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2015 MINNESOTA RECHARGEABLE BATTERY RECYCLING REPORT

REPORTING YEARS: 2013 AND 2014

Prepared for:

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MINNESOTA REPORT SUMMARY

BATTERY COLLECTION RESULTS

Over the past two years, rechargeable batteries collected by Call2Recycle® in Minnesota have slightly increased. In 2013, Call2Recycle collected 156,185 lbs. of batteries and cellphones in Minnesota. In 2014, that number increased by 8% to 169,196 lbs. Primary batteries and cellphones both grew at 68% and 25%, respectively. In addition, rechargeable battery collections grew from 151,389 lbs. in 2013 to 161,473 lbs. in 2014 – an increase of 7%.

In 2014, Call2Recycle continued to witness a significant surge in primary battery collections – growing 68% from 4,053 lbs. in 2013 to 6,797 lbs. in 2014 – with 90% of primary volume coming from the retail and business (non-retail) sectors. While alkaline batteries comprise a small percentage of Call2Recycle’s collections in the state (2.6% in 2013, 4% in 2014), Call2Recycle believes that this trend will continue, especially with legislation for primary batteries pending.

Rechargeable battery collections in Minnesota grew 7% over the last two years. The increase in collections can be attributed to two sectors, business (non-retail) and manufacturing. The business (non-retail) sector collections grew by 66% or just over 11,000 lbs., while the manufacturing sector grew 73% or nearly 9,000 lbs. These increases can be attributed to Call2Recycle’s efforts to boost recycling collections from large volume accounts.

The number of collection locations actually participating (sending in at least one shipment per year) decreased by 2% from 605 sites in 2013 to 591 sites in 2014. The retail channel continues to make up a significant portion of these collection locations; however, their participation and volume collected continues to decline. For example, in 2014 the retail channel was responsible for 49,011 lbs., which was down 8% from 2013.

Call2Recycle believes participation and collections could continue to be affected as a result of the volatility of the retail channel. With the recent bankruptcy filing of RadioShack, a large volume collector of rechargeable batteries, and the overall increase of on-line shopping, some of America’s largest retailers will be forced to reduce their store footprint. Fewer shoppers coming into fewer stores negatively impacts Call2Recycle’s program accessibility for consumers and ultimately, its collection rate. Through dedicated outbound call campaigns to individual stores, public education efforts, and store communication coordinated through retail corporate offices, Call2Recycle continues to work to halt this trend. Additionally, Call2Recycle continues to bolster its publicly-available collection sites and supplement its retail footprint through targeted outreach to municipalities. These efforts will remain an integral component of Call2Recycle’s long-term commitment to increase consumer battery and cellphone collections.

To optimize the percentage of the U.S. population that has access to battery and cell phone recycling through the Call2Recycle collection site network and program, Call2Recycle has developed an accessibility standard for measuring public recycling accessibility, specifically for batteries and cellphones. Call2Recycle strives to have a public accessibility standard of 95%, which means that 95% of the population lives with a 10 mile radius of an available drop off site. As of January 1, 2015, Call2Recycle’s accessibility measure in the US was 88%.

MINNESOTA REPORT SUMMARY CONTINUED

The dominant rechargeable battery chemistry collected in Minnesota in 2013 and 2014 through the Call2Recycle program continues to be Nickel Cadmium (Ni-Cd), which grew by 6%. Small Sealed Lead Acid (SSLA/Pb) and Lithium Ion (Li-Ion) collections increased as well - 10% and 26%, respectfully. Nickel Metal Hydride (Ni-MH) collections decreased by 28%.

MANUFACTURER SUPPORT & SALES

The Call2Recycle program is funded by nearly 270 battery and product manufacturers committed to the responsible recycling of their products. Based on Frost & Sullivan research, it is estimated that these manufacturers, plus others not supporting the Call2Recycle program, are responsible for rechargeable battery sales into Minnesota of 2,062,700 lbs. in 2013 and 1,996,863 lbs. in 2014 – a decrease of 3.2%.

