

# City of Kearney Solid Waste Management

Kearney Area Recycling Center  
3007 East 39<sup>th</sup> Street

Kearney Area Solid Waste Agency Landfill  
6711 West 56<sup>th</sup> Street

Kirk Stocker, Director of Utilities  
Steve Hart, Sanitation Supervisor



# Kearney at a Glance

- ▶ Population of Kearney is 32,174 (2013).
- ▶ Approximately 9,000 residences/over 1,000 Commercial Customers
- ▶ Color coded containers; Green=Trash, Blue=Recycling, Brown=Yard Waste
- ▶ Approximately 5,500 Residential Recycling Containers
- ▶ Approximately 3,500 Yard Waste/Compost Containers
- ▶ University of Nebraska at Kearney brings additional 5,500–6,000 students to Kearney during the school year.

# City of Kearney Waste Management

## Sanitation Division/Kearney Area Recycling Center

- ▶ \$4.2 Million Dollar Annual Budget.
- ▶ Residential and commercial refuse collection for the City.
- ▶ Established and operates a successful recycling program.
- ▶ Collects yard waste from residents which is then taken to the Landfill and composted. This compost is then made available to public.
- ▶ Established a Household Hazardous Waste Program.
- ▶ Provides a cardboard pick up service for commercial customers.
- ▶ Provides roll-off box compactor services for construction and large facilities.

## Kearney Area Solid Waste Agency Landfill

- ▶ \$3.1 Million Dollar Annual Budget.
- ▶ State Licensed
- ▶ Serves County and City.
- ▶ No violations during the time of operation.
- ▶ Accepts: refuse, wood pallets, yard waste, trees, tires, appliances, concrete, asphalt at separate locations on site.
- ▶ Tipping station is available for residents; eliminates the need for individuals to drive to the active cells. Provides a safer area to leave items meant to be landfilled.
- ▶ Tipping fees are \$32.50/ton for uncompacted waste and \$27.50 for compacted waste.

# City of Kearney Sanitation Division

- One of the six divisions of the City of Kearney's Utility Department.
- Provides Trash, Yard Waste and Recycling pick-ups for the City.
- Operates a successful recycling program that serves Kearney and surrounding communities.
- Operates a Household Hazardous Waste Collection Program.
- Staff educates the public about our programs and ways to be more environmentally friendly.
- The City of Kearney Sanitation Division operates as an Enterprise Fund. There are no tax dollars used. The Sanitation and Landfill Divisions operate from rates charged from services and from grant money received.



# Automated Trash Routes

- 17 trash routes, operating Monday through Friday
- Weekly trash pick-up.
- \$12.15 per container per month.
- Each automated truck is operated by one driver.
- Approximately 800 residential containers emptied per day, per truck, or one container every 36 seconds.
- Automated Trucks cost about \$250,000





## Yard Waste Collection

- 1<sup>st</sup> week in April through the week before Thanksgiving.
- \$12.15 per month for weekly empty.
- Taken to the Kearney Area Solid Waste Agency Landfill and composted, which is then available to residents.
- Approximately 8,500 cubic yards of compacted yard waste annually.

# Rear Load Packer Truck Trash Collection



- Rear Load Packer Trucks are used for a portion of the commercial refuse collection.
- Rear Load Packer Trucks Cost approximately \$160,000.
- Containers cost about \$750 each.
- Truck needs two employees to empty containers.
- These are needed for the more challenging locations that overhead trucks cannot serve.



## Commercial Overhead Truck Trash Collection

The City of Kearney utilizes two overhead trucks. There are several benefits of using these types of garbage trucks:

- Single Employee.
- Increased load capacity to improve efficiency.
- Ability to use larger containers, up to 8 cubic yards, more than twice the amount of the 3 cubic yards that are emptied by the rear load trucks. This helps to reduce the frequency we are at the business emptying garbage.
- These trucks have a larger garbage body, which means less trips to the landfill to empty and more time collecting refuse.

This truck costs approximately \$225,000. Currently the City is transitioning from metal 8 yard containers that cost \$1,500 to plastic 8 yard containers that cost \$1,200.

# Roll-off Boxes and Compactors

The Sanitation Division utilizes roll-off boxes and compactors to accommodate larger amounts of refuse.

- Roll-off dumpsters are used for new construction and for remodels.
- Compactors are used at larger facilities, such as the CHI Health Good Samaritan, UNK and factories.
- Approximately 1,800 roll-off boxes and compactors emptied per year.



