



# Recycling Electronics in Montana

Presented by Sandra Boggs,  
Recycling and Marketing Development Specialist  
[www.recycle.mt.gov](http://www.recycle.mt.gov)

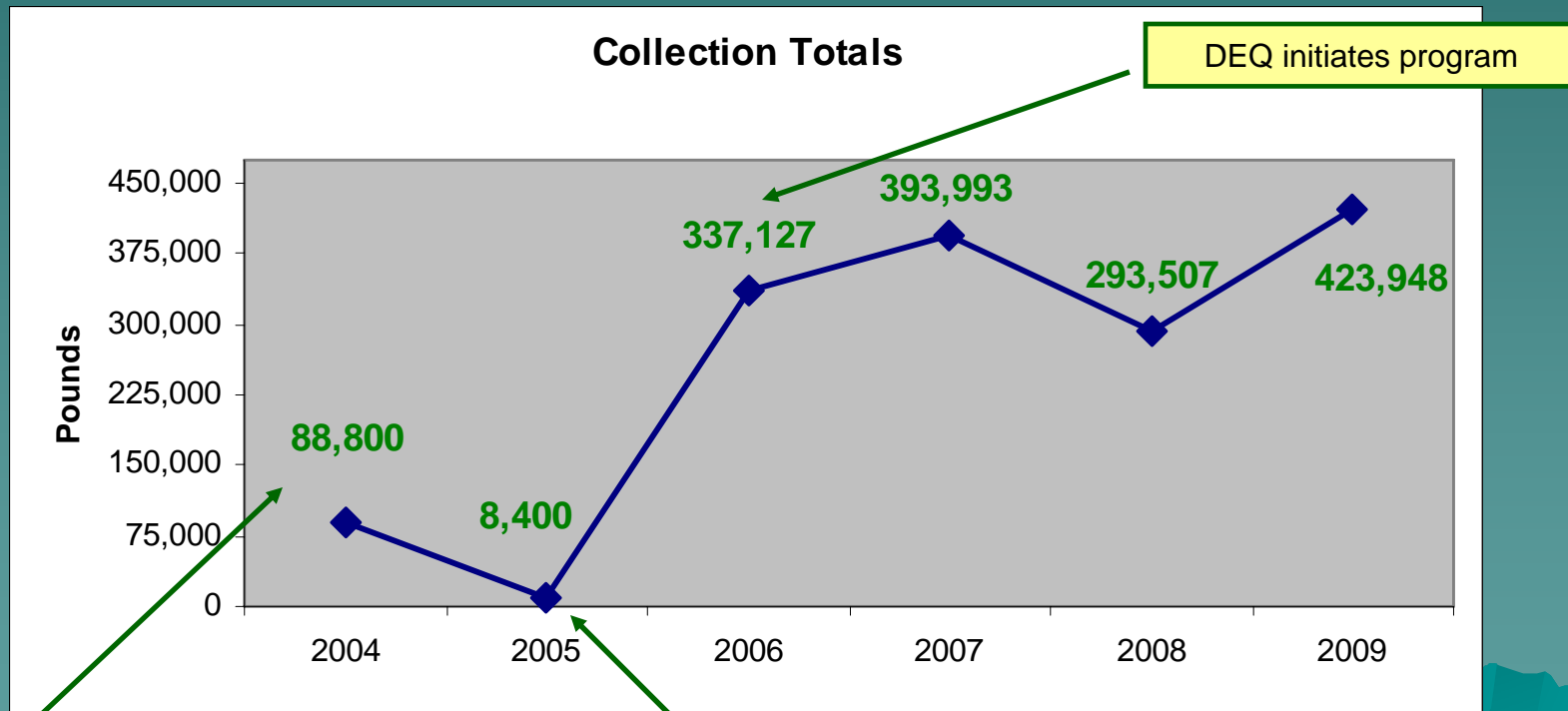


# Since 2004

e-erase your  
e-waste!



## Recycled over 1,545,775 pounds



Gallatin County  
Water Quality Protection District

Sidney  
USDA Ag Research staff & Community  
Emergency Response Team

# 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

# Why DEQ?

- ◆ Protect land, water and air resources
- ◆ Save expensive landfill airspace
- ◆ Take advantage of existing markets
- ◆ Divert waste stream that is growing



- 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 1<sup>st</sup> events happen?

## Gallatin Co., 2004

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

34% over estimates!

