



Recycling Electronics in Montana

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www.recycle.mt.gov



Why Electronics?

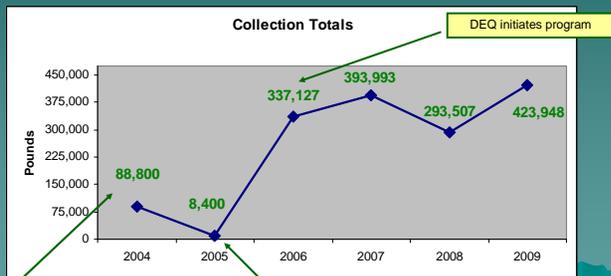


- ◆ Valuable Materials (small amounts)
 - chromium
 - cadmium
 - mercury
 - beryllium
 - nickel
 - lead
 - zinc
 - gold
 - brominated flame retardants
- ◆ Protect land, water and air resources
- ◆ Save expensive landfill airspace
- ◆ Divert waste stream that is growing
- ◆ Take advantage of existing markets
- ◆ People want to recycle

Since 2004



Recycled over 1,545,775 pounds



Gallatin County
 Water Quality Protection District

Sidney
 USDA Ag Research staff & Community
 Emergency Response Team

Why DEQ?



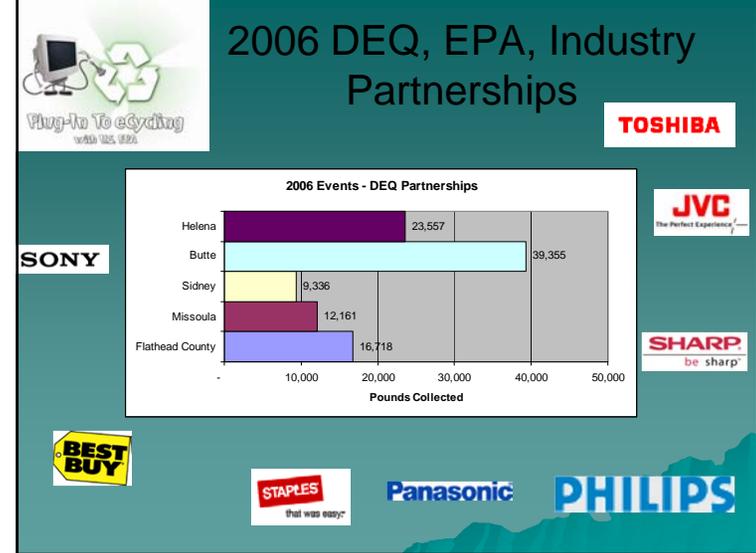
- ◆ Protect land, water and air resources
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- Americans own up to 24 electronic items per household. (CEA)
- EPA estimates 1.84M tons landfilled in 2007
- Almost half, or 976 million units, of all the products sold between 1980-2004 are still in use or reuse.
- EPA estimates only 10% - 15% are recycled each year

DEQ Assistance



- ◆ Relationships with Electronics Recyclers
- ◆ Financial support from manufacturers
- ◆ Assistance with education & outreach
 - Help directing public to data destruction resources
- ◆ Access to case studies and experienced community organizers
- ◆ Volunteer liability coverage
- ◆ On-the-ground assistance with event
- ◆ Initiate and support start-up of local e-scrap recycling



How did the 1st events happen?

Gallatin Co., 2004

- WQPD
- \$10k Apple Grant
- Free Event
- Goal: 30k pounds
- Collected: 88,800 pounds!

34% over estimates!

DEQ-initiated, 2006

- \$1 - \$15/item
- ❖ Whitefish
- ❖ Kalispell
- ❖ Missoula

Staples-Sponsored

- \$10/item
- ❖ Butte
- ❖ Helena

Sidney, 2005

- USDA ARS, EPC
- No Grant
- Charged \$0.40/Lb
- No specific goal
- Collected: 8,400 pounds!

Surveys (2006)

- Attitudes
- Preferences
- Willingness to Pay

Since 2006



- ◆ Annual events continue
 - ◆ Collection Event Planning Guide
 - ◆ Free operational SW license
 - ◆ Promotional templates online (E-erase Your E-Waste, Sidney)
- ◆ Over 13 communities have held events
- ◆ Manufacturer Recycling Programs
- ◆ Retail Take-Back Programs
- ◆ Public Education & Outreach
 - \$16,000 authorization and directive for education & promotion of electronics recycling
 - ◆ Television PSA & advertising piece
 - ◆ Support of local outreach & educational efforts

recycle.mt.gov



Protect land, air, and water resources

- Monitors and TVs contain between 3-8 lbs of LEAD each!
- Rechargeable N-Cad batteries in laptops and cell phones are the largest source of CADMIUM in Landfills.
- Electronics are a major source of MERCURY in Landfills.

