



Electronics dumping on public lands in Wisconsin

Results from the DNR's 2014 survey of public lands managers

March 2015

Survey background

Recycling old electronics can be inconvenient and/or expensive for some state residents. Public lands around the state often serve (illegally) as dumping grounds for these and other waste materials.

To understand the impact Wisconsin's electronics recycling law might be having on illegal dumping around the state, and specifically if the law has influenced illegal dumping of electronics on public lands, the Department of Natural Resources conducted online surveys of federal, state and county public lands managers in September 2011 and September 2014. The 2014 survey built on the results of the 2011 survey and refined questions based on comments from the earlier survey. DNR public lands staff used email lists to distribute the survey link to land managers in the state. We do not know the number of people these emails reached.

A total of 221 public lands managers responded to the 2014 survey (as compared with 118 in 2011). Respondents answered questions about lands in all but five of Wisconsin's 72 counties. Seventy-eight percent of responses in 2014 were from state properties, 13 percent from county properties, 5 percent from federal properties and 4 percent from municipal properties. Respondents had worked an average of 10.5 years at their properties, with only 31 percent having been in their jobs for fewer than five years. Those who had been in their positions fewer than five years had to rely on the accounts and records of others to understand how dumping had changed since the disposal ban went into effect in 2010.

Most respondents were aware of Wisconsin's ban on disposing of many electronics in landfills and incinerators (84 percent) and the E-Cycle Wisconsin program (75 percent).

Illegal dumping over time

Survey results show illegal dumping remained a problem on public lands nearly five years after Wisconsin's electronics recycling law went into effect. More than 40 percent of respondents believed that dumping remained the same since 2010, while 22 percent believed it had increased and only 15 percent believed it had decreased (Figure 1). Respondents report this lack of change despite believing that recycling opportunities near their properties were more available (45 percent) or about the same (29 percent) as they were before the law took effect in 2010.

When asked to speculate why dumping might persist, despite a law intended to make recycling more convenient and affordable, 90 percent of respondents chose the answer, "public lands are easy dumping grounds." This choice may reflect a belief that a person's decision to dump is independent of recycling opportunities. Half of respondents, however, also ascribed decisions to dump to "people not knowing what to do with old electronics" and "electronics recycling being too expensive." These answers suggest that respondents believe increased public awareness of lower-cost recycling opportunities under E-Cycle Wisconsin may have an effect on illegal dumping.

Current dumping statistics

Sixty percent of respondents (or 133 people) found electronics illegally dumped on their public properties in the 12 months before receiving the survey. A higher proportion of sites in the southern part of the state reported finding dumps than sites in the northern part of the state (see Figure 2). This result may support the idea that a person's decision to dump is independent of recycling opportunities, as e-cycling is more available in southern Wisconsin.

Of the sites that had found dumps, nearly half estimated finding them "once every few months." At the extremes, nine sites found just one dump and six sites found dumps more than monthly (see Figure 3). The reports of dumping frequency are generalizations, however, as most sites do not keep dumping records.

The contents of discovered dumps did not change much between the 2011 and 2014 surveys and lends support to the idea that electronics recycling may still be too expensive. As shown in Figure 4, nearly all respondents found old, tube-style TVs in dumps (88 percent), followed by tube-style monitors (44 percent) and computer towers (27 percent). The least likely item to be in a public lands dump was a cell phone (2 percent). The Figure 4 graph closely mirrors the items that electronics recyclers are most likely to charge households for. Properly recycling tube-style TVs is expensive, and part of that cost is often passed on to people bringing devices in for recycling. Cell phones are valuable devices for recyclers and are often recycled for free or exchanged for a rebate.