# Commercial Cardboard Collection



The City of Kearney collects cardboard from businesses and schools. There is a fee for this service; separating the cardboard from the refuse reduces the amount of trash produced by the customer and lowers their overall sanitation fees.

- Annually, the Kearney Area Recycling Center ships 110 semi-truck loads of bailed cardboard to be recycled.
- 2,038 tons of cardboard was shipped to be recycled in 2014.





## Residential Recycling Collection

- 16 recycling routes twice per month. Containers are emptied on either the first and third week of the month or the second and fourth week of the month.
- Free container.
- Free Collection.
- “Single Stream Collection”, all of the recyclables are mixed together in the recycling containers and in the truck, delivered to the Recycling Center and sorted by staff.
- Approximately 30–40 people per month call to request a recycling container for their home.
- Currently, approximately 55% of residences in Kearney have a recycling container, approximately 5,400 containers.
- Commercial recycling is collected with these same 90 gallon containers at businesses and schools. Collected weekly on Tuesdays or Friday.



# Additional Recycling Services



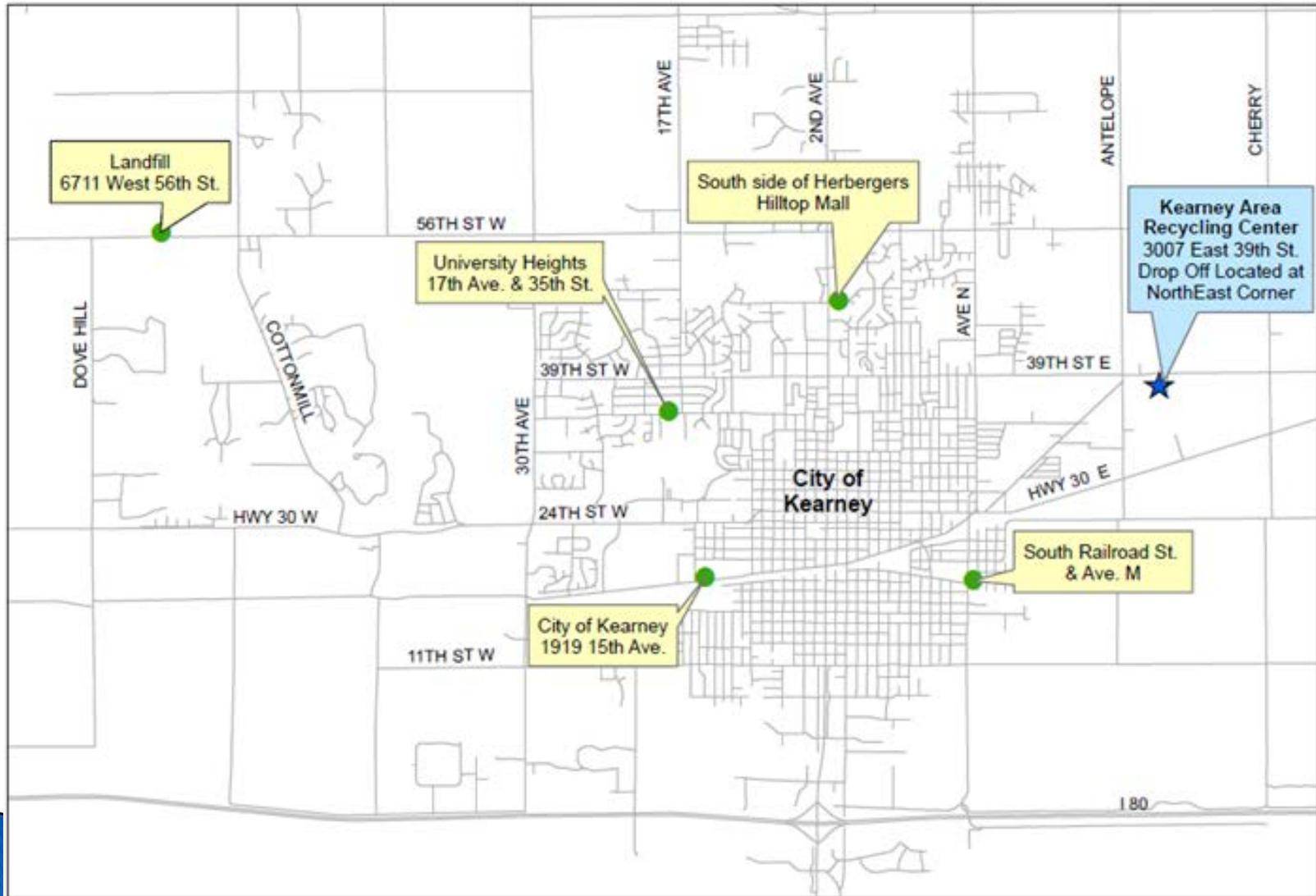
The City offers recycling drop off trailers for people to bring recyclables. These drop off locations are highly utilized and are emptied 2-3 times per week as needed.