Based on the Frost & Sullivan research, Call2Recycle collection data and Minnesota state population, Call2Recycle calculated its rechargeable battery collection rate in Minnesota to be 7.3% in 2013 and 8.1% in 2014. These rates do not include batteries collected through other recycling programs, nor do they take into account the batteries that may be part of an electronic product recycled through other take-back programs (i.e. eWaste).

As eWaste regulations and associated collection programs become more prominent, Call2Recycle believes that rechargeable batteries, specifically Lithium Ion batteries found in laptop computers, are remaining with the products and are being managed through a different waste stream thus contributing to the gap between battery sales and the collection rate. Given the residual value some battery chemistries contain and the labor involved in separating the product from the battery, some eWaste companies remain reluctant to implement a battery management program, such as Call2Recycle. Nevertheless, Call2Recycle continues to diligently work to expand its collection network to eWaste recyclers to ensure rechargeable batteries are not only accounted for in its collection data, but are also properly managed through recycling.

In addition, Call2Recycle would like to applaud the efforts of the MPCA for their continued enforcement measures surrounding the State's rechargeable battery law. Over the last two years, the State has sent nearly 70 enforcement letters to non-compliant companies. These efforts have resulted in 27 companies partnering with Call2Recycle to comply with the Minnesota statute.

REMAINDER OF REPORT

The remainder of this report provides specifics associated with battery collections, including types of materials collected and the volumes received by participating collection channels. Additionally, we encourage you to download the Call2Recycle, Inc. Annual Report for both [2013](#) and [2014](#), which provides specifics on our public education efforts, as well as audited financial reports.

2013 AND 2014 COLLECTION STATISTICS

Call2Recycle® Collection Summary for Minnesota: 2013 and 2014

Rechargeable Battery Collection Summary

	Rechargeable Collections (Pounds)		
	2013	2014	% Change
Rechargeable Battery Collections	151,389	161,473	7%
Rechargeable Pounds Per 1,000 persons	27.92	29.59	6%

Program Collections by Material Type

	Collections (Pounds)		
	2013	2014	% Change
Total Collections	156,185	169,196	8%
Rechargeable Battery	151,389	161,473	7%
Primary Battery	4,053	6,797	68%
Cellphone	741	926	25%

Battery Collections by Chemistry

	Collections (Pounds)		
	2013	2014	% Change
Rechargeable Battery	151,389	161,473	7%
Nickel Cadmium (Ni-Cd)	80,089	85,055	6%
Lithium Ion (Li-Ion)	26,454	33,393	26%
Small Sealed Lead Acid (SSLA/Pb)	28,042	30,936	10%
Nickel Metal Hydride (Ni-MH)	16,804	12,089	-28%
Primary Battery	4,053	6,797	68%
Alkaline	3,373	5,996	78%
Lithium	680	766	13%
Mercury	2	34	1600%
Zinc Carbon(mercury)	0	1	100%
Cellphone	741	926	25%
Cellphone	691	889	29%
Cellphone Accessories	50	37	26%

2012 AND 2013 COLLECTION STATISTICS CONTINUED

Call2Recycle® Collection Summary for Minnesota: 2013 and 2014

Rechargeable Battery Collections by Channel

	Rechargeable Battery Collections (Pounds)		
	2013	2014	% Change
Government	68,877	63,191	-8%
Retail	53,071	49,011	-8%
Business Services	16,816	27,904	66%
Manufacturing	12,071	20,902	73%

	Participation		
	2013	2014	% Change
# of Collection Locations*	605	591	-2%

* Collection locations sending in receipts into the Call2Recycle Program

2013 AND 2014 ESTIMATED BATTERY SALES

Estimated Battery Sales and Collection Rate

	2013	2014
Sales: Rechargeable Batteries	2,062,700 lbs.	1,996,863lbs.
Collection Rate	7.3%	8.1%

CALL2RECYCLE® SUPPORTING COMPANIES

The following 268 companies support Call2Recycle and are committed to responsible battery recycling.

