



Electronics dumping on public lands in Wisconsin

Results from 2011 Wisconsin DNR survey of public lands managers
October 2012

Survey background

On Sept. 1, 2010, landfill and incinerator disposal bans for many electronics took effect as part of 2009 Wisconsin Act 50 (Wisconsin's electronics recycling law). Electronic items banned from disposal include TVs, computers, printers, computer accessories, DVD players, VCRs, fax machines and cell phones. The purpose of the bans is to prevent disposal of devices containing toxic substances—such as lead, mercury and other heavy metals—and to promote recovery of the valuable materials in electronics for further use.



To complement these bans, the law created a new program to make electronics recycling cheaper and more convenient for Wisconsin residents. This program, called E-Cycle Wisconsin, sets up a network of registered collectors and recyclers and is funded in part by manufacturers that sell certain electronics in Wisconsin.

Prior to Wisconsin's electronics recycling law, recycling old electronics was inconvenient and/or expensive for many state residents. Public lands around the state often serve (illegally) as dumping grounds for such inconvenient and expensive waste materials. As the number of electronic items in our

daily lives has increased, so too has the number of electronics showing up at illegal dump sites on Wisconsin's public lands.

To understand how much of an impact Wisconsin's electronics recycling law might be having on public lands around the state, and specifically if the law influenced illegal dumping of electronics on public lands, the Wisconsin Department of Natural Resources conducted an online survey of federal, state and county public lands managers. The DNR launched the 18-question anonymous survey at the end of September 2011 and closed it in December 2011. Land managers were invited to respond to the survey through emails and, in the case of federal properties, through a combination of phone calls and emails. During the three months that the survey remained open, the DNR received responses regarding 118 federal, state, and county properties.

Eighty-two percent of the responses were from state properties, 14 percent were from county properties and three percent were from federal properties. Most respondents had worked at their properties for more than one year, suggesting they were in a position to notice if Wisconsin's electronics recycling law had affected their properties (only 10 respondents either had not worked at the site for more than a year or did not answer this question).

Illegal dumping

A majority of respondents noticed no changes in dumping after Wisconsin's electronics recycling law took effect (Figure 1). While many respondents did notice an increase in dumping, several wrote in open comment boxes that they were not convinced this increase had anything to do with the electronics recycling law. Many felt the increase they saw had more to do with the June 2009 national transition to digital TV signals than with the electronics recycling law. One respondent commented that dumping has been increasing for at least five years. No respondents reported seeing a decrease in dumping. In most cases, respondents were basing their answers of pre- and post-ban dumping on memory.

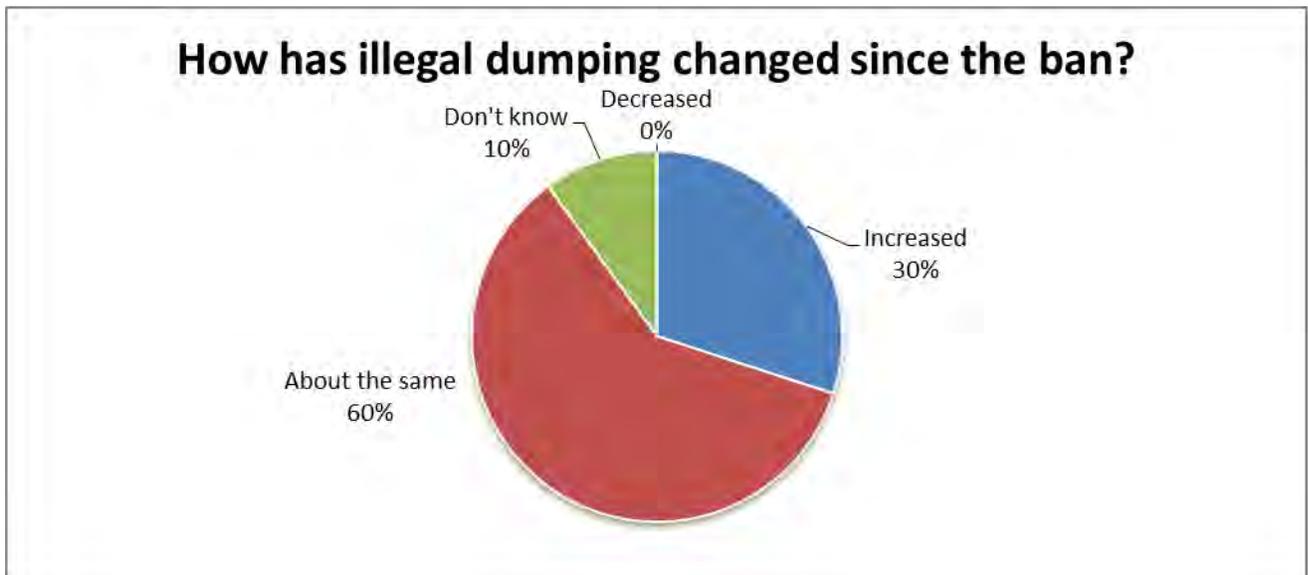


Figure 1

Respondents report that the types of materials being illegally dumped on public lands has not changed much over the years. Most electronics dumps consist of “old-style” televisions with cathode ray tubes, computer parts and monitors.