The Kearney Area Recycling Center collects paper from the Kearney Hub to be recycled. Newspaper boxes are collected three times per week.



# Drop-Off Locations in the City of Kearney



# The Beginning of the Process



Residents of Kearney have the option to have a free recycling container at their homes. The City offers several drop-off locations throughout town for people to take their items to be recycled. All Recycling is taken to the Kearney Area Recycling Center to be sorted.

# Items Recycled at the Kearney Area Recycling Center



## Aluminum:

Cleaned with water,  
bagged separately



## Paper:

Newspaper, Magazines,  
Envelopes Mixed Office  
Paper



## Cardboard:

Boxes, Cereal Boxes,  
Pop Cartons. All  
Flattened.



## Tin:

Cleaned with Water,  
Bagged Separately



## Glass:

Bagged separately,  
cleaned with water,  
no lids,



## Plastic:

#1, #2, #4, #5  
Cleaned with Water



# The Sort Line

The City of Kearney has two part time shifts of 6 people to sort recyclables.



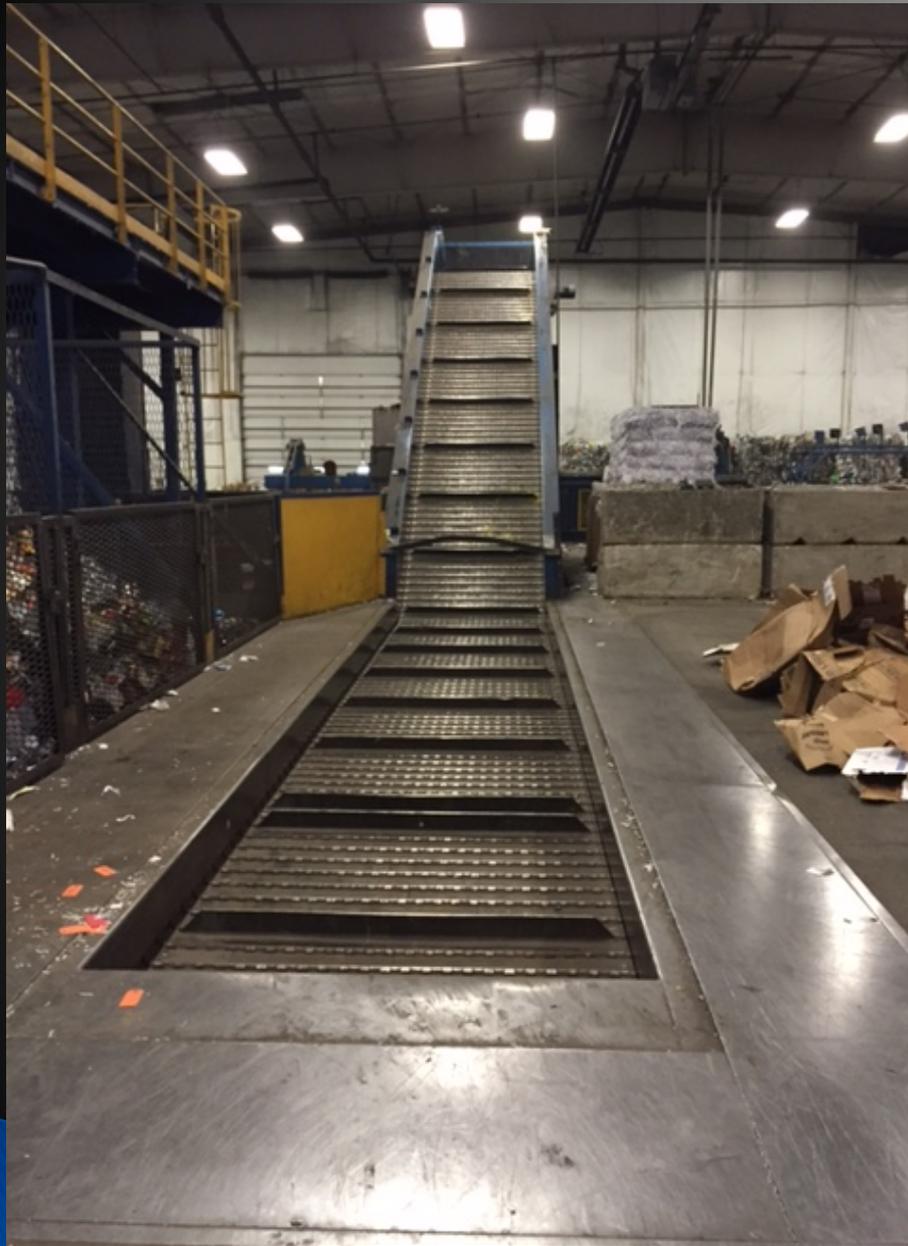


## The Sorted Recyclable Bins

- Items are sorted and dropped into compartments underneath the sort line.
- individual bins for paper, cardboard, plastics #1, #2, #4, #5, tin and aluminum.
- Glass is sorted into Gaylord boxes at the end of the sort line.

