

10th LEA/CIWMB Partnership Conference
“Netting Success & Anchoring Alliances”



Riverside County

Waste Management Department

Universal Waste

The Sunset, The Impact, The Solution

October 16, 2007

THE SUNSET

- February 8, 2006 Sunset of Disposal Exemptions
 - Common batteries
 - Fluorescent light bulbs
 - Thermostats, thermometers and novelty items
 - Electronic devices

THE IMPACT

- **February 8, 2006 Sunset of Disposal Exemptions**
 - Electronic devices: Computer monitors, TVs, cell phones, pagers, printers, computer bodies (CPUs and processors), video cassette recorders (VCRs), cordless and regular telephones, radios, and microwave ovens.



CONOCIDAS AL ESTADO DE CALIFORNIA
QUE CAUSAN CANCER, DEFECTIVOS
DE NACIMIENTO O OTRO DANO
REPRODUCTIVO PODRIAN ENCONTRARSE
EN O ALREDEDOR DE ESTA FACILIDAD.
CALIFORNIA HEALTH AND SAFETY CODE SECTION 25249.6



**THE FOLLOWING UNIVERSAL WASTES ARE NOT
ACCEPTABLE FOR DISPOSAL AT THIS FACILITY:**

- **FLUORESCENT LIGHT TUBES AND BULBS AND
MERCURY VAPOR LAMPS**
- **MERCURY CONTAINING SWITCHES, RELAYS AND
DEVICES (THERMOSTATS, PILOT LIGHT SENSORS)**
- **COMMON HOUSEHOLD BATTERIES (AA, AAA, C
AND D CELLS AND BUTTON BATTERIES, ETC.)**
- **ELECTRONIC DEVICES INCLUDING TV'S, RADIOS,
PHONES, CELL PHONES, COMPUTERS, VCR'S AND**





NOTICE

THIS FACILITY CAN NOT ACCEPT :

COMPUTER MONITORS, TELEVISIONS, CASH REGISTERS AND OSCILLOSCOPES (CRT & LCD DEVICES), COMPUTERS, COMPUTER PERIPHERALS, TELEPHONES, ANSWERING MACHINES, RADIOS, STEREO EQUIPMENT, TAPE PLAYERS, RECORDERS, PHONOGRAPHS, VIDEO CASSETTE PLAYERS, RECORDERS, COMPACT DISC PLAYERS/RECORDERS, CALCULATORS, APPLIANCES, WASHERS DRYERS, MICROWAVES, OVENS, RANGES, LAWN MOWERS, EDGERS, CFC CONTAINING REFRIGERATORS, FREEZERS, AIR CONDITIONERS, TREATED WOOD WASTE, GYPSUM/DRY WALL, PAINTS, CLEANERS, POLISHERS, WAXES, OILS, GREASES, AUTO BATTERIES FLAMMABLE, CORROSIVES, OXIDIZERS, EXPLOSIVES, GASES, LIQUIDS, POISONS, INSECTICIDES, HERBICIDES, FUNGICIDES, RODENTICIDES, HIGH MOISTURE CONTENT WASTE, BATTERIES INCLUDING ALKALINE D, C, AA, AAA, BUTTON CELL, MERCURIC OXIDE, SILVER OXIDE, LITHIUM AND LITHIUM-ION, NICKEL-CADMIUM (NICD), NICKEL METAL HYDRIDE (NIMH), SMALL SEALED LEAD-ACID, FLUORESCENT LAMPS, HIGH INTENSITY DISCHARGE LAMPS, SODIUM VAPOR AND MERCURY VAPOR LAMPS, ANY OTHER LAMPS THAT EXHIBIT A CHARACTERISTIC OF A HAZARDOUS WASTE, LEADED MINI BLINDS, LEADED PAINT, ASBESTOS, PCB AND NON PCB CAPACITOR OR BALLAST, THERMOSTATS MERCURY CONTAINING EQUIPMENT, LAMPS, AEROSOL CANS, MOTOR VEHICLE LIGHT SWITCHES, NON-AUTOMOTIVE MERCURY SWITCHES, DENTAL AMALGAM, MERCURY CONTAINING PRESSURE OR VACUUM CONTAINERS, MERCURY ADDED NOVELTIES MERCURY COUNTERWEIGHTS AND DAMPERS, MERCURY THERMOMETERS, MERCURY DILATORS AND WEIGHTS, MERCURY TUBING, MERCURY-CONTAINING RUBBER FLOORING, MERCURY GAS FLOW REGULATORS, UNTREATED MEDICAL WASTE INCLUDING HOUSEHOLD WASTE, GENERATED MEDICAL WASTE AND SHARP WASTE, DECOMMISSIONED RADIOACTIVE MATERIAL, SEWAGE AND SLUDGES