Disposal after dumping

A large majority of respondents have not kept records of illegal dump sites or the costs associated with managing them. However, two-thirds of respondents did remember having taken dumped materials off-site for disposal or recycling. In nearly 70 percent of the cases reported on, respondents took recovered electronics to a recycling facility (Figure 2).

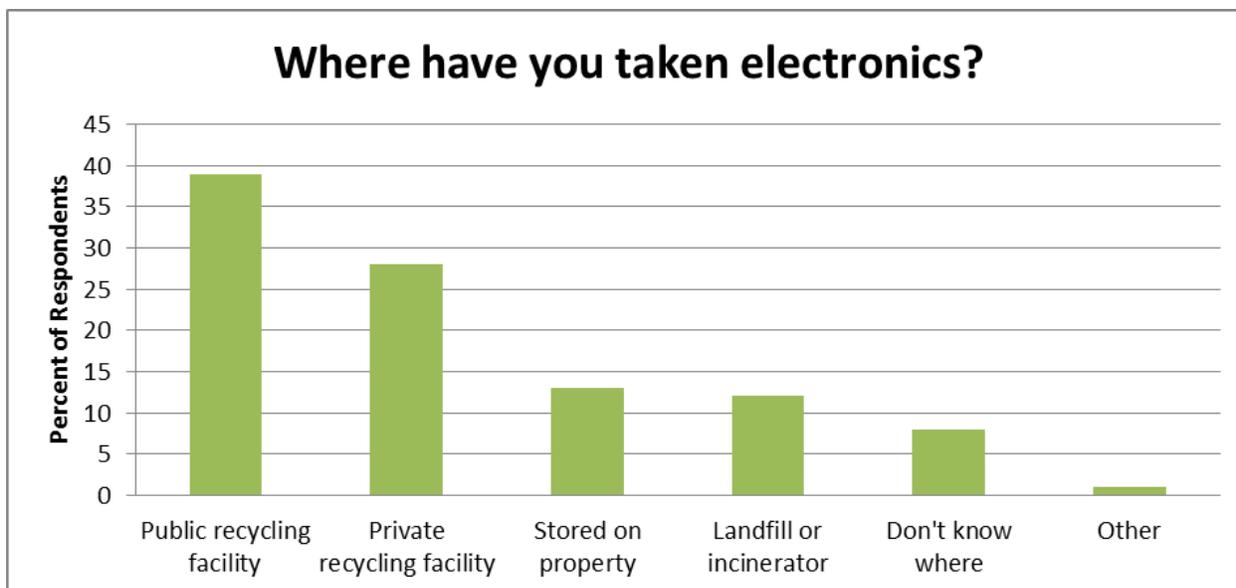


Figure 2

While some respondents reported not knowing where to take dumped items, most were able to find places for recycling or disposal by using word of mouth, the Internet, the DNR E-Cycle Wisconsin website, phone books, ads or other local resources (in that order).

Cracked or smashed electronics do present special disposal problems for some property managers. The greatest difficulty associated with disposing of illegally dumped electronics, however, appears to be cost. This survey did not directly ask about the costs of dump clean-ups, but many respondents used the comment boxes to tell the DNR about costs. Six of the 18 respondents who wrote in a comment box associated with a question about “difficult items to recycle” commented on the cost of disposal to their programs or to themselves. Eight respondents used the last comment box on the survey to mention the costs associated with disposal of dumped items (no other subject had so many comments). Respondents wrote that they had difficulty paying for the actual disposal of dumped items as well as for the transportation and labor associated with getting the items off-site.

Enforcement after dumping

Despite the high costs of cleaning up a dump and the desire many respondents have to recover the costs they incur for dump site repair, reports of illegal dump sites to law enforcement officials have gone down over time (Figure 3). Prior to 2010, nearly half of respondents had reported an electronics dumping issue to law enforcement. After 2010, only 36 percent of respondents said they had reported a dumping issue to law enforcement. In comment boxes associated with these questions, several respondents mentioned how difficult it is to link people to particular dump sites. One respondent wrote that the site manager only calls law enforcement if personal information is found associated with the electronics, as otherwise it is not worth calling anyone.

