ww.recyclemycellphone.org

Cell Phone Recycling REPORT CARD



The wireless industry fails to make the grade.







Cell Phone Recycling REPORT CARD

Cell Priorie			- 44 abila	Verizon
C	Cingular Call to Protect	Sprint Project Connect	T-Mobile Get More, Give More	HopeLine
isibility of Program: Website Retail Store Customer Service	D D C F	D C F	F F	C - C B B F F F
Packaging/Labeling Public Knowledge Recycling & Refurbishing:	F	F	F	F
Collection Program: Public Data Available on Take-Back Progr	grams NO	F NO	YES	YES
Public Data Available on Take Butter Great Street S		76% 116,000 ₂₀₀₃	74% 42,000 since program began	67% 850,500 2005 51,300,000
Total Service Contracts Share of U.S. Market	54,000,000 26%	49,600,000 24%	21,700,000 11%	25%

Overall Industry Grade 2006: F

The wireless industry gets an "F" for their recycling and take-back efforts. Through its trade association, the Cellular Telephone & Internet Association (CTIA), these wireless carriers lobby heavily to convince consumers and decision-makers to accept "voluntary" e-waste programs despite their failure to take responsibility for the waste they create. And too often collected cell phones that cannot be refurbished are "dumped" in developing countries where environmental safeguards are weak or non-existent. Needs Improvement!

To responsibly recycle a cell phone, view full report, and to take action visit: www.recyclemycellphone.org

About Us:

EARTHWORKS is a non-profit organization dedicated to protecting communities and the environment from the destructive impacts of mineral development, in the U.S. and worldwide. In 2005, we launched the grassroots Recycle My Cell Phone campaign to educate consumers about the impacts of their purchases, from the extraction of raw materials to the end of product life.

In this first in a series of reports, the Recycle My Cell Phone campaign is challenging the wireless industry to dramatically improve the current state of cell phone recycling. Future reports will explore the roles and responsibilities of other actors involved in the problem, such as manufacturers and government decision-makers.

Cell Phone Recycling Report Card

WHY THE WIRELESS INDUSTRY IS FAILING TO MAKE THE GRADE

"I have not heard any company advertising a cell phone recycling program. Even if they exist, if they are not being advertised, the company clearly does not have a commitment to recycle as many as possible, which is what they should be doing."

Verizon Wireless Customer

The wireless industry fails miserably when it comes to dealing with their cell phone e-waste. Most wireless devices can be re-used or recycled at a profit—but at least 98 percent of all retired cell phones are not.¹ Too often cell phones that are collected are not handled properly, and many end up "dumped" in developing countries where environmental safeguards are weak or non-existent. The *Recycle My Cell Phone* campaign is calling on the wireless industry to reverse this dangerous trend and commit to responsibly dealing with their e-waste problem.

The refurbishing and recycling of cell phones can have significant environmental and social consequences. The four primary wireless service providers (Cingular, Sprint, T-Mobile, and Verizon Wireless) that control 86 percent of the wireless market in the United States² and the trade association that represents them have failed to adequately address this problem. It is worth noting, however, that Verizon Wireless, while it still has a long way to go, has made greater progress and did score higher than other providers in some areas. Three of four industry leaders have partnered with a recycling and refurbishing company—ReCellular3—the only company that has been removed from the Electronic Recycler's Pledge of True Stewardship. Cingular, the other industry leader, partners with Hobi International—which has never been a Pledge signatory.

ReCellular's name was removed from the Pledge by mutual agreement after extensive negotiations with Pledge managers. The Pledge is the most rigorous criteria for sustainable and socially just electronics recycling.⁴

Wireless service providers' failure to adequately promote cell phone recycling to their customers compounds the problem. A review of four major wireless providers indicates that, although considerable time and effort has been invested into developing take-back programs, they are generally ineffective. Making dozens of store visits, placing numerous phones calls to customer service representatives, searching the websites of all the companies reviewed, and surveying wireless customers across the country, our researchers found that accurate information on how to recycle cell phones is extremely difficult to obtain.

- ▶ 84 percent of surveyed consumers do not know if their wireless provider offers a recycling program.
- ▶ 70 percent of stores visited did not have visible drop-offs or promotional materials.
- ▶ Retail store employees across the board had trouble providing accurate information on their company's program.
- ▶ Less than 50 percent of telephone representatives provided accurate information on recycling.
- ▶ Not a single company's website prominently featured information about their recycling programs or links to these programs from their front page.
- ▶ None of the carriers sell phones labeled with a recycling symbol, and information on recycling is rarely provided inside the packaging of newly purchased phones.
- ▶ There is no evidence of any company promoting recycling in print, radio, or television placements on a national level, or in billing statements or text messages.
- Most importantly, companies cannot verify that the phones that are collected are being handled using the best environmental practices and social standards.