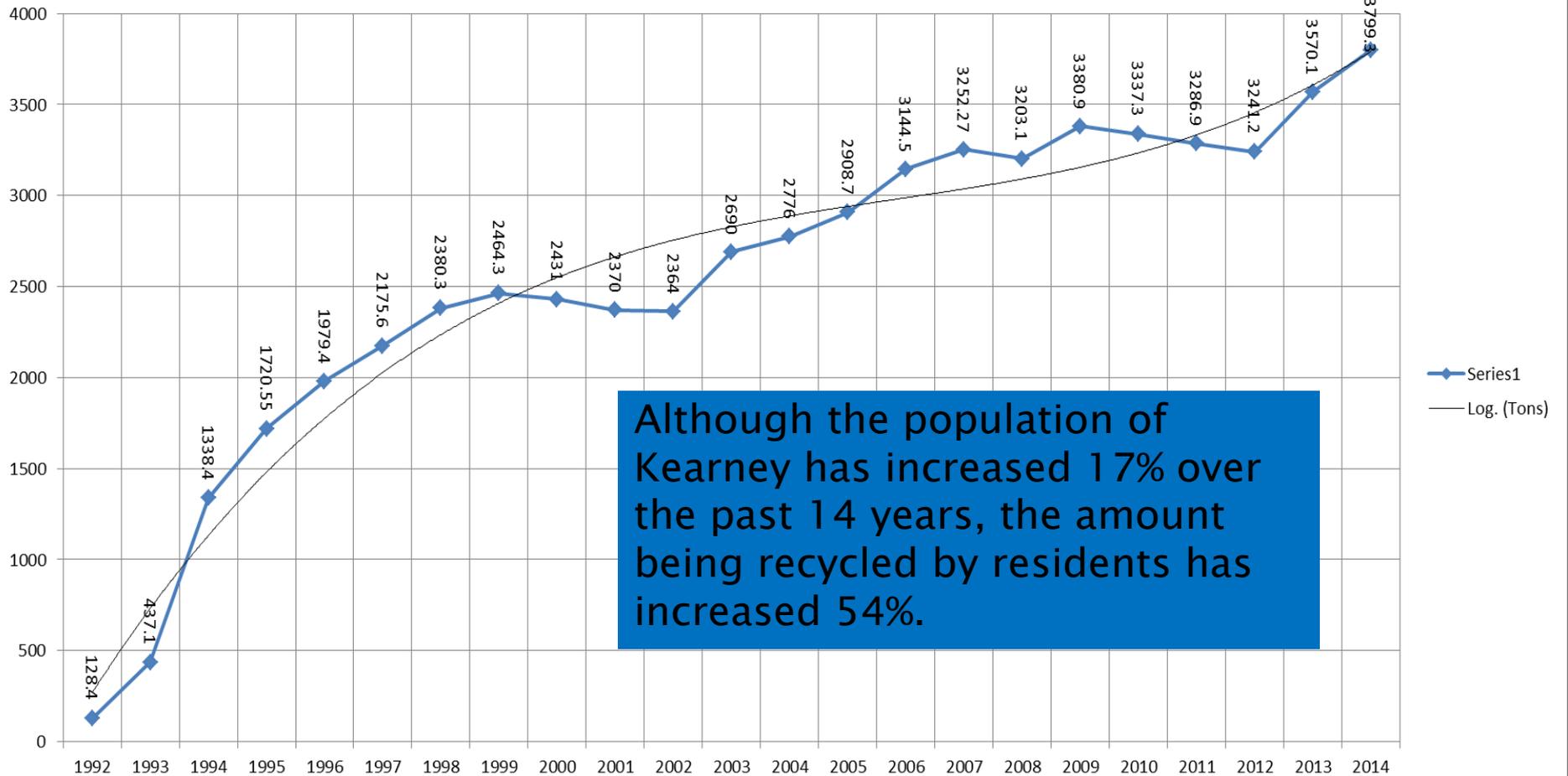
# The Baler

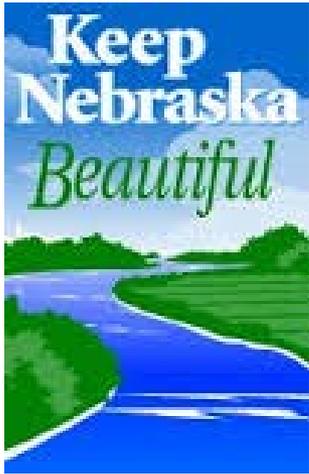
When the compartments are full of the recyclable item, they are then pushed onto the conveyor that will take the recyclables to the baler. 4' X 6' bales are made and loaded into semi-trailers.



# Total Recycling Tons Per Year

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	Total
Office Paper				0	41.1	26.3	37.6	63.4	69.8	74	77	80	82	71	73	68.76	67.2	69.5	43.9	49.2	44.5	43.5	44.1	1125.86
Newspaper	128.4	437.1	594.7	630.2	682.7	802.5	817.6	859.6	804.4	741	743	893	899	921.2	1061.5	1211.5	1070.6	1180.8	1181	1164.3	1066.1	1189.8	1197.4	20277.4
Aluminum				0.9	3.3	3.4	3.9	4.7	4.6	8	9	10	10	8.6	8.1	5.5	9.8	12.4	9.4	11.5	12.8	13.1	12.6	161.6
Steel Cans				26.7	71.8	79.8	84.4	79.8	81.2	84	89	92	87	79	81.5	76.1	75.3	84.7	72.9	86.7	77.9	76.2	63.4	1549.4
Glass				59.6	69.9	75	74	71.4	76.8	61	77	72	88	110.5	126.6	96.94	97.3	105.7	98.8	114.9	161.4	156.5	159.9	1953.24
Plastics				10.45	54	63	80.6	83.3	87.4	89	84	87	86	90	115.5	107.3	106.8	119.1	159.3	167.3	190.5	259.1	283.9	2323.55