Recycle!

- Annual community collection events make it easy.
- Retail take-back programs allow year-round recycling of some electronics.
- Some items can be recycled for FREE!

Recycle Electronics!
Find out how at: recycle.mt.gov



Pay to Recycle your old Electronics

Saturday • July 29, 2006
9 a.m. – 4 p.m.

Allied Waste
3207 West Broadway • Missoula, Montana

Businesses must Pre-Register.
For more information call 800-433-8773
Charges Apply

Learn how to clean your hard drive,
visit www.deq.mt.gov

Sponsored by:
Allied Waste • Rocky Mountain Recycling •
Women's Voices for the Earth •
Missoula Valley Recycling • Palmer Electric •
Montana Department of Environmental Quality





TOSHIBA LEXMARK Panasonic
SHARP PHILIPS JVC
SONY

Education focuses on referring people to the DEQ website: recycle.mt.gov

- Learn about recycling
- Find calendar of annual collection events, other recycling events
- Find info on manufacturer and retail take-back programs.

Public Recycling Options

- ❖ Annual Collection Events
- ❖ Electronics Recyclers
- ❖ Retail Take-Back Programs
- ❖ Manufacturer Recycling Programs
 - Online & Mail-in Programs
 - Drop-off Programs



How accessible is electronics recycling?

2006 Surveys

What do citizens want?

Recycling should be FREE, or

- Consumers / OEMs should share recycling costs
- No exporting
 - Even free events = would pay a fee for it
 - If such responsible recycling was promised.
- Convenience
 - Landfill, Transfer Station
 - Recycling Centers
 - Retailers

Annual Events



Pay-for-Service

- Per pound
- Per item

Subsidized Rates

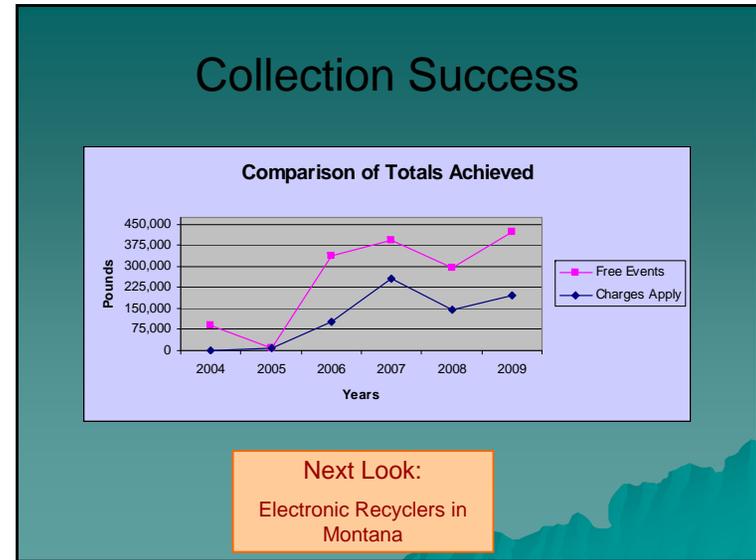
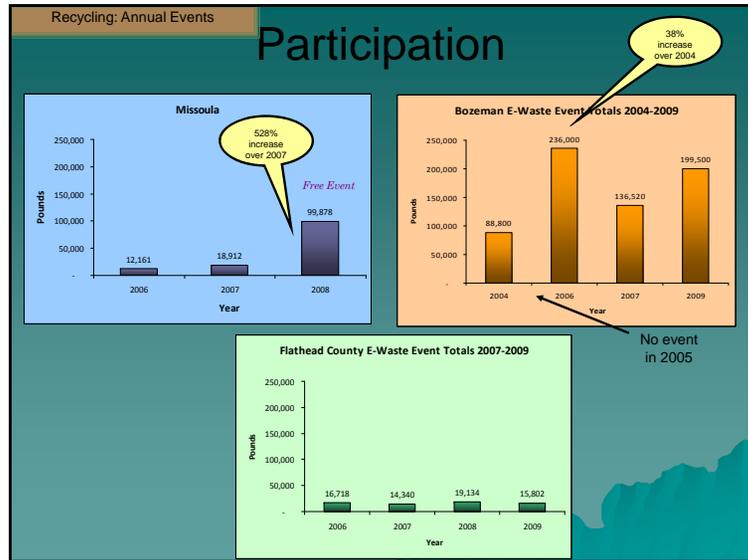
- Price discounts
- Targeted items



