

"E-erase your E-waste" Collection Event

• FINAL REPORT •

September 8-9, 2006
LEPC, ROI, CERT/RSVP and ARS
Community Event
Sidney, Montana



Prepared by:

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Above, some of the more than 4 tons of outdated electronic waste collected at our 2006 event. At right, volunteers figure the bill for a local participant to e-cycle her e-waste.

I. BACKGROUND

For the second year, Richland County held an “E-rase your E-waste” community e-cycling event in Sidney MT after the Richland County Local Emergency Planning Committee (LEPC) agreed to again spearhead the effort. LEPC members developed an E-waste Committee to help with preparations for this year’s event, which was also moved from June to September. The chair of the LEPC and the director of Richland Opportunities, Inc., (ROI) served as event co-coordinators. ROI, a non-profit organization, does cardboard and aluminum recycling as a community service and to provide work opportunities for its developmentally disabled clientele. The USDA/ARS/NPARL Safety Occupational Health and Specialist and Technical Information Specialist also assisted on the E-rase your E-waste Committee, along with representatives from several other local entities (see Summary).

This was the second computer and electronic components recycling collection event held in Richland County in the past two years. Last year’s pioneering program was used in part as a model for four other e-cycling events conducted in Montana in 2006.

Our goal both years was to collect outdated computer and other electronic equipment for recycling from local businesses and community residents, thereby keeping the items and their associated toxins out of the local landfill. This report contains a summary of event planning activities and outcomes.

II. SUMMARY

Event Partners

The following organizations and agencies partnered and assisted in planning, promoting and conducting the e-waste collection event:

Richland County

- LEPC – Local Emergency Planning Committee
- ROI – Richland Opportunity Inc.
- DES – Local Disaster Emergency Service Coordinator
- RSVP – Retired Seniors Volunteer Program
- CERT – Community Emergency Response Team
- SHC – Sidney Health Center
- CIT – County IT
- County Commissioners

City of Sidney

- Solid Waste Management Division

Montana Department of Environmental Quality

- Solid Waste Division
- Recycling & Marketing Division of MT DEQ

The planning committee met four times and had numerous communications via email. The ARS, ROI, RSVP, CERT, SHC and County IT members contributed considerable staff time. The CERT, RSVP and ARS staff members were invaluable in assisting with developing and distributing publicity items and for the collection event itself. Additionally, several members of the event planning committee provided volunteer and in-kind services.

This year we also received monetary aid for the event from Sidney Health Center and Montana DEQ. Sidney Health Center donated \$800.00 in matching funds to be used to help

offset the costs of e-cycling for local participants. The Montana Department of Environmental Quality donated \$500.00 to be used for publicity.

The Sidney Health Center donation was used by the committee to offer all participants a "half-price sale" on a first-come, first-served basis when e-cycling their items, bringing the cost down from 40 cents per pound to 20 cents per pound for the first 4,000 pounds recycled. Businesses could also receive a portion of the matching funds, but with a 200-pound limit.

Collection Event Focus Area

The event targeted residents and local businesses in Richland County, although it was also open to surrounding Montana and North Dakota counties. While outreach and publicity efforts focused on the Richland County area, other television programming and media advertising reached a broader audience, with a couple of participants in the event coming from as far away as Roosevelt and Dawson Counties in Montana and Williams and McKenzie Counties in North Dakota.

Please note, that while Richland County was targeted for the collection effort, the program itself has had a much broader impact as organizers continue to provide materials and information to officials in nearby and far-flung communities to aid them in setting up their own collection events. Much of that information is shared through the USDA-ARS website where organizing tips and templates of publicity materials have been made available to anyone with an Internet hookup. (See "Conclusion," for more details.)

Hauler/Recycler Contractor

In selecting our "e-cycler" for the event we followed EPA's Guidelines and used the Federal Electronic Challenge's on-site electronic waste management audit information (in the *Recycler Selection Criteria*) to ensure selection of a reputable contractor that followed environmental guidelines. We felt that it was important that we not export our problem to another country so we looked for a company that would keep the outdated computer equipment within the U.S. and one that would reuse as much of the material as possible. Our goal was to ensure that only 1.5% of inert products from the outdated electronic equipment would go to a landfill.