Cardboard			743.7	992.7	1056.6	1125.6	1282.2	1302.1	1306.8	1313	1285	1456	1524	1628.4	1678.3	1686.2	1776.1	1808.7	1772	1693	1688	1831.9	2038	30988.3
<b>TOTAL</b>	<b>128.4</b>	<b>437.1</b>	<b>1338.4</b>	<b>1720.6</b>	<b>1979.4</b>	<b>2175.6</b>	<b>2380.3</b>	<b>2464.3</b>	<b>2431</b>	<b>2370</b>	<b>2364</b>	<b>2690</b>	<b>2776</b>	<b>2908.7</b>	<b>3144.5</b>	<b>3252.27</b>	<b>3203.1</b>	<b>3380.9</b>	<b>3337.3</b>	<b>3286.9</b>	<b>3241.2</b>	<b>3570.1</b>	<b>3799.3</b>	<b>58379.3</b>





# Household Hazardous Waste Collection Program

The City of Kearney has been collecting Household Hazardous Waste for approximately the last 15 years. The program accepts items from households such as:

- Paint
- Paint related items
- Yard chemicals
- Cleaners
- Used motor oil
- Battery drop-off sites are also located throughout the city for convenient recycling for our community.
- Red Willow County HHW program transports HHW to Kimball, Nebraska to be incinerated.

In 2014 the HHW program for Kearney recycled 44 55-gallon drums of flammables and paint products, over 4,000 pounds of assorted chemicals and 8,300 gallons of used motor oil.