"I have 5 cell phones in a drawer because I know these companies do not care. They are only interested in sales and service charges, in other words PROFITS!! So I keep my old phones in a drawer till I find a safe way to recycle them."

Cingular Customer

Electronic waste - or "e-waste"

– includes computers, entertainment electronics, mobile phones, and other items that have been discarded by their original users. E-waste is valuable as a source for secondary raw material, yet toxic if discarded or treated improperly. Rapid technological change, low initial cost, and even planned obsolescence have resulted in a fast-growing problem around the globe.³⁸

The Facts on Cell Phone E-Waste

The U.S. Environmental Protection Agency (EPA) estimates that 130 million cell phones are discarded each year. When dismantled, their internal metal components translate into 65,000 tons of waste containing lead, cadmium, arsenic, beryllium, mercury and other toxic heavy metals and carcinogens.⁵ Tens of millions of old phones end up in landfills or incinerators annually, where toxics can find their way into our drinking water and air.

E-waste can affect human health

E-waste can pollute drinking water, cause birth defects, and has been shown to create cancer clusters among workers handling it. The comprehensive health impacts of the mixtures and material combinations in the products are often not known.⁶

► E-waste is often "dumped" because it's the easier thing to do

Processing e-waste is a complicated, multistep process. Developing countries often end up as the recipients of this waste due to cheap labor and weak regulatory climates. This "dumping" from wealthy nations shifts the burden of e-waste and the ecological and health hazards to nations ill-equipped to handle the problem.

 Mismanagement of e-waste depletes irreplaceable natural resources

The 130 million cell phones discarded each year contain almost \$100 million worth of gold a the annual output of a medium-

sized mine.⁷ Recycling these metals would prevent the creation of more than 14 million tons of mine waste.⁸

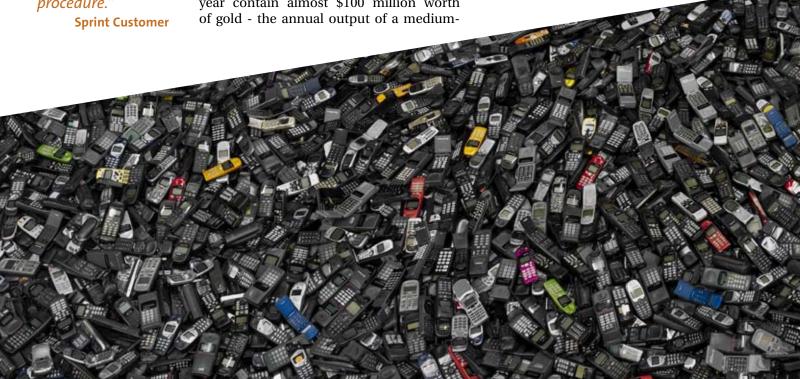
In the production phase, massive open pit gold mines often use cyanide to extract gold and other metals. Mining is the single largest toxic polluter in the United States.⁹ **Even before a new cell phone is purchased, at least 220 pounds of mine waste**¹⁰ have already been generated to source the gold in the circuit board alone. After 18 months (the average cell phone lifespan), the device is tossed into a drawer, or worse, the trash.¹¹

This mismanagement fuels the demand for mining development in places it does not belong. New mines threaten rivers that supply drinking water to local communities and to fisheries that provide food and jobs. Valuable metals could instead be mined from discarded cell phones and other electronics.

If all the discarded cell phones in a single year were recycled, \$150 million of metals would be recovered:

- ▶ 182,000 oz of gold worth \$100.5 million
- ▶ 1.9 million oz of silver worth \$18.6 million
- ▶ 65,000 oz of palladium worth \$18.5 million
- ▶ 5 million lbs of copper worth \$10.9 million

"I sometimes wonder whether the wireless companies actually recycle the used cell phones they take back or just contract with a cartage company to carry the toxic electronic trash to a local landfill in the dead of night. There doesn't seem to be adequate oversight of this important, necessary and ecologically sound procedure."