Once again we selected Tatoonie Electronic Systems, Inc. of Cheyenne, WY as our hauler/recycler contractor for the event. As was the case at the 2005 event, Tatoonie assumed full responsibility for transportation of all the computer/electronic equipment collected. At their Cheyenne, WY, homesite they demanufacture all electronic devices collected, with the pieces then sent on to appropriate recyclers and hazardous waste facilities.

Last year, to further ensure that the e-cycler selected for the event met the guidelines desired by local organizers, we conducted an on-site inspection of Tatoonie's facilities on May 25, 2005. Also participating in that inspection effort were representatives from MT DEQ and ARS office in Cheyenne, WY. It was determined that a second inspection in 2006 was not needed.

Publicity and Outreach

Publicity for the event began in July 2006. The following outreach venues were used:
a) Information on the event was distributed to and run in all local newspapers.

- b) Posters on the program were developed by ARS, and placed at local businesses. Electronic versions were also included on the ARS web page, the Safety ARS Web page and the MT DEQ recycling web page.
- c) Brochures containing information on hazardous materials found in computers, impacts to resources, recycling options, benefits of computer recycling, and tips for donating computers were developed by ARS and distributed by event partners. An electronic version was also placed on the ARS and other websites.
- d) Poster displays and educational brochures were placed at the ARS front desk area, and with Sidney, MT and Williston, ND merchants. A fair booth display with "E-erase your E-waste" information was also set up at the Richland County Fair in early August.
- e) E-mail and listserv announcements about the event were distributed to all employees and MT LEPC Chairpersons.
- f) Public service announcements (PSAs) were placed on local radio and TV stations.
- g) Paid ads, using the funds donated for that purpose by Montana DEQ, were placed in two local and one regional newspaper and on two local radio stations. The ads highlighted, in part, the "half price sale" resulting from Sidney Health Center's generous donation, which was used to offset some of the e-cycling costs for individuals and businesses participating in the event. The Sidney Health Center donation was also the subject of a news story leading up to the event.
- h) Television coverage included a 5-minute, noon show interview in which local CERT/RSVP and MT DEQ representatives discussed the upcoming event.
- i) In addition to directional signs, organizers this year had a large e-cycling "trivia" poster on display at the drop-off site providing statistical information on the growing problem of e-waste and the benefits of e-cycling.
- j) On the first day of the actual event, a local television news reporter conducted an onsite interview that was broadcast on its Nightly news program Friday evening, September 8th. A follow-up report on tonnage, participant numbers, and the future of the event, was requested and aired on the nightly news program on Tuesday September 12th, 2006.

Volunteer Recruitment

Volunteers and in-kind contributors were provided through several of the sponsoring agencies. Their participation was acknowledged and thanks extended through personalized letters from event organizers, through newspaper articles, and through a letter to the editor sent to local newspapers. In addition to the many committee members helping to set up and promote the event, there were also 3 volunteers that donated a total of 17.5 hours over the two-day collection period.

Participant Recognition

New in 2006 was an effort to recognize all those participating in the event with small tokens of appreciation. All participating individuals received buttons featuring the event's slogan and artwork and reading "I e-erased my e-waste!" In addition, all participating businesses received certificates acknowledging their participation. The idea was not only to provide recognition, but also to have a tangible item for participants to post in their business or home to promote e-cycling efforts in general and the local campaign in particular.

Because of their integral role in promoting this year's event through their \$800.00 donation, Sidney Health Center was recognized with a formal presentation of their certificate, which included a picture published in the two local papers. The local medical facility was also recognized for allowing their employees to recycle their personal electronic items free through the hospital.

III. EVENT EVALUATION, SURVEY AND STATISTICS

Overall comments from the public about the event were very positive. The level of participation and the volume of obsolete computer and other electronic equipment collected far exceeded our expectations. Detailed results from that survey are presented below. It was requested to have these types of events at least annually.

Table 1 itemizes event statistics including participant numbers, and numbers of monitors, CPUs, printers, periphery and other equipment collected.

Evaluation and Survey

All feedback from the public at the event was positive. A total of 60 vehicles dropped off outdated electronic equipment. People reported they were glad to see such a great community service and asked if this would become an annual event.