## Sidney, 2005

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

## DEQ-initiated, 2006

\$1 - \$15/item

- ❖ Whitefish
- ❖ Kalispell
- ❖ Missoula

Staples-Sponsored

\$10/item

- ❖ Butte
- ❖ Helena

## Surveys (2006)

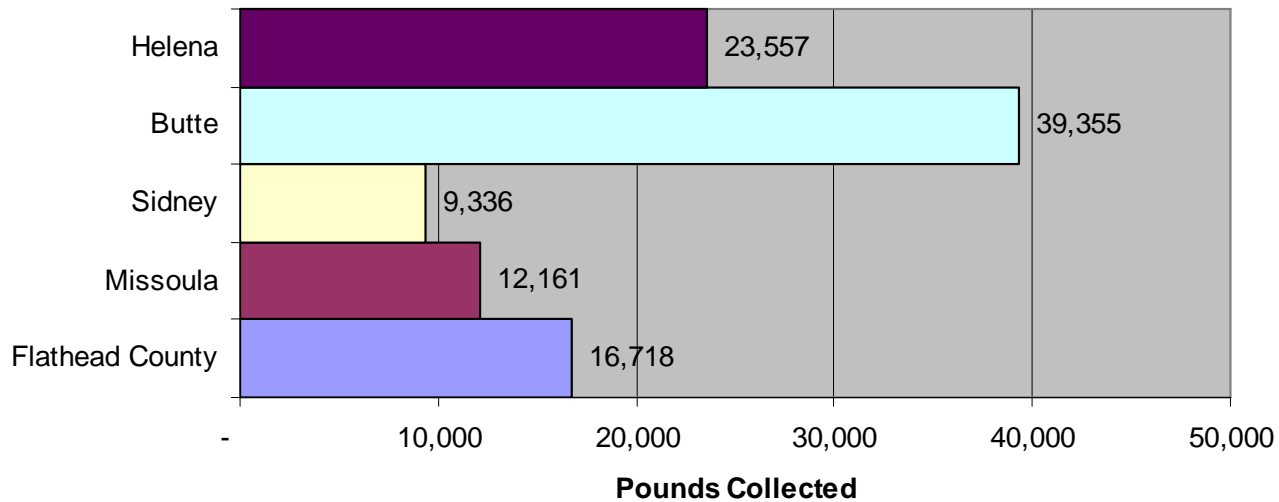
- Attitudes
- Preferences
- Willingness to Pay



# 2006 DEQ, EPA, Industry Partnerships

**TOSHIBA**

2006 Events - DEQ Partnerships



**JVC**  
The Perfect Experience

**SONY**

**SHARP.**  
be sharp



**STAPLES**  
that was easy.

**Panasonic**

**PHILIPS**

# Since 2006

**e-erase your e-waste!**



- ◆ 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](http://recycle.mt.gov)



# e-erase your e-waste!



*Protect land, air, and water resources*

- Ø Monitors and TVs contain between 3-8 lbs of LEAD each!
- Ø Rechargeable Ni-Cad batteries in laptops and cell phones are the largest source of CADMIUM in Landfills.
- Ø 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](http://recycle.mt.gov)



# e-erase your e-waste!

**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](http://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

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PHILIPS

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JVC  
The Perfect Experience

Education focuses on referring people to the DEQ website: [recycle.mt.gov](http://recycle.mt.gov)