- 3M Company - OH&ESD
- ACCO BRANDS CORPORATION
- Acer America Corporation
- Advanced Battery Systems, Inc.
- Advanced Electronics Energy
- Agilent Technologies
- Allied Intl/Allied Tools
- Alltrade Tools LLC
- American Lawn Mower Co
- American Toppower
- Anton/Bauer
- APC - Schneider Electric
- Apple, Inc
- Applied Power Inc
- Asus Computer International
- Audio Enhancement
- AVAYA
- Aved Electronics
- Avex Electronics Corporation
- Axiom Mobile Group
- Baccus Global
- barnesandnoble.com, LLC
- Battery Specialties
- BAYCO PRODUCTS
- Bionx International
- Bissell Homecare, Inc
- Black & Decker Corporation
- BlackBerry
- Blount Inc.
- Bosch eBike Systems
- Bose Corporation
- BRAUN/P&G/GILLETTE
- Brother International
- Bushnell, Inc.
- BYD Company Limited
- Canadian Satellite Radio
- Canadian Tire Corporation, Ltd
- Canon Canada Inc
- Canon USA Inc
- Capstone Industries, Inc.
- Casio America, Inc.
- Cell-Con Inc
- Century Optronic Inc.
- Changzhou Globe Tools Co. Ltd.
- Chenzhou Grand-Pro Tech Co.,Ltd.
- Chervon Limited
- China Effort Ltd.
- Cisco Systems Inc.
- Clean Republic SODO, LLC
- Cleva North America /LawnMaster
- Columbia Sportswear Company
- Conair Corporation
- Concept Green Energy Solutions, Inc.
- DANTONA INDUSTRIES/ULTRALAST
- Dell Inc
- Digi-Key Corporation
- DLG Power Battery (Shanghai) Co.,LTD
- DONGGUAN GOLDEN CEL BATTERY CO
- Douglas Quikut
- Duracell/Div of P&G
- Echo Incorporated
- Electrolux Home Care Products
- Enerco Group Inc.
- Energy Sales
- EnerSys Delaware Inc.
- Epson America, Inc.
- ESI Cases & Accessories
- Esselte Corporation
- ETICA Battery Inc.
- Eveready (Energizer)
- Evergreen (C.P.) USA Inc
- Excell Battery Company (W)
- EZsmart Gutter Cleaner, LLC
- FDK AMERICA
- Fedco Electronics, Inc.
- FEIN POWER TOOLS INC
- FESTOOL/TOOLTECHNIC SYSTEMS
- Finish Thompson, Inc.
- Flying Dragon Development Ltd.
- Freight Security Net
- FujiFilm Holdings America Corp
- Fujitsu America
- Funai Corporation Inc
- Furukawa Battery Co Ltd
- Garmin International, Inc
- GE Healthcare Canada, Inc.

- General Dynamics Itronix Corp
- Gerbing's Heated Clothing, Inc
- Getac Inc.
- GiiNii Tech Corporation
- Global Technology Systems, Inc
- Gold Peak Ind (Malaysia)
- Gold Peak Industries (NA), Inc
- GRACO, Inc.
- Greatbatch Inc
- GREEN SMOKE INC
- GS Battery (USA) Inc.
- Harris Corporation
- Hewlett-Packard Company
- Hilti (Canada) Corporation
- Hilti, Inc.
- HITACHI KOKI CANADA CO
- Hitachi Koki USA Ltd
- HOBBICO, Inc
- HoMedics
- House of Batteries
- HTC (High Tech Computer)
- Icom America Inc
- IDX System Technology Inc
- Illinois Tool Works
- Industrial Battery Service Inc
- INSPIRED ENERGY LLC
- Intec Industries Co. Ltd.
- Intermetro Industries Corp
- Invacare Corporation
- Invox Hardware Limited
- iottie
- iRobot Corp.
- iTech
- ITO Co., Ltd.
- Jasco Products Company
- JBRO BATTERIES INC
- Jiangmen TWD Technology Co, LTD
- JIANGSU HIGHSTAR CHEMICAL
- Jiawei Technologies (USA) Ltd.
- JLG Industries Inc
- Joas Electronics HK Co. Ltd.
- JVC Americas Corp
- KAN Battery Co., LTD
- Karcher North America
- Kenwood USA Corp
- Keysight Technologies
- Kwonnie Electrical Corporation
- Laird Technologies, Inc.
- Lego Group
- Lenmar Enterprises, Inc.
- Lenovo
- LEXEL BATTERY CO LTD
- LG Electronics MobileComm USA
- L'Image Home Products Inc.
- LOGITECH INC.
- Mag Instrument, Inc
- Makita USA
- Malco Products, Inc.
- Mattel, Inc.
- MAX Co., Ltd
- Maxell Corporation of America
- McNair Technology Co., LTD
- Measurement Ltd Inc
- Meritool LLC
- Metabo Corporation
- Microsoft
- Miller Mfg Co
- MILWAUKEE ELECTRIC TOOL CORP
- Motorola Solutions, Inc
- myCharge
- National Power Corp
- NEC CASIO Mobile Communication
- Neptune Technology Group Inc.
- Netgear, Inc.
- Nexergy, Inc.
- Nikon Canada Inc
- Nokia Inc
- Normark Innovtions Inc.
- Novatel Wireless Inc
- NU MARK LLC
- Nylube Products Company LLC
- O2COOL, LLC
- Olympus Corp of the Americas
- OnLive, Inc.
- OOMA INC
- Optex, Inc.
- Oracle America, Inc.
- Palladium Energy
- Panasonic Corporation
- Pantech Co Ltd
- Pedego Electric Bikes
- Pelican Products
- PHILIPS CONSUMER Lifestyle
- Physio-Control Corp.
- Polycom, Inc.
- Positec Tool Corporation

