

**ELECTRONIC DEVICE RECYCLING TASK FORCE
MEETING MINUTES
August 24, 2009**

Representative Randy Fischer called the meeting to order at 9:35am at Buffalo Mt Room, County Commons, 37 Peak One Dr., Frisco, Colorado.

Task Force Members Present:

- Dag Adamson, Lifespan Technology Recycling (Colorado-based E-waste Recycler); Present
- Laura Bishop, Best Buy (Electronic Device Retailer); Absent
- Bill Carlson, Town of Vail (Rural Local Government); Present
- Meggan Ehret, Thomson Inc. (Electronic Device Manufacturer – TV); Present
- Rep. Randy Fischer, House District 53 (Colorado General Assembly); Present
- Sen. Dan Gibbs, Senate District 16 (Colorado General Assembly); Present
- Charles Johnson, CDPHE (Dept. of Public Health and Environment); Present
- Rep. Jim Kerr, House District 28 (Colorado General Assembly); Absent
- Jeffrey Kuypers, Hewlett Packard (Electronic Device Manufacturer – Computer); Present
- Dan Matsch, Eco-Cycle (Nonprofit Organization); Present by Phone
- Anne Peters, CAFR (Nonprofit Organization); Present by Proxy Marjorie Griek
- Lisa Skumatz, Town of Superior (Urban Local Government); Present
- Sen. Pat Steadman, Senate District 31 (Colorado General Assembly); Present
- Karn Stiegelmeier, Summit County (County That Owns or Operates Landfill); Present
- Tom Williams, AT&T (Electronic Device Manufacturer – Small Device); Present
- Mike Wright, Metech (Colorado-based E-waste Recycler); Absent

CAFR Administrative Assistant Amy Randell and facilitator Herb Dreo were in attendance.

Witnesses: Kevin Berg, Summit County; Jim Brock, RadioShack; Howard Copeland, Goodwill Industries; Annmarie Jensen, Jensen Public Affairs; Jeff Johnson, Goodwill Industries; Larry King, Sims Recycling; Wolf Kray, CDPHE; Chad Miller, Waste Management; Thad Noll, Summit County; Peggi O'Keefe, Axiom (By Phone); Dianna Orf, Hawthorne Group; Kristyn Rankin, Dell (By Phone); Valerie Rickman (By Phone); Joe Schieffelin, CDPHE.

Approval of July 23 Meeting Minutes

Marjorie Griek made a motion to approve the minutes from the July 23 meeting. Rep. Pat Steadman seconded the motion. **Motion passed unanimously.**

Agenda Review

Lisa Skumatz and Karn Stiegelmeier agreed that Skumatz would give her presentation first. Rep. Randy Fischer said he would be leaving the meeting at 3:00pm and that Sen. Steadman would run the meeting at that time.

Presentation and Discussion – Summit County Govt. Recycling & Electronics Collection Overview

Presented by Kevin Berg, Summit County. ([Link to Presentation](#))

Comments / questions during or after the presentation:

- Berg said the key factors for electronics recycling are transportation and volume, distance to Denver, limited space for storage.

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- Berg said Summit County is paying a contractor 17 or 18 cents per pound to recycle electronics, which includes the cost of transportation.
- Berg said Summit County's goal is to capture as much recyclables as possible and fees are adjusted to incentivize recycling.
- Karn Stiegelmeier said the population of Summit County is about 27,000, but that doesn't reflect the number of people using electronics. During peak tourist season, Summit County's population can be up to 100,000.
- Thad Noll said the estimated solid waste budget for the county is about \$3 million per year; it is an enterprise fund, with electronic recycling and household hazardous waste programs subsidized by garbage disposal. Revenues are down 25% this year. Dag Adamson said in comparison to the relative budget, electronics cost is one of the less expensive programs.

Presentation and Discussion – Electronic Device Recycling Efforts by Colorado Urban Municipalities

Presented by Dr. Lisa Skumatz Task Force Member Representing Urban Municipal Governments Appointed by the Colorado Municipal League (CML). ([Link to Presentation](#))

Comments / questions during or after the presentation:

- Skumatz said the survey was sent to representatives from each CML member community. The response rate was 20 percent.
- Community e-waste collection events were often co-sponsored with county or businesses.
- Skumatz said on the funding programs slide that the first column was at time of disposal and the third column was at time of purchase; the survey could have used more clarity.
- Skumatz said municipalities are not typically responsible for recycling programs, historically counties run such programs.
- Rep. Fischer asked if municipalities would participate in a collection/transport/recycling program operated by contractors, which would require minimal responsibility from the municipality, similar to the way legislation in Connecticut works, or would they feel that was an unfunded mandate from the State. Skumatz said she would expect a different answer from large and small communities and that the municipalities would be more in favor of a county-level program, regardless of funding.

Presentation and Discussion – Colorado Counties' Efforts to Recycle Electronic Devices

Presented by County Commissioner Karn Stiegelmeier, Summit County. ([Link to Presentation](#))

Comments / questions during or after the presentation:

- Stiegelmeier said Colorado Counties, Inc. (CCI) is very similar to CML and most all Colorado counties are represented. The response rate to the survey was 45 percent. The county responses were pretty similar to municipalities.
- Skumatz said some of the responses to how to pay for a program included a consumer deposit or fee when buying items; several responses said through the sale of electronic material in the market.
- Jeffrey Kuypers asked if respondents gave reasons for why they wouldn't use a mail-back option. Stielgelmeier said the survey data reported the perception of the county commissioners, not actual answers from the end users. Skumatz said responses included: amount of waste generated by packaging materials, too much effort even if free, the same

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people who would already drop off items are the ones who would mail them back, still need incentive to mail back items.