# HHW Drop-off Locations



1919 15<sup>th</sup> Avenue



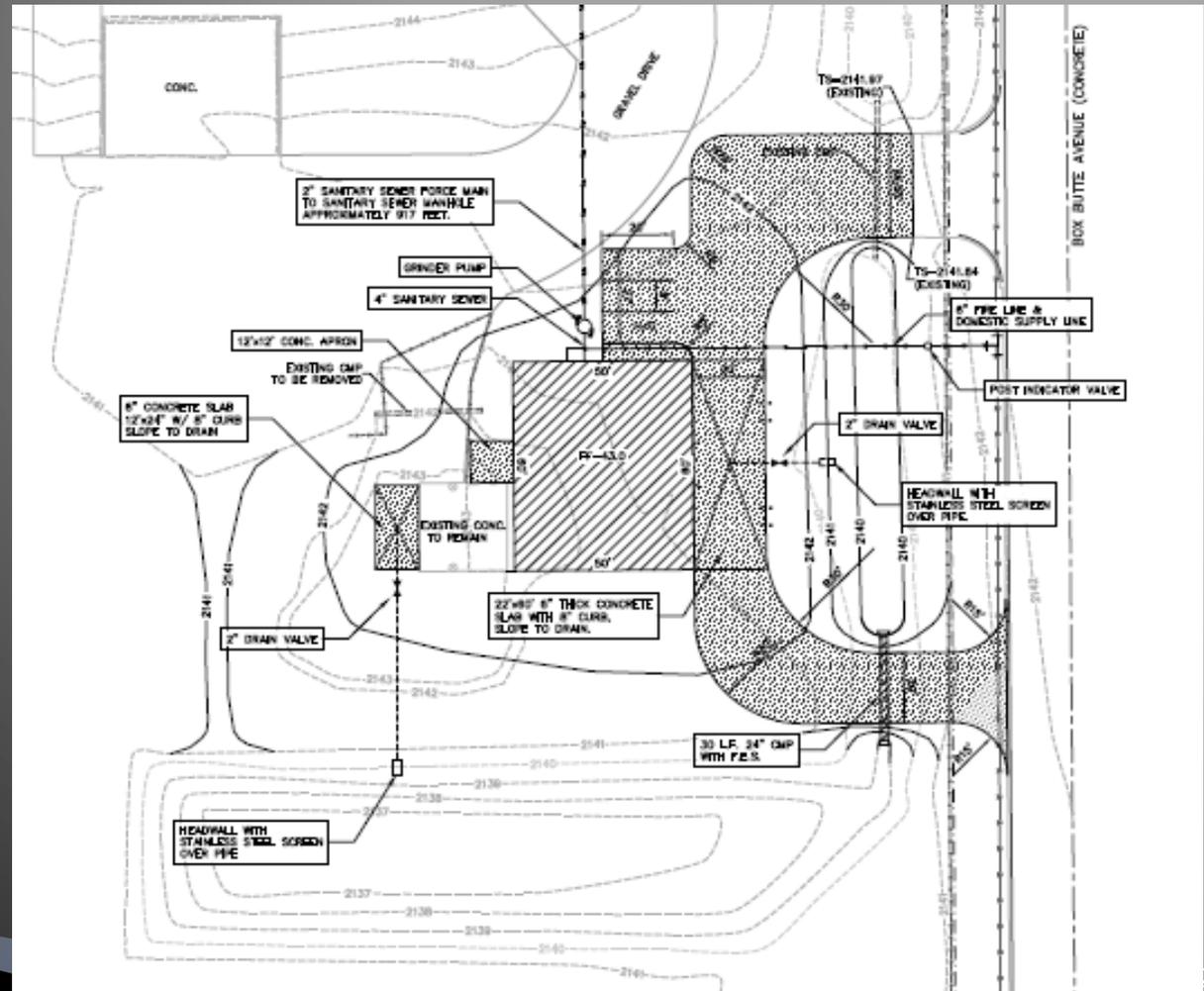
3007 East 39<sup>th</sup> Street

The City of Kearney has two un-manned drop off locations for Household Hazardous Waste.

- 300 gallon used oil container and shelving for residents to place their items on.
- Household use only.
- Businesses are required to dispose of any of their chemicals according to their generator status.

# The New Household Hazardous Waste Facility

- \$220,000 Grant from the Nebraska Environmental Trust for the construction of a new Household Hazardous Waste Facility.
- This grant is one of the 113 projects receiving \$19,491,958.00 in grant funding from the Nebraska Environmental Trust this year.
- 50x60 steel construction building with a covered drive through area.
- “ReStore” area that residents can visit and take any unused or unwanted household chemicals and paint at no charge.





