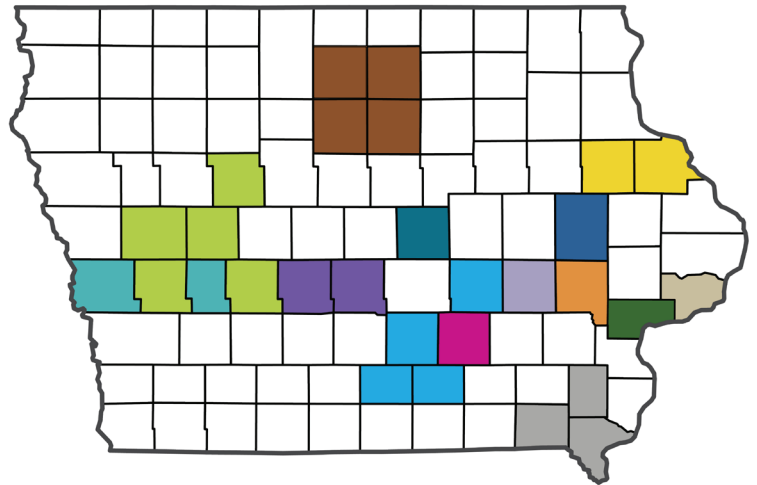
Metro Waste Authority

## MCSWMA

Muscatine County Solid Waste  
Management Agency

## REIC

Iowa County Regional  
Environmental Improvement  
Commission



## SCISWA

South Central Iowa Solid  
Waste Agency

## SWMCMC

Solid Waste Management  
Commission of Marshall  
County

## WCISWMA

West Central Iowa Solid Waste  
Management Association

## WCSC

Waste Commission of  
Scott County

## PARTICIPANT ACHIEVEMENTS

At a local level, participants work to achieve quantifiable objectives and targets – resulting in environmental improvements within their service areas. DNR provides grant opportunities to assist participants in reaching their environmental goals. Highlighted below are grant projects that were completed during FY2023.

Doubling its drop-off sites and bunker locations for glass recycling, Iowa City Landfill and Recycling Center (ICLF) purchased three roll-off recycling containers, signage and bunker blocks. ICLF painted the containers purple, installed educational signage, and placed the new containers in northern Iowa City, downtown Iowa City and Coralville. The EMS also constructed a bunker, creating a second Iowa City hub where glass from the in-town drop-off containers is accumulated and then loaded-out to a processor for recycling. To promote its new services, staff launched an outreach campaign that included advertising on Iowa Public Radio, distributing informative drink coasters and posting on social media. During the first year of the newly expanded program, ICLF collected and recycled 547 tons of glass—the weight of 1,707,707 glass bottles. DNR's share was \$22,087 for this \$33,690 project.



*ICLF established three new drop-off sites for glass recycling*



LNI regularly gives tours of its regional collection center, complete with newly installed LED lighting.

To reduce greenhouse gas emissions from energy usage, Landfill of North Iowa (LNI) replaced a dated lighting system of fluorescent bulbs and ballasts with energy-efficient LED lighting in its regional collection center and operations shop facilities. Compared to baseline data, the project resulted in reducing LNI's energy consumption by 2,380 kWh in the first year after installation. Based on these results, the project will result in avoiding 33.7 metric tons of carbon dioxide over 20 years – the same as the annual electricity usage of 6.6 homes. The environmental benefits of the energy-efficient system were shared with the 775 people who toured LNI's regional collection center during the annual target period. DNR grant assistance covered \$13,429 of the project's \$17,905 total cost.

Increasing awareness about recycling services throughout the planning area, West Central Iowa Solid Waste Management Association (WCISWMA) completed four activities: produced and placed 5,500 rack cards with county specific recycling information in public areas of Crawford, Guthrie and Shelby counties; produced and distributed 12,500 direct mail postcards in Crawford and Shelby counties that resulted in reducing contamination in recycling by 36%; installed

20 signs on recycling trailers in Crawford County, reducing contamination in recyclable materials by 20% as compared to the previous year; and created and installed 38 color-coded signs at the Carroll County Landfill, decreasing incidences of customer mismanagement of materials by 50% within the facility. DNR provided \$10,290 for this \$15,460 project.

RECYCLE



**Plastics ONLY**





**Glass Bottles & Jars**



**Cans, Clean Foils & Empty Aerosol Cans**



**Paper & Cardboard**

ALL ITEMS MUST BE  
**EMPTY \* CLEAN \* DRY**

\*PAPER & CARDBOARD SEPARATE FROM GLASS, METAL, PLASTIC



Carroll County Solid Waste  
19111 Kittyhawk Ave.  
Carroll, Iowa 51401  
712-792-5001  
*delivering environmental services...together*

WCISWMA created and distributed direct mail postcards to educate residents about recycling services.



SCISWA installed rooftop solar arrays on its scale house and education center.

South Central Iowa Solid Waste Agency (SCISWA) installed a solar energy system with rooftop arrays on the scale house and education center building at its landfill facility in Tracy. In the first year of operation, the system produced 19,900 kWh—22% above the electricity needs for the building and equivalent to supplying electricity for 2.7 homes—avoiding 14.1 metric tons of carbon dioxide and nearly \$2,000 in utility costs. DNR grant funds supplied \$24,999 for this \$34,200 project.



Solid Waste Management Commission of Marshall County (SWMCMC) developed and conducted an educational campaign to increase recycling and reduce contamination at their newly established drop-off site at the Marshall County Landfill. The campaign included advertising, distributing flyers in both English and Spanish, and reaching 13,558 households through a direct mailing campaign. SWMCMC's promotional efforts resulted in collecting 20 tons of cardboard, paper, plastic, glass and metal cans in the first full year of adding this convenient drop-off site in the solid waste planning area. DNR grant funds covered \$9,045 of this \$13,799 project.



SWMCMC produced and distributed flyers in Spanish to promote its recycling services.



WCSC redesigned its electronics recycling center with facility electric upgrades and new equipment, such as this workbench.

Waste Commission of Scott County (WCSC) implemented a LEAN process improvement, identifying facility upgrades and equipment needs to increase processing capacity at its Electronics Recycling Center. WCSC receives unwanted electronics, from small hand-held devices to large screen TVs to vintage turntables, and then refurbishes and sells these items for reuse or demanufactures the items and recycles the materials. In this project, WCSC made facility electrical upgrades and purchased a 42-foot speed-controlled conveyor, two hydraulic Gaylord dumpers, a forklift Gaylord rotator, two electric pallet jacks, weigh forks, two testing/repair workbenches and two downdraft tables. The project resulted in the EMS increasing the number

of electronic items processed for reuse—a higher material management method—to 8,798 items, a 22% increase over baseline data. DNR funded \$50,222 of this \$106,123 project.