- Sen. Pat Steadman said both surveys show a strong support for public education and asked Stiegelmeier to describe Summit County's education program. Stiegelmeier said the entire recycling program was formerly run by a nonprofit, which now does all of the public outreach and education for the program on a contract basis. Citizens respond better to the nonprofit doing the education than the government because the nonprofit is seen more as a part of the community; the government is not always seen in as good a light. Stiegelmeier said education is an essential part of the program that needs to be flexible and needs to be catered to communities and what they respond to. Sen. Dan Gibbs said the local program in Summit County does a great job, has a local TV program, is out front working with citizens, and is very positive. Stiegelmeier said the nonprofit is looked to as a trusted authority and government couldn't get that citizen respect.
- Annmarie Jensen said a parallel to a consumer-fee program is the current waste-tire program, which receives criticism because some local communities never apply for grants, which leads to gap in services.
- Dag Adamson said he was surprised that CML and CCI seemed to support introducing a tax, or consumer fee, in the state.
- Diana Orf said one hazard of the waste-tire fee is a build up of cash that the state could steal for other purposes. Jensen said an enterprise authority would have different rules and would be harder to raid. Adamson asked if there have been funds that have been successfully protected. Sen. Gibbs said everything is fair game.
- Tom Williams asked if there is any research on how sensitive the market place is to fees and what the threshold is. Skumatz said if every similar product has a similar percentage fee, it shouldn't destroy the market.

Presentation and Discussion – Electronic Device Recycling Efforts by Colorado Rural Municipalities and the Department of Local Affairs

Presented by Bill Carlson, Task Force Member Representing Rural Municipal Governments. ([Link to Presentation](#))

Comments / questions during or after the presentation:

- Carlson said his information was based on 14 phone calls with a list of six questions, it was not a quantitative survey.
- Meggan Ehret said there is more detail available on state-run programs than appears on the slides.
- Dag Adamson asked about the statistics, the slide showed an inexpensive program for Maine. Ehret said Maine is a state-run program, a better comparison of cost would be to Minnesota, as opposed to California, which is an advanced recovery fee.
- Marjorie Griek asked if you can have a manufacturer-run program and keep jobs local. Ehret said she would take issue with the goal of creating jobs in Colorado vs. what is fair to manufacturers and right for the state; it is really an environmental goal. Griek said creating and keeping jobs in Colorado is a goal listed in the Purpose and Intent of the task force (See Appendix One); it is of major concern that we maintain those jobs and expand them. Lisa Skumatz said a program doesn't have to have just one goal. Ehret asked what was wrong with

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promoting voluntary programs that are in place. Griek said those programs are not complete enough yet.

- Dag Adamson asked if it was acceptable to leave those market force conditions, with OEMs operating their programs, but with a safety net run by the state to cover the other 50 percent. Ehret asked who would fund the state program.

Presentation and Discussion – Comparison of State E-Waste Recycling Programs

Presented by Rep. Randy Fischer and Senator Pat Steadman, Task Force Chair and Vice Chair, respectively. ([Link to Presentation](#); Link to [Summary](#) and [Detailed](#) Comparison of State Electronics Recycling Laws)

Comments / questions during or after the presentation:

- Larry King said registration fees are for paying for administration of the system, not for recycling; except in Maryland.
- Annmarie Jensen said all of the models are the equivalent of the manufacturer running their own program except California where the state funds it from the advanced recovery fee. Rep. Fischer said that was basically correct, but Connecticut does pay for transport, collection and recycling based on the amount recycled; that is a return share model. Meggan Ehret said a system that is 100% return-share does not exist (return share for TV and IT); such former programs were revised to a two-tier program like Maine and Connecticut. Ehret said not all of the states are manufacturer-run, some state-run programs are Maine and Connecticut; Maine, Illinois, New Jersey, Michigan, North Carolina, Oklahoma, and Texas are manufacturer-run programs; and states like Washington, Rhode Island and Oregon have an option of a state or “standard plan” or a manufacturer-run program.
- Jeffrey Kuypers said Connecticut removed competition; any collector/recycler in Connecticut can collect material and bill Hewlett Packard, the only limitation is up to 50 cents per pound. There is no motivation to bill for less than 50 cents per pound and the manufacturer has no ability to decline payments to those folks based on such factors as audits against corporate recycling standards.
- Kuypers said in Connecticut there is no limit to the number of recyclers that can submit a bill, which is problematic for Hewlett Packard. Marjorie Griek asked if the state had to approve recyclers. Kuypers said there are some basic requirements to meet, but it wasn’t onerous. Any collectors/recyclers meeting the minimum criteria would be qualified. Kuypers said manufacturers want to make sure collectors pass standards; manufacturers don’t want to be liable for people mismanaging material. King said that was an important point because history has shown the Environmental Protection Agency going back to manufacturers to rectify problems with recycling. Kuypers also said that manufacturers have extensive procedures for adding new vendors before they can be paid—simply having many bills show up from many, varied “recyclers” is highly problematic to manage for a large manufacturer.
- Dag Adamson said as stakeholders we want standards; audits, best practices and a high standard would be supported.
- Rep. Fischer said a benefit of a program like Connecticut’s is that it would build infrastructure in the state for recycling; local recyclers could compete as well as recyclers across the nation.
- Kuypers said in Maine it is shared responsibility; the state is financing collection and consolidation to five central locations, while manufacturers finance consolidation activity after receipt of material at the central locations (such as sorting and record-keeping) and recycling. Kuypers said he is not concerned about who Maine chooses, approves or allows to do

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collection because manufacturers are not financing the collection piece. Manufacturers also have the authority in Maine to designate where their material must be shipped for recycling, so manufacturers can control who they pay for recycling.

