



# E-Cycle Wisconsin collection site inspection project summary

February 2015

This document summarizes a 2013-2014 Department of Natural Resources initiative to inspect a large number of registered E-Cycle Wisconsin collection sites. The effort was successful in that it led to improved compliance and other positive outcomes, described below.

## Background on E-Cycle Wisconsin and registered collectors

Wisconsin's electronics recycling law requires manufacturers of certain electronic devices to help fund electronics recycling. The E-Cycle Wisconsin program sets up a network of registered electronics recyclers and collectors eligible to receive manufacturer funding.

Electronics collectors can choose to participate in E-Cycle Wisconsin if they collect electronics from households and schools (businesses are not eligible for this program) and if they send their electronics to a registered recycler. Collectors that receive primarily business materials or that do not work with a registered recycler operate independently of E-Cycle Wisconsin.

Typically, collectors that register with E-Cycle Wisconsin negotiate better contracts with recyclers than unregistered collectors, since manufacturer funding is part of the equation. With the potential funding benefit, however, comes added responsibility. Registered collectors must report to the DNR annually and are subject to inspections to ensure they are managing electronics properly.

Registered collectors may not participate in any dismantling activities (unless explicitly approved by their recycler), must store electronics appropriately and must track electronics eligible for the program separate from electronics not eligible for the program.

## Initial registered collectors site inspections

The purposes of registered collector site inspections are to:

- determine if there are any unacceptable recycling/dismantling activities;
- check that electronics are stored in a manner to protect them from theft, vandalism, breakage and weather;
- see that materials are managed in accordance with solid and hazardous waste laws; and
- review records to verify that only eligible electronic devices are counted under the program, that materials are sent to acceptable downstream vendors (usually a registered recycler) and that the weight or volume of incoming and outgoing loads balances.

The E-Cycle Wisconsin program started with only one field inspector. When the program first began, the inspector focused on recycler compliance and laying a strong foundation for the program. Therefore, the inspector visited only 54 (out of more than 400) collection sites during the first three program years (Jan. 1, 2010, to June 30, 2012).

During those inspections, there were several common concerns, including lack of proper labeling, unprotected outdoor storage and broken leaded glass from cathode ray tubes. Many of the electronics collection sites the inspector visited also accepted other household items for recycling or disposal, and the inspector noticed that used oil and some universal wastes, such as used bulbs and batteries, were not

being handled properly. Site operators had many questions about electronics and E-Cycle Wisconsin and were often unaware that they were improperly handling materials.

## Expanded inspection plan

As a result of these early inspections, the E-Cycle Wisconsin team decided that it would be beneficial to conduct inspections of as many collection sites as possible as quickly as possible. To complete the ambitious plan of meeting with most collectors around the state over a short period of time, the E-Cycle Wisconsin team hired a half-time field inspector in March 2013 and the full-time field inspector's time was reallocated to make these inspections a priority.

The E-Cycle Wisconsin team viewed the next round of inspections as an outreach opportunity in which the inspector could offer tips on best management practices, promote the DNR's educational materials and have an open discussion with site operators about their questions/concerns and what the DNR could do to help them manage their programs.

In early 2013, there were approximately 125 distinct collectors registered with E-Cycle Wisconsin, but many operated multiple sites. Inspectors prioritized visiting as many different collectors as possible, rather than visiting multiple sites managed by the same collector, in the belief that once a site manager had been informed of best management practices and possible site violations, he or she could communicate this to other sites managed by the same collector.

The two field inspectors were able to complete a total of 170 inspections with more than 100 different collectors from March 2013 to June 2014. Only 21 of the collectors registered during that time had never been inspected by the E-Cycle Wisconsin program. Inspections at sites operated by those collectors are a priority in program year 6 (July 2014 to June 2015). Table 1 summarizes the number of collection site inspections by program year.

Table 1: DNR collection site inspections, by program year

Program year	Time period	Number of sites
1	Jan. 1 to June 30, 2010	5
2	July 1, 2010 to June 30, 2011	20
3	July 1, 2011 to June 30, 2012	29
4	July 1, 2012 to June 30, 2013	65
5	July 1, 2013, to June 30, 2014	116

## Common compliance issues

Many of the collection site operators the inspectors visited were not aware of the rules governing management of used electronics, and the inspectors found many common problems as a result. The inspections were a great opportunity to educate operators and provide compliance assistance.