Figure 1: Perceived changes in public lands dumping since 2010

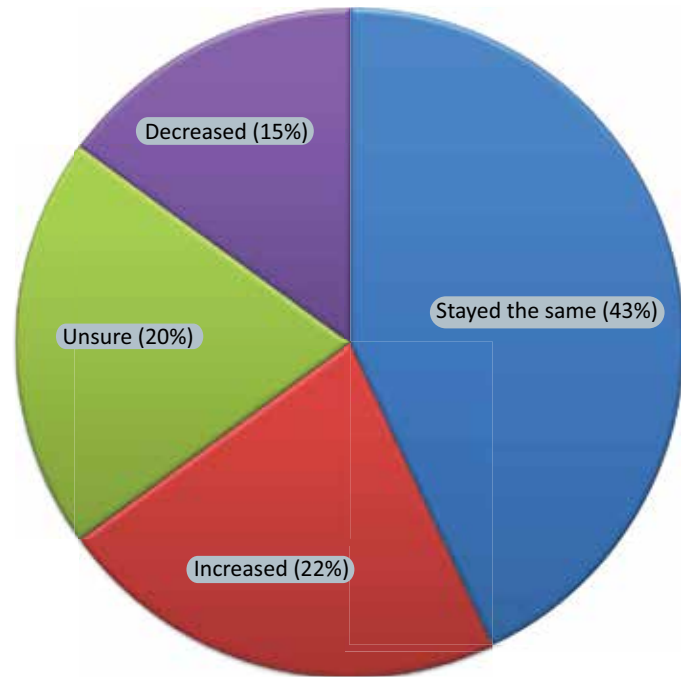


Figure 2: Public lands dumping by DNR region

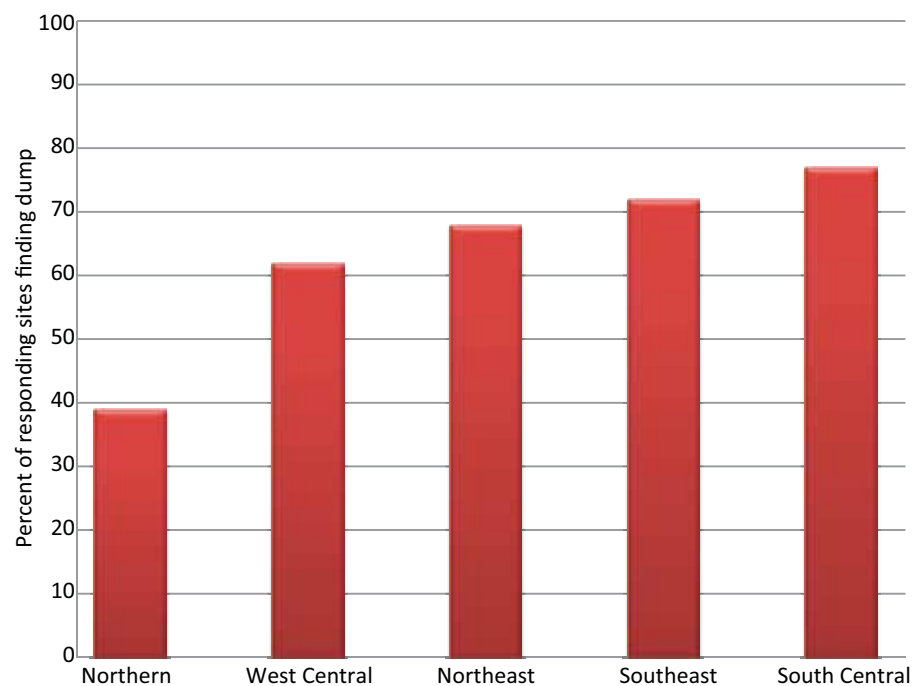


Figure 3: Dumping frequency on public lands, September 2013 through September 2014

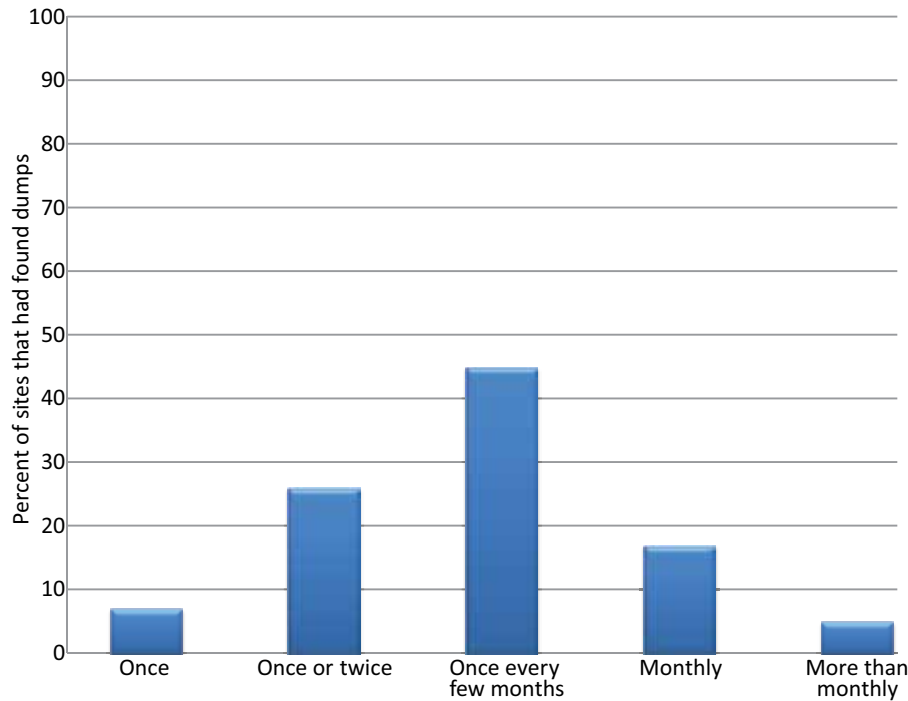
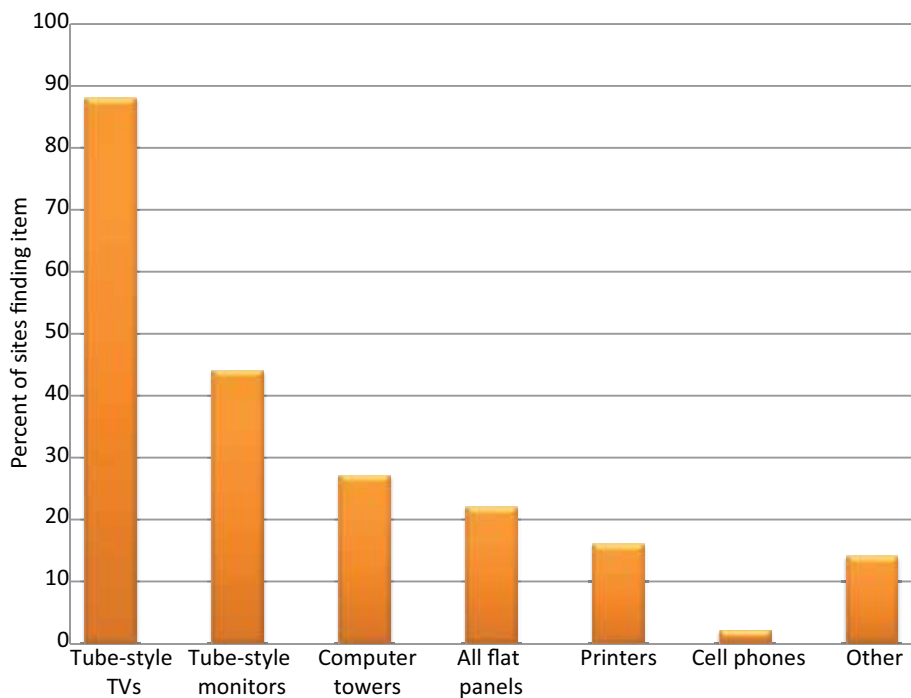