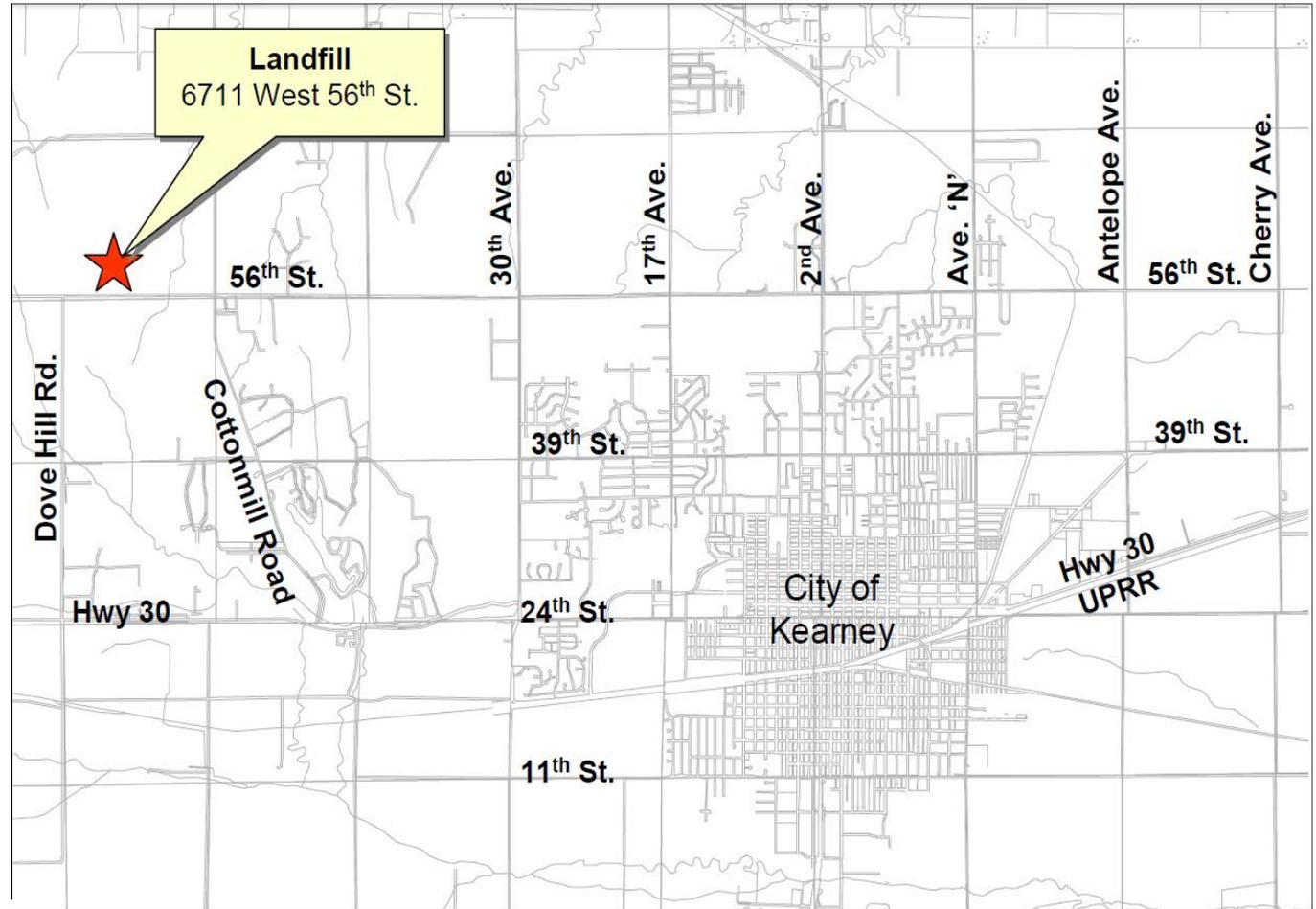
## UNL Pesticide Container Recycling Program

- Participated in the UNL Pesticide Container Recycling Program, part of the Division of Agriculture and Natural Resources, for over 20 years. Containers must be triple-rinsed with the lids removed.
- Containers are collected at the Kearney Area Recycling Center.
- Recycling Center ships out 2 semi-trailer loads of pesticide containers per year.