One of the most common problems was management of cathode ray tubes, found in older monitors and TVs, which contain leaded glass. To protect worker safety and the environment, collection sites need to manage CRTs to avoid breakage. Broken CRTs must be stored indoors in labeled containers designed to minimize releases. During many inspections, DNR staff found broken glass or broken CRTs, and it was clear that site operators were not aware of how to properly handle the material. Regardless of whether inspectors noted a problem with glass, they educated every collector on properly handling and labeling broken glass.

Other common problems directly related to electronics management included:

- stacking materials too high;
- using containers unsuitable for the contents;
- uncovered outdoor storage;
- engaging in unacceptable recycling activities; and
- poor recordkeeping practices.

While on-site, E-Cycle Wisconsin inspectors also looked at how the collector was managing universal waste and used oil. The most common universal waste concerns were management of used light bulbs (primarily tube-style fluorescent lamps) and batteries. Collection sites rarely stored used bulbs in a proper container or labeled them, and many had broken bulbs. Inspectors sometimes found batteries mixed together with no protection of the terminals to prevent fire. In addition to battery and bulb problems, inspectors occasionally found used oil containers open and/or unlabeled.

## Outcomes

The expanded inspection effort produced several positive results, fulfilling the initiative's goals.

**Compliance assistance:** There were very few sites that did not have at least minor issues that needed to be addressed. Since the intent behind the inspections was to educate collectors and gain voluntary compliance, inspectors addressed problems in person, provided appropriate guidance documents and issued follow-up letters with instructions on how to better manage the site or correct any problems. Every collector made the required corrections and provided documentation of the corrections. Also, many collectors improved their sites by following recommendations for best management practices.

**Collector feedback:** DNR staff found the personal contact during inspections to be invaluable. Inspections provided a great opportunity for open dialogue where, in addition to site management, collectors were willing to discuss their thoughts about E-Cycle Wisconsin and offer ideas for improvement, including outreach needs. Collectors also seem to have found value in the inspections. After each inspection, the DNR asked collectors to fill out an anonymous survey to provide feedback on the E-Cycle Wisconsin program's customer service. Seventy-five percent of the people who responded said that one-on-one discussions with E-Cycle Wisconsin staff had been "very useful" and an additional 17 percent said they were "fairly useful." A number of respondents commented that they found the inspection very informative or helpful.

**Improved technical assistance materials:** E-Cycle Wisconsin staff used the feedback from inspections and the survey to improve outreach to collectors. For example, inspectors heard from many collection site operators that easier-to-understand instructions on how to manage a site would be helpful. As a result, the E-Cycle Wisconsin team created a video and handouts to explain the rules for managing electronics, universal waste and used oil. The video and handouts were mailed to registered collectors along with a packet of other useful site management documents in January 2015.

**Stakeholder meeting:** Several collectors expressed an interest in meeting with others to share tips on running their programs, improving relationships with recyclers and understanding how to control program costs. These conversations helped E-Cycle Wisconsin program staff structure the 2014 E-Cycle Wisconsin stakeholder meeting. The meeting included a collector panel to discuss exactly these issues. Forty-five collectors attended, and many thanked E-Cycle Wisconsin staff for having a panel aimed at their concerns.

## Next steps

Now that the vast majority of collection sites have been inspected and it appears that collectors are willing to voluntarily comply with rules and requirements, E-Cycle Wisconsin staff have reduced the number of inspections conducted each year. Continued site inspections are important, however, to protect worker and environmental health, maintain a level playing field and protect the integrity of the program. Ideally, an E-Cycle Wisconsin inspector will visit each collector about once every five years. This goal will allow inspectors to maintain contact with each collector while providing a manageable inspection workload of about 25 inspections per year. (Workload is particularly important because the part-time inspector left the DNR in July 2014.) E-Cycle Wisconsin staff will base priority for future inspections on sites where there have been complaints, sites that previously had significant problems or sites that have never been inspected, including new program participants.



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