- Rep. Fischer said, unlike in Maine, in Connecticut there is no opt-out provision for manufacturers.
- Dag Adamson asked if Hewlett Packard was involved in recommendations for Maine. Kuypers said the industry pushed for limiting the number of consolidators and the right to designate where consolidators must send material for recycling (e.g., manufacturer's approved recycling contractors).
- Ehret said if states dictate price there is concern that it interferes with the free market. Ehret said in Maine it is required to use one of six consolidators; because of the price cap manufacturers are charged as much as possible.
- Adamson asked if CDPHE put out an RFP with certain criteria for qualifications for recyclers and stating that manufacturers could visit recyclers, would that be amenable to OEMs. Kuypers asked what manufacturer would be able to do if a recycler didn't meet the standards. Kuypers said if the state is in control, the state takes responsibility for collector actions. Adamson said recyclers currently bid on projects and have to meet conditions for contracts and a breach of contract means the deal is cancelled. Kuypers said he is hearing different things; it is not clear that the relationship was under strong audits. Kuypers asked if there could be strong enough standards set and adhered to in a way that manufacturers could depend on; auditing is expensive and can't be done for a lot of folks.
- Rep. Fischer put the discussion recycler certification on hold until the next meeting.
- Charles Johnson asked for discussion as to what industry expects of the state.
- Ehret said the recycling goals set in Minnesota are tied to what a manufacturer sells; this option wouldn't be advocated by manufacturers.
- Ehret said under a market share program, orphans don't exist, which is why there are no provisions for orphans in some states.

Sen. Steadman said he would be presenting some miscellaneous issues of recycling programs in other states that should be considered:

- Steadman said an economic development/job creation component is not found in other states' legislation but is explicitly stated as a goal.
- Labeling requirements for device manufacturers is a component of every state's law; this is important information for a return-share model.
- Phones are not typically covered in the scope, except for Illinois.
- Steadman said he sees data privacy as a barrier to participation; concerns about home computer, commercial privacy laws make need for data privacy important.
- Prison labor issue is addressed by a few states (IL, NJ, RI, WA). Some expressly prohibit prison labor involvement. Minnesota has a narrow exception if part of a refurbishment program providing computers to schools. Steadman said he recently toured Colorado Correctional Industries, who do have some small programs on computer repair. Most laws don't address the issue.
- Most laws do include a landfill ban in the legislation, in most cases it is phased in over time. Sometimes the ban is more extensive than others; some bans pre-dated recycling e-waste legislation.
- Big issue of how to finance, who is responsible, etc.

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Marjorie Griek asked if computer reuse was incentivized in other states. Steadman said he didn't look into that specifically, but that is related to repair and refurbish.

Lisa Skumatz said a landfill ban of e-waste is typically more politically acceptable in Colorado.

Dag Adamson asked if any of the laws talked about export. Steadman said primarily in certification or regulation of recyclers is where that is addressed. Ehret said there is a federal export bill moving through the U.S. legislature.

Chad Miller said to go into any program knowing what we want in terms of reporting; make requirements clear from the beginning and do not add on through the year. More data raises costs and FTEs. Steadman he understands the point, and is why the idea of tracking return share seems burdensome. Larry King said treating every manufacturer the same provides no incentive to improve the product or make it more easily recyclable.

Diana Orf asked if there was any data to show for the number sold, how many are actually returned for reuse vs. put in the waste stream. Rep. Fischer said Anne Peters reported those numbers in her presentation; the amount diverted from the waste stream is very small. Dag Adamson said there hasn't been any market research he's seen distinguishing reuse.

Follow-up Items from July 23 Meeting

- Add data to map of current recycling options available in Colorado, from Anne Peters presentation.

Marjorie Griek said this wasn't something Peters was supposed to do. Meggan Ehret said she would tell Kristyn Rankin to do this. See Appendix Two. Jeffrey Kuypers said he had a copy of existing manufacturer systems. See Appendix Three.

- How do manufacturers or retailers use Colorado-based recyclers as vendors? What is the selection process?

Rep. Fischer said this could be added to the discussion of recyclers certification; more information from the manufacturers is needed. Kuypers said he could provide a link to [HP's standards](#).

- Data protection laws, how do they affect recycling?

Sen. Steadman said the U.S. Department of Defense has standards on data protection that seem to have been adopted by other jurisdictions as best practices. Larry King said the DOD no longer has a standard because they don't believe it is possible to completely wipe a hard drive; destruction is required. Adamson he could do a presentation on privacy laws if necessary. Rep. Fischer said he could see if you were a DOD contractor you would want information absolutely safe, but how big of an issue is that as a consumer. Orf said she sees a cross over issue of data privacy and prison labor. Adamson said there are two categories: responsibility of commercial entities to disclose privacy breaches and responsibility of retailers to change how communicating credit card information.

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Adamson said the question of where liability lies is what the task force is concerned with. Adamson said he has seen some liability language in contracts. Chad Miller said it depends on the level; certification of recyclers will answer that question. Miller said people want to know what they can recycle and what will happen to their stuff. Adamson said anecdotally found liability of data privacy drove decision making process more than green side. Steadman said he sees data privacy as a potential barrier to people recycling their CPUs and suggested including a provision to create assurance for people. Miller said education can be used to address that issue.

Moderated Discussion – Members’ Recommendations for Fulfilling the Task Force’s Purpose and Intent

See Appendix One for recommendations. Herb Dreo moderated the discussion.

The task force agreed that “Create a viable means of recycling electronic devices” meant the same thing as “Identify potentially viable means of gathering and recycling consumer electronic devices in Colorado” and could be deleted.