America Lacks an E-waste Policy

Despite the growing pile of cell phone e-waste, there is currently no federal regulation of cell phone recycling in the United States. The U.S. Environmental Protection Agency has disregarded commissioned research that recommended cell phones be classified as hazardouswaste, and their voluntary guidelines on cell phone recycling are inadequate in dealing with the scope of the problem.¹²

Through the Cellular Telephone & Internet Association (CTIA), the wireless industry lobbies vigorously to convince consumers and decision-makers to accept "voluntary" e-waste programs, stifling state and national efforts to address the problem. States such as Maine, Massachusetts and Minnesota have attempted to address the issue on the state level but have faced serious challenges from industry interests. Only one state, California, has succeeded in passing legislation that requires "no cost" take-back within the state.

While attempting to evade responsibility in the U.S., the wireless industry complies with higher standards mandated in Europe. In 2003 the European Union (EU) established the Waste and Electronic Equipment Directive which establishes collection, recycling and recovery targets for all types of electronic goods. It also requires corporations to take back their products free of charge. The EU is also working to eliminate the use of toxic substances such as lead, mercury and cadmium in electronic equipment and has issued a directive prohibiting their presence in newly manufactured products.¹⁴

The Basel Convention was designed to prevent the generation of toxics wastes, such as cell phones, through the promotion of cleaner technologies, ensuring country self-sufficiency in managing their wastes, and most importantly, to stop the environmentally unjust practice of dumping hazardous wastes by developed countries to less developed countries. ¹⁵

168 countries are parties to the Basel Convention, and the United States is the only developed nation that has not ratified this Convention.

"With the chance to cut down on the amount of garbage, and with an obviously recyclable product, our cell phone providers may be on the forefront of technology, but the background of environmentalism."

Cingular Customer

STATE, FEDERAL AND INTERNATIONAL POLICY EFFORTS: TOWARDS MANDATORY RECYCLING

EARTHWORKS' supports all local, state, federal and international efforts to make the take-back of and responsible processing of cell phones mandatory—as well as voluntary programs that meet best practice standards, are transparent and can be verified.

Legislative and regulatory efforts must require manufacturers and carriers to take back cell phones at no cost and require their recyclers to only export in compliance with the Basel Convention and all of its decisions.

California's "Cell Phone Recycling Act," which passed in 2004, remains the only mandatory legislation in the United States that requires take back of retired cell phones. Although the bill is a step in the right direction, it was seriously weakened from its original state and does not address the issue of responsible processing and refurbishment.

A national policy solution is the best way to ensure that consumers receive the easy, ethical recycling they demand and that programs comply with stringent environmental, labor and ethical standards. In the absence of such legislation the wireless industry must make a firm commitment to promote their voluntary take-back programs at every opportunity, to meet best practice standards, to be transparent, and to ensure that their waste is handled responsibly.

The Electronics Recycler's Pledge of True Environmental Stewardship

In the absence of federal regulations to require responsible collection and processing of cell phones, two leading nongovernmental organizations the Basel Action Network and Silicon Valley Toxics Coalition and The Computer TakeBack Campaign have developed the Electronics Recycler's Pledge of True Stewardship. Recyclers that meet Pledge criteria in North America must verify that they comply with the Basel Convention and its Decisions, as well as additional criteria for responsible management of hazardous e-waste. To date, over 34 recyclers have qualified for the Pledge, administered by the Pledge founders. None of the four major U.S. service providers do their business with a recycler who is a Pledge signatory. See Appendix A for more on the Pledge

Consumers Want a Real Solution

"I would like to do the responsible thing to aid our environment and would hope that my cell phone company would do the same. If I found out that one company was more responsive than another, I would switch to that company."

Verizon Wireless Customer

EARTHWORKS research indicates that the vast majority of consumers are in the dark when it comes to cell phone recycling. According to our informal survey of 1,046 wireless customers, 84 percent of respondents were not aware if their service provider offered a takeback program for old cell phones. Holle they are bombarded with messages to buy, upgrade and expand their service contracts, consumers are rarely given information on how to recycle.

- ▶ 72 percent of consumers surveyed by EARTHWORKS are "dissatisfied" with the wireless industry's take-back efforts;
- ▶ 85 percent described themselves as "very concerned" with the manner in which their phones were recycled.

Annual cell phone subscriptions have topped 200 million, and there is fierce competition within the wireless industry for each new customer.¹⁷ Service providers invest enormous amounts of money into marketing each year to ensure they convey a positive brand image, often based on customer service. Yet companies jeopardize their reputation by failing to address public concerns regarding retired cell phones.

Unlike with many other types of e-waste, cell phone recycling is profitable because many phones are refurbished and resold, while others are mined for scrap metals. The four companies reviewed by EARTHWORKS share a significant portion of the profits from their take-back programs with a variety of charities, putting a human face on their programs and adding the moral value of making a donation. When informed about responsible cell phone recycling, many consumers have expressed an interest to participate in order to benefit both the environment and a worthy cause.