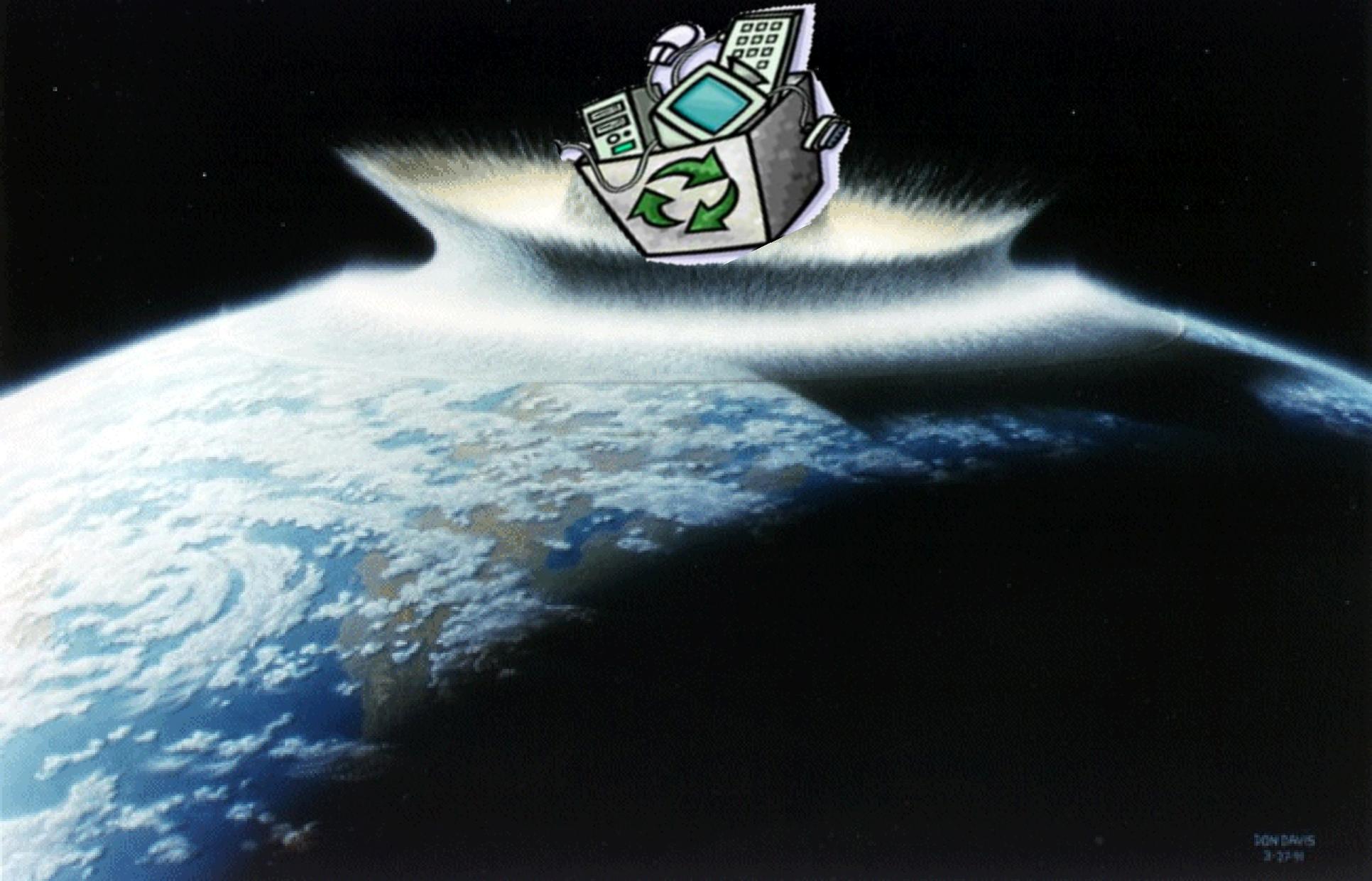
PLEASE SEE MANAGEMENT FOR NEWLY PROHIBITED WASTE



WE DON'T ACCEPT ELECTRONIC DEVICES



THE IMPACT





CRT BAN

SUN SET



AB227

AB1353 TWW



Understanding Our Program's Major Impacts

- 1994 Public Resource Code § 42170
 - Required recycling of major appliances
- 1994 Public Resource Code § 42175.
 - Required the removal of hazardous materials from major appliances before crushing for transportation.



HIRED SEVERAL CONTRACTORS



CHARGED A LOT FOR LOADING
CHARGED A LOT FOR HAULING
THE PROGRAM WAS A LOSS

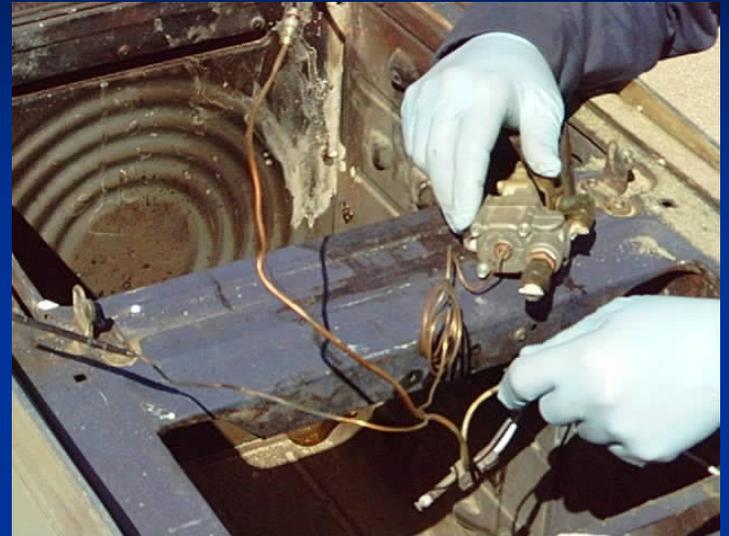
1995 SERVICING APPLIANCES

- REMOVING PCB & NON-PCB BALLAST
- OIL FROM WASHING MACHINES



1995 SERVICING APPLIANCES

- REMOVING
MERCURY SWITCHES



1995 SERVICING APPLIANCES

- REMOVING FREON



Appliance Recycling 2006

Appliance Items	Number of Units	Oil (gallons)	Mercury Switches	PCB Ballasts	Gas (gallons)
Washing Machines (clothes & dish washers)	1,471	141.8	0	233	0.75
Dryers (clothes and dishes)	1,061	0.25	3	34	0
Stoves	893	0	189	8	0
Hot Water Heaters	1	0	0	0	0
Microwaves	1,425	0	0	1402	0
Motor blocks (lawn mowers, dirt bikes, car engines, etc.)	1,442	121.85	0	10	20.25
Refrigerators and A/Cs	27	0	0	0	1
Other:	39	0	0	1	0
Other:	0	0	0	0	0
Totals	6,359	263.9	192	1688	22

Refrigeration Units

Appliance Items	Number of Units	Oil Gallons	Refrigerant Pound	Mercury switches	PC Ballasts	Gas gallons
Air Conditioners	695	96.1	384.75	23	757	0
Refrigerators	1612	107.44	97.09	0	91	0
Totals	2307	203.54	481.84	23	848	0

STOPPED LANDFILLING CRTS IN 2001



**CONTINUED TO ACCEPT CRTs
AT NO ADDITIONAL CHARGE**

This took three people





SANYO

Dao!!!!