1) Identify potentially viable means of gathering and recycling consumer electronic devices in Colorado

Additional comments:

Marjorie Griek asked what was meant by “market driven.” Dag Adamson said we’re not getting the diversion rates we want, so needs to be some things changed, needs to be options; retailers and manufacturers don’t want an expensive program. Griek suggested “shared responsibility.” Adamson suggested option of a state-run program that competes with existing programs; let the consumer decide. Adamson said we need to recognize the investment in programs that work in some places, but need law and regulations that provide safety net for the rest of the state: a state-run program. Adamson said there is room for the two to compete. Ehret said she knows of no state requiring a manufacturer to participate in two programs—a state-run program and a manufacturer-run program; there is an option to sign up or run an independent plan, you don’t get invoiced for both.

Larry King said shared responsibility means different things to folks; only current program is Maine, where government has collection responsibility. Griek said in Maine municipalities will collect fees from consumers to offset transportation costs. King said it is up to individual municipalities. Ehret said they utilized an already existing system in Maine.

Lisa Skumatz said the system developed will want to get a lot of materials but also educate people. A system where someone pays at the end of the program sends the signal that it costs to dispose; make the cost of recycling transparent and up front to shape consumer behavior.

2) Address or eliminate environmental risks posed by landfill disposal or incineration of e-waste

Additional comments:

Rep. Fischer said this is part of recycler certification, there are standards that would be good; we want Colorado to be a state where recyclers can’t ship to China, etc.

Charles Johnson said in the solid waste regulations there are monitoring elements in place to detect environmental risk. Annmarie Jensen asked why we are here if all environmental risk is taken care of. Jensen said monitoring elements would abate environmental risk, here we’re trying to eliminate it.

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Jensen said there are materials inherent in electronic waste that make it necessary that we not dispose of it. Chad Miller said he agreed; however, a landfill program to address environmental risks is already in place. Griek said if a load of garbage with electronic waste is taken to the landfill, and its legal, maybe all the requirements aren't in place. Bill Carlson said the answer is a landfill ban of electronics.

Joe Shieffelin said if you ban electronic waste, you may only transfer the risk someplace else; recycling employees are incurring risk with disassembly. Shieffelin agreed that, as related to landfill disposal, that risk is handled.

Rep. Fischer asked if all municipal landfills comply with standards. Johnson said no, they have different monitoring provisions in place, they can't accept all types of waste. Carlson asked how are we handling landfill issue. Schieffelin said landfills in Colorado are managing all wastes in a manner to mitigate risk, ongoing management is mitigating risk; in terms of landfill risk, that is only one aspect. Carlson said he doesn't agree; landfill operators he talked to said all are getting bad stuff.

3) Identify specific technologies and practices for recycling of e-waste that are protective of human health and the environment

Additional comments:

Kuypers said ISO14000 compliance means you have a good management system, but it doesn't tell the content, you would still want to know more.

Skumatz asked if this is where "no prison labor" would go. Adamson said he has seen recent articles about how Federal Prison Industries is facing multiple lawsuits of poisoned workers and prisoners.

4) Gather input regarding the benefits and consequences of establishing a landfill disposal ban for e-waste

Additional Comments:

Rep. Fischer said the Larimer County landfill is concerned that if a local landfill ban is implemented, haulers will take their waste to a different landfill; a statewide or regional ban would prevent this.

Griek said the City of Fort Collins has a ban on electronics in the waste stream, they can control waste haulers licensed by the city, which moves the ban up the waste stream. Miller asked if that meant it is then the haulers' responsibility to make sure there are no electronics in the waste stream. Griek said she didn't know.

Adamson said current regulations prohibit electronics in the business waste stream; a complete landfill ban would theoretically double the amount of material diverted.

King said there is a political aspect; in Washington it was apparent that they would lose critical votes if a ban was included in the bill, so they decided to let counties pass landfill bans independently, which was the best of both worlds.

Rep. Fischer said he was hearing from CDPHE that we don't need a ban, that landfills are capable of handling electronic waste. Shieffelin said its not whether we need it; if the intent is to mitigate risk,

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that's already done, if the intent is to move electronic material to market, that's OK. Johnson said timing may need to be considered for infrastructure development and ramifications on budgets for counties. Carlson asked if CDPHE was saying it's acceptable to throw electronic waste into landfills. Johnson said they haven't seen release into the environment where they are monitoring. Stiegelmeier said the time span for considering safety needs to be great.

5) Investigate opportunities to increase e-waste diversion rates

Additional comments:

Stiegelmeier said setting a goal is hard not knowing what goes into a landfill. Johnson said every three years a waste profile is done for landfills. Recyclers have to report numbers to CDPHE, but that doesn't include retailers, OEMs, or drop-off sites. Johnson asked where is our information construct.

Kuypers said goals not tied to actual returns are arbitrary, and manufacturers can't force consumers to let go of their stuff at an arbitrary rate; and when states "offer" to make things easier by "allowing" covered manufacturers to collect non-covered electronic devices to help meet targets, this wrongly forces covered manufacturers to help solve the collection needs for non-covered device manufacturers. Griek asked if there was another way other than market share or return share of setting goals, something more incentive-based. Kuypers said as far as incentives, Hawaii is saying they will track manufacturer performance and manufacturers with better performance will be more eligible for procurement contracts. Steadman said there could be incentives for lower registration fees if a company is taking back "so much." Ehret said she has seen other states offer extra credit for every rural pound collected.

Adamson said that increasing diversion could be facilitated by both OEMs and recyclers, have both types of programs. Ehret said an analogy to that is saying anyone can go and pick up one of her four children, even though she can do it herself, and then charge her for it at a rate they determine is fair without permitting her to dictate who can pick up her kids; pick a path, a manufacturer does a system or a state-run program. Rankin agreed and said Dell has high standards for collection and processing, not all recyclers have such standards. For Dell to be responsible financially, it needs control of what standards its processors are required to meet.

