

Colorado SWANA Annual Conference
October 6, 2011

CASE STUDY OF TWO DENVER COMMUNITY E-WASTE RECYCLING EVENTS

Tom Strickland, City & County of Denver

Why have E-waste Recycling Events

- Increasing demand from residents to hold such an event.
- Internal desire to remove e-waste from solid waste stream.
- Improve customer satisfaction from e-waste event held previously.

GOAL: To hold a one-day collection event, while avoiding traffic jams and going over budget, and ending up with all happy residents.

Funding, Sponsors, Partnerships

How to Pay for Your E-cycle Event

- Look for corporate or business partners that have **shared interested** in increasing electronic recycling efforts.
 - **Manufacturers (Sony, LG, Apple, etc.)**
 - **Media (local television, radio or newspapers) Bonus free media!**
 - **Local retailers (electronic stores, cable or satellite providers, etc.)**
 - **Other municipalities**



Our Partnership with Comcast

- For us that major partner was Comcast.
- Comcast gets out a message of serving their customers' needs and we get a lot of electronics out of the waste stream.
- Event matched well with their “Comcast Cares Day” program.



Avoiding Problems From Before

Dealing with the “Unknown”

- How many people will show up?
- How much material will be collected?
- Budget dollars?
- Traffic jams and long lines?
- Upset residents?

Avoiding Unnecessary Traffic Jams and Long Idling Times



Live Green Event – March 2009



Live Green Event – March 2009



Live Green Event – March 2009

Strategies for Success



Control event numbers by scheduling **appointment times**, thus:

- Able to anticipate number of participants.
- Able to anticipate amount of material.
- Able to spread traffic flow over several hours, instead of all participants arriving first thing in the morning.

To Charge or Not to Charge

- ❑ Electronic recycling is not a FREE activity and not charging perpetuates the public's perception that it is free.
- ❑ Even a modest charge or suggested “donation” per participant is better than no charge at all.

Electronic Fee For Our Events



- \$5 per car, included first two “screens” and all other electronic materials (keyboards, wires, etc.)
- “Screens” = monitors, laptops, televisions
- Additional screens at \$5 each

Fees help to off-set overall event costs.

Event Promotion

- Event Flyer →
- Emails
 - ▣ Denver Recycles
 - ▣ Comcast
- Facebook/Twitter
- Website
 - ▣ Denver Recycles
 - ▣ DenverGov.org



Denver residents may recycle their old electronic devices on Saturday, February 12, 2011 by **scheduling an appointment** to attend the **"Eco-rally Electronic Recycling Collection Event."** Electronics recycling services will be offered at a significantly reduced price of \$5 per vehicle (limit of 2 "screens" per vehicle, see below for more details).

The Eco-rally is an electronics recycling, education and engagement initiative that partners Comcast with the City and County of Denver and local consumers to address the serious environmental concern of TVs and electronics in landfills.

Location:
Metech, 500 W. 53rd Pl., Denver
Appointment times:
8AM to 4 PM.

Fee:
\$5 per vehicle, cash or check only. Limit of 2 "screens" (televisions, monitors and/or laptops) per vehicle. Additional screens will cost an additional fee of \$5 per screen.
(A normal fee per screen can range from \$15 to \$40)

Questions:
Email DenverRecycles@DenverGov.org

Items Accepted:
Televisions, monitors, CPUs, laptops, printers, scanners, faxes, keyboards, mice, stereos, external hard drives and storage devices, cellular phones, telephones, DVRs, VCRs, digital cameras, video recorders, MP3 players, and some small appliances such as microwaves.

Items Not Accepted:
Air conditioners, large appliances, vacuum cleaners, car batteries or household batteries (rechargeable batteries okay).

Notes:
Denver residents only. No drop-off available for residents showing up without an appointment time.

EVENT PARTICIPATION IS BY APPOINTMENT ONLY!
EASY AS 1-2-3:

1. Sign up at DenverGov.org/EcoRally
2. Choose your appointment timeslot.
3. Show up on Feb. 12th at your scheduled appointment time with your electronic items.



Event Sponsors:



FEBRUARY ECO-RALLY (2/12/11)

First appointment event was planned as a “Test Event” to see if appointment scheduling worked. Event limited to City of Denver residents only.

Location: Metech’s Recycling’s Denver Facility

Appointments: 240 over 8 hours (8 AM to 4 PM)

Time slots: 24 slots of 20 minutes with 10 appointments per time slot

Crew: 8-10 Metech “unloaders,” 2 Metech cashiers, 2-3 Comcast volunteers, 1 City of Denver staff





metech
RECYCLING
Responsible Electronics Recycling







Lessons Learned from Feb. Event



- ❑ Development of online registration more complicated than originally anticipated.
- ❑ Online registration popular.
- ❑ Next time be sure to get resident's phone number and email.
- ❑ 1 car per 2 minutes was too conservative. Increase to more cars per minute for future events.
- ❑ Overbook for an estimated 15% no-shows.
- ❑ Shorten day.