Between 1999 and 2003, the leading take-back programs generated \$6.4 million for such causes. B However, the failure of service providers to adequately promote these programs with the public is an important missed opportunity for both company reputation and the valued charities that the programs benefit.

When consumers think about the wireless industry they first think of their service provider. These companies are at the front line of customer interaction and have an obligation to use that interface to communicate and facilitate responsible wireless recycling. Companies should capitalize on public enthusiasm by educating consumers and encouraging recycling when they are making upgrades or terminating service.

Satisfying customers and practicing good corporate citizenship involves more than just creating take-back programs. It requires a firm companywide commitment to promote these programs at every opportunity and to provide systems and incentives that make it easy for consumers to recycle. Steps must be taken to ensure that take-back programs avoid the serious environmental consequences of irresponsible recycling and service providers must end trade association efforts to block proactive policy solutions to this problem. survey, although not definitive, indicates that there is both the potential for cell phone providers to enhance their brand and image by establishing and promoting a world-class cell phone recycling program and there is also the potential for weak programs to have a negative impact.

WHO IS DOING IT RIGHT?

There are alternatives to processing phones with ReCellular—over 30 American recycling companies that handle cell phone waste have signed and comply with the Electronics Recycler's Pledge of True Stewardship.

Staples Office Supply is one retailer that works with a responsible recycler, CollectiveGood. Staples' program gives 100% of the revenues generated by this program to charity. All phones and accessories are fully tested before export, and nonworking devices that would otherwise be disassembled (and dumped) in the developing world for repair or refurbishment are sent into a materials reclamation process that operates to European standards—far higher than those set by the U.S. EPA. Seventeen types of metals are captured in this process, making a broad variety of materials available for reuse. Consumers can drop phones off at any Staples store in North America, or mail them in for free. (web page: http://www.collectivegood.com/donate_phone_staples.asp)

Similarly, **Working Assets Wireless** offers free recycling services to all wireless consumers via their website, and in all welcome kits sent out with newly sold phones.

Recommendations

I. Responsibly Process the Phones Collected

All retired phones and their accessories must be processed in a manner that, at a minimum, meets the Electronics Recycler's Pledge of True Stewardship. Cell phone take-back efforts should not create more harm than good; increased collections must <u>not</u> correlate with increased dumping of toxic e-waste or an increase in the use of inefficient and polluting recovery services.

ReCellular, the largest cell phone recycler in the country with approximately 53 percent of the U.S. market share, ¹⁹ previously qualified for the Recycler's Pledge. However, in March 2005, managers of the Pledge of True Stewardship and ReCellular identified a portion of ReCellular's export sales that were inconsistent with the Pledge. Specifically, ReCellular sold used, untested cell phones to businesses in non-OECD/EU countries (members of either the European Union or the Organization for Economic Cooperation and Development). As a result, after negotiations with Pledge administrators, ReCellular eventually opted to withdraw from the Pledge.

America's leading service providers and their trade association must distance themselves from questionable practices and commit to partnering with a recycler who meets Pledge criteria, of which they have many options in the United States.²¹

In addition to e-waste dumping, there are additional concerns related to the recycling/refurbishing process that should be addressed:

- ➤ Thorough Testing of Phones Before Export Multi-step testing of phones must take place before they are exported in order to ensure that irreparable phones are not "dumped" overseas.
- ▶ Efficiency of Waste Processing Recyclers must use facilities (e.g. smelters) which are located in developed countries only, and which provide the most efficient and least polluting recovery services available globally.²² Facilities must aim to recover the highest number of metals possible and avoid wasting valuable metals by "slagging".
- ▶ Ability to Take Back and Process Chargers A very high concentration of toxic metals exist in cell phone chargers, yet some programs do not accept them or actually penalize charities for sending them in.²³

Product Design Service providers should work with manufacturers to promote efficient, universal design that facilitates the recycling process, aides in portability, and extends the average 18-month lifespan of a phone.