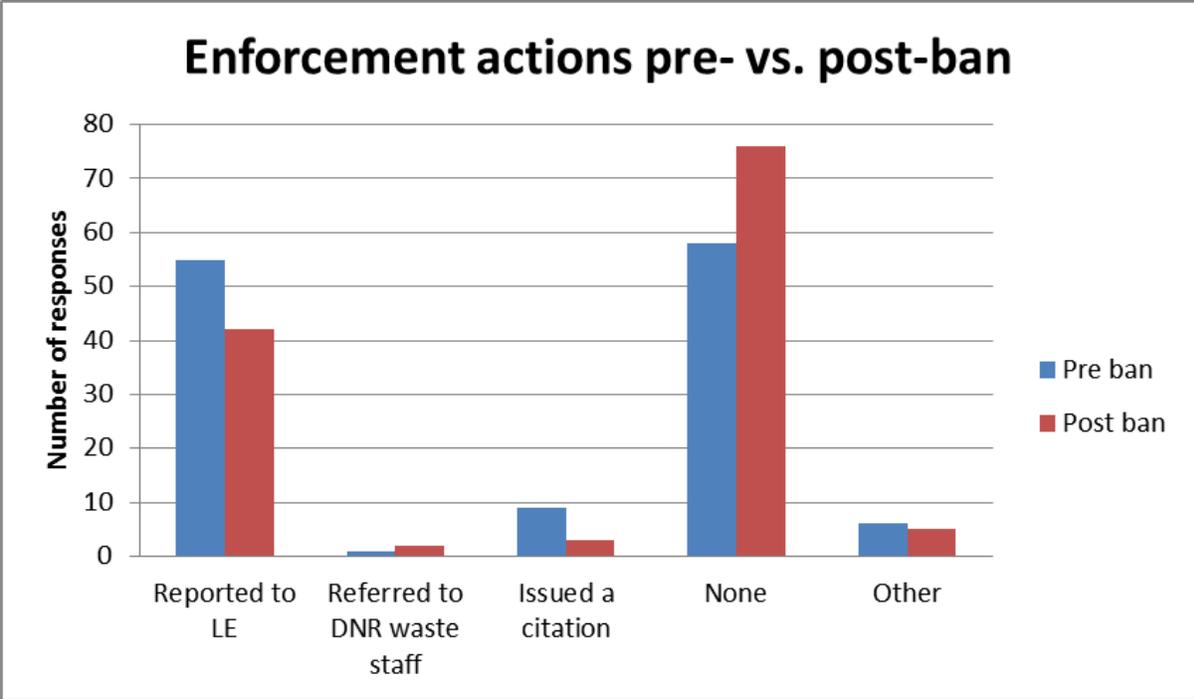


Figure 3

Outreach

Nearly 60 percent of respondents reported a desire to learn more about the electronics disposal bans and Wisconsin’s electronics recycling law. Most would like to receive this information over email and/or through printed publications (Figure 4). Specifically, five respondents commented that they would like clearer information on where to take illegally dumped electronics and two would like to know which materials each local site takes and how much the site charges.