DEERE

G54H



**SOME HILLBILLY SHOT
UP ALL OUR CRTs**





**SOME GOLFER CLUBBED
THEM**

VANDALS SMASHED THEM



23 7:58 AM



THEY BURNED OUR CRTs



STARTED DISASSEMBLING CRTs IN 2002

- Reduce disposal cost
- Reduce shipping cost



Electronic Waste Recycling Act of 2003

<i>The weight of CRT-containing CEWs cancelled:</i>	<i>1000 pounds</i>
<i>Times the per pound Standard Statewide combined recovery and recycling payment rate:</i>	<i>X \$0.48</i>
<i>Equals the payment claim for the reporting period:</i>	<i>= \$ 480.00 Total Claim</i>

172 lbs. X 0.48 = \$82.56



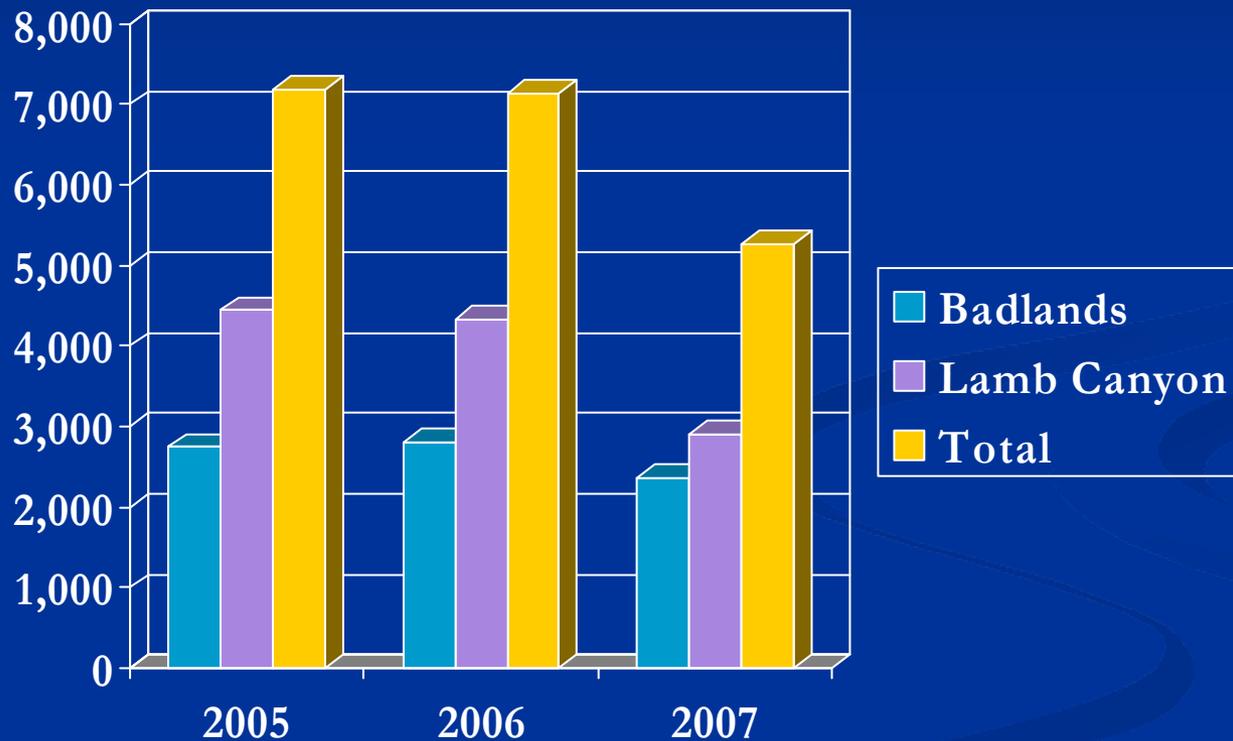
40 lbs. X 0.48 = \$19.20



22000 lbs X 0.48 = \$10,560.00



CRTs COLLECTED



REIMBURSEMENT RECEIVED FROM CIWMB

\$538,940.79
APPROXIMATELY
\$28.
PER CRT DEVICE

SOME OF THE COST

- + \$28.00 PER CRT DEVICE
- - \$3.20 IN GLASS DISPOSAL PER CRT DEVICE
- - \$7.00 IN LABOR PER CRT DEVICES
- = \$17.80

THE IMPACT

- **February 8, 2006 Sunset of Disposal Exemptions**
 - Electronic devices: Computer monitors, TVs, cell phones, pagers, printers, computer bodies (CPUs and processors), video cassette recorders (VCRs), cordless and regular telephones, radios, and microwave ovens.