FREE

- Budget item
- Fundraising
- Sponsored

Potential fraud risks



Retail Take-Back Programs

Staples

- Anything they sell
- Some items free (cellphones, chargers, PDAs)
- \$10 per unit fee (printers, Desktop, copier, and more)
- No TVs or stereo equipment
- Dell-brand items FREE



Office Depot and Best Buy

Next Look:
Manufacturer Recycling Programs



- Office Depot**
- Ask to purchase a recycling box: Small (\$5), Medium (\$10), Large (\$15)
 - Take home and fill
 - Drop off at store

- Best Buy**
- Any brand; mostly free
 - \$10 for TVs up to 32", monitors, laptops
 - Get \$10 Gift Card

VANN's Recycling Program

- Partnership with Sony
- Small Electronics Only (any brand)
- No TVs; dropped off elsewhere for \$\$



Mail-in & Online Programs

- Apple**
- Free IF you buy a new Apple
 - Lots of restrictions
 - iPods, iPhones are FREE

- HP**
- Buys items back if still valuable (any brand, free shipping)
 - HP & Compaq products always free
 - Other products at no value: you pay shipping, free recycling

- Dell**
- Free drop-off at Staples stores
 - If mailing: Free shipping & recycling

- Lenovo**
- Very similar to HP program

Free Drop-off Programs

MRM Recycling Program
(Electronic Manufacturers Recycling Management Company)

- ◆ Panasonic
- ◆ Sharp
- ◆ Toshiba
- ◆ Mitsubishi
- ◆ Vizio

Partners with recycling companies

Samsung
(WalMart brands too!)

SONY

Partners with Retailers

Dell

- ◆ Samsung
 - One drop-off location: Miles City
 - 2 U-Hauls (Helena & Missoula)
 - ◆ MRM Recycling Program
 - Allied Waste in Missoula
 - 1 U-Haul in Helena
- Online programs

Montana Locations



SONY Free Recycling

- ◆ Partnership with Vann's =
- ◆ Small Electronics Only
- ◆ No TVs; dropped off elsewhere for \$\$



How accessible is electronics recycling?

Review:

- ❖ Electronics Recycler
 - 2 locations
- ❖ Annual Events
 - Community partners/support is essential
 - DEQ will continue
 - Recyclers don't like them
- ❖ Retail Programs
 - Located in bigger communities
 - Some free
 - Some charge
- ❖ Manufacturer Programs
 - Online & Mail-in
 - Sometimes free
 - Sometimes charges apply
 - Some are in retail stores
 - Some are at a recycling center
 - Often limited or size restrictions
 - No advertising or education
 - Limited signage in stores
 - Often employee education is lacking

Convenient? Accessible?

Comments Received:

"This is confusing – just tell me where to take it."

"Why can't I just drop it off somewhere? I don't have Internet."

"Why can't this be simple? I recycled my cell phone for free and it was easy."

"Will my computer go overseas? I don't want some kid recycling this, especially if I'm paying this much."

"Well, they sure make it difficult, don't they?"

The result of so many diverse programs is a hodge-podge of recycling options, sometimes free, often not.

There are a confusing number of websites and programs to understand and participate in.

The public suggested:

- ◆ Recycling should be FREE, or
- ◆ Consumers / Manufacturers should SHARE recycling costs
- ◆ Convenient
 - Landfill, Transfer Stations
 - Recycling Centers
 - Retailers
- ◆ No Exporting

From the 2006 Surveys

A member of the public:



- ◆ Must be motivated!
- ◆ Must be internet savvy
- ◆ Must know the brand (when calling me, most don't recall the brand name of their items)

Often must be willing to:

- ◆ Travel to a drop-off location,
 - Pay a recycling fee (Sometimes),
- ◆ Package for shipping,
 - Pay for shipping (Sometimes)
- ◆ Hold items until annual events.

Motivated recyclers are discouraged

Department of Environmental Quality



Staples Check Presentation,
Butte Schools, 2006

Accomplishments

- First Rocky Mountain state to partner EPA's Plug-in to E-Cycling program.
- First state in our region to engage manufacturers.
- Started as a pilot project; quickly grew to include more communities; much larger program.
- Majority of communities participating have continued with annual events; some looking at permanent programs.
- Advocate for rural access to any federal recycling legislation
- Survey work quoted by EPA regarding public wish for no exporting.

Thank You
recycle.mt.gov

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Measuring Electronics Recycling

- ◆ Don't know actual volume recycled
 - No required reporting
 - In-state recyclers
 - Out-of-state recyclers
 - Manufacturers
 - Retail Stores
- ◆ EPA estimates only 10-15% of electronics are recycled each year
- ◆ Federal 'study' legislation introduced
 - Meanwhile 20 states have enacted their own e-scrap recycling laws