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

# 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

# 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?

# Annual Events



## Pay-for-Service

- Per pound
- Per item

## Subsidized Rates

- Price discounts
- Targeted items

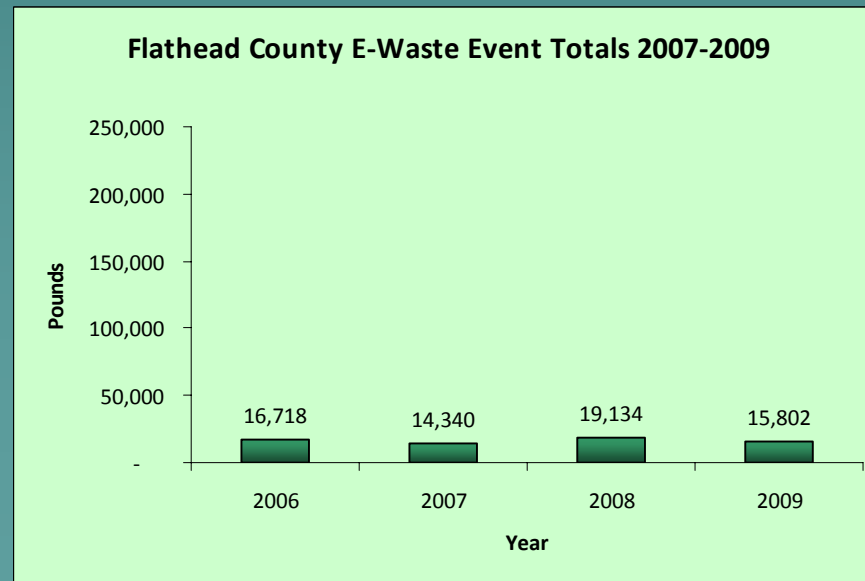
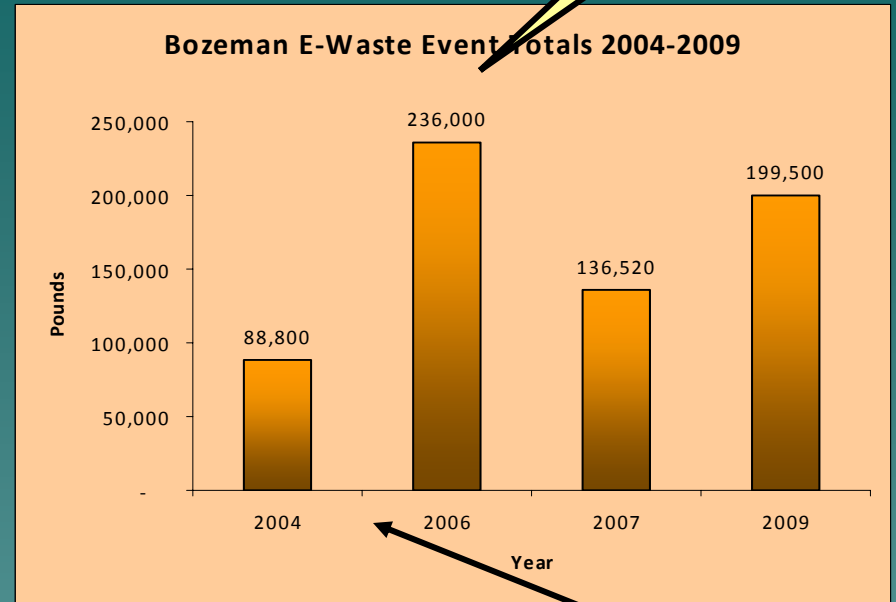
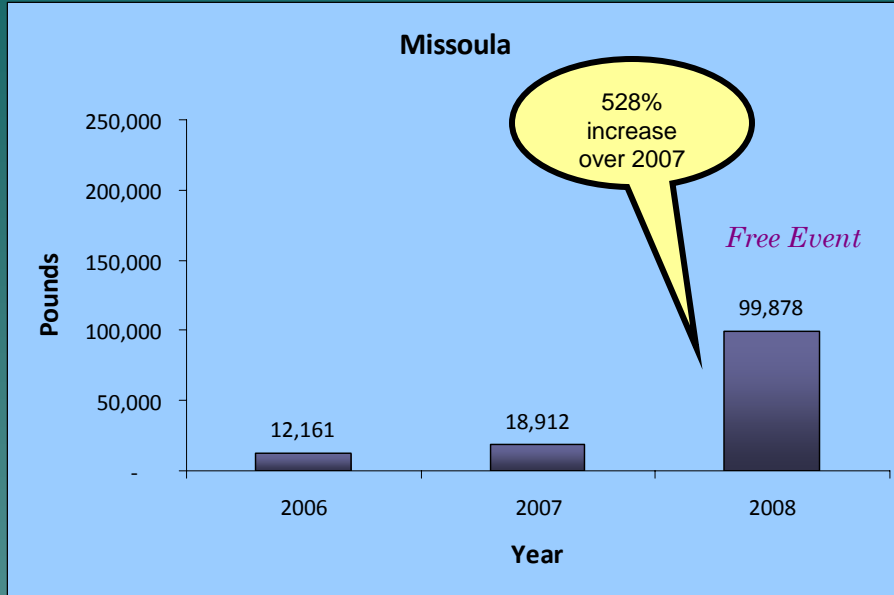