Posted on DTSC's Web Page February 2006

- How do I know if a particular electronic device can't be thrown in the trash?
- Unless you are sure they are not hazardous, you should presume these types of devices need to be recycled or disposed of as hazardous waste and that they may not be thrown in the trash.



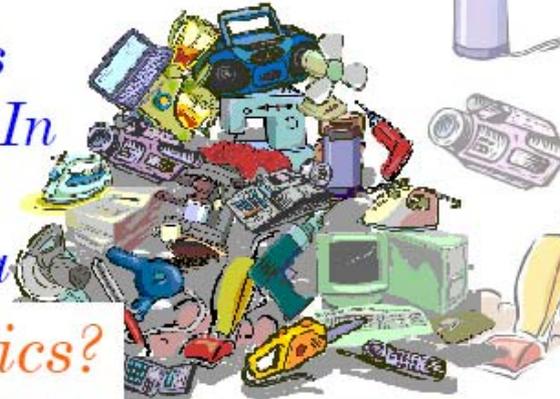
Aberdeen County
Waste Management Department



NEW RULE!! Starting February 9, 2006



All Electronics
Must Be Placed In
the Electronic
Recycling Area



What Electronics?



If it plugs into the wall, operates on batteries or runs on electricity in any way, you must place it in the "Electronics Recycling Area"!



Any electronic device includes, but is not limited to, computers, computer peripherals, printers, telephones, answering machines, radios, stereo equipment, tape players/recorders, phonographs, video cassette players/recorders, compact disc players/recorders, cable & satellite boxes, calculators, vacuums, drills, saws, weed whackers, etc.



Many types of electronic products used in the workplace and home contain hazardous substances like lead and mercury. When these products reach the end of their useful lives or become obsolete, some are considered hazardous waste and require special handling. In order to continue accepting these materials from you in the future, please follow all directions and place these materials in the designated area.



In addition to the above change, this facility will no longer accept the following regulated items: Household batteries, TTLC failing and TTLC passing lamps, thermostats, non-automotive mercury switches contained in products and electronic devices from businesses.



CRT/CED Recycling Areas



**ELECTRONICS
RECYCLING AREA**





07.15.2006

1 YEAR OF EDs

- Number of EDs Found in Load Check = 107,124.00
- Percentage of Waste Loads Containing EDs = 25%
- Number of EDs Accepted Through Waste Recycling Program = 15,715

Riverside County Waste Management Department **HAZARDOUS WASTE INSPECTION INCIDENT REPORT**

Form Number: 0603751

Site: EL SOBRANTE
 Date: 7/20/2006
 Time: 12:33:00
 Incident: Yes
 (office use only) Incident #: 505

RCWMD Hazardous Waste Inspector(s)
 HESS, JOHN

Responding Agencies
 DA - Primary: WAYNE HOY

100 Hazardous Waste Spills
 1000
 10000

LOAD TYPE
 Commercial
 Waste Recycling Plant
 Manufacturing Process
 Other

DISPOSITION OF MATERIAL
 Hazardous Material Found (choose one of the following)
 Hazardous Waste
 Hazardous Waste
 Hazardous Waste
 Returned with Carrier at time of inspection

COST RECOVERY
 No Cost Recovery
 Cost Recovery by EPA
 Cost Recovery by RCWMD

TRANSPORTER INFORMATION
 Hauler/Company Name: WMIE-OOC-CARSON TRANSFER STATION Waste Disposal Receipt #: 716164 Tonnage: 10.58
 Driver's Full Name: PAULINO RODRIGUEZ Load Origin: RANCHO DOMINGUEZ Route #: 1538
 License Plate #: S065082 Truck #: 613 Make: PETERBILT Model: TIPPER TRUCK
 Street Address: 321 W FRANCISCO STREET City: CARSON State: CA Zip Code: 90745
 Phone Number: (310) 217-6311 Fax Number: () -
 Driver License #: A8582829 Expiration Date: 1/28/2010 DOB: 1/28/1963