II. Get the Word Out & Collect More Phones

Stepsmustimmediatelybetakentodramatically increase in the rate of cell phone take-back. Previous research has produced a laundry list of recommendations for improving industry take-back efforts, but these recommendations have largely been ignored.²⁴

- ▶ **The Web** Sales, bill payment and customer service are all offered online, and customers rely on the web to find important information. Take-back programs deserve prominent placement on the company website as a service to customers, not just as a public relations campaign.²⁵
- ▶ **In Stores** Take-back programs should be an inherent part of the services offered by a retail store collection points should be clearly visible and promoted with signs. Representatives should have accurate information and enthusiastically share it with customers. Incentives like tax receipts and rebates have proven to increase the return of retired phones and should be widely offered.²⁶
- **On the Phone** Representatives should be able to provide accurate information on their company's program. This information should be a basic part of every call, especially when a customer calls regarding termination of service. Information should also be featured in the announcements played while a customer waits on hold.
- ▶ **Recycling Logos** Labeling cell phones with a universal recycling logo would help send a clear message to consumers that phones can and should be recycled.
- ➤ Inclusion in Ad Campaigns, Billing StatementsandTextMessages Television, radio and print media are inundated with cell phone advertisements yet do not mention take-back or recycling. Promoting programs in any of these mediums would reach millions of consumers.

"When I switched from Cingular to Verizon, there was no information provided from either company on how to recycle my old phone. It was very frustrating. That should be part of the process of signing up or leaving a cellular company, not something you should have to ask about!"

Verizon Wireless Customer

Recommendations

▶ **Mail-in Options** Pre-paid postage mail-in labels and bags help alleviate the burden on consumers, and high success has been attained with take-backs for similar products such as printer ink cartridges.

III. Transparency

The wireless industry must become more accountable for their efforts by making take-back figures available to the public. Only one carrier, Verizon Wireless, posted recent data on their collection programs and amount donated to charity on their website; some had vague and outdated data, and others refused to provide information to the public. In addition, service providers should be clear and consistent when

promoting their programs so that customers are not confused about how their donation is being put to use.

ReCellular, the largest and most prominent cell phone recycler, initially cited a non-disclosure agreement with their processor when asked to release information regarding their recycling practices. They subsequently disclosed where their phones are processed. The credibility of a program such as this depends on standards, public disclosure and transparency.

The industry's silence on these issues hinders government agencies and non-governmental organizations from developing an accurate picture of the problem of retired cell phones and their ability to address it.

"I have not heard any company advertising a cell phone recycling program. Even if they exist, if they are not being advertised, the company clearly does not have a commitment to recycle as many as possible, which is what they should be doing."

Verizon Wireless Customer

WIRELESS CUSTOMERS

Consumers have the power to influence service providers by voicing their concerns and voting with their subscriptions. Phone calls, emails, and other correspondence to providers can pressure them to be accountable for their practices and help ensure that information on take-back programs is included in the "service" package at time of sale.

Consumers unsatisfied with the efforts of their provider can exercise their financial influence when their contract expires and share their concerns with friends and family. And finally, consumers can also hold their state and federal representatives accountable to be proactive on this issue.

Take Action!

Send an electronic message to your decision-maker and the wireless industry by visiting www.recyclemycellphone.org.

Findings

	Total Participants	NOT AWARE of their carrier's programs	NOT Satisfied with their carrier's take-back/ recycling efforts
Cingular	259	87%	72%
T-Mobile	119	82%	76%
Sprint	114	92%	74%
Verizon Wireless	299	78%	67%
Other	255	85%	75%
Overall	1,046	84%	73%

	Stores Visited	Had Collection Bins in Store	Visible Materials and Info on Program
Cingular	10	50%	40%
T-Mobile	10	30%	0%
Sprint	10	80%	40%
Verizon Wireless	10	80%	60%

Snapshot Of Current Industry Take-Back Efforts

WHAT YOU SHOULD KNOW ABOUT YOUR WIRELESS PROVIDER

In the months leading up to Earth Day 2006, EARTHWORKS conducted a review of the four leading nationwide wireless service providers. Cingular, Sprint, T-Mobile and Verizon Wireless were selected due to their brand visibility and control of 86 percent of the wireless market.²⁸

Methodology

- ▶ **Survey:** Aweb-based survey was distributed to EARTHWORKS' online membership list to gain an understanding of the perception of industry recycling efforts among one segment of the cell phone using public. 1,046 individuals responded over a one week period.
- ▶ Website Review: Background information and visibility of each company's take-back program was researched through their respective websites.
- ▶ **Customer Service Calls:** Customer service calls were initially made to each service provider to gain a background on their collection programs; customer service representatives were questioned with both basic and in-depth questions on the take-

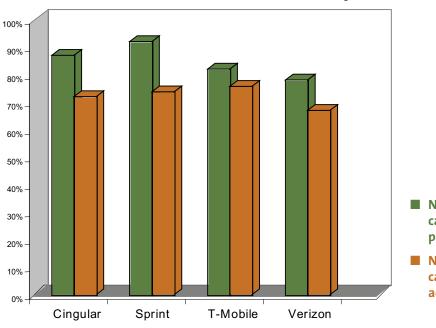
back and recycling process. These calls were then followed up with 30 random calls to each service provider's customer support numbers to gauge their knowledge and ability to provide accurate information to someone who wants to recycle a cell phone.

