

# Placon Corporation 2012 EMS System Review

February 2013



# Audit Results

- 2 Audits in 2012
- Internal MSG (Brandon)
  - 6 minor non-conformances (all developed into CA's)
- External BSI (Rose)
  - 1 minor non-conformance (all developed into CA's)

# Identified Aspects/Impacts

Aspect #	Significant Aspect	Related Activities, Products & Services	Responsible Party	Key Operation Characteristic	Operational Control	Monitoring & Measuring Technique	Comments / Status	Objects / Targets Programs
1	Natural Resource Consumption	Extruders, Thermoformer Ovens, HVAC units, Air Compressors	Bob Arnold & John Brozek	Electrical Consumption	Equipment Maintenance	Quantities / Monthly	Located in Monitoring and Measuring Folder	Line Items: 1, 3, 8, 9,14, 17
2	General/ Special Waste	Campus wide disposal	Howard Luedtke	Proper Handling & Disposal	Waste Matrix & Designated areas and signage	Quantities	Significant due to total 300 Tons General Waste	Line Items: 2, 12, 13, 15, 16, 21
3	Hazardous Waste	North Plant Disposal	Jake Taylor	Proper Storage & Handling & Quantities	Disposal Instructions	Manifests & Quantities	VSQG	None Identified
4	Air Pollution	Campus Wide	Jake Taylor	Max. theoretical based on equipment capability &/or actual material through put	Tracking of Quantities	Annual Calculations	under reporting limits 2011	Line Item: 10
5	Potential Spill	Raw Abamectin Storage & Handling Caustic and Sulfuric Acid handling and storage in EcoStar	Brian Colloton, Kevin Gonter, & Jake Taylor	Proper Storage & Handling and Emergency Action & Response Plan	Engineering Controls (Structural), Work Instructions & Emergency Action & Response Plan	incident report	No documented incident with raw abamectin	Line Item: 7, 20
6	Cardboard consumption & recycling	Campus Wide Disposal	Neil Wyatt	Proper Handling & Disposal	Disposal Instructions	Quantities	277 tons of cardboard	Line Item: 5, 20
7	Water Consumption	PET Recycling /Chiller Evaporation loss	Mark Schmidt	Water Consumption	Tracking Quantities	Monthly invoices	15-20 gpm	Line Item: 18
8	Waste Water	PET Recyling	Pete Schroeffer	pH	pH probe and automatic shut-off valves	Download from pH datalogging system		None Identified

# Objectives and Targets List

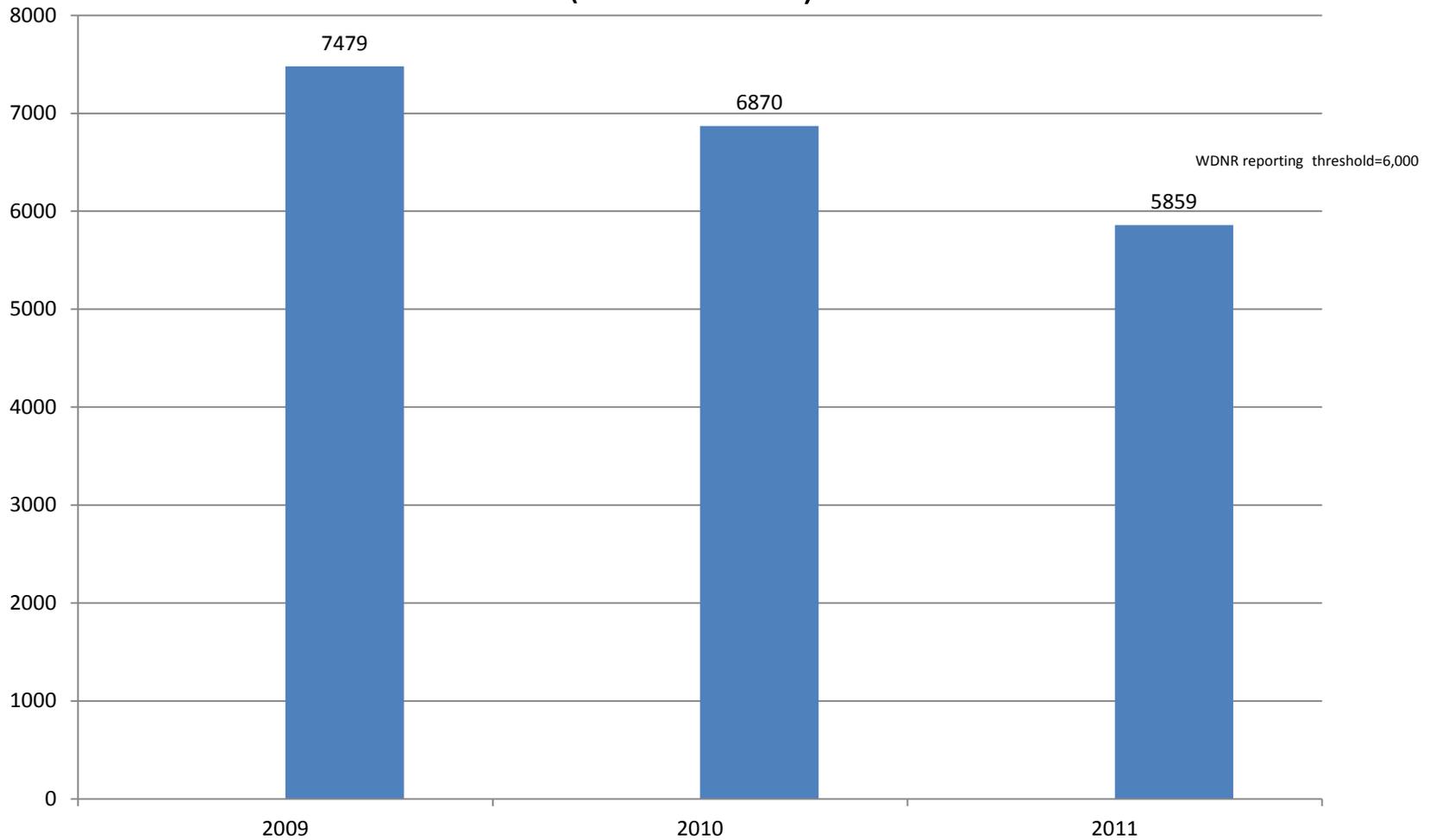
Item No	Open Date	Source: O&T, PA/CI, MR	O&T/ Item / Description / Plan	Who	When	Status	Closed Date	Monitoring Method	Monitoring Classification	Significant Aspect	Comments / Notes / Misc Text
9	12/15/2010	O&T	Reduce heat load in inline dept to reduce cost of cooling	Howard	5/31/2012	H	On Hold		lbs CO2	Natural Resource Consumption	continuing to research options
11	8/2/2011	O&T	expanding the recycling market for PET bottles. Reducing carbon footprint by keeping this local vs transportation. divert PET bottles from landfill by recycling	Babler/ Krupke	Ongoing	O		Operational metrix	lbs Waste diverted from Landfill	General/ Special Waste	pounds of bales recycled? 29,219,933
12	1/1/2011	O&T	high stiffness resin which allows for down gauging of PP in deli containers (8%)	Dave Hanauer	Ongoing	O		PEP 10-56	lbs Waste diverted from Landfill	General/ Special Waste	Need to get in pounds vs. dollars (MUV). Check with Krupke for more info. Down-weighted most of containers. Need to get with Robin/Mark to understand true PEP savings
14	1/31/2011	O&T	installing programmable thermostats on docks to save gas	Sarah Figi	Ongoing	O		PEP 11-36	lbs CO2	Natural Resource Consumption	
15	1/1/2012	O&T	Landfill reduction due to RUNI installation	Pete S	Ongoing	O		PEP 12-15	lbs Waste diverted from Landfill	General/ Special Waste	
16	1/1/2012	O&T	Wastewater screw press to reduce Honey Wagon charges	Pete S	Ongoing	O		PEP 12-21	lbs Waste diverted from Landfill	General/ Special Waste	
17	4/1/2012	O&T	Reduce air consumption through repaired air leaks by 150,000KwH	John B	Ongoing	O		PEP 12-17	lbs CO2	Natural Resource Consumption	started July 2012; being tracked John B spreadsheet T: MAINTENANCE, 64000 thru Sept
18	4/2/2012	O&T	Reduce Chemical usage in Ecostar by installion of bulk system	Megan Moore	Ongoing	O		Project Plan/ SPC data	gal chemical/ lbs bales processed	Water Consumption	Kaizen event 6/4/12-6/8/12. Cost chem/per lb bale produced from .040 to .0195. (Megan Moore)
19	2/28/2012	PA/CI	Evaluate Wisconsin Green Tier Certification	Jake / Bonnie	Ongoing	O			N/A	N/A	
21	10/4/2012	O&T	divert thermoform waste to the landfill by developing capability to recycle thermoforms	Dave Hanauer	Ongoing	O		Focus 2012 Numbers	lbs Waste diverted from Landfill	General/ Special Waste	tracked on Focus 2012 Dashboard = 1,355,900 lbs