APRIL ECO-RALLY (4/30/11)

Second appointment event was open to all, but was primarily promoted to Denver residents.

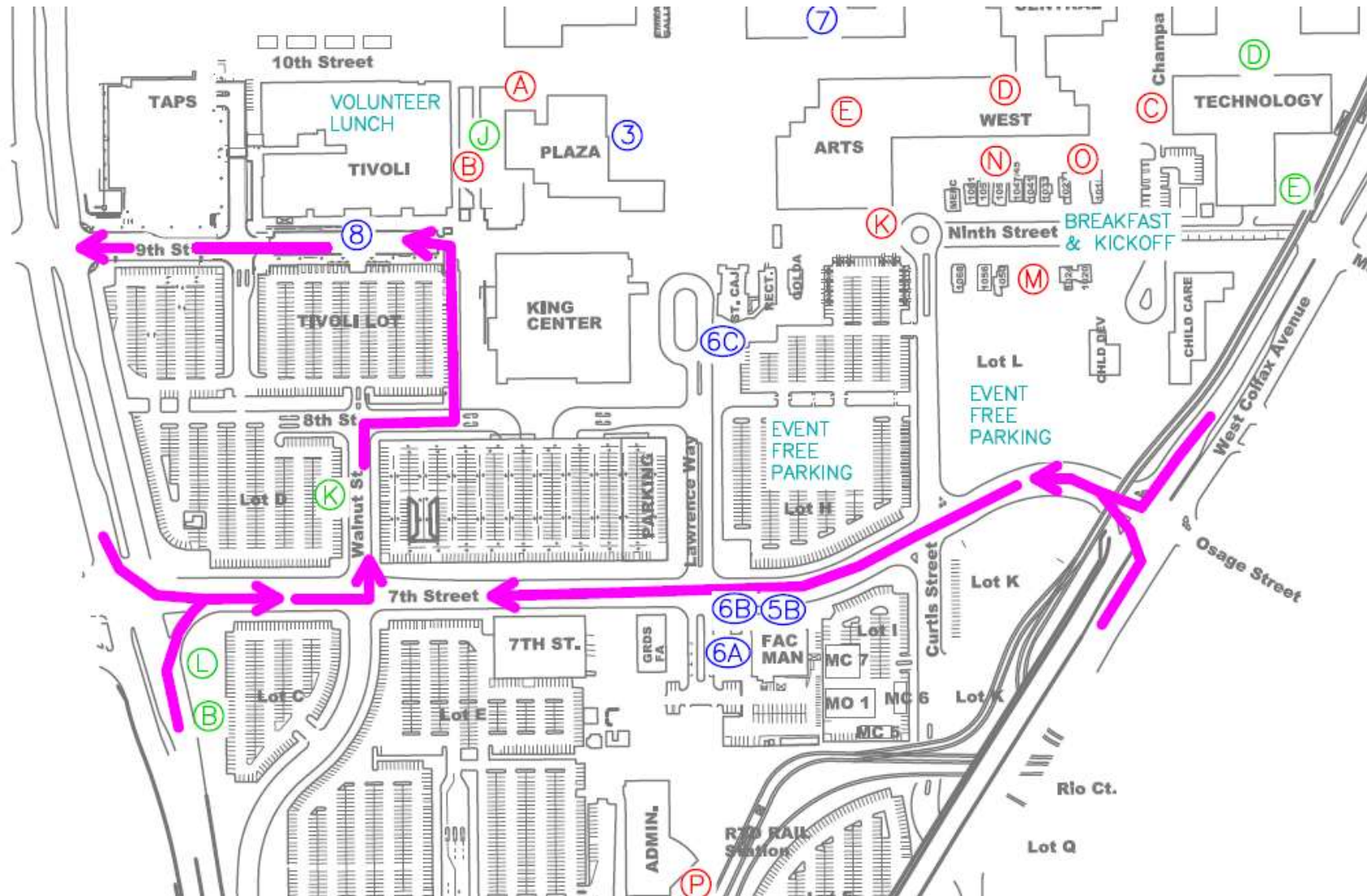
Location: Auraria Campus (Metro State)

Appointments: 540 over 6 hours (9 AM to 3 PM)

Time slots: 18 slots of 20 minutes with 30 appointments per time slot

Crew: 14-16 Metech “unloaders,” 2 Metech cashiers, 60-100 Comcast volunteers, 1 City of Denver staff

Auraria Campus (Metro State) Map













Did you know?

The steel industry's annual recycling saves the equivalent energy to electrically power about 18 million households for a year.





Did you know?
Within 3 years, Americans will be throwing away 130 million cell phones each year.



DENVER RECYCLES



Lessons Learned from Apr. Event



- Online registration popular.
- Pace of cars per minute just about right
- Make sure all volunteer hours are spread through the entire work period.
- Recycling facts signs held by volunteers was a good educational distraction for event participants waiting in line.