- **Store Visits:** By using each website's online store locator, ten visits to each service provider's retail stores were made in the Washington, DC, and Tucson, Arizona, metropolitan areas. Researchers investigated the presence and placement of take-back program materials, as well as the customer service representative's knowledge of the program.
- this publicly available information, a questionnaire was sent to representatives from each service provider with a cell phone take-back programs. Over a one-month span, only one representative (from Verizon Wireless) responded, yet they deferred to ReCellular on all questions regarding the refurbishing/recycling process.²⁹

"It seems, generally, only lip service is paid by the industry to recycling. Statements are made to make it appear the industry is interested, but I'm not seeing any real commitment. It's kind of like every year is election year."

Sprint Customer

Customer Satisfaction Survey



- Not aware if their carrier offers a recycling program.
- Not satisfied with carrier's efforts to address this problem.

What You Should Know About Your Wireless Provider

CINGULAR

Program: The Wireless Foundation's "Call to Protect" supports battered women's shelters.

Website: Cingular does not prominently feature any details on their program online; the only information found using their search tool were outdated press releases.³⁰

Customer Service: 66% of customer representatives knew they had a program to collect phones but could not provide the correct details on what to do; most suggested one go to the website for information.

Store Visits: 50% of stores had collection boxes for old phones; of those that had materials, 80% were visible to the public.

"When my phone battery died I spoke to Cingular customer service on the phone and in a storefront and they never mentioned any recycling option."³¹

SPRINT

Program: "Sprint Project Connect" benefits K-12 education programs.

Website: Sprint's website does not have a search tool; information on Project Connect is only accessible when a consumer knows to click through "Company Info" to "Community Outreach."³²

Customer Service: 60% of Sprint customer service representatives failed to provide correct information to consumers wishing to recycle their phone.

Store Visits: 80% of stores visited had collection boxes or information; of those that had materials, only 50% were visible to the public.

"Within the past 2 years, I have taken old cell phones into Sprint to ask if they could be re-cycled. I was told there was no recycling program although certain phones could be donated for re-use. Since my phones didn't qualify, there was no option for them other than to "throw them away'."³³

T-MOBILE

Program: "Get More, Give More" currently benefits the American Red Cross Disaster Relief Fund.

Website: The site's search tool makes information on recycling easy to find, yet without it, details are difficult to access.³⁴

Customer Service: Only 1 out of 30 customer service representatives could readily provide the correct details on T-Mobile's program; and only 11 others could produce the information after searching.

Store Visits: 30% of stores had collection boxes for phones yet none of them were visible to the public. While bags with prepaid shipping were available at one store, this practice does not seem to be in wide use, nor promoted publicly.

"Sellers of hazards should be responsible for their disposal! No 'ifs, ands or buts!" 37

VERIZON WIRELESS

Program: "HopeLine" benefits domestic violence programs.

Website: Despite having the more successful program, there is no mention of "HopeLine" or recycling on the front page of Verizon's website but information can be found by using their search tool.³⁵

Customer Service: Verizon Wireless customer service representatives often stood out with their grasp on the details of their take-back program. 70% were able to provide all the necessary details and only 20% failed to assist callers with correct information.

Store Visits: Verizon Wireless was also a leader in prominently promoting their program with in-store displays; 80% of stores had collection boxes, of which 75% were visible to the public.

"I have no idea about how Verizon takes back phones or whether they recycle them at all. This should be advertised much more so the general public know the options they have when discarding a phone."³⁶

Appendix A

ELECTRONICS RECYCLER'S PLEDGE OF TRUE STEWARDSHIP

We, the undersigned recycling company, agree to uphold the following as a pledge of true stewardship of electronic wastes:

- We will not allow any hazardous E-waste⁴⁰ we handle to be sent to solid waste (nonhazardous waste) landfills or incinerators for disposal or energy recovery, either directly or through intermediaries.
- Consistent with decisions of the international Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, we will not allow the export of hazardous E-waste we handle to be exported from developed to developing countries⁴¹ either directly or through intermediaries.
- 3. We will not allow any E-waste we handle to be sent to prisons for recycling either directly or through intermediaries.
- 4. We assure that we have a certified, or otherwise comprehensive and comparable "environmental management system" in place and our operation meets best practices.
- 5. We commit to ensuring that the entire recycling chain, including downstream intermediaries and recovery operations such as smelters, are meeting all applicable environmental and health regulations. Every effort will be made to