## FREE

- Budget item
- Fundraising
- Sponsored

Potential fraud risks

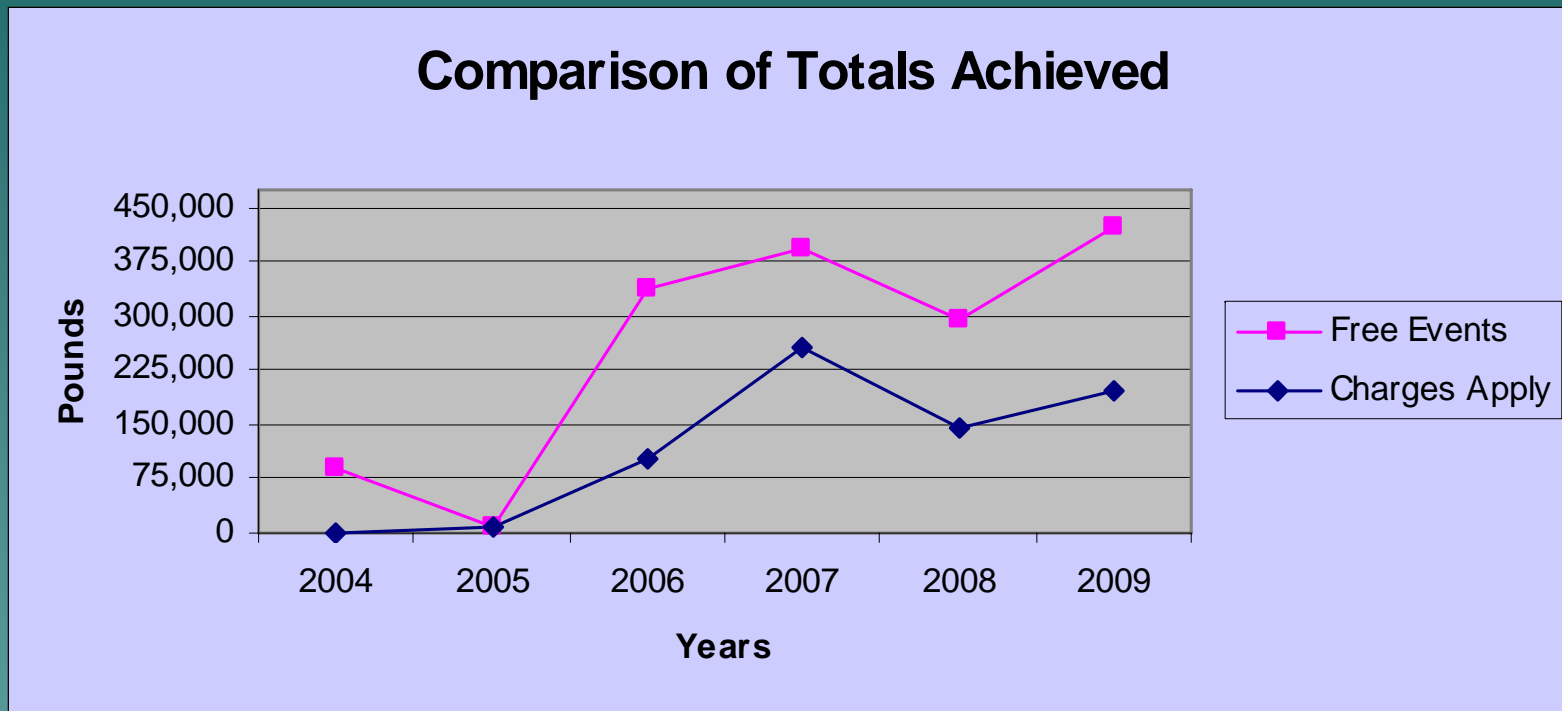
# Participation



# Television Recycling



# Collection Success



**Next Look:**  
Electronic Recyclers in  
Montana

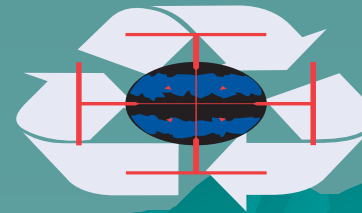
# Electronic Recyclers in Montana



Next Look:  
Retail Take-Back  
Programs

P.E.T.E.S. Palmer Electric

(Total ReClaim, Seattle)