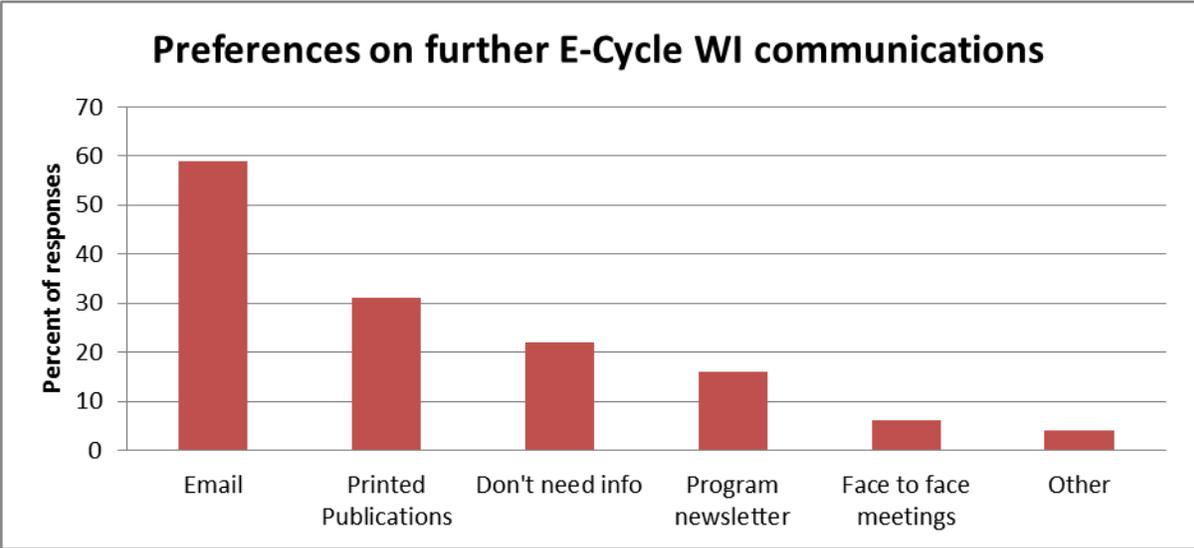


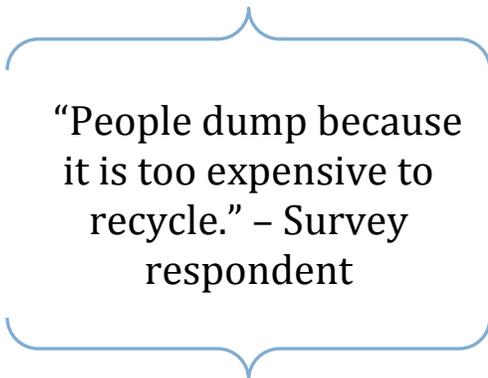
Figure 4

Conclusion

There are several factors related to this survey that make interpreting the results difficult. First, the survey neglected to ask respondents if they had never seen illegal dumping on their property. Six respondents wrote in comment boxes, where available, that the question being asked did not apply to them because they did not have experience with illegal dumping. It is logical to assume that others had this same response but did not take the time to write about it. As a result, we cannot, with any confidence, say how many sites are experiencing illegal dumping.

The survey also does not ask respondents if their knowledge of where to take illegally dumped items has changed since the implementation of the electronics recycling law. Wisconsin's electronics recycling law, specifically the E-Cycle Wisconsin program, may be positively influencing public lands by helping respondents know where to take dumped electronics, but the survey did not ask respondents what they did with illegally dumped items prior to 2010.

It is also important to recognize that most responses to this survey were done from memory. Nearly three-quarters of respondents indicated that their property keeps no records of illegal dumping cases. This makes understanding changes over time difficult, especially when considering that at least some respondents work at several different properties and may not recall differences among the properties.



“People dump because it is too expensive to recycle.” – Survey respondent

Considering the above limitations, and others, it is difficult to tie electronics dumping on public lands, either positively or negatively, to the passage of Wisconsin's electronics recycling law.

The E-Cycle Wisconsin program, however, has the potential to reduce costs associated with illegal dumping and help managers find responsible electronics recycling sites. It appears that public lands managers do not yet have widespread awareness of E-Cycle Wisconsin and the benefits it can offer them. The E-Cycle Wisconsin website makes it easy for anyone, including land managers, to find electronics collection sites in a selected county. Details associated with each collector, including which items it will accept and how much it charges, are available or a phone number or website is provided to answer further questions. Using an E-Cycle Wisconsin collector could reduce the price land managers pay to recycle old electronics, because manufacturers help offset the cost of recycling at registered sites.

Hopefully, as the Wisconsin public becomes more aware of E-Cycle Wisconsin, illegal dumping on public lands will decrease. Recycling old electronics is no longer as costly in this state as it initially was. The E-Cycle Wisconsin team is working to find ways to increase the distribution of collection sites around the state and to decrease the costs associated with electronics collection, particularly in rural areas.

Both the responses from public land managers and their impressions of what the people in their local areas know about electronics recycling provide impetus for increased outreach to public lands managers and a continuation of outreach efforts to all areas of the state. Both efforts should focus on letting people know how to find cheap and convenient recycling locations through the E-Cycle Wisconsin website. An email should be sent to all parties who received the survey inviting them to order E-Cycle Wisconsin business cards, fliers or brochures.

Comments related to program evaluation

Clearly, the cost of disposing of illegally dumped electronics is a burden to many public lands survey respondents. Several respondents suggested that a state fund (or state budget code) be established to help public lands pay for responsible recycling of dumped items. In reconsidering the rural incentive currently in the electronics recycling law, attention should also be given to this suggestion. The financial incentive of a budget code or fund tied to E-Cycle Wisconsin may help remind public land managers of who to contact or where to look when they need to clean up dumped electronics and may help ensure that dumped electronics are properly recycled.



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