- only make use of those facilities (e.g. smelters), which provide the most efficient and least polluting recovery services available globally.
- 6. We agree to provide visible tracking of hazardous E-Waste throughout the product recycling chain. The tracking information should show the final disposition of all hazardous waste materials. If there is a concern about trade secrets, an independent auditor acceptable to parties concerned can be used to verify compliance with this pledge.
- 7. We agree to provide adequate assurance (e.g. bonds) to cover environmental and other costs of the closure of our facility, and additionally to provide liability insurance for accidents and incidents involving wastes under our control and ownership. Additionally we will ensure due diligence throughout the product chain.
- 8. We agree to support Extended Producer Responsibility (EPR) programs and/or legislation in order to develop viable financing mechanisms for end-of-life that provides that all legitimate electronic recycling companies have a stake in the process.
- We further agree to support design for environment and toxics use reduction programs and/or legislation for electronic products.

Accessible via Silicon Valley Toxic Coalition's website: http://www.svtc.org/ or Basel Action Network website: www.ban.org/pledge/

How to Recycle My Cell Phone	NAME PHONE E-MAIL ADDRESS		NO POSTAGI NECESSARY I MAILED IN THE
Put your old cell phones, chargers, beepers, PDA's, and accessories into a box.		POSTAGE DUE COMPUTED BY DELIVERY POST OFFICE	UNITED STAT
2. Tape the Postage Paid Mailing label to the box . 3. Drop off at local post office or give to your mail carrier.		POSTAGE PARCEL POST MERCHANDISE RETURN LABEL PERMIT NO 4508 Tucker, GA 30084 COLLECTIVEGOOD INC 4508 Bibb Blvd., Suite B-10	
		POSTAGE DUE UNIT US POSTAL SERVICE 4325 FIRST AVE TUCKER GA 30084-9998	

To recycle responsibly, cut out and use this mailing label.

(Endnotes)

- 1 Eric Most, Calling All Cell Phones: Collection, Reuse and Recycling Programs in the US, INFORM, Inc., 2003, p 6.
- 2 According to company websites and SEC filings, as of 2005 Cingular claims 54 million subscribers, Verizon Wireless 51.3 million, Sprint 49.6 million, and T-Mobile 21.7 million. CTIA the Wireless (trade) Association estimates 205,000,000 total subscribers in the United States (3/27/06 visit to http://www.ctia.org).
- 3 Information on ReCellular's relationship with wireless service providers based on "ReCellular About Us," accessible online at http://www.wirelessrecycling.com/home/about_us/index.html.
- 4 Information on ReCellular's Pledge membership based on personal communication with Sarah Westervelt, Basel Action Network, March 2006. Information on the Electronics Recycler's Pledge of True Stewardship is accessible online at http://www.svtc.org/cleancc/recycle/recycler_pledge.htm#the_pledge.
- 5 Bette K. Fishbein, Waste in the Wireless World: The Challenge of Cell Phones, INFORM, Inc., 2002, p. 23.
- 6 Information on the health implications of e-waste based on "High Tech Production," accessible online at http:// www.svtc.org/hightech_prod/index.html
- 7 Source of \$150M: ReCellular average metal recovery stats per handset (source: personal communication with Gary Straus of ReCellular, 1/17/05) multiplied by current prices of those metals (source: http://www.kitco.com, US Geological Survey, London Metals Exchange) multiplied by 130M handsets. The 2004 USGS Minerals Yearbook reports that in 2003 the Marigold gold mine in Nevada produced 141,000 oz of gold. 130M handsets would produce 182,000 oz of gold.
- 8 EARTHWORKS calculated tons of mine waste generated per ounce gold mined multiplied by amount of gold recovered from 130M handsets
- 9 Information on mining based on data from the U.S. Environmental Protection Agency's 2003 Toxics Release Inventory, accessible online at http://www.epa.gov/
- 10 EARTHWORKS calculation
- $11\,Most,\,p$ 2. Due to changing technology, the average cell phone life span could decrease even further.
- 12 For a background on University of Florida environmental engineering associate professor Tim Townsend's findings on hazardous metals in cell phones, visit: http://www.collectivegood.com/news.asp#Mobile. Information on the EPA's "Plug into E-Cycling" guidelines can be found here: http://www.epa.gov/epaoswer/osw/conserve/plugin/pdf/guide.pdf.
- 13 Information on CTIA's lobbying based on "State Regulation and Legislation," accessible online at http://www.ctia.org/industry_topics/topic.cfm/TID/38.
- 14 Information on the Directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (the RoHS Directive) based on http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_037/l_03720030213en00190023.pdf
- 15 Information on the Basel Convention based on http://www.ban.org/main/about_basel_conv.html and http://en.wikipedia.org/wiki/Basel_Convention.
- 16 Information based on results of an EARTHWORKS web survey of its members, February 2006. Because those surveyed can be assumed to have a greater environmental interest than the general population, the survey results' credibility are both enhanced (if these people do not know about a wireless recycling program, then it really is hard to find) and diminished (these respondents are more easily dissatisfied with recycling programs).
- 17 Information on annual cell phone subscriptions based on "State Regulation and Legislation," accessible online at http://www.ctia.org/industry_topics/topic.cfm/TID/38.
- 18 Most, p 29-30.
- 19 Information on ReCellular market share based on "Old Phones Ring Up New Profits," Red Herring, 2/22/06, accessible online at http://www.redherring.com/article.
- 20 Personal communication, Sarah Westervelt, Basel Action Network, March 2006.
- 21 A list of "Responsible E-Cyclers" is available online at http://www.ban.org/pledge/Locations.html#contact.