- POWER PRODUCTS
- Progressive Technologies, Inc
- Professional Tool Products LLC
- Progressive Technologies, Inc
- Promark Electronics Inc
- ProTeam, Inc.
- Quality One Wireless
- Quantum Instruments, Inc.
- Quickie Manufacturing Corp
- Rapport, Inc FKA Car-Go
- RESISTACAP
- Richpower Industries, Inc.
- Ricoh Americas Corp.
- Ridge Tool Company (RIDGID)
- RKI Instrument, Inc
- Robert Bosch Tool Corporation
- Royal Consumer Information Products, Inc.
- RRC POWER SOLUTIONS
- Samsung Electronics Co
- SANYO Energy (USA) Corp.
- Sato America Inc
- Scosche Industries
- Senco Products, Inc
- Sensidyne LP
- Sharp Electronics Corporation
- Shenzhen Bofuneng Battery Co
- Shenzhen FBtech Co., Ltd.
- Shenzhen Highpower Technology
- Sigma Corporation
- Sinopower Technology (HK) Ltd
- Sirius XM Radio Inc
- SmartPool, LLC
- Snap-on Incorporated
- Sony Electronics, Inc
- SOUTHWICK TECHNOLOGIES INC
- SPECTRUM BRANDS
- SRAM, LLC
- Stanley Hand Tools
- Star Micronics Co., Ltd.
- STIHL INCORPORATED
- STIHL LIMITED (CANADA)
- StorTronics
- Streamlight, Inc.
- Stryker Medical
- SUNBEAM PRODUCTS
- Surefire, LLC
- Swissvoice S.A.
- Technical Power Systems Inc.
- Techtronic Industries Co Ltd
- Techtronic Industries GmbH
- TERRALUX INC
- Test Rite Products Corp
- Texas Instruments Inc
- The Coleman Company
- THE SOURCE (BELL ELECTRONICS)
- The Toro Company
- TNR TECHNICAL
- TOCAD AMERICA
- TOSHIBA AMERICA
- Traxxas L.P.
- Trek Bicycle Corporation
- Triple C Designs
- TTEK ASSEMBLIES INC
- Tyco Healthcare LP
- ULTRALIFE CORPORATION
- Uniden America Corporation
- UNITECH BATTERY LIMITED
- Universal Power Group
- VARTA Microbattery Inc.
- Venom Group International
- Vernier Software & Technology
- Vibratex, Inc.
- Vizio Inc.
- VTech Telecommunications Ltd
- WACOM TECHNOLOGY CORP
- Wahl Clipper Corp
- WATER PIK, INC.
- Waveblade, Inc.
- WINTONIC BATTERY & MAGNET CO.,
- WOHLER USA
- Xplore Technologies Corp.
- Yiyang Corun Battery Co Ltd
- Zhejiang Tianneng Energy Technology Co., Ltd.
- Zippo Manufacturing Company