# EMS Team Objectives and Targets

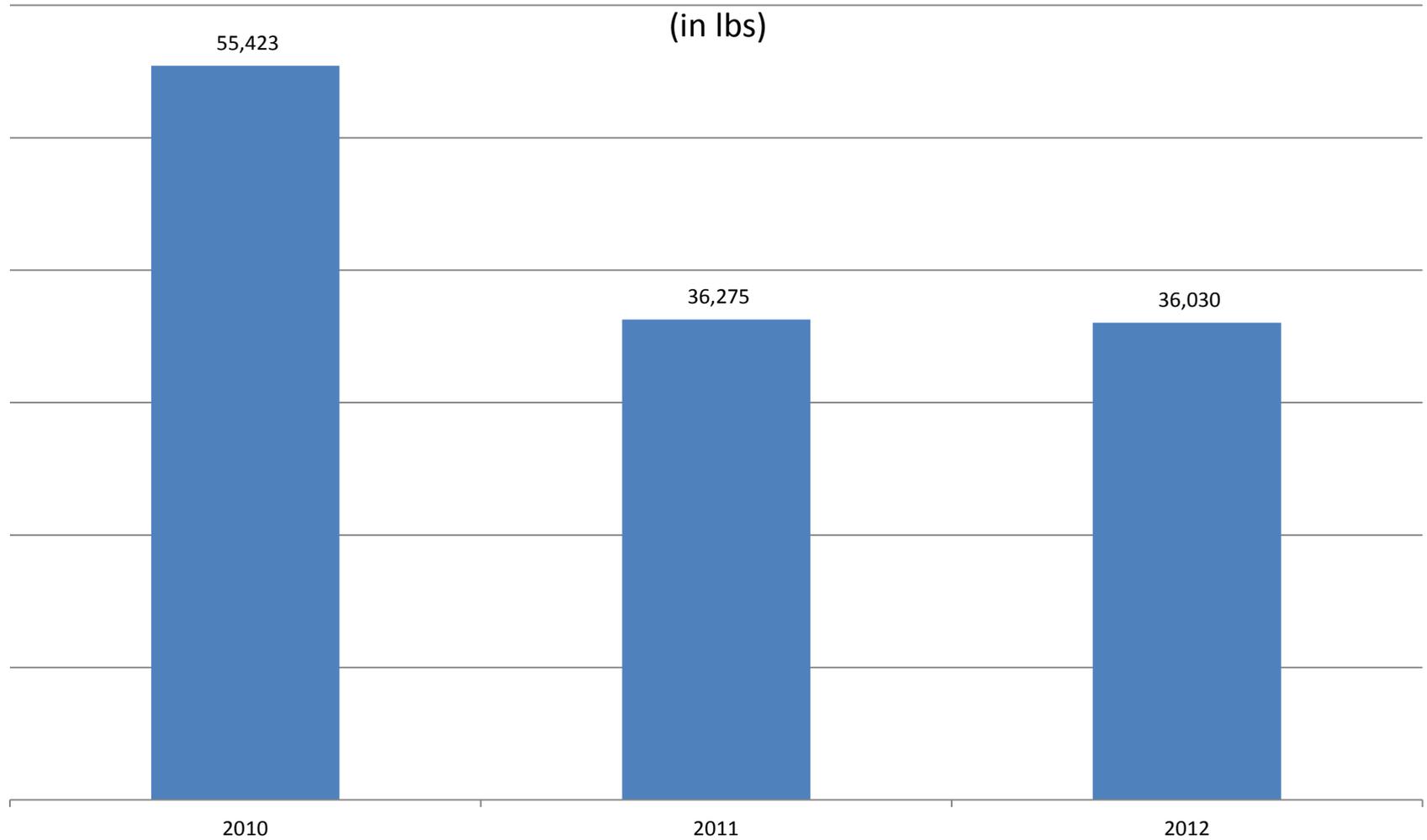
- Decrease in VOC emissions ✓
- Decrease in Regulated / Non Regulated Waste ✓
- Decrease in Total lbs sent to landfill ✓\*
- Decrease Greenhouse Gases (MT of CO<sub>2</sub>e) ✓\*
- Increase in Total lbs Recycled ✓
- Decrease Total gallons of water used ✓

# Air Emission Data

(lbs of VOC's)