Figure 4: Contents of discovered dumps on public lands between September 2013 and September 2014



Disposal after dumping

The same items that are most difficult for households to recycle cheaply are the items most challenging for public lands managers to recycle. Eighty-five percent of respondents from properties with dumped electronics took dumped items to electronics recyclers. More than half of these property managers had to pay to recycle the electronics. Of those that paid, 80 percent did so for old, tube-style TVs and 44 percent paid for tube-style monitors. Most sites paid for these fees out of general operating funds, but a handful of managers paid out of their own pockets. Costs varied widely.

Respondents from 25 sites reported leaving the dumps on their properties instead of taking them to a recycler. In comment boxes, some managers of these sites mentioned being unable to pay for the cleanup, being unsure of where to take items for proper disposal or waiting until they had a full pick-up load before removing items. These dumps remain in the outdoors, perhaps marked on maps, until a suitable alternative presents itself.

Ten managers reported taking dumped electronics to landfills or incinerators for disposal (illegal under state law), though it is possible these sites were also electronics collection sites.

Despite the cost and inconvenience of dealing with dumped electronics, more than half of respondents did not report the dump(s) to local law enforcement or environmental agencies. Some respondents were law enforcement personnel themselves, but in general most cases of dumping go unreported. As in 2011, respondents commented that it is usually very difficult to determine the source of the dumping. Unless managers discover an obvious identifying object, it is not worth their time to report a dump. Recycling costs, therefore, are rarely (if ever) recouped.

Conclusions

The DNR surveys indicate that the electronics recycling law has not drastically affected the incidence of electronics dumping on public lands. Dumping remains a problem even though recycling opportunities are more widespread now than before the law passed. It is possible that the decision to dump electronics is independent of the availability of local recycling options, and that public lands are just easy places to put unwanted materials. This idea, voiced by many survey respondents, is supported by the fact that the regions of the state reporting the most frequent dumps are also regions of the state where there are more electronics collection sites. If this is the case, continued outreach to increase awareness of E-Cycle Wisconsin sites may have little effect on dumping.

However, reality may be more nuanced. The fact that the electronics most frequently found on public lands are also the electronics for which most drop off sites charge lends credence to the idea that many people dump because they do not want to pay to recycle electronics. Expense aside, fewer places in the state are taking old, tube-style TVs for recycling because they do not want to shoulder the burden of increasing costs. While 90 percent of respondents believed that public lands are dumped on because they are easy dumping grounds, half thought cost and/or awareness were also factors. Increased awareness of E-Cycle Wisconsin collection sites could help people find lower-cost options for old electronics.

The E-Cycle Wisconsin program is facing challenges of its own. The expense of recycling tube TVs has led some electronics collectors to stop collecting altogether, or to stop collecting tube devices (likely the most hazardous devices to be dumped on the land). At a time when an increase in low-cost electronics collection sites could help public land managers, E-Cycle Wisconsin has had a decrease in collection sites accepting items for free and a decrease in collection sites overall. It would not be a surprise to see these changes reflected in future public lands surveys as an increase in illegal dumping.



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