RESPONSIBLE PARTY (RP)
 Name: GARY WALDRON Business Name (if applicable): STRONG'S GOVERNMENT SERVICES
 Street Address: 2332 E. PACIFICA City: RANCHO DOMINGUEZ State: CA Zip Code: 90220
 Phone Number: (770) 409-3211 Fax Number: () -
 Driver License #: Expiration Date: DOB:

HAZARDOUS WASTE FOUND			CONTAINER				
Name / Type	Description	Class Code	Size	Qty.	Total Vol. (gal.)	Meas. Unit	Reject #
CEOs / 32	TOY PHONES	OTHER	UN	103680	63,680.00	UN	
HOUSEHOLD BATTERIES / 27	LITHIUM BATTERIES	OTHER	UN	311040	111,040.00	UN	

RETURN OF HAZARDOUS WASTE
 Print: X Title: _____
 Sign: X Date: _____
 Driver License #: _____ Expiration Date: _____ DOB: _____

COMMENTS

Approved By: _____

CURRENT COST FOR ED RECYCLING

- Free ED Recycling
- Free Shipping Containers
- Free Shipping





10.17.2006

Simple Waste Diversion

- We get \$32.96 per ton at the gate.
- Save \$32.96 per ton in lined landfill space.
- \$0 spent on recycling
- Small additional cost for traffic direction and administration.



Electronic Waste Contractor

- ARC
- Adams Steel



Electronic Waste Contractor

- ARC
- Green Boards Ground In USA
- Material Liberated From Green



Electronic Waste Contractor



RAP Test?

- Metal on 3 sides = scrap metal
- 35% of electronic devices
- 25% of electronic items are not regulated:
 - Drills, saws, hot plates, crock pots, most vacuums, table lamps, floor lamps, fans, heaters, air compressors, can openers, etc.



Wa



Riverside County
Waste Management Department

Waste Recycling Program Guide

March 2003

Updated August 2007

ark

Waste Recycling Park

- Funded, in part, by HHW Grant, Reuse Assistance Grant, Used Oil Block Grant funds (\$207,877 in CIWMB grant funding will be allocated toward the promotion, building and furnishing a Reuse Store and HHW Collection Equipment)
- The Waste Recycling Parks will:
 - provide safer disposal services for all self haul customers
 - increase recycling efforts
 - improve working conditions and safety for staff
 - provide consistent household hazardous waste collection for Riverside County residents.
- Construction on the first park began at Lamb Canyon Landfill in 2005.