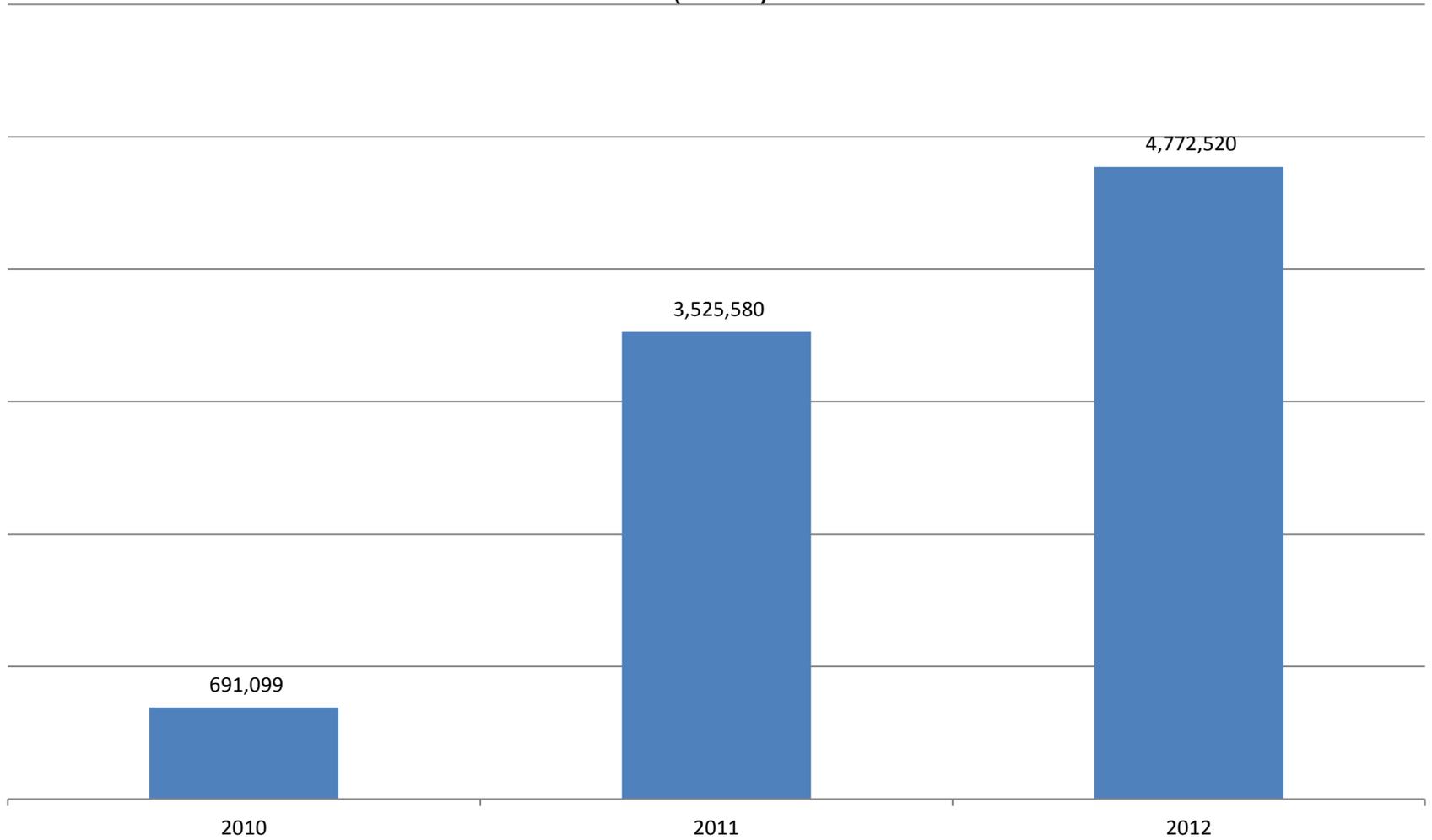


# Non-Regulated and Regulated Waste

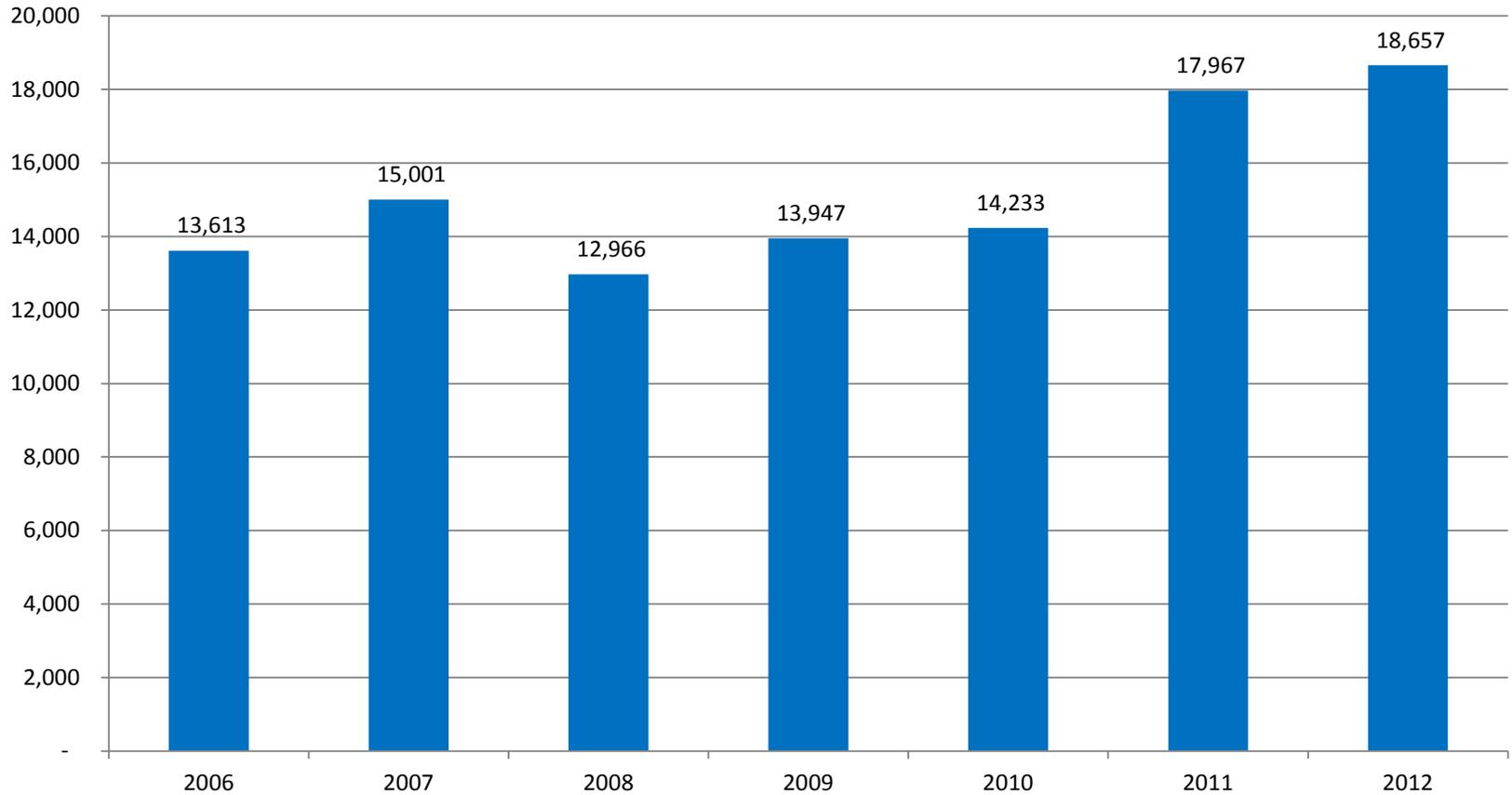


# Total Landfilled

(in lbs)