State Summary Report

Minnesota

Batteries / Cell Phones Collected

From 1/1/2013 To 12/31/2013

Rechargeable Batteries	Weight (lbs)
Nickel Cadmium (Ni-Cd)	80,089
Lithium Ion (Li-Ion)	26,454
Nickel Metal Hydride (Ni-MH)	16,804
Small Sealed Lead Acid (SSLA/Pb)	28,042
Total:	151,389

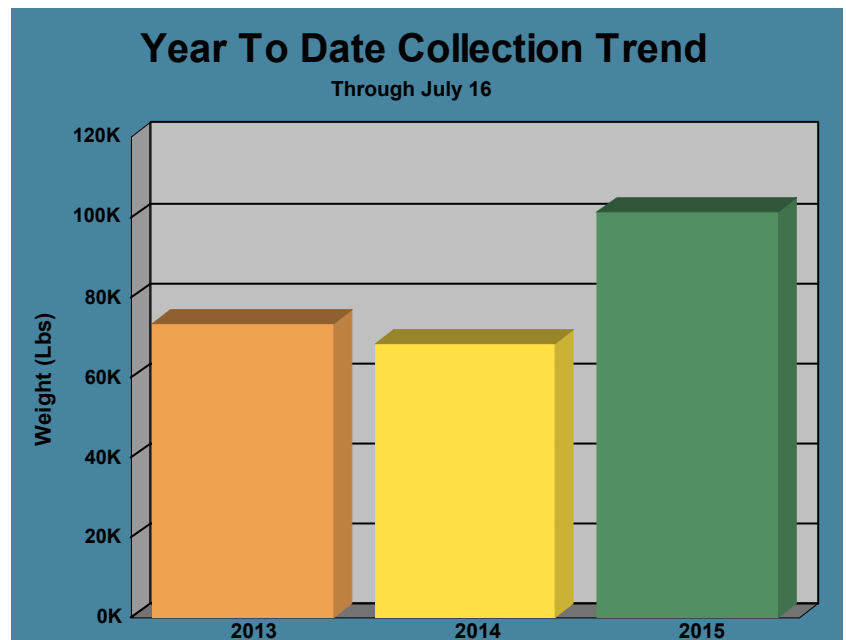
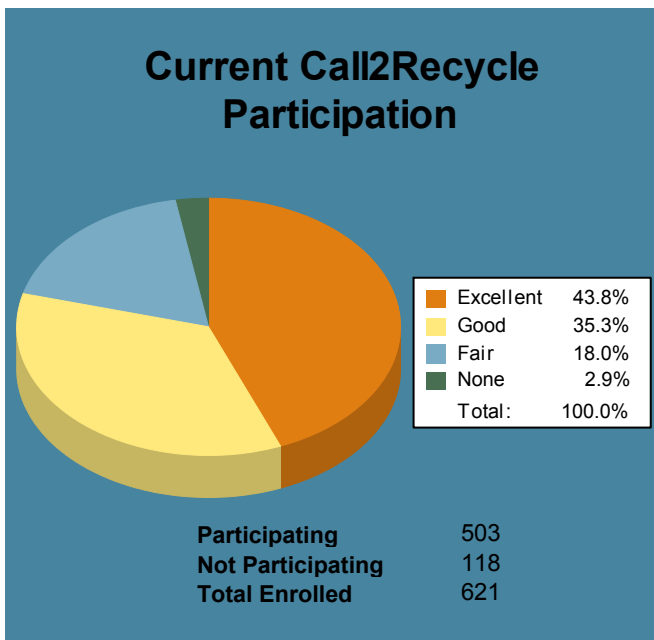
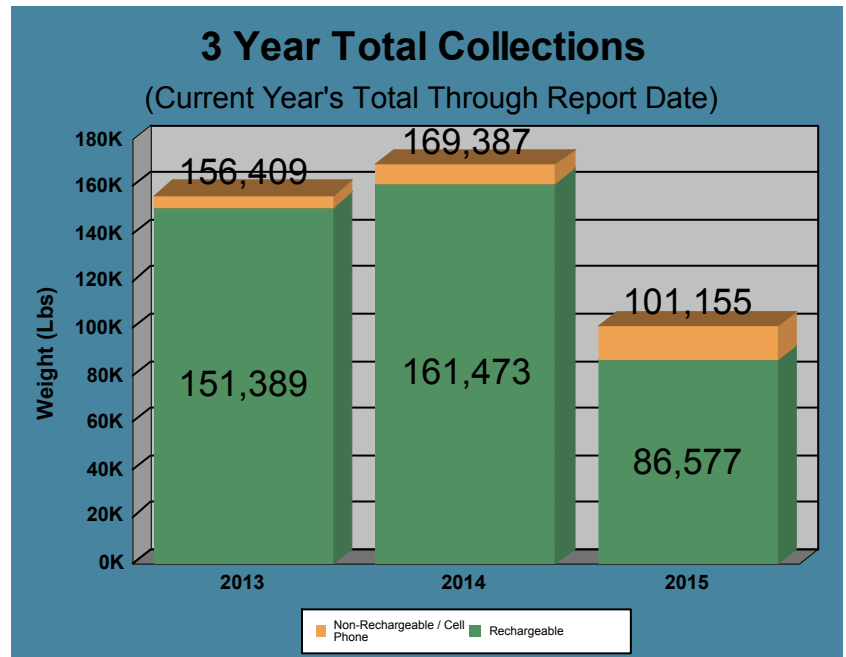
Non-Rechargeable Batteries / Cell Phones	Weight (lbs)
Alkaline	3,373
Lithium	680
Mercury	2
Cell Phone (Weight)	691
Wet Cell Nickel Cadmium	78
Zinc Carbon (no mercury)	0
Cell Phone Accessories (Weight)	50
Other	146
Total:	5,020