A short survey was prepared by MT DEQ and the E-waste Committee for the day of the event and we also obtained copies of the recycling certificates issued to each participant. A copy of a completed survey is listed below and copy of recycling certificates is available if needed. Surveys were completed for 60 participants.

1. How did you hear about this event?

Web page	
TV ad	2
Newspaper ad	32
Flyer / Poster	4
Radio	6
Word of mouth	6
Other responses:	4
E-mail	4
Sign on road	2
At land fill	

2. How far did you travel today to recycle your electronics?

< 5 miles	42
5 – 10 miles	5
11 – 20 miles	2
> 20 miles	11

3. In what county and state do you live?

Richland Co., MT	53
Roosevelt Co., MT	1
Dawson Co., MT	3
Williams Co., ND	1
McKenzie Co., ND	2
Divide Co., ND	
Other	

4. *Are your electronics from a:*

Residence	49
Business	11
Other	

5. *How many computer monitors and TVs do you have at home right now?*

0 – 2	21
3 – 4	18
5 or more	21

6. *How many households does your vehicle represent...i.e. are you dropping off e-waste for others as well?*

1	49
2	
3	
More than three	

7. *How old are you?*

Less than 25	1
25 to 35	1
35 to 45	11
45 to 55	17
55 and older	19

The following questions are being used to help Montana DEQ and other agencies learn more about current public opinion on e-waste recycling.

8. *Who do you think should pay for the safe recycling of electronic products?*

Consumer/user	33
Retail store	3
Electronics manufacturer	8
Government	
Other responses:	6
Company that extracts value	10
Hazard material be charged for	
Tax – sales	

9. *What is the most you would be willing to pay per item to recycle your electronics?*

\$2	10
\$5	35
\$10	8
Other responses:	6
More: \$20	1

10. *What is the most convenient way for you to recycle your electronics?*

Take them to a municipal recycling center	15
Take them to a retail store	1
Mail them back to a manufacturer	
Take them to a local charity	1
Other responses:	
Pick up	7

Drop off or Event like this one: 36

Statistics

Table 1 provides a quick overview of 2006 event statistics. Because some participants had as much as a pickup load of items to e-cycle making it difficult for newer volunteers to catalog, event organizers asked **Tatooine Electronic Systems** to provide information on items they e-cycled from our event at their Wyoming facility. Table 2, also below, compares the contributions of selected businesses and individuals from the past two "E-rase your E-waste" events held in 2005 and 2006.

Table 1. Electronics & Computer Recycling Collection Event Statistics for September 8 and 9 2006.

DESCRIPTION: Total #'s

Volunteers: **7**

Vehicles/Participants: **60**

CPUs: **98**

Monitors: **117**

Printers : **111**

Fax machines: **3**

TV : **7**

Microwaves: **8**

Copiers: **3**

Scanners: **5**

Old turntable: **1**

VCR: **20**

Video Game: **1**

Typewriters: **9**

Cash registers: **1**

Total tonnage (excluding pallet/gaylord weights) **4.7 Tons (9,336 lbs)**
Pounds collected per capita (Richland Co. population census of 2000 = 9,667)* **.97 lbs.**
*Source: www.ceic.commerce.state.mt.us

TOTAL = 60 participants

Table 2. Collection Totals, by businesses and individuals, for 2005 and 2006.

2005:	
USDA recycled	4,587 pounds
Businesses, other (7):	2,309 pounds
Community individuals (16)	1,489 pounds
2005 Total:	8,385 Pounds
2006:	
USDA recycled:	1,019 pounds
Sidney Health Center:	2,668 pounds
<i>(this includes employees home devices, too)</i>	
Businesses, other (11)	2,325 pounds
Community individuals (49)	3,324 pounds
2006 Total:	9,336 Pounds

Statistics Summary

Total tonnage for equipment collected at the event was **4.7 tons**, which represents a nearly 1,000 pound increase from the previous year! In addition, participation numbers increased significantly. Altogether, the number of individuals participating in this year's event tripled when compared to 2005 (49 vs. 16), and the number of businesses jumped 50% (13 vs 8)!