# MT of CO<sub>2</sub>e



Based on gas and electric usage only

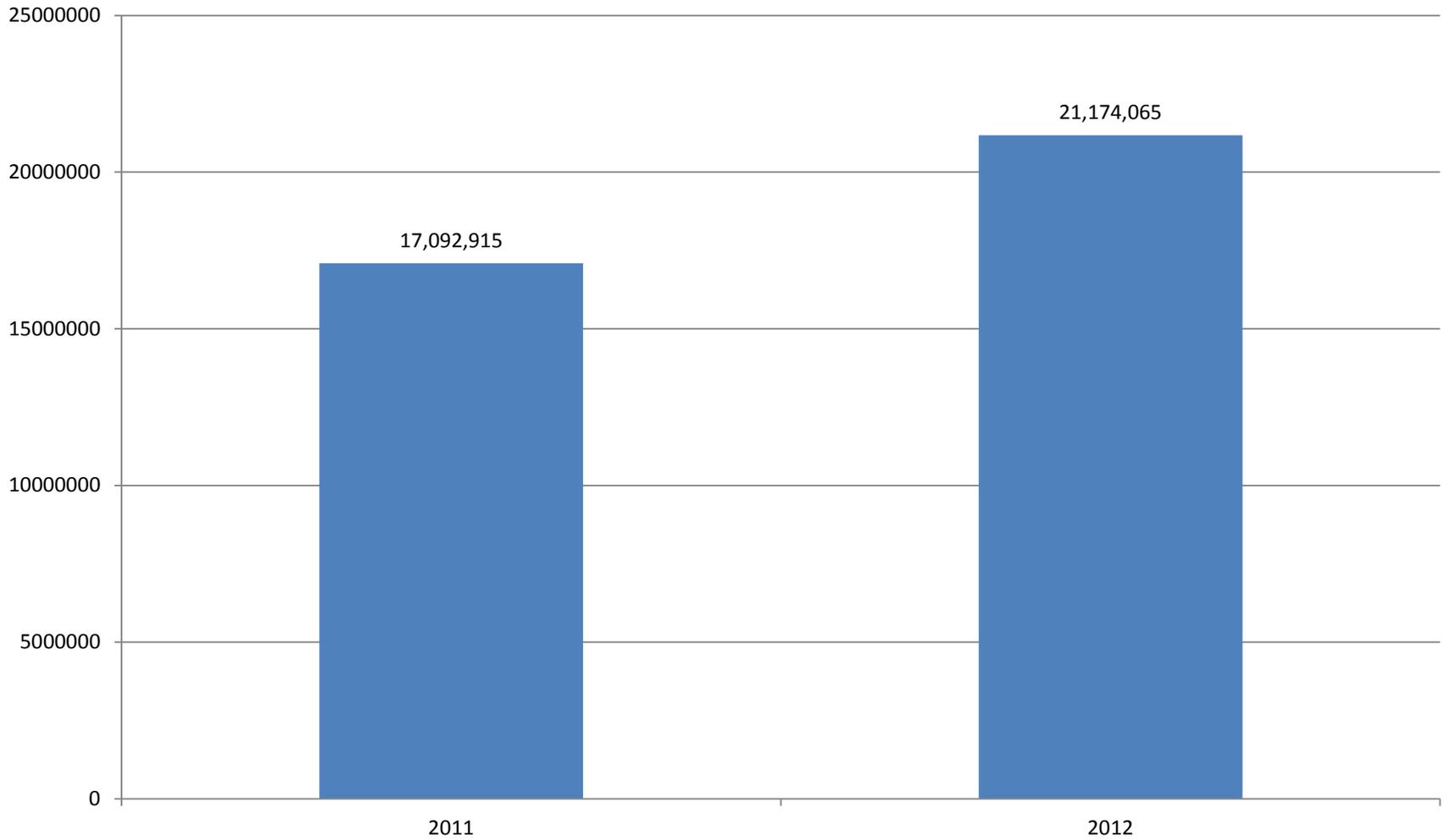
# Our 2012 Equivalency Results

(based on Gas and Electric usage only)

**The information on CO<sub>2</sub>e entered above is equivalent to one of the following statements:**

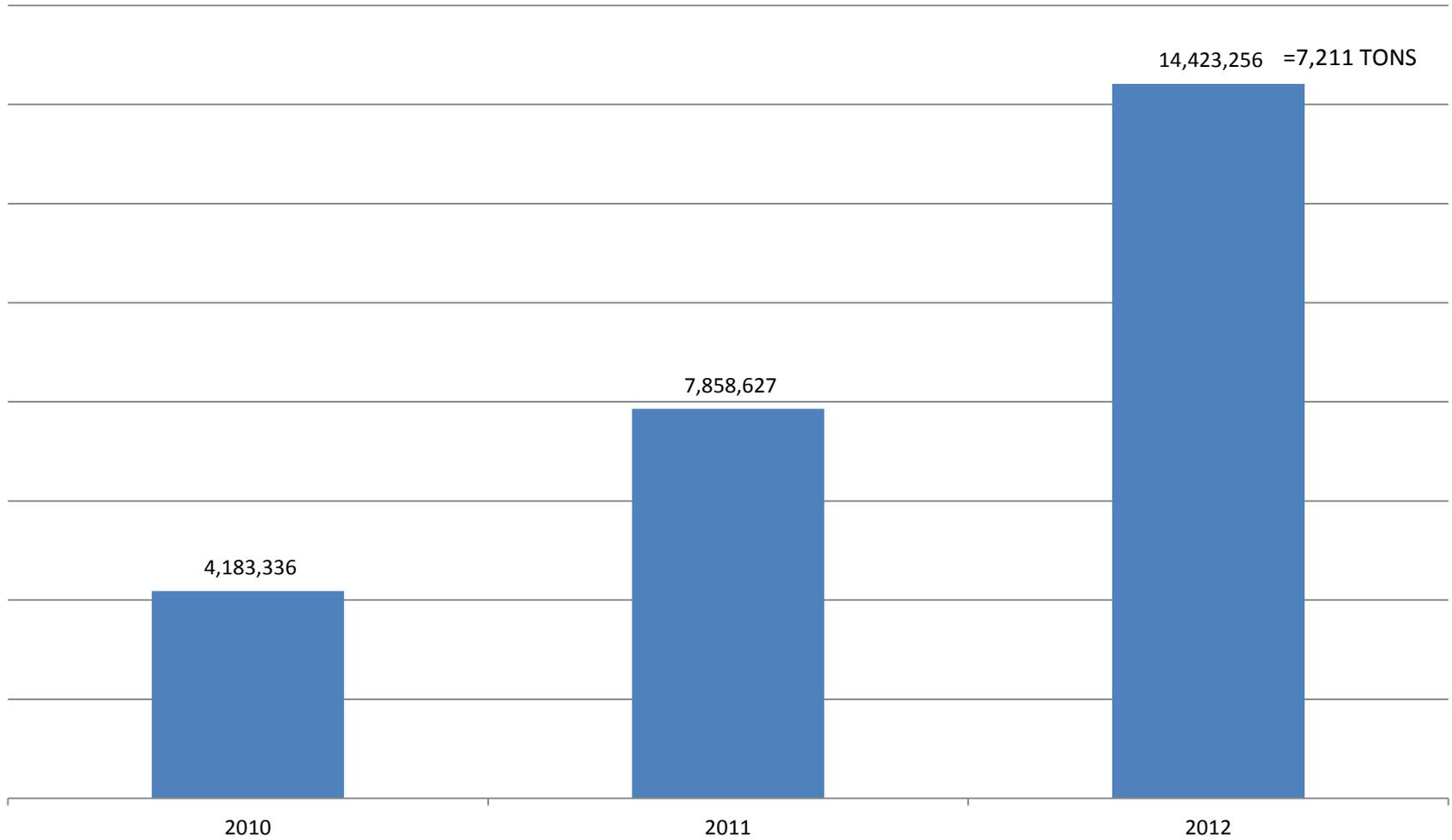
- Annual greenhouse gas emissions from **3,887** passenger vehicles
- CO<sub>2</sub> emissions from **2,091,592** gallons of gasoline consumed
- CO<sub>2</sub> emissions from **43,388** barrels of oil consumed
- CO<sub>2</sub> emissions from **246** tanker trucks' worth of gasoline
- CO<sub>2</sub> emissions from the *electricity* use of **2,793** homes for one year
- CO<sub>2</sub> emissions from the *energy* use of **960** homes for one year
- Carbon sequestered by **478,358** tree seedlings grown for 10 years
- Carbon sequestered annually by **15,293** acres of pine or fir forests
- Carbon sequestered annually by **144** acres of forest preserved from deforestation
- CO<sub>2</sub> emissions from **777,375** propane cylinders used for home barbeques
- CO<sub>2</sub> emissions from burning **80.2** railcars' worth of coal
- Greenhouse gas emissions avoided by recycling **6,988** tons of waste instead of sending it to the landfill
- Annual CO<sub>2</sub> emissions of **.005** coal fired power plants

# Gallons of H<sub>2</sub>O Used



# Total Recycled

(in lbs)



# So...based on the Math\*

- We used 18,657 MT of CO<sub>2</sub>e (gas and elec)
- We Landfilled 6,305 MT of CO<sub>2</sub>e (trash)
- For a total of 24,962 MT of CO<sub>2</sub>e

However...

- We recycled 19,253 MT of CO<sub>2</sub>e (yeah!)

= Grand Total of 5,709 MT of CO<sub>2</sub>e in Madison facilities

So...our recycling efforts still saved

13,544 MT of CO<sub>2</sub>e

# Our Recycling Efforts Equivalency Results

The information on CO<sub>2</sub>e entered above is equivalent to one of the following statements:

- Annual greenhouse gas emissions from **2,822** passenger vehicles
- CO<sub>2</sub> emissions from **1,518,386** gallons of gasoline consumed
- CO<sub>2</sub> emissions from **31,498** barrels of oil consumed
- CO<sub>2</sub> emissions from **179** tanker trucks' worth of gasoline
- CO<sub>2</sub> emissions from the *electricity* use of **2,028** homes for one year
- CO<sub>2</sub> emissions from the *energy* use of **697** homes for one year
- Carbon sequestered by **347,282** tree seedlings grown for 10 years
- Carbon sequestered annually by **11,102** acres of pine or fir forests
- Carbon sequestered annually by **105** acres of forest preserved from deforestation
- CO<sub>2</sub> emissions from **564,333** propane cylinders used for home barbeques
- CO<sub>2</sub> emissions from burning **58.2** railcars' worth of coal
- Greenhouse gas emissions avoided by recycling **5,073** tons of waste instead of sending it to the landfill
- Annual CO<sub>2</sub> emissions of **.004** coal fired power plants