Data Comparison of Two Events

MEASURE	FEB. EVENT	APR. EVENT
Total weight:	31,127 lbs. (15.6 tons)	59,614 lbs. (29.8 tons)
Number of cars:	233	477
Avg. weight per car:	134 lbs.	125 lbs.
Event hours:	8 hrs. (8 am – 4 pm)	6 hours (9 am – 3 pm)
Appointments per hour:	30	90
Cars per hour:	29.13	79.5
Cars per minute:	0.49	1.33
Avg. \$ collected per car:	\$6.82	\$6.72

NOTES:

- Average weight per car was about the same in both events.
- Average dollars per car was about the same in both events.
- Able to run more cars through in shorter time period in second event.

Show Me the Money!

MEASURE	FEB. EVENT	APR. EVENT
Total \$ Collected from Participants (cars):	\$1,589	\$3,204
Average \$ collected per Participant (car):	\$6.82	\$6.72
Final Average Costs per Participant (car):	\$15.89	\$17.93

NOTES:

- Average dollars collected per car was about the same in both events.

Appointment Scheduling



- **Take appointments by phone:**
 - Message line or “hotline”
 - Live person

- **Take appointments online:**
 - Emails
 - Online form

> [Sign up for Recycling Service](#)

> [Lost or Missing Cart](#)

> [Sign up for Recycling Reminders](#)

> [What Can Be Recycled](#)

> [Recycling Directory / Dropoff Locations](#)

> [Recycling Plastic](#)

> [Electronics Recycling](#)

[Eco-rally Collection Event](#)

[E-cycle Coupon Program](#)

> [Appliance Recycling](#)

> [Recycling Service Guidelines](#)

> [Business and Multi-Family Recycling](#)

> [Recycling in Schools](#)

Electronics Recycling Collection Event:

Residents may recycle their old electronic devices by scheduling an appointment to attend the "Eco-rally Electronics Recycling Collection Event." Electronics recycling services will be offered at a significantly reduced price of \$5 per vehicle (limit of 2 "screens per vehicle, see below for more details). **Choose your appointment time below:**

Available Eco-Rally Event Appointment Times

Event Start	Title
7/23/2011 9:00 AM	Eco-rally Electronics Collection Event
7/23/2011 9:20 AM	Eco-rally Electronics Collection Event
7/23/2011 9:40 AM	Eco-rally Electronics Collection Event
7/23/2011 10:00 AM	Eco-rally Electronics Collection Event
7/23/2011 10:20 AM	Eco-rally Electronics Collection Event

Eco-Rally Event Details

This event was sponsored by:



> **APPOINTMENT TIMES:** 30 appointments available per each 20 minute timeslot. **Please arrive at the event no more than 10 minutes prior to your scheduled appointment time.** Appointments are on a first come, first serve basis. Once all appointment times slots are full, no additional event appointments will be taken.

> **LOCATION:** Auraria Campus, **Tivoli Center**, 900 Auraria Parkway ([map](#))

> **FEE:** \$5 per vehicle, cash or check only. **Limit of 2 "screens" (televisions, monitors and/or laptops) per vehicle.** Additional screens will cost an additional fee of \$5 per screen (Note: A normal fee per

Enrolling Instructions

EVENT PARTICIPATION IS BY APPOINTMENT ONLY!

1. CHOOSE YOUR EVENT **TIME SLOT** TO THE LEFT.
2. ACTIVATE A **SIGN IN ACCOUNT** by selecting "Login to Enroll for this Event" and then in the User Log in screen underneath "Remember Login" click on "Register" and fill in your information (use your first and last name as your Display Name).
3. Once you've activated a Sign in account, then you **MUST CONFIRM** on your appointment time selection by clicking on "Enroll for this Event?"

We apologize that this registration procedure is a little complicated. Please email us DenverRecycles@DenverGov.org if you have questions.

You are here: > Trash and Recycling > Recycling > Electronics Recycling > Eco-rally Collection Event

Edit Event

Event Settings

Title:

All Day Event:

Start Date/Time: Copy to End Date

End Date/Time:

Display End Date:

Importance:

Category:

Location:

Owner:

Notes:

Editor: Basic Text Box Rich Text Editor

Apply CSS ...

Appointment time from 9:00 AM to 9:20 AM

Summary



- E-waste appointment collection events produce predictable:
 - Volume of material collected (weight)
 - Budget and dollars collected per participant.
 - Attendance
- Two 2011 events provided us with:
 - Baseline numbers for future E-waste events
 - Removal of 45.4 tons of material out of our waste stream
 - Happy residents
- Holding third event at end of Oct. 2011

Questions:

Tom Strickland

Program Administrator, Denver Recycles

Solid Waste Management, Denver Public Works

City & County of Denver

Phone: 303-446-3409

Email: thomas.strickland@denvergov.org