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PLEASE SEE MANAGEMENT FOR NEWLY PROHIBITED WASTE



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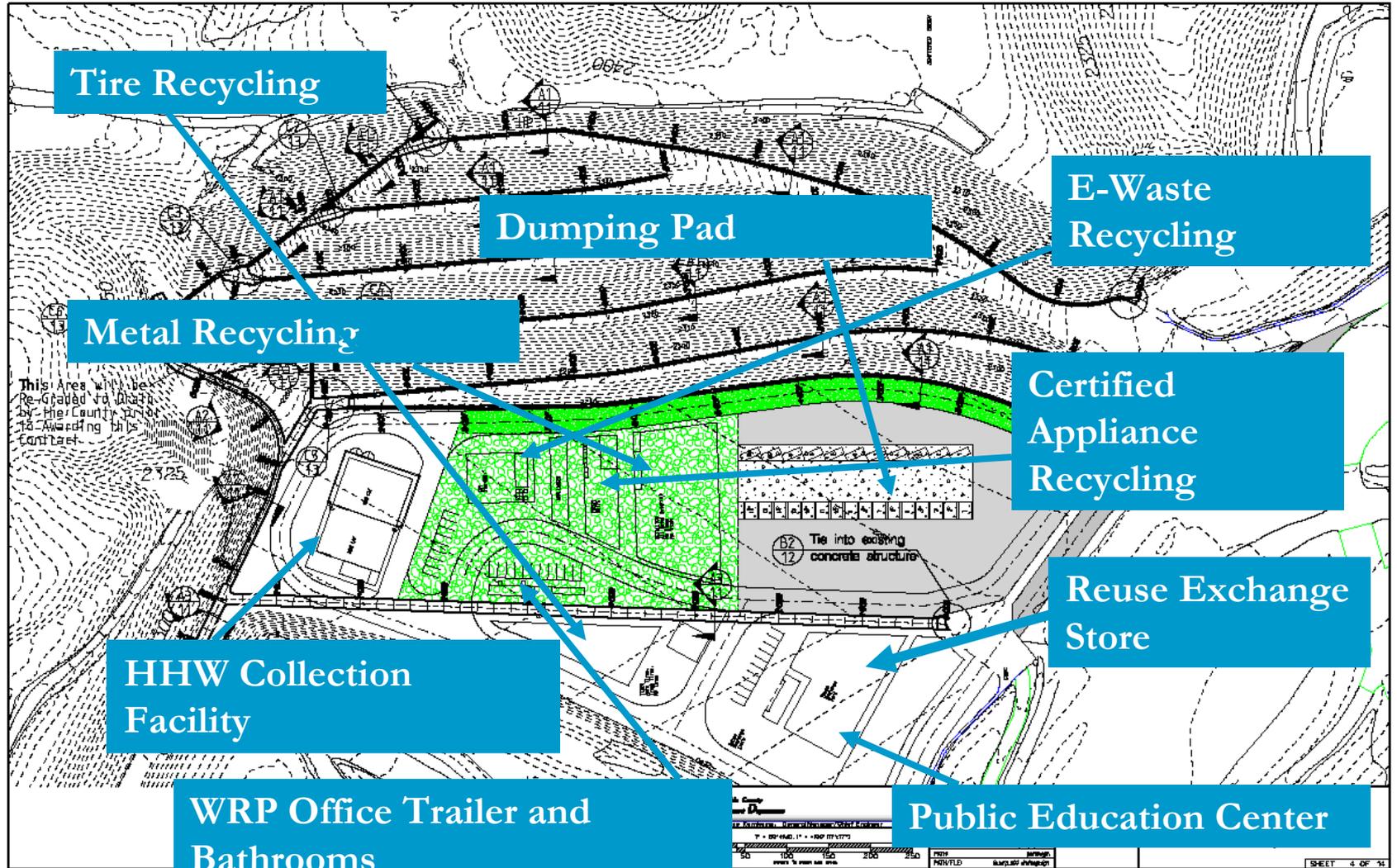
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PLEASE THANK MANAGEMENT AND THE DEDICATED STAFF FOR THEIR EFFORTS



Waste Recycle Park



DUMPING PAD

1ST Phase



Lanes Are Numbered To Improve Traffic Direction & Employee Communication



07.10.2007

Lanes Are Color Coded To Segregate Areas



07.10.2007



120

R C W M

120

STOP

AUTHORIZED
EQUIPMENT ONLY
SOLO EQUIPO
AUTORIZADO

07.10.2007



07.10.2007

Equipment May Not Back Up In Lanes



07.10.2007

Customer Survey

- 99% Approval Rating
- No more muddy vehicles
- Customers feel safe
- Should have done this long ago
- Waiting time is much shorter
- More dumping lanes available





FRAGILE - DO NOT DROP
POURING LIQUIDS WILL RESULT IN DAMAGED CLOSURES

INDICES FROM HANDBOOKS
MAX: Emergency Response
TO REMOVE FROM THIS AREA
MAX: Emergency Response