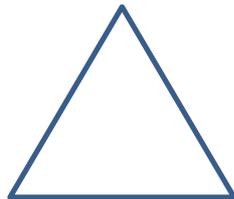
# Recycling Works\*

- % Increase in Recycling 2012

$$14,423,256 - 7,858,627 = 6,564,629 / 7,858,627 = 83.5\%$$

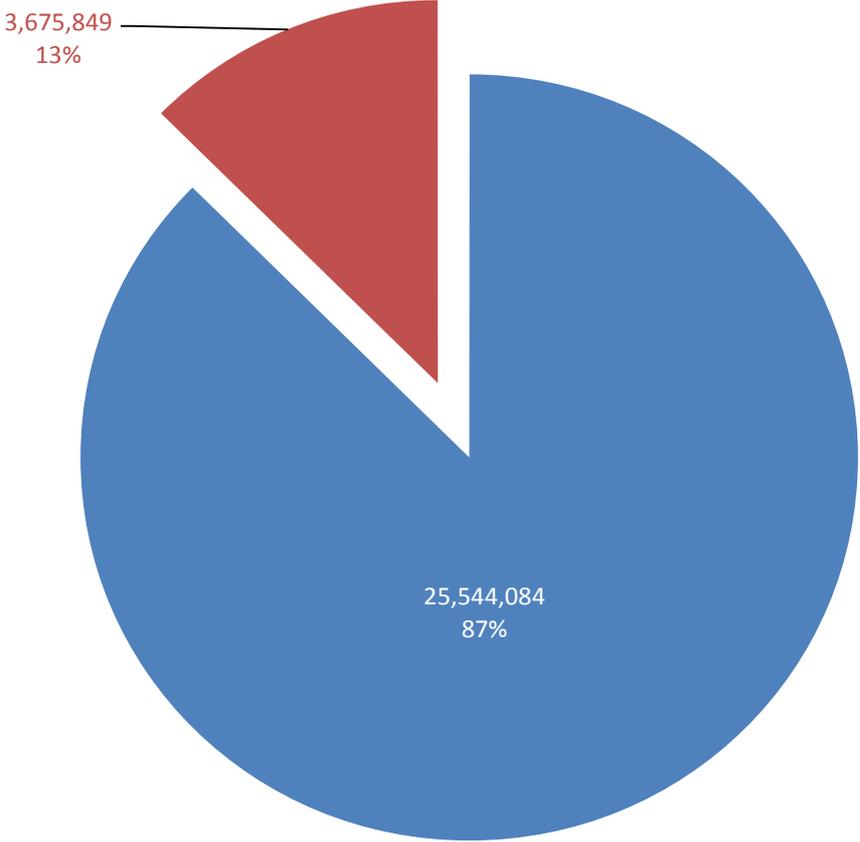
- % Increase in Landfilled 2012

$$- 4,772,520 - 3,525,580 = 1,246,940 / 3,525,580 = 35.3\%$$



$$= 38.2\%$$

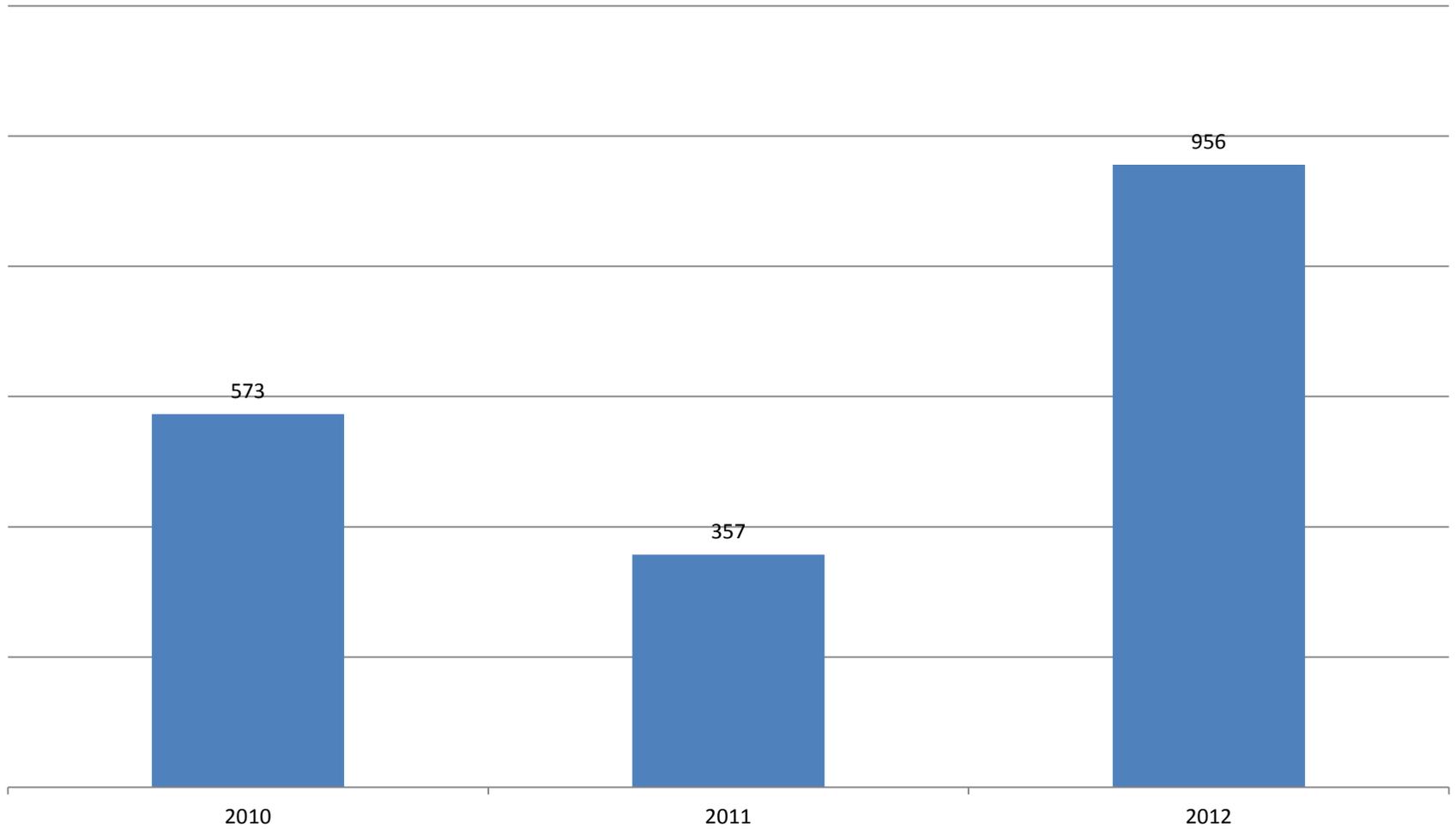
# Bale Usage



29,219,933 = Bale lbs through Ecostar  
1,355,900 = lbs of which were thermoforms