TATOOINE  
ELECTRONIC SYSTEMS

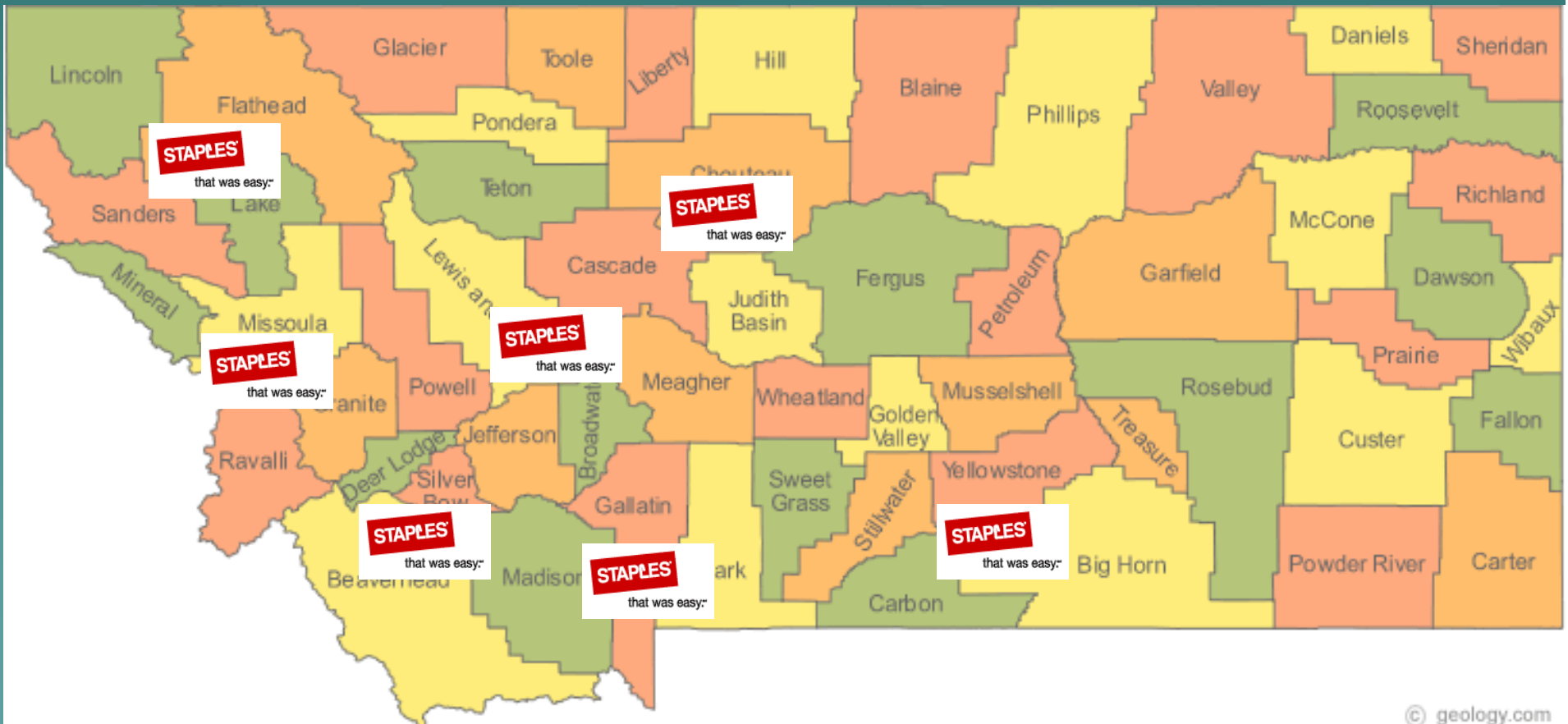
(Warehouse)