But that's only part of the story. In 2005, one business (USDA-ARS) accounted for more than half the total donations, or over 4,000 pounds, having "saved up" the items for an extended period. Because of that lopsided contribution the previous year, organizers were anticipating a significant drop in the amount likely to be collected at the 2006 event. They were correct when it came to the USDA-ARS contribution, which dropped by more than 75%, but were pleasantly surprised when the 3,000-pound difference was made up through increased participation from other members of the community, primarily individuals.

The organizing committee attributes this year's unexpected increases to a variety of factors. First and foremost is the \$800.00 in matching funds provided by Sidney Health Center, which cut costs in half for many of the 2006 participants. In addition, moving the event from the summer months to fall is also thought to have aided participation, along with additional paid advertising made possible by Montana DEQ's \$500.00 contribution for that purpose. Ongoing education efforts in the media are also thought to have contributed to the unexpected increase in 2006 turnout.

IV. CONCLUSION & EXTENDED IMPACT

As demonstrated by the statistics cited above, this year's "E-raise your E-waste" event was another success, and public participation and acknowledgement continues to be very positive. Event partner involvement was extensive and continues to build a foundation for future collaborations. In addition, public participation saw significant increases this year among businesses and particularly individuals choosing to e-cycle their outdated home electronics.

And what did they bring? 117 computer monitors, 111 printers, 98 CPUs, 20 VCRs, 9 electric typewriters, 8 microwaves, 7 televisions, 5 scanners, 3 copiers and 1 cash register...just to list the major items. That (conservatively) adds up to nearly 750 pounds of lead kept out of our local landfill (or any landfill), along with varying amounts of other lesser-known, hazardous substances. (The total lead is based on industry estimates of 6 pounds of lead per TV or monitor.) Equally significant is the amount of non-hazardous materials kept out of any landfill since as much as 98% of recycled electronic waste is reused. That means a longer landfill life, in addition to a healthier environment; definitely a win-win situation!

The 2006 collection again demonstrated that individuals and local business can and are taking the initiative to show their commitment to the environment and human health through e-cycling. Particularly impressive was the fact that individuals participated in the event even though there was a fee to do so. While some of that cost was offset by the \$800.00 matching donation from Sidney Health Center, it still represented a significant level of financial commitment by all participants, whether individuals or businesses.

Participation in the "E-raise your E- Waste" program helped the ARS, LEPC, ROI, RSVP and CERT and the City of Sidney identify environmentally responsible e-waste recyclers. That knowledge and other information obtained from both the 2005 and 2006 events is continually being reviewed to help prepare for future e-waste collections.

Extended Impact: An unexpected result of this local e-waste collection effort continues to be the amount of interest it has generated beyond the intended audience. In 2005, news stories on the event attracted the interest of Montana DEQ officials, as well as inquiries from other Montana and North Dakota communities interested in hosting similar events. Montana DEQ officials have since promoted the event on their website and this year (2006) used it, in part, as a model for three new pilot programs it was organizing in three larger Montana communities. Montana DEQ has also adopted the "E-raise your E-waste" promotional slogan and artwork for use in its e-cycling education program. Those materials were provided free of charge on the USDA-ARS website for anyone to use, along with brochure and poster templates and tips on organizing a similar event.

In 2005 information from the Sidney event was also supplied to waste officials in neighboring Williston, ND, who used them in their own e-waste outreach effort. In 2006, information on this latest e-waste event has been provided to individuals in nearby Glendive, MT who are also considering starting an event.

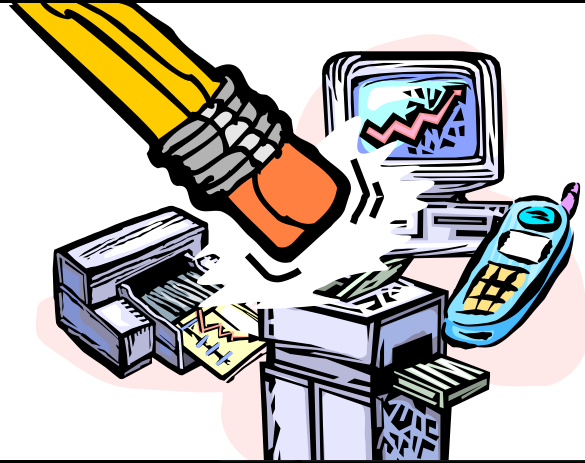
Since posting its promotional materials on the USDA-ARS website in 2005, communities as far away as Antioch and Elk Grove, California have used the materials to promote their own e-cycling events. In the latter instance, city officials in Elk Grove requested use of the

materials for an insert to be sent to about 48,000 households, encouraging people to recycle electronic waste. A copy of that insert is included in the appendices.