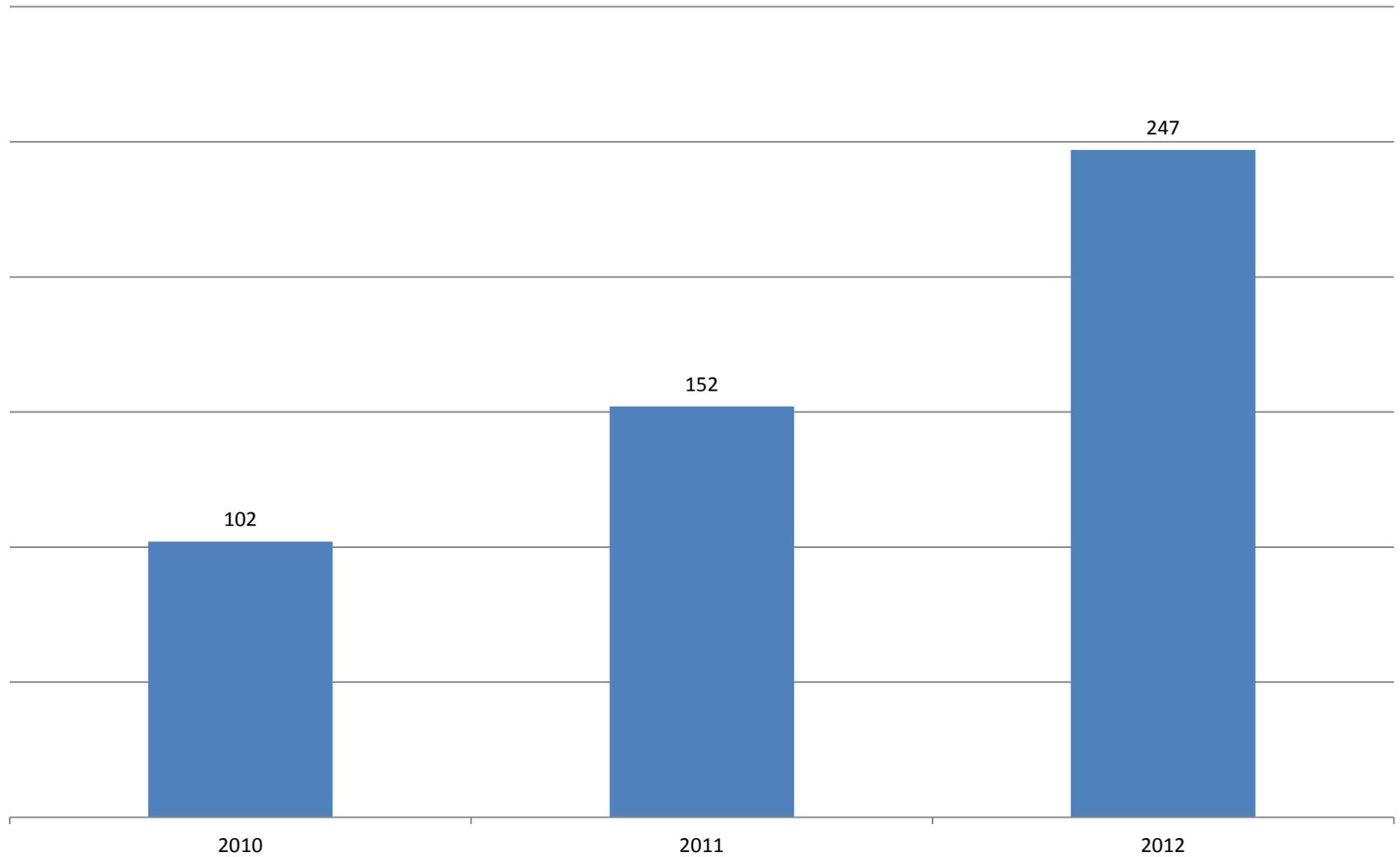
# Light Bulb Recycling

(in lbs)



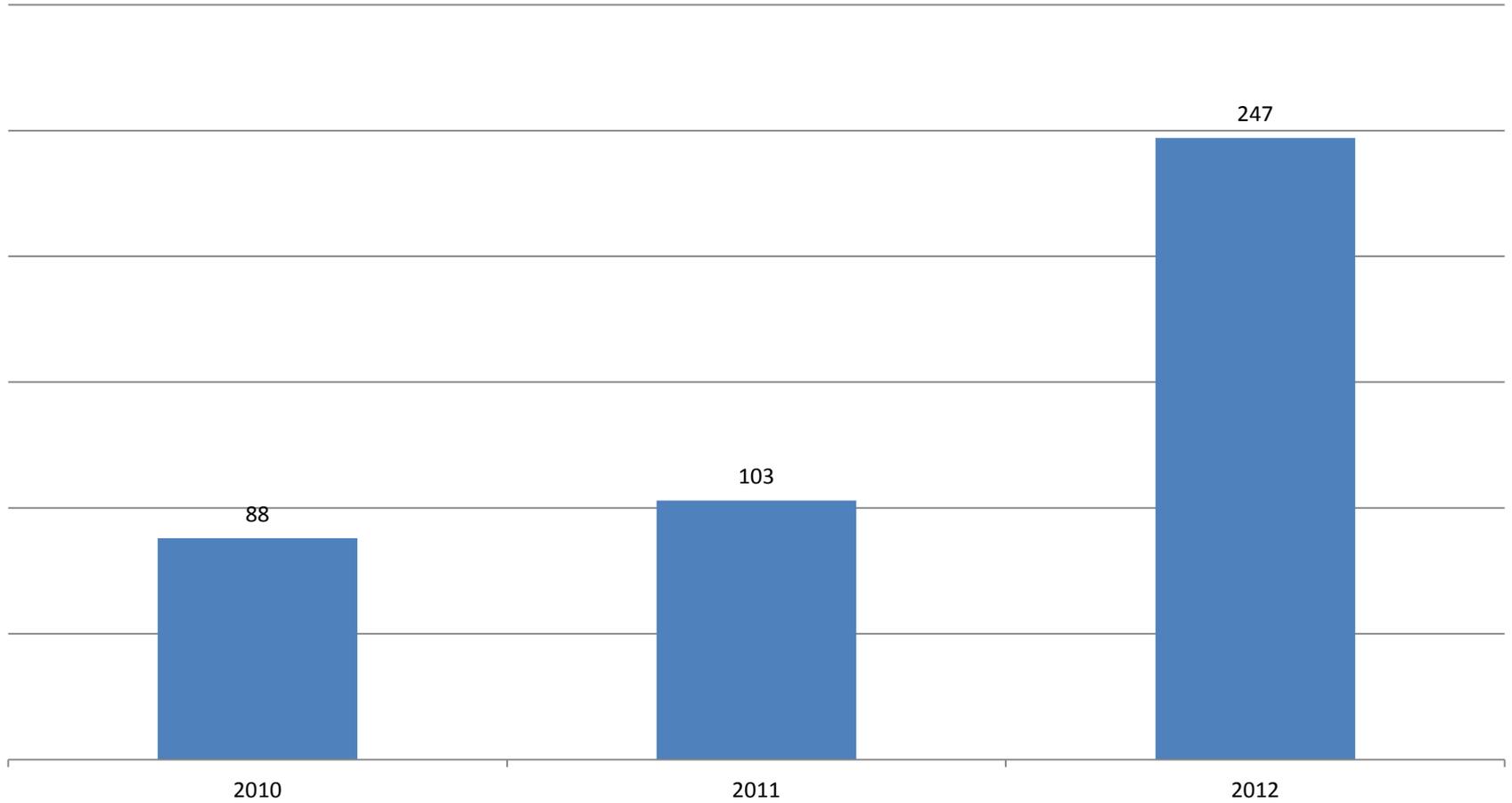
# Battery Recycling

(in lbs)