For the Reporting Period:

605 Sites Sent 3,113 Boxes (103% of 586 Enrolled Sites)

Totalling 156,409 lbs

And Returned 2,837 Cell Phones



Excellent - Sites have returned collections to Call2Recycle within the past 90 days

Good - Sites have returned collections to Call2Recycle within the past 90 days to 1 year

Fair - Sites have not returned collections to Call2Recycle in over a year

None - Sites have never returned collections to Call2Recycle

State Summary Report

Minnesota

Batteries / Cell Phones Collected

From 1/1/2014 To 12/31/2014

Rechargeable Batteries	Weight (lbs)
Nickel Cadmium (Ni-Cd)	85,055
Lithium Ion (Li-Ion)	33,393
Nickel Metal Hydride (Ni-MH)	12,089
Small Sealed Lead Acid (SSLA/Pb)	30,936
Total:	161,473

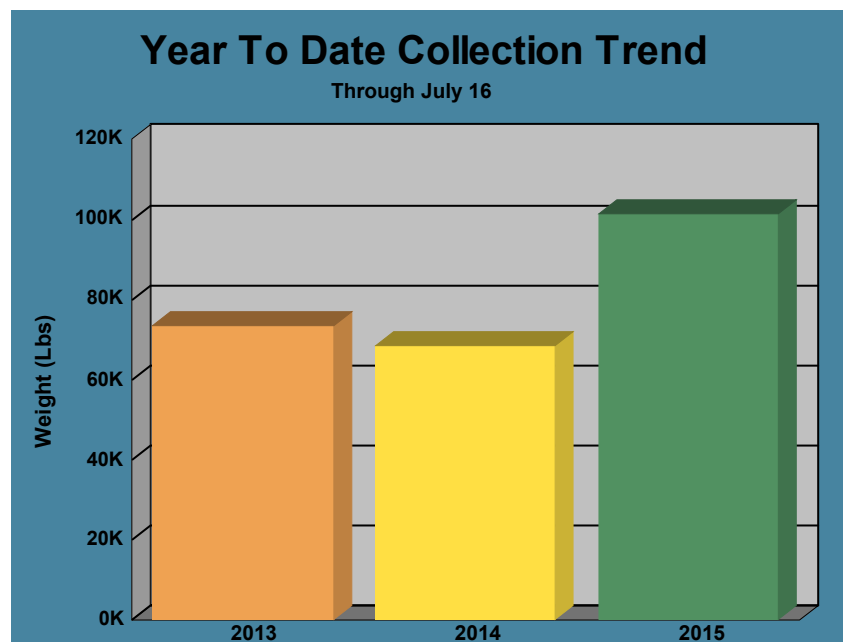