Griek said in the RREO grant program, rebates were set up so people who were already doing the work could apply for a rebate. Jensen asked what the manufacturers thought of this. Ehret asked where the fund comes from. Griek said it could be a mechanism for incentive, an opportunity within a state-run program for manufacturers to get money back for performance.

Jensen said an ARF gets to the transparency issue. Ehret said she would be surprised if TV manufacturers would oppose it, but there is a lack of political traction for it. Rankin asked if manufacturers are willing to take responsibility, why would you ask consumers to pay for it. Jensen said so consumers make the connection between the product and its end of life, that they are a part of that lifecycle. Rankin asked if California consumers aren't paying twice since OEMS have national prices, plus an additional fee, they are essentially being charged double.

6) Investigate ways to promote new non-toxic and more readily recyclable designs for electronic devices

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Additional comments:

Kuypers said EU-RoHS requires manufacturers to eliminate or keep to very small amounts certain heavy metals as well as flame retardants.

Williams said this list should be shortest of all; he doesn't see role for government in mandating design. Griek asked why manufacturers started reducing toxic elements or packaging, etc., was it because of the requirements in Europe. Kuypers said he couldn't say but RoHS directive did motivate manufacturers to spend a lot of resources at one time. Kuypers said it was hard and expensive for manufacturers to manage lots of different groups, they try to be consistent with the EU's RoHS. Rankin agreed and said that program is working with international traction. Skumatz said she wants to make sure we have standards like that, to level the playing field and eliminate the cost disadvantage of "going green."

7) Develop ways to create jobs and promote economic development through the recycling of e-waste in Colorado

Additional comments:

Miller asked who will be responsible for landfill ban, it could add more costs. Griek said she's seen models for that in which the landfill owner/operators put it into their plan that they have reviewed by the state, and as long as there is due diligence in preventing materials from entering it doesn't become an onerous issue for the landfill.

8) Prevent the export of toxic materials to countries with insufficient environmental controls in place to recycle them safely

Additional comments:

Steadman said international export ban. Adamson asked if that couldn't be a subset of certification. Griek asked if that was part of e-Stewards. Peters (added 9/8/09): Yes, strong requirements in e-Stewards to prevent export to developing countries; R2 is somewhat less stringent. Kuypers said his recollection is that Oregon or Washington adopted a very early version of R2 with stronger language about exports than final R2s.

9) Build on the existing infrastructure for recycling e-waste in Colorado

Additional comments:

Griek said a landfill ban would create more material to deal with which could potentially build local infrastructure by necessity.

Stiegelmeier said Summit County takes recycling at large from surrounding counties; she wouldn't want to create disincentives for that but it would be ideal if they had their own programs.

Report Drafting

Steadman said a report from the task force is due December 15 and asked for volunteers for the drafting process. Steadman said the committee could start outlining the format, cover what has been accomplished so far. Skumatz, Steadman, Ehret, Adamson and Griek (for Peters) volunteered. Kuypers asked if there would be an opportunity for comment for those not on the committee. Steadman said of course, transparency is important.

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Next Scheduled Meeting

The next scheduled public meeting is October 2, location to be determined.

Steadman said the task force would pick up on the discussion from the last hour at the next meeting. Steadman invited a representative for the waste haulers to give a presentation if desired.

Parking lot issues to cover:

- Certifying recyclers
- What is market-driven (shared)?
- Educate and incentives – transparent financing costs
- Org structure, what products will be covered
- Funding

Griek asked if any of these topics could be addressed by committees during the interim, since there is a time crunch. Dreo said the original thought was to start prioritizing each item, maybe via online voting, to start reducing it. Skumatz said it is hard to get a sense of what is doing well/poorly; a table of pros and cons would be more helpful to make decisions.

Carlson said he is hearing three issues: 1) whether we have a ban or not, 2) should it be a regulatory approach or built on existing programs, and 3) how to fund either of those. Adamson asked that the task force members come to the next meeting with answers/recommendations to these three questions; each stakeholder have a model and discuss pros and cons.

The task force set aside October 19 as the date for an additional meeting if needed.

Public Comment

Jeff Johnson said Goodwill Industries was interested in how the recommendations of the task force would affect their mission of helping people with disadvantages. Johnson said there is a national initiative for Goodwill to move toward zero waste. Diana Orf asked if standards for collectors would affect Goodwill. Johnson said that is what he is interested in. Goodwill is paying to get rid of the TVs, don't know if they should disassemble them, act as a MRF or hand off to someone else. Stiegelmeier said the task force could use information from other states on how Goodwill has been impacted. Johnson said he could look into it, he is part of the green workgroup that does webinars every once in a while.

Other Business

Meggan Ehret apologized for missing the start of the meeting and the approval of the July minutes. Ehret asked for a correction to the July 23 minutes. The minutes state she said the Florida study referenced new products but should state that the Florida study demonstrated the life of CRT TVs, which is about 14 years on average.

Steadman asked for any objections from the task force to the change. No objections.

The Electronic Device Recycling Task Force meeting adjourned at 4:30pm.

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Action Items

This is a summary list of tasks from the EDRTF meeting. If you are listed as an 'owner', please come prepared to the next meeting with this information. If you don't think you were assigned a particular task, indicate who you think the owner is and notify Amy Randell for updating.