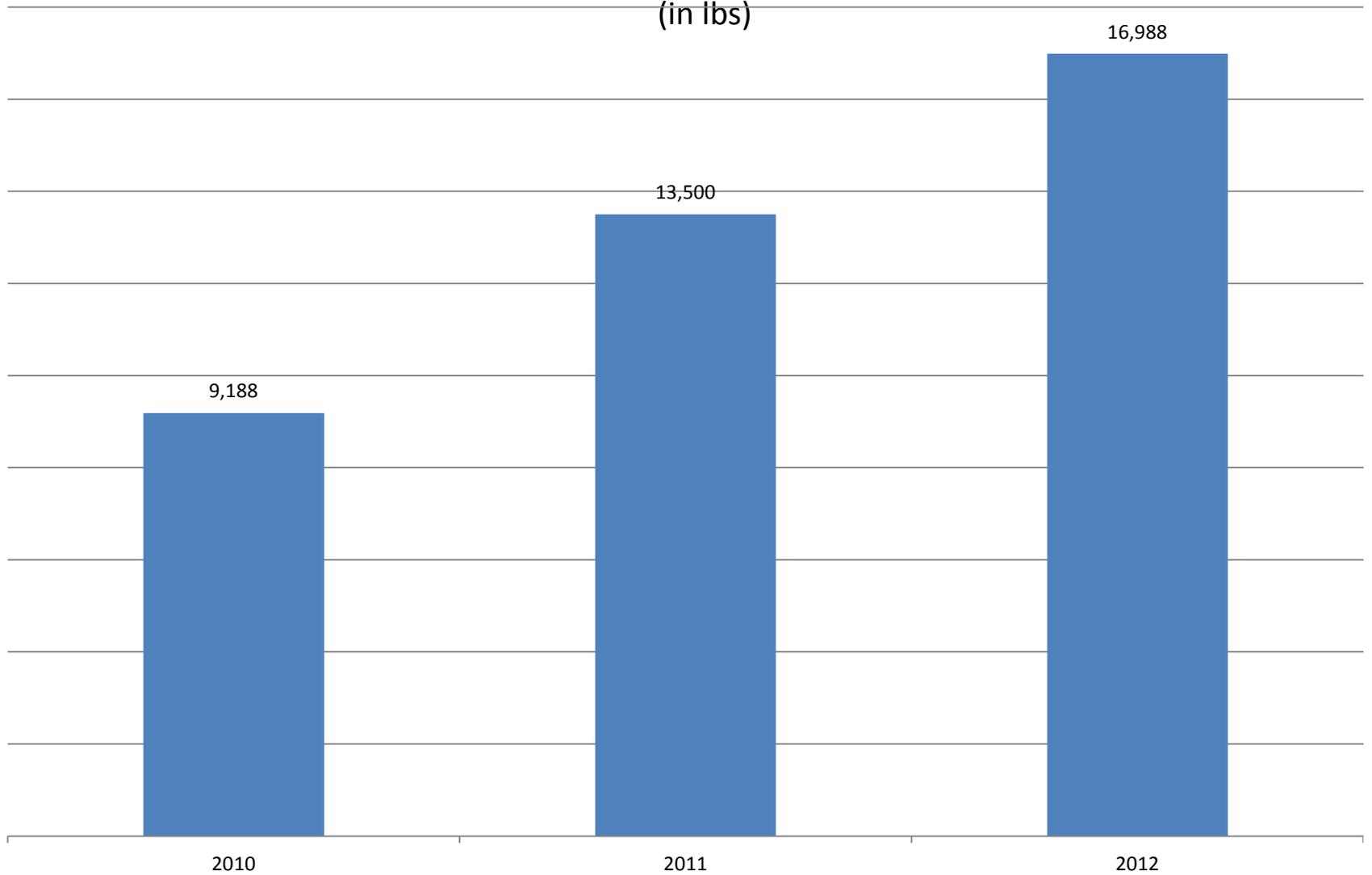
# Ballasts Recycling

(in lbs)



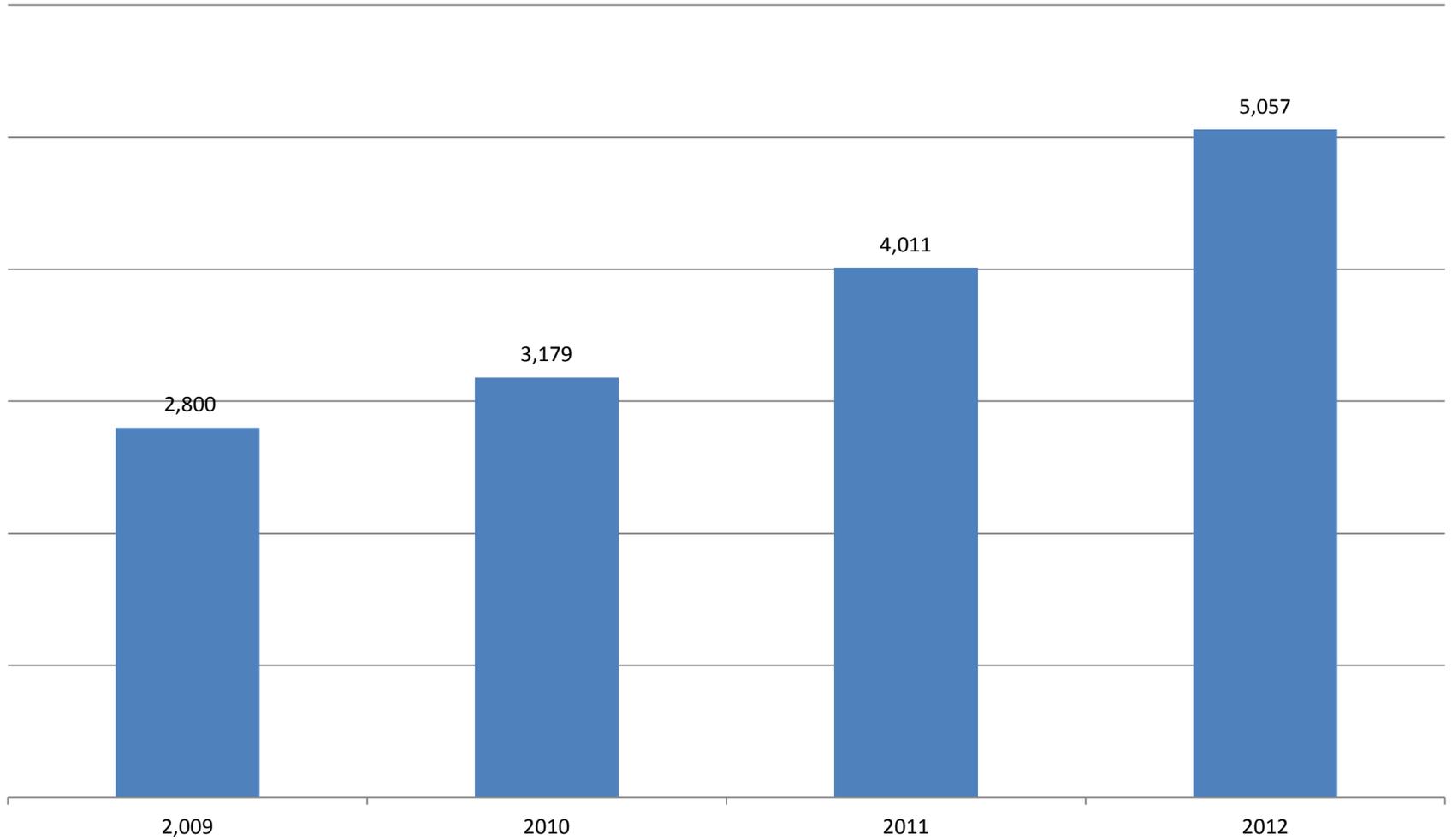
# Oil Recycling

(in lbs)