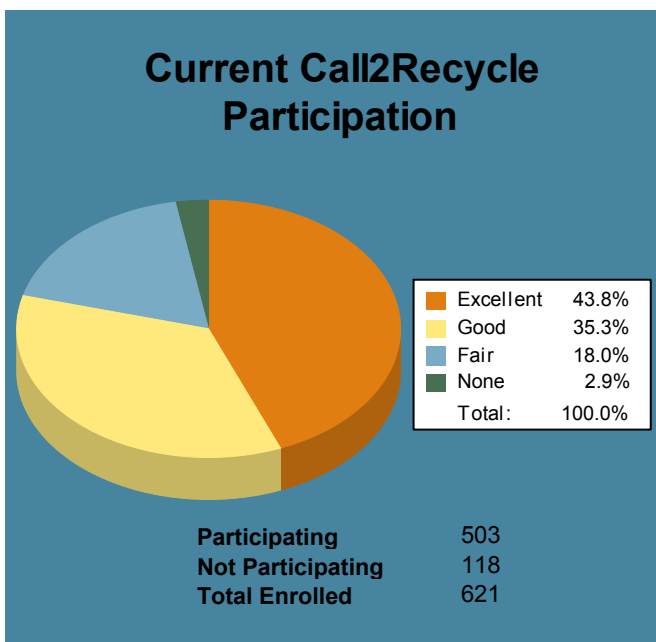
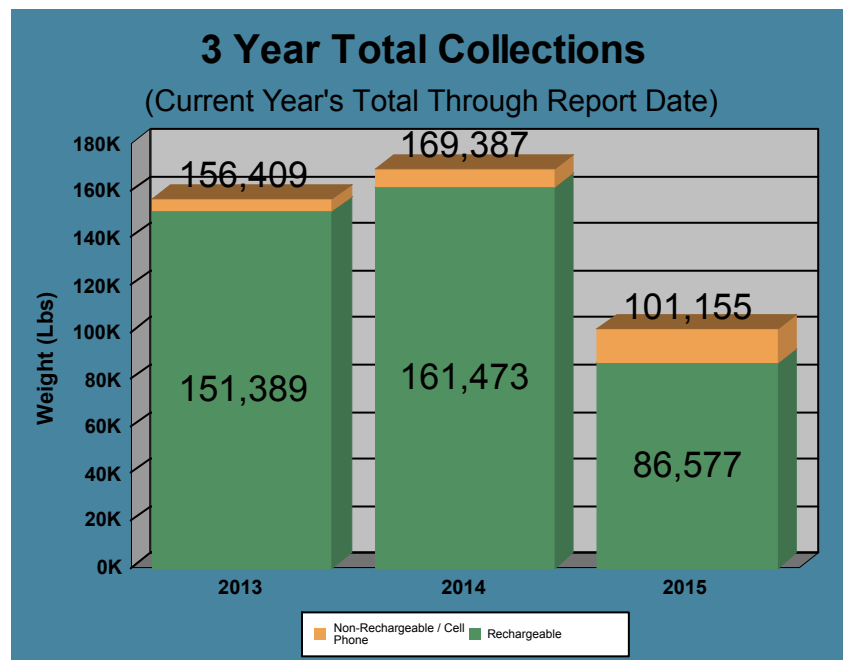
Non-Rechargeable Batteries / Cell Phones	Weight (lbs)
Alkaline	5,996
Lithium	766
Mercury	34
Cell Phone (Weight)	889
Silver Oxide	1
Zinc Carbon (no mercury)	0
Cell Phone Accessories (Weight)	37
Other	190
Total:	7,914

For the Reporting Period:

591 Sites Sent 3,069 Boxes (97% of 608 Enrolled Sites)

Totalling 169,387 lbs

And Returned 3,292 Cell Phones



Excellent - Sites have returned collections to Call2Recycle within the past 90 days

Good - Sites have returned collections to Call2Recycle within the past 90 days to 1 year

Fair - Sites have not returned collections to Call2Recycle in over a year

None - Sites have never returned collections to Call2Recycle