Please see attached appendices for additional information and samples of publicity and promotional pieces and for pictures and comments regarding the 2006 “E-erase your E-waste” event.

PUBLICITY - New in 2006!

e-erase your e-waste!



In addition to promoting the 2006 event through posters, brochures and press releases for local broadcast and print media, event organizers this year were also able to place paid ads in local newspapers and radio stations thanks to a generous donation from the Montana Department of Environmental Quality. A sample of the newspaper ad is included here.

The ad campaign highlights another generous donation received this year from Sidney (MT) Health Center that was designated to help offset e-cycling costs for anyone participating in the 2006 event.

The hospital left it up to the committee to decide how to distribute the funds and they decided to have a "half price" special for both individuals and businesses participating in the event. The money was divided between the two groups and a 200 lb. matching limit was set for any single business to ensure that several would benefit.

Our e-cycler: Tatooine Electronic Systems, Inc. • Cheyenne, WY & Billings, MT

Sept. 8-9

Friday & Saturday

Fri: 8 a.m. - 6 p.m.

Sat: 8 a.m. - 1 p.m.



e-erase your e-waste!

Half price special!

Sidney Health Center is providing funding to help offset e-cycling costs for individuals, organizations and businesses at this event. The 20 cents per pound savings will be awarded on a first-come, first-serve basis until gone. Note: Some restrictions apply.

Our sincere thanks to SHC!



Where: USDA-ARS Northern Plains Ag Research Lab
1500 N. Central, Sidney

Cost: 40 cents per pound on all eligible items

Coordinated by:

Richland County LEPC
Richland Opportunities, Inc.
RSVP-CERT
USDA-ARS-NPARL.

With support from:

Sidney Health Center
Montana Department of Environmental Quality

Jackie Couture - 406-433-2020; Cindy Eleson - 406-488-3341

EXTENDED IMPACT - 2005 & 2006

Several communities within and outside of Montana have made use of the templates of promotional materials (posters, brochures, press releases and other informational pieces) developed by ARS personnel for their own event, but also provided on its website for all to use.

The Montana Department of Environmental Quality has since adopted the slogan and logo for its e-waste education effort (see "1"), using the templates for three pilot collection efforts it helped coordinate in other Montana communities.

Two communities in California, one in Antioch and another in Elk Grove, also found the information on the ARS-USDA website and used the artwork and templates as part of their community e-waste promotions. Item "2" shows the flyer that was developed for the city of Elk Grove and distributed to 48,000 households there.

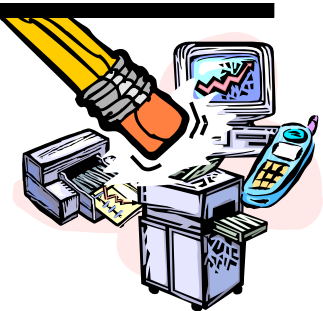
Item "3" includes a sample brochure page template.

1



e-erase your e-waste!

Logo design made available on the USDA-ARS web site for other groups to use in their e-cycling events.



2

e-erase your e-waste!

It's time to safely recycle your electronic waste at events held at our local schools

Thanks to the Elk Grove Unified School District you can safely... e-erase your e-waste at the schools below on the following dates:

December 2nd Trigg Education Center 8530 Elk Grove Plaza Elk Grove, CA 95624 Hours: 9 a.m. to 2 p.m.	January 26th Monterey Trail High School 8601 Flower Inn Road Elk Grove, CA 95624 Hours: 9 a.m. to 2 p.m.
January 6th Pleasant Grove High School 9331 Bond Road Elk Grove, CA 95624 Hours: 9 a.m. to 2 p.m.	February 10th Logans Creek High School 9090 Valrico Drive Elk Grove, CA 95738 Hours: 9 a.m. to 2 p.m.