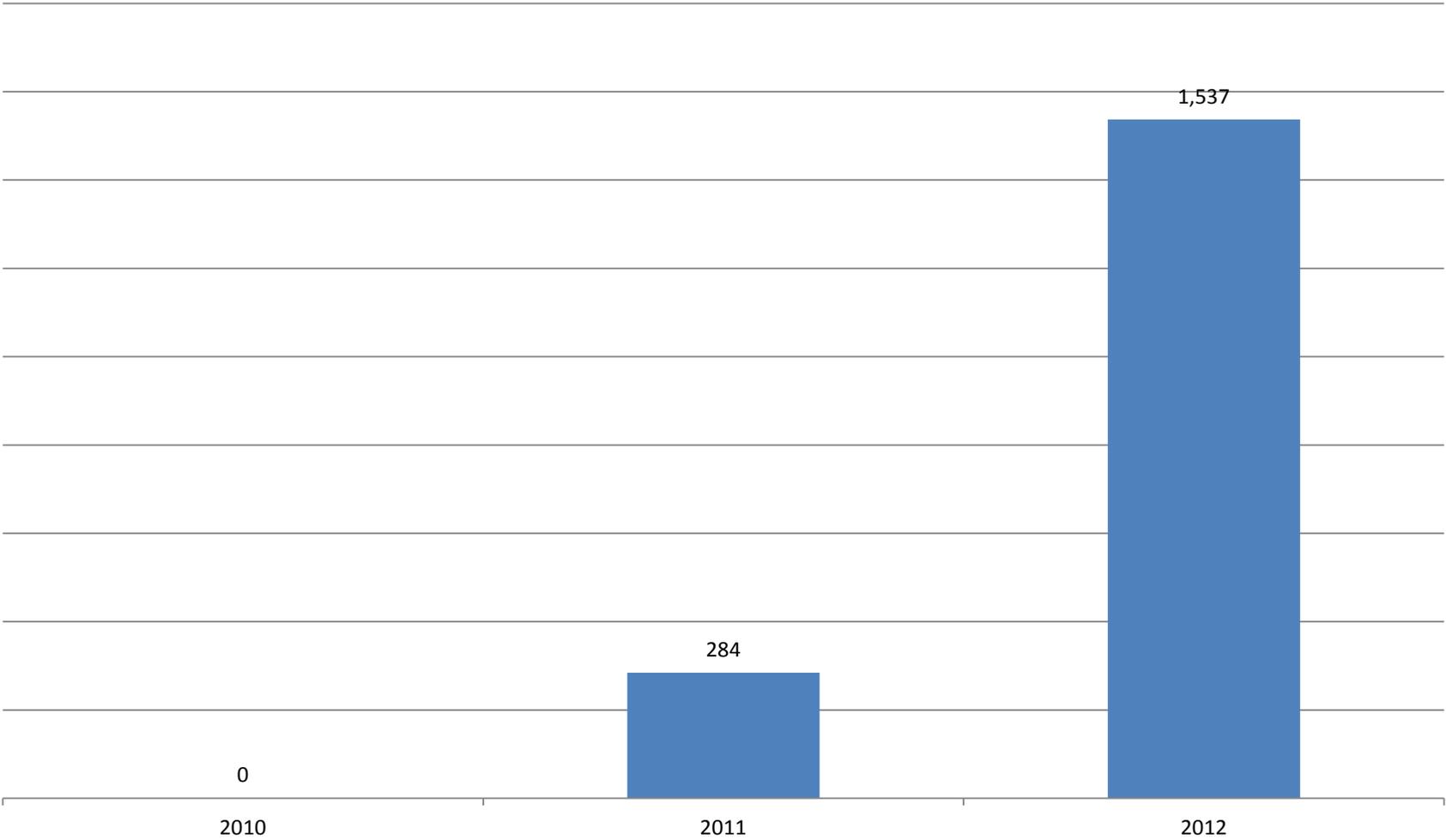
# Sorbits

(lbs of oil recycled)



# Employee PET Collection

(in lbs)



# Communications Log

Date	Contacts Information (Address & Phone Number)	Description of Issue / Communication	Investigation Assigned to:	Response required (Y/N)	Date Response sent	Status	Comments / Reference documents (Corrective Action If Applicable)
2/17/2012	DNR Visit and tour	interested in the recycling aspect of our operation and asked for tour	N/A	No			
7/11/2012	MSG Audit	Issued Audit/Assessment Report	Taylor	No			
8/24-31/12	Madison Metropolitan Sewer District (MMSD)	Quarterly testing of Ecostar discharge	Schroepfer	No			
9/16/2012	BSI Audit	Issued Audit/Assessment Report	Taylor	Yes	10/17/11	Open	Finalizing finishing touches on action plans developed based on assessment.
10/29/2012	State of Wisconsin Division of Emergency Management	Missing Tier II reports/invoices for 2007 and 2008 Calendar year	Taylor	Yes	11/09/12	Closed	Investigated and determined the Tier II should be completed for years in question. There were tow Facility ID (196234 and 198650) Reference EMS 12011
11/9/2012	WDNR	No Exposure Certification WPDES Industrial Stormwater Permitting	Taylor	Yes	11/09/12	Closed	I contacted WDNR concerning extending the current No Exposure Certification from our Main Facility to include the Ecostar facility. I talked with Kim McCutcheon at WDNR and she suggested I submit a new No Exposure Certification listing both addresses and that would then cover it and that would also change our permitting out 5 years from this new date. Submission sent to her on 11/09/12.
11/26-11/29	Madison Metropolitan Sewerage District	Quarterly testing of Ecostar discharge	Schroepfer	No			
12/11/2012	Madison Metropolitan Sewerage District (Ralph Erickson)	Zero Discharge Permit inspection for North Plant	Taylor	No			

# EMS Corrective Actions

Log Number	Incident Date	Log Date	Department	Description	Owner / Facilitator	System or Compliance Failure	Date Closed
EMS12001	7/11/2012	7/16/2012	EMS Team	O&T quantification to environmental goals	Jake Taylor	System	10/4/2012
EMS12002	7/11/2012	7/16/2012	Maintenance Mgr	Baghouse Pressure Differential	John Brozek	System	10/15/2012
EMS12003	7/11/2012	7/16/2012	EMS Team	General Environmental Awareness (Impacts/Aspects)	Jake Taylor	System	OPEN
EMS12004	7/11/2012	7/16/2012	Extrusion	Material Disposal/Procedural training	Gonter	System	OPEN
EMS12005	7/11/2012	7/16/2012	Ecostar	Operational Control of procedures having Environmental impact	Gonter	System	OPEN
EMS12006	7/11/2012	7/16/2012	EMS Team	O&T not covered in Management Review	Jake Taylor	System	OPEN
EMS12007	10/19/2012	10/19/2012	HSE Department	Procedure inadequate	Jake Taylor	System	OPEN
EMS12008	10/19/2012	10/19/2012	North Plant	Procedure not being followed	Brett Hubbard	Compliance	OPEN
EMS12009	10/19/2012	10/19/2012	Ecostar	Container not labeled	Kevin Gonter	Compliance	OPEN
EMS12010	10/19/2012	10/19/2012		MSDS system failure	Jake Taylor	Compliance	OPEN
EMS12011	11/9/2012	11/14/2012	HSE Department	Tier II reporting for years 2007, 2008	Jake Taylor	Compliance	11/14/2012
EMS12012	11/30/2012	11/30/2012	HSE Department	Pellitteri Hydraulic Spill	Jake Taylor	Compliance	11/30/2012
EMS12013	12/27/2012	12/27/2012	HSE Department	Pellitteri Hydraulic Spill	Jake Taylor	Compliance	12/27/2012

# Legal & Other Requirements

- No Significant changes
- Need Evaluation of Compliance Review in 2013 for Main, NP and DeForest
- Monitoring Green House Gases (GHG) closely
- Air Emissions downward trend continued

# 2012 Highlights

- Ecostar now included ISO 14001 certification
- Evaluation of Compliance for Ecostar completed
- New graphs YOY for comparisons
- Redevelopment of Waste Matrix
- Development of O&T and tracking mechanism for future use
- No Environmental N.O.V.'s
- Many other developmental improvements
- SPCC rollout/training
- VOC Reduction so not reportable
- ISO 14001 Team vision

# 2013 Objectives & Targets

- EMS Team to quantify (put goals in place) to what we want to accomplish, now that we have tracking mechanisms in place
- UW Capstone Project - update

# 2012 Environmental Reporting

- Annual Items:
  - Hazardous Waste Report (DNR) (VSQG)
  - Air Emissions Report (DNR/EPA)
  - Tier II Report (Local Fire, EMS)
  - POTW Zero Discharge Report (North Plant) (bi-annual)
  - WPDES Discharge Report / Stormwater Pollution Prevention Plan (SWPPP) (DNR/EPA)
  - Non-Contact Cooling Water Discharge Permit (DNR)
  - Spill Prevention Control & Countermeasures (SPCC) (DNR/EPA)
  - Pesticide Report (FIFRA)(EPA)
  - Radioactive Material Registration (WI)
  - Pressure Vessels (WI)
  - SARA Title III (TRI/Form R) Reporting (EPA)