# Retail Take-Back Programs

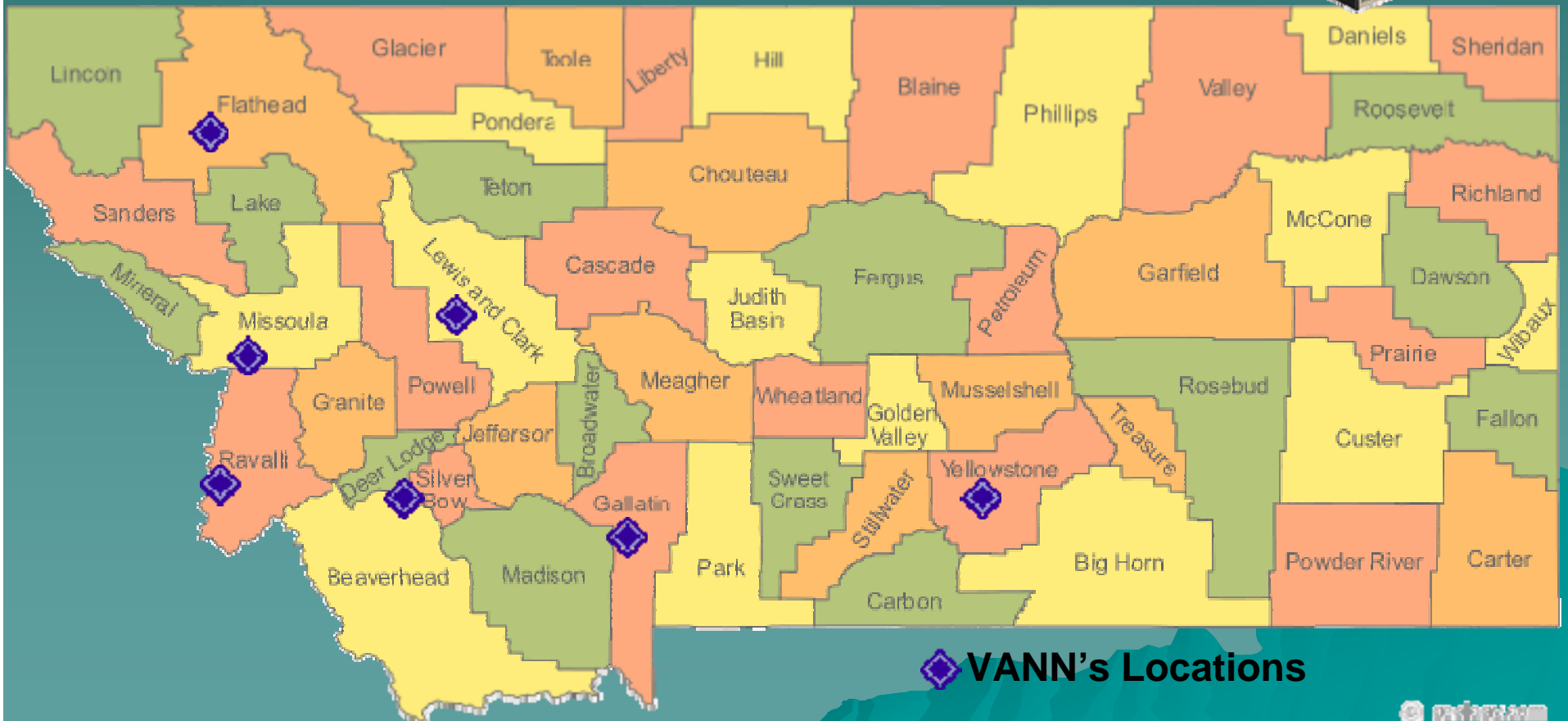
## Staples

- 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

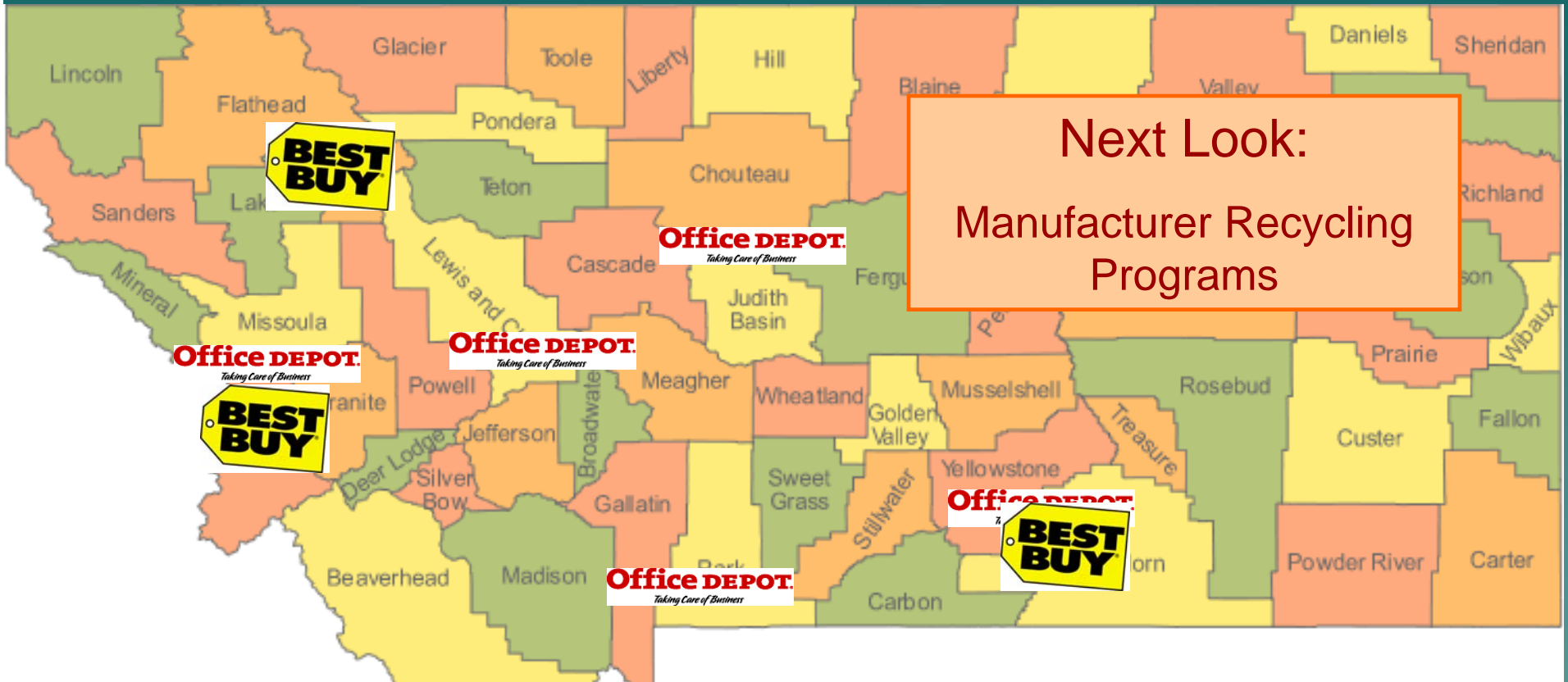


# VANN's Recycling Program

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