What is e-waste?
e-waste is a popular, informal name for electronic products nearing the end of their "useful life." Computers, televisions, VCRs, stereos, copiers, mobile phones and fax machines are common electronic products that make up one of the fastest growing segments of our nation's waste stream. Because of the heavy metals and other toxic substances contained in many electronic products, California and other states have prohibited their disposal in public landfills. It may not be too much longer before federal rules are developed that will require everyone to e-cycle.

To encourage and help our residents comply with the new laws about e-waste, the City of Elk Grove and the Elk Grove Unified School District are accepting e-waste for free at the events listed above.

e-cycling
What can I bring?
"e-waste" refers to a wide range of electronic products. Examples include: computers and their components, cell phones, TVs, fax machines, copiers, VCRs, DVD players, stereos and specialized electronic equipment which are all prohibited from being placed in the trash. Even microwave ovens are acceptable, although not other appliances.

What else can I bring?
Items: Up to four items will be accepted. Yes, the size can still have it's size attached.

What will it cost?
It is FREE. The City of Elk Grove is sponsoring the program.

When should I bring my items?
Material will be collected from 9 a.m. to 2 p.m. on the listed collection days.

What about other hazardous materials?
We will not be able to accept other typical household hazardous wastes at these events. You can recycle household hazardous wastes such as cleaners, solvents, pesticides, motor oil, oil filters, antifreeze, old paint and fluorescent bulbs at either of the following facilities:

- Sacramento Recycling & Transfer Station, 8901 Frontage Road, Sacramento, hours: 8 a.m. to 3 p.m. Tues. - Sat.
- North Area Recovery Station, 4450 Rosville Road, North Highlands, hours: 8 a.m. to 4 p.m. Tues., Thurs., Sat., Sun.

For more information call the City of Elk Grove at (916) 478-2289 or log on to www.elkgrovecity.org

The e-erase your e-waste artwork was developed by USDA-ARS in Sidney, MT.

3

e-waste

e-erase your e-waste!

e-erase your e-waste!

PHOTOS FROM 06 "E-RASE YOUR E-WASTE"



*It all added up...
.....to 4.7 Tons!!!!*



*Above, unloading
some of the 9,336
pounds of electronic
waste collected at
the 2006 event. At
right, CERT/RSVP
volunteers collect
survey information
from a participant.*



*At left, more
e-cyclers
drop off their
e-waste and
pin on their
"I e-rased my
e-waste"
buttons.*

PARTICIPANT RECOGNITION

In 2006 we added a new participant recognition component to our event. We continue to send thank you postcards, but this year also added a commemorative button which we gave out to all participants. We also created certificates to further recognize our participating businesses and organizations.



Above, a sample certificate and, at left, the recognition of Sidney Health Center for their generous contribution to the 2006 E-erase your E-waste collection event.

COMMENTS & COMMUNICATIONS

I'm writing to let you know that the Montana Department of Environmental Quality has adopted the use of the E-erase Your E-waste name and logo for community electronics recycling collection events across the state. We believe the catchy title and graphics are easily remembered and quickly become recognizable by the public. We appreciate your development of these items and especially your willingness to share them with Montana communities. We believe the consistent use of a uniform name and logo for these events are an important part of DEQ's educational campaign regarding electronic waste. Once again - thank you for all your hard work promoting electronic waste recycling!

• *Sandra Boggs, Recycling and Marketing Development Specialist, Montana Department of Environmental Quality*

I used your "E-erase your E-waste" brochure template (for our Household Hazardous Waste facility which is about to accept e-waste) and would like to send you a copy of our brochure for your records. Would you please send me your mailing address? Thanks - the template worked great! How nice to not re-invent the wheel.

• *Linda S. Brewer, Community Outreach Coordinator, Delta Diablo Sanitation District, Antioch CA*

I do design and editorial work for various clients. One of them, the city of Elk Grove (CA), would like to use your "e-erase your e-waste" artwork for an insert that they want to send to about 48,000 or so households, encouraging people to recycle electronic waste. I am hoping to receive permission to use the artworkI appreciate any help you can offer.

• *Allen Kanda, AK Publishing*

Thanks for all your help. Attached is a pdf of the material Elk Grove will be mailing to all its residents and businesses.....

• *Allen Kanda, AK Publishing*