Child Vehicle Identification

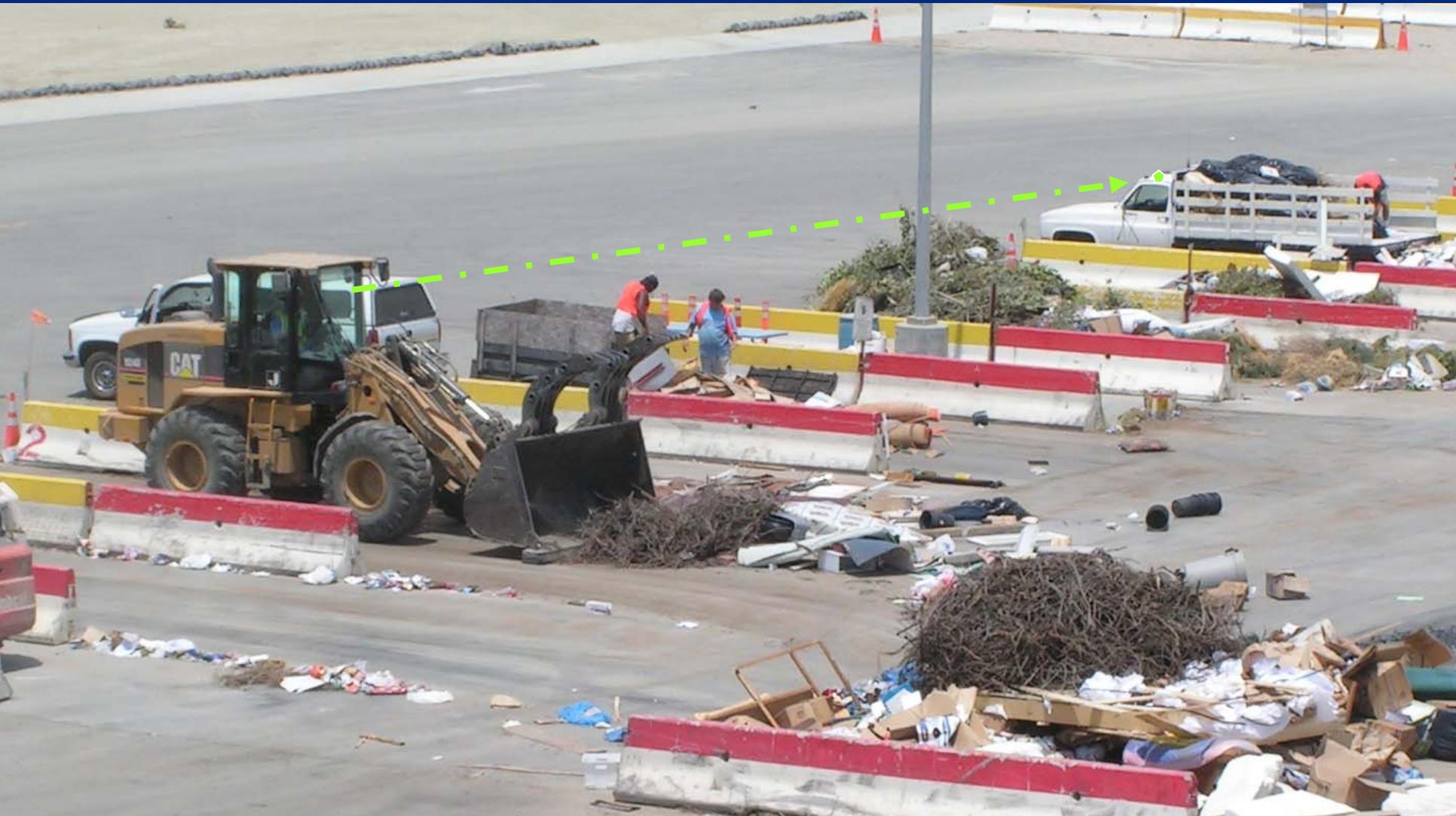
- Car Hats
- Identifiable from a distance
- Heightens Parent's Awareness
- Helps to enforce Landfill Rule #1



Heightened Awareness For Traffic Directors



Heightened Awareness For Operators



It's Working



APPLIANCE CANOPY 2ND PHASE

SAMPLE

A large industrial building with a canopy structure, featuring yellow and grey columns. The word 'SAMPLE' is overlaid in large, white, italicized letters. The building has a corrugated metal roof and a concrete floor. The sky is clear and blue.

E-WASTE RECYCLING FACILITY 2ND PHASE



HHW COLLECTION FACILITY 2ND PHASE

SAMPLE

A photograph of a large, light-colored metal building with a covered entrance area, likely a hazardous waste collection facility. The building has several windows and a large door on the right side. The word 'SAMPLE' is overlaid in large, white, italicized letters across the center of the image. The background shows a clear blue sky and some greenery.

COMPOSTING GARDEN 3RD PHASE



REUSE EXCHANGE STORE 3RD PHASE



SAMPLE

FUTURE CONSIDERATIONS FOR THE PARK

SAMPLE



FUTURE CONSIDERATIONS FOR THE PARK

SAMPLE



FUTURE CONSIDERATIONS FOR THE PARK

SAMPLE



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“Netting Success & Anchoring Alliances”



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