## 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

# 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)

## Samsung

(WalMart brands too!)

Partners with recycling companies

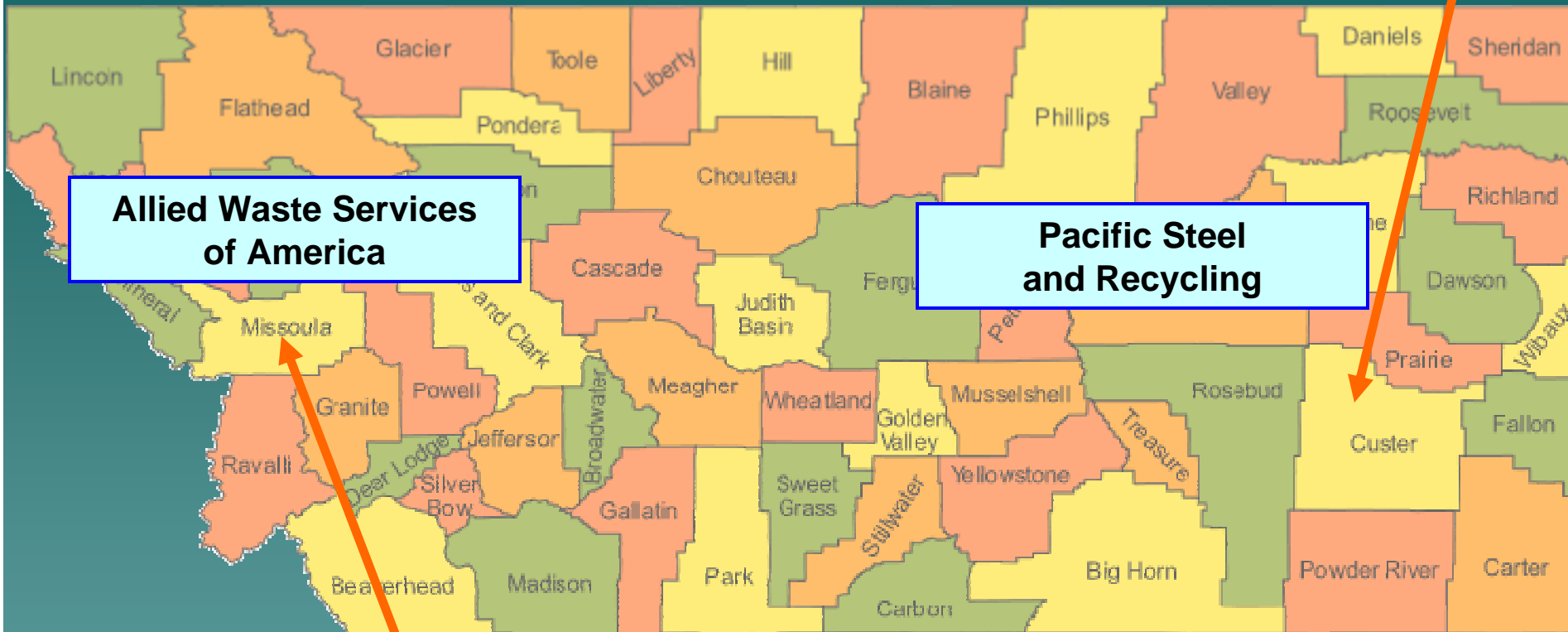
- ◆ Panasonic
- ◆ Sharp
- ◆ Toshiba
- ◆ Mitsubishi
- ◆ Vizio