Action Item or Commitment	Owner	BY WHEN	Status
Determine location for October meeting	Fischer/Randell	10/2/09	Pending
Report Writing Committee meeting	Steadman, Peters, Ehret, Skumatz, Adamson	10/2/09	Pending
Report on 3 questions	Task Force Members	10/2/09	Pending

APPENDIX ONE
Electronic Device Recycling Task Force
Recommendations for Fulfilling Purpose and Intent
August 24, 2009

Purpose and Intent

- 1) Identify potentially viable means of gathering and recycling consumer electronic devices in Colorado
 - Market-driven and/or shared responsibility; multiple channels for public recycling of electronics (i.e. retail take-back programs, mail-back programs and other voluntary programs)
 - Local government options and nonprofit/commercial-run recycling centers
 - State website (consumer friendly) for voluntary programs (where recyclers can notify the state and register and residents can have one place to find information)
 - Already existing voluntary programs
 - Difference between rural and urban areas
- 2) Address or eliminate environmental risks posed by landfill disposal or incineration of e-waste
 - Ban it
 - Education
 - Economic incentives
 - Design for environment
 - Regulatory enforcement of unacceptable items in landfill
- 3) Identify specific technologies and practices for recycling of e-waste that are protective of human health and the environment
 - Standards/certification
 - R2, OEM best practices, IAER/ISRI-RIOS, E-stewards, ISO14000
 - Prison labor?
- 4) Gather input regarding the benefits and consequences of establishing a landfill disposal ban for e-waste
 - Should be statewide or regional – so landfills can't be cherrypicked
 - Ban from waste stream
 - Educate the public on options/consequences
 - Consider consequences, i.e. dumping, political considerations, lost revenue/value from valuable resource
 - Phased-in approach – timing critical
 - If banned there must be options
 - Intent? Landfills already mitigate risk
- 5) Investigate opportunities to increase e-waste diversion rates

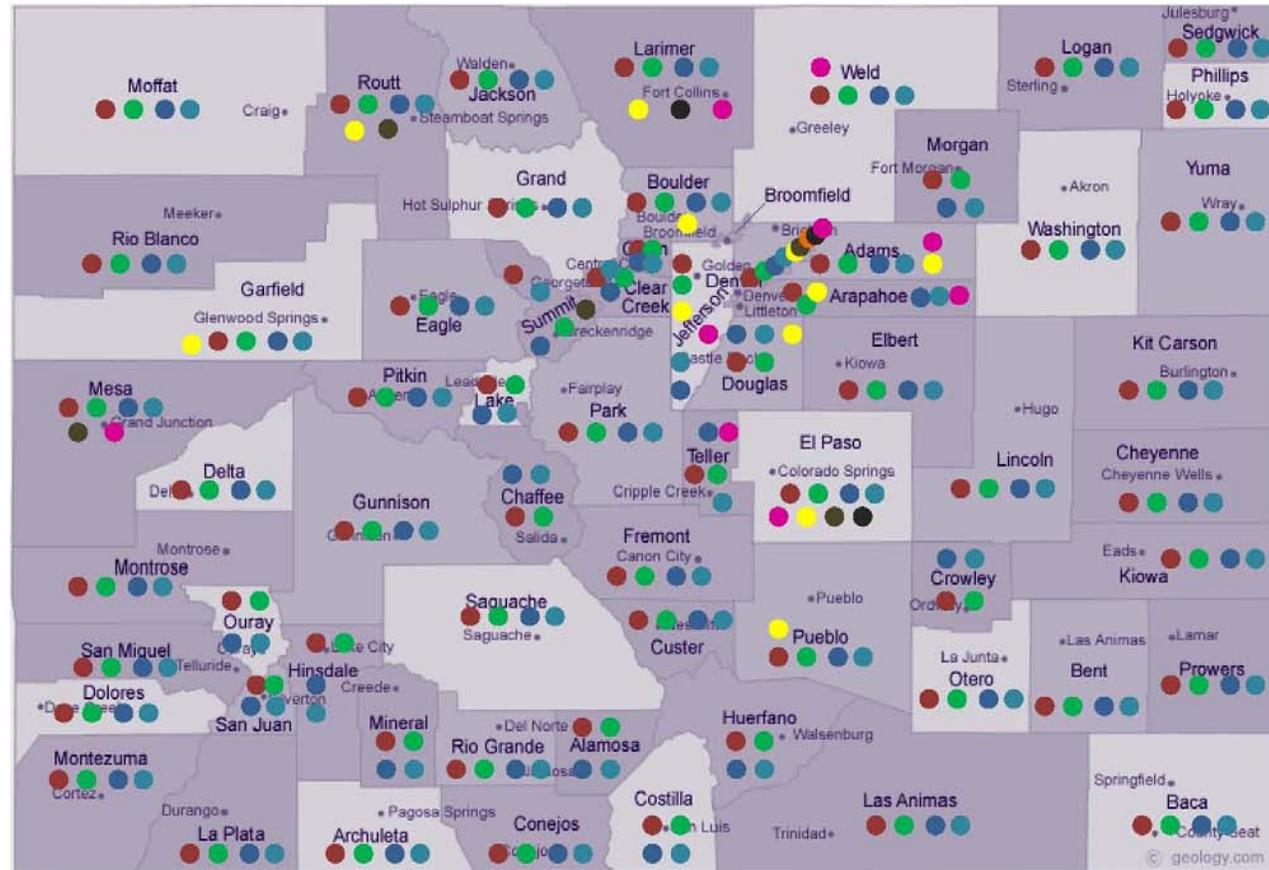
APPENDIX ONE
Electronic Device Recycling Task Force
Recommendations for Fulfilling Purpose and Intent
August 24, 2009