- 22 Information on smelting standards are based on Pledge article #5, accessible online at http://www.svtc.org/cleancc/recycle/recycler_pledge.htm#the_pledge.
- 23 Information on penalties related to chargers based on "Do you accept accessories such as batteries and chargers, etc.?" accessible online at http://www.ecophones.com/index.php?src=faq&category=EcoPhones_Phone#6.
- 24 Previous in-depth research on the issue of cell phone take-back and recycling has been published in INFORM's "Waste in the Wireless World" and "Calling All Cell Phones." For more information, see www.informinc.org/reports_waste.php.
- 25 EARTHWORKS' website review revealed that cell phone take-back programs are featuredoftenand are featured under "Corporate Info" or "Community Outreach" instead of being readily available as a service to customers.
- 26 Most, p 40. According to "Calling All Cell Phones," a Verizon promotion that offered a \$5 rebate for retired phones resulted in a 15 to 20 percent increase in the number collected.
- $27\,Personal\,communication\,with\,Brandi\,Farwig,\,ReCellular,\,3/22/06$
- 28 See Note #2
- 29 EARTHWORKS sent questionnaires to service providers via certified mail in February 2006. As of publication date, only one company Verizon Wireless returned a response.
- 30 Information on Cingular's recycling program website based on http://www.cingular.com/about/recycling.
- 31 Survey response #22, EARTHWORKS web survey, February 2006.
- 32 Information on Sprint's recycling program website based on http://www.sprint.com/community/communities_across/index.html.
- 33 Survey response #328, EARTHWORKS web survey, February 2006.
- 34 Information on T-Mobile's recycling program website based on http://www.t-mobile.com/Company/Community.aspx?tp=Abt_Tab_HandsetRecycling.
- 35 Information on Verizon Wireless's recycling program website based on http://www.verizonwireless.com/b2c/aboutUs/communityservice/hopeLine.jsp.
- 36 Survey response #185, EARTHWORKS web survey, February 2006.
- 37 Survey response #60, EARTHWORKS web survey, Feb. 2006.
- 38 Information on e-waste based on http://en.wikipedia.org/wiki/E-waste.
- 39 Personal communication, Sarah Westervelt, Basel Action Network, March 2006.
- 40 Following the basic definitions of the Basel Convention, "hazardous electronic waste" will for the purposes of this pledge include circuit boards, CRTs as well as computers, monitors, peripherals, and other electronics containing circuit boards and/or CRTs. It will also include mercury and PCB containing components, lamps and devices. The definition of "hazardous electronic waste" will not include non-hazardous wastes such as copper unless it is contaminated with a Basel hazardous waste such as lead, cadmium, PCBs, mercury etc. The definition of "hazardous electronic waste" includes non-working materials exported for repair unless assurances exist that hazardous components (such as CRTs or circuit boards) will not be disposed of in the importing country as a result. The definition of "hazardous electronic waste" does not include working equipment and parts that are certified as working, that are not intended for disposal or recycling, but for re-use and resale.
- 41 Following the definitions of the Basel Convention and its Basel Ban Amendment, developing countries are any country not belonging to either the European Union, the Organization of Economic Cooperation and Development (OECD) or Liechtenstein. For a complete list of OECD countries see http://www.ban.org/country_status/country_status.html and find countries shaded in gray.

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