SONY

Partners with Retailers

Dell

# Montana Locations



**Allied Waste Services of America**

**Pacific Steel and Recycling**

## MRM Recycling Program

paragga.com



◆ Samsung

- One drop-off location: Miles City
- 2 U-Hauls (Helena & Missoula)


◆ MRM Recycling Program

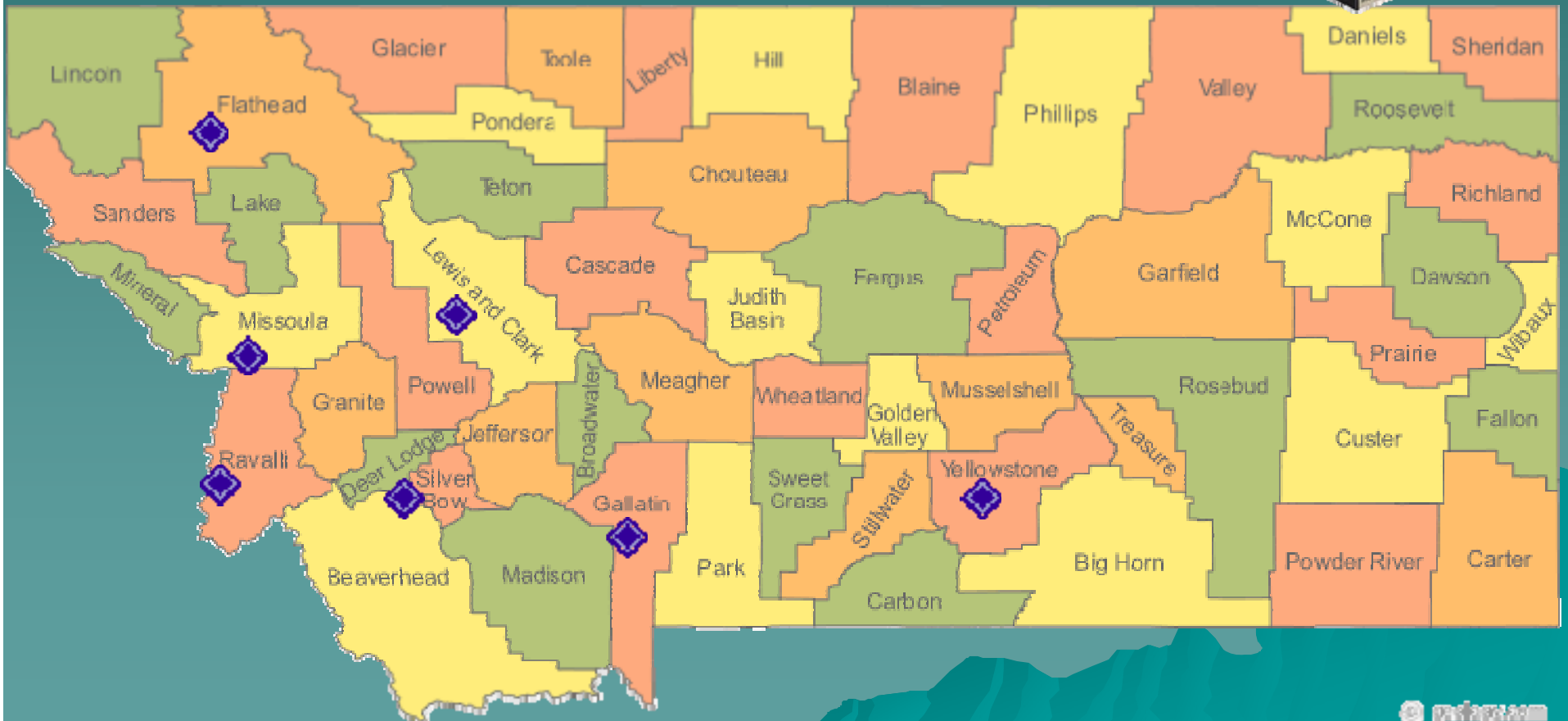
- Allied Waste in Missoula
- 1 U-Haul in Helena

Online programs



# 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

# 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

# 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.

# 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.

# 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

# Thank You

[recycle.mt.gov](http://recycle.mt.gov)

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A stylized, teal-colored silhouette of a mountain range is positioned in the bottom right corner of the slide, extending from the right edge towards the center.