- Goals with teeth and incentives
 - What is success? What are metrics? i.e., amount collected vs. how much in landfill
 - Goals based on actual returns to recycling programs
 - Commercial sector and recyclers responsibility to collect (standards not the same?)
 - Recognition/rebates for OEMs and retailers that recycle
 - Rural incentives
 - Procurement credits for manufacturers
 - ARF may have merit despite CA experience
- 6) Investigate ways to promote new non-toxic and more readily recyclable designs for electronic devices
- Make manufacturers responsible
 - Consistent requirements (EU-RoHS)
- 7) Develop ways to create jobs and promote economic development through the recycling of e-waste in Colorado
- Incentives for in-state recyclers for job creation
 - Extend RREO program
 - A landfill ban will create jobs
 - More opportunity for people to recycle
 - Education
- 8) Prevent the export of toxic materials to countries with insufficient environmental controls in place to recycle them safely
- Standards/certification for recyclers and collectors
 - Economic incentives
- 9) Build on the existing infrastructure for recycling e-waste in Colorado
- Incentives in areas with inadequate infrastructure
 - Landfill ban
 - Co-op development for underserved areas
 - Ensure no unintentional undermining of existing businesses that can meet standards (cf. #8)

APPENDIX TWO Recycling Options Available in Colorado

SOME of the FREE CONSUMER IT and TV RECYCLING OPPORTUNITIES CURRENTLY AVAILABLE IN COLORADO

- Dell Free Residential Collection (Dell branded and with purchase of a similar system)
- ReConnect (Dell-Goodwill Partnership - free recycling for all brands of IT products)
- Staples (free recycling for Dell-branded products)
- HP Mail-back (free recycling for HP-branded products)
- Best Buy (free recycling for many electronics and TVs, \$10 fee for some offset by \$10 BB gift card)
- Samsung (free recycling for Samsung branded products)
- Dell Trade-in Program
- HP Exchange Program
- MRM Electronics Collection Sites (Free recycling for several brands of IT and TVs)
- Sony e-Recycling (Free drop off of all Sony Products)



APPENDIX THREE
Existing Manufacturer Recycling Programs
Source: Information Technology Industry Council, May 11, 2009

Manufacturer Voluntary Recycling Programs:

Company	Type of Program	What can be recycled	Fee
Apple	Consumers receive free recycling with a qualifying purchase. Apple also offers iPod and cell phone recycling free of charge, both in store and a mail-back program. Additionally, Apple offers free enterprise recycling.	Macs, iPods, iPhones, as well as other cell phones, computers, and monitors—regardless of manufacturer.	None
Canon	Consumers can use a website to identify the product they intend to recycle. Canon also allows consumers to print out free shipping labels to return printer cartridges.	Canon-branded binoculars, camcorders, cameras (digital/film), projectors, fax machines, printers, scanners, ink, toner, paper	Fees vary by product; Toner cartridge recycling is free.
Dell	Dell offers 4 free recycling programs, a donation program, and a trade-in program to consumers: 1) free recycling through Dell's website at any time (Dell branded products only); 2) Free recycling of Dell branded products and other manufacturer's products with the purchase of a Dell product; 3) Free recycling of Dell branded products through Staples retail locations; 4) Free recycling of any brand of product at Goodwill Industries stores that participate in the ReConnect Partnership; 5) donation of functional systems through the National Christina Foundation; and 6) trade-in any brand of product with receipt of credit toward future purchase of a Dell. Additionally, Dell offers a full portfolio of asset recovery services for commercial customers.	Dell-branded products, including notebooks, desktops, and monitors, as well as printers, ink, and toner from other manufacturers.	None
Epson	Consumers can return any Epson branded product to Epson for recycling. Epson provides a prepaid FedEx shipping label.	Any Epson branded product (printers, scanners, projectors, accessories, ink cartridges, toner, etc.)	Cost: \$10 per shipment (multiple items can be put into the shipping package) Epson provides a \$5 coupon that can be used at the Epson e-store. Net, \$5 for shipping and recycling costs.
HP	1. HP Return for cash program pays consumers for computer equipment with value. Print label and ship	Desktop, notebook and tablet computers, workstations, monitors, printers (ink and laser),	None for HP brand, shipping charge only for

APPENDIX THREE

Existing Manufacturer Recycling Programs

Source: Information Technology Industry Council, May 11, 2009

Company	Type of Program	What can be recycled	Fee
	<p>free at any UPS location or pay a fee to have FedEx pick up at the door. 2. For equipment with no value, consumers recycle for free at hp website (HP branded equipment) & pay a a nominal fee for non-HP brands. 3. For businesses, HP will pay your company for unwanted computer equipment through the Return for Cash program. HP also accepts HP inkjet and laserjet cartridges for free.</p>	<p>digital cameras and PDA/Smartphones by most manufacturers. HP also recycles ink and toner cartridges for free (HP only)</p>	<p>non-HP branded.</p>
<p>Kodak</p>	<p>Kodak offers a trade-in/trade-up program (through DealTree) for reuse, refurbishment and/or recycling of digital still cameras. Kodak participates in the RBRC program for collection and recycling of secondary (rechargeable) batteries sold individually or with our products. The RBRC program is free to all users and provides convenient drop-off at thousands of US locations. Kodak operates an in-house collection and recycling program for One-Time-Use-Cameras (OTUCs). This service is free to the consumer when they return their OTUCs for photoprocessing. This program has been in place since the early 90s and is one of the longest and most successful e-waste collection/reuse and recycling programs ever developed. We recently celebrated our 1.5 billionth cameras returned under the program.</p>	<p>Digital still cameras, rechargeable batteries, one time use cameras.</p>	<p>All camera (digital and one time use) and rechargeable battery recycling is free.</p>
<p>Lenovo</p>	<p>Lenovo offers recycling through it's website.</p>	<p>Lenovo products as well as other-branded products listed on the site.</p>	<p>Free shipping for all Lenovo and select IBM products; fee for non-Lenovo products.</p>
<p>Lexmark</p>	<p>Free recycling through a mail-back program for Inkjet and laser toner cartridges, and printing equipment.</p>	<p>Inkjet cartridges, laser toner cartridges, and printing equipment.</p>	<p>None.</p>
<p>LG</p>	<p>Through a partnership with Waste Management Inc., the LG Electronics Recycling Program provides recycling of LG products. Consumers can utilize Waste Management drop off sites for certain LG products. Cell phones, smartphones, and GPSs are covered by a separate LG recycling program, which provides mail-back recycling opportunities for consumers.</p>	<p>LG, Zenith, and GoldStar brands of televisions, monitors, audio equipment, video cassette players and recorders, DVD players and recorders, combination TV/VCR and TV/DVD units, set-top boxes; non-LG products are also accepted.</p>	<p>None, but a fee may be charged by Waste Management for non-LG brands.</p>

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Existing Manufacturer Recycling Programs

Source: Information Technology Industry Council, May 11, 2009

Company	Type of Program	What can be recycled	Fee
Motorola	Motorola offers multiple programs. Motorola offers free printable postage to mail-back and recycle consumer products including phones, modems, and routers. Bag in a box program offered to web purchases and carriers to include in new phone boxes allowing return of any branded phone. Charitable “race to recycle” program for cell phone collection at schools to earn money. Non Consumer products recycled upon request and/or contract arrangements with customers.	Motorola and similar non-Motorola branded consumer products including phones (any), Motorola Branded modems and routers.	No fee for consumer equipment. Some occasional incentives. Business equipment may be free or charged depending upon size and other logistics arranged with customer.
NEC Display	NEC Total Trade offers you cash for your pre-owned technology equipment making your next NEC purchase even more affordable. Total Trade also makes it simple for people to remove and dispose of their existing old technology equipment, while lowering procurement costs and total cost of ownership (TCO). Plus, we can facilitate the removal of non-working equipment as part of the overall trade and ensure regulatory-compliant and environment-friendly disposal.	Many categories of products from many manufacturers.	None
Nokia	Nokia offers mail-back options for Nokia phones.	Nokia phones	None, but in order to trade in your old phones (any manufacturer) for cash, you have to buy a new Nokia device; up to four phones can be traded per Nokia purchase.
Panasonic	1) Panasonic’s Electronics Recycling Program is operated by the Electronic Manufacturers Recycling Management Company (MRM), which sets up recycling locations and tracks where recycled materials travel. Consumers can find an MRM drop-off center at any one of the 320 MRM locations nationwide. 2) Panasonic Laptops can be recycled through a separate no-cost program that provides a pay out to the customer in most cases depending on the age and condition of the laptop.	1) Panasonic-branded TVs and other consumer electronics—regardless of manufacturer 2) Panasonic Toughbook Laptops 3) Panasonic rechargeable batteries and cell phones 4) Panasonic document scanners (business product)	1) MRM centers accept Panasonic-, Sharp-, and Toshiba-branded TVs and other consumer electronics at no charge. However, there may be a charge for recycling other brands or

APPENDIX THREE

Existing Manufacturer Recycling Programs

Source: Information Technology Industry Council, May 11, 2009

Company	Type of Program	What can be recycled	Fee
	<p>3) Panasonic portable rechargeable batteries and cell phones can be recycled through a program offered by the Rechargeable Battery Recycling Corporation (RBRC).</p> <p>4) Panasonic document scanners are accepted for recycling at no charge with the purchase of a new scanner</p>		<p>products.</p> <p>2) No charge. Payout for most units</p> <p>3) No charge</p> <p>4) No charge with the purchase of a new scanner</p>
Samsung	<p>Samsung offers recycling at select drop-off centers in all 50 states – locations can be found on Samsung's website. Cartridges and mobile phones can be mailed back free of charge using Samsung's pre-paid shipping labels, available online.</p>	<p>Both Samsung-branded and non-Samsung products, including TVs, phones, and toner.</p>	<p>None</p>
Sharp	<p>In 2007, Sharp teamed up with both Panasonic and Toshiba to form the Electronics Manufacturers Recycling Management Company (MRM) in the U.S., which sets up recycling locations. The Sharp Toner Recycling Program is for recycling Sharp copier toner products only; complete the online form and bring your package to any UPS store.</p>	<p>TVs, DVD players, copiers, appliances, and more—regardless of manufacturer.</p>	<p>MRM centers accept Panasonic-, Sharp-, and Toshiba-branded TVs and other consumer electronics at no charge. However, there may be a charge for recycling other brands or products.</p>
Sony	<p>Sony partnered with Waste Management to provide the for the safe disposal of Sony electronics. Sony electronics can be brought to Waste Management eCycling drop-off locations. Old Sony rechargeable batteries may be dropped off at a Sony Style store.</p>	<p>Sony-branded gaming consoles, MP3 players, TVs, and more.</p>	<p>None</p>
Toshiba	<p>Toshiba allows consumers to recycle any brand of electronics and, if possible, receive money for the trade in. Products that have no trade in value and be recycled for free using a prepaid shipping label.</p>	<p>Laptops, monitors, home audio receivers, GPS navigation systems, and other consumer electronics—regardless of manufacturer.</p>	<p>None</p>
Xerox Corporation	<p>Xerox's Green World Alliance program provides collection and reuse/recycling for spent imaging supplies. Customers can download pre-paid shipping labels from www.xerox.com/environment. Xerox's Product and Takeback Recycling program manages equipment at end of life. Returned equipment is remanufactured and reused whenever feasible. Xerox also operates an internal recycling operation in addition to engaging strategic partners.</p>	<p>Xerox branded cartridges, toner containers and printing equipment.</p>	<p>No fees for recycling and frees hipment for supplies, Xerox leased, and Xerox managed equipment when replacing existing equipment. Fees for other equipment categories vary by</p>

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Existing Manufacturer Recycling Programs

Source: Information Technology Industry Council, May 11, 2009

Company	Type of Program	What can be recycled	Fee
			product type and geographic location.