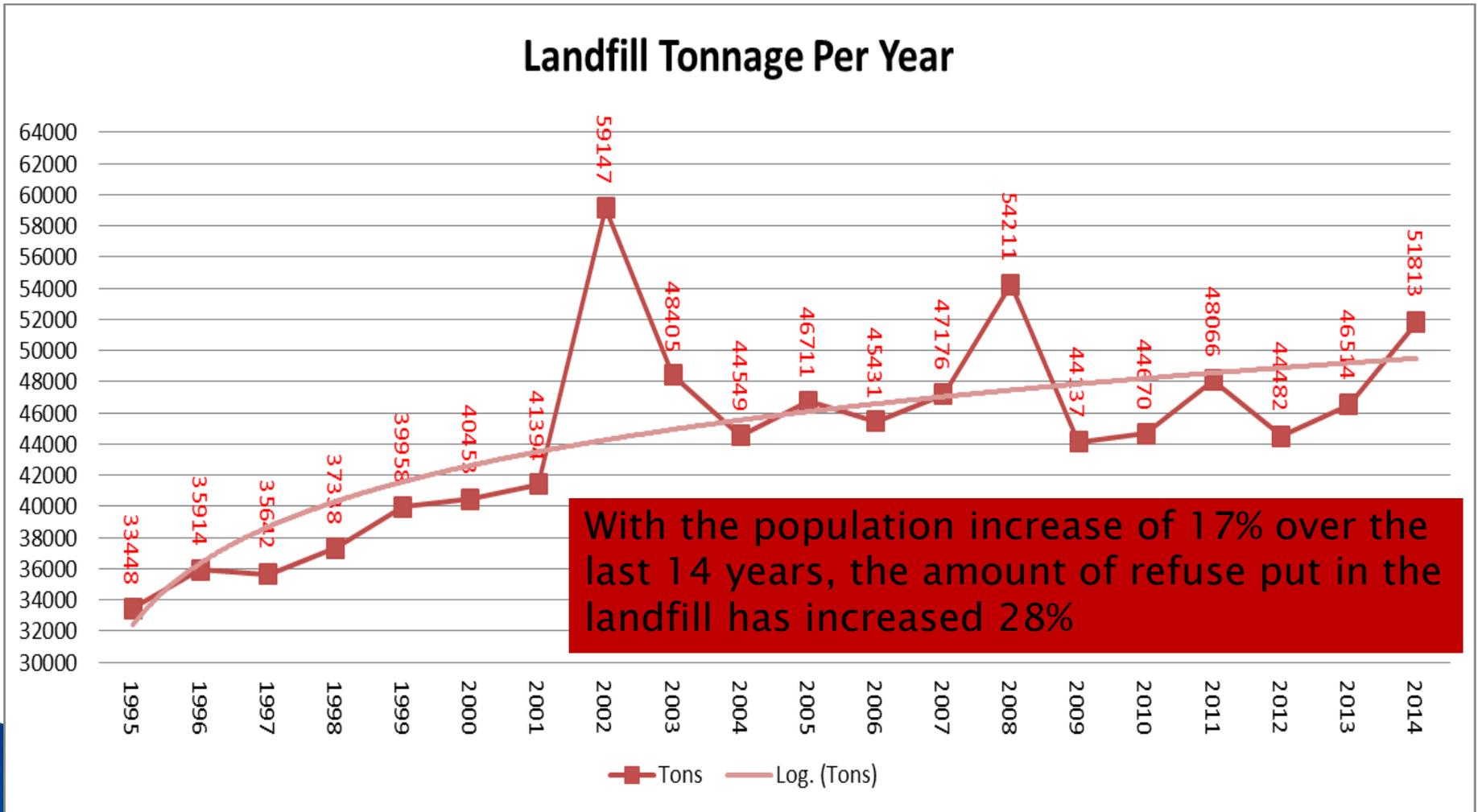


# Kearney Area Solid Waste Agency Landfill

- Located at 6711 West 56<sup>th</sup> Street.
- About 3 miles northwest of the city.



# Landfill Tonnage Per Year



# The Scale House



## Kearney Area Solid Waste Agency Landfill-Scale House

- Customers drive across the scale to the landfill.
  - Their vehicle is weighed with their refuse, and then weighed empty.
- Rate is \$32.50 per ton for uncompacted waste and \$27.50 per ton for compacted waste.
  - Rates have never been raised, and have been reduced for compacted material.
- There is a minimum \$4.00/transaction, excluding yard waste, which there is no charge for.

# Kearney Area Solid Waste Agency Landfill-Tipping Station

The tipping station at the Kearney Area Solid Waste Agency Landfill has been added for convenience to customers. This building allows people to bring their items to the landfill with out having to drive onto the working cells. Especially during times of inclement weather, this feature has increased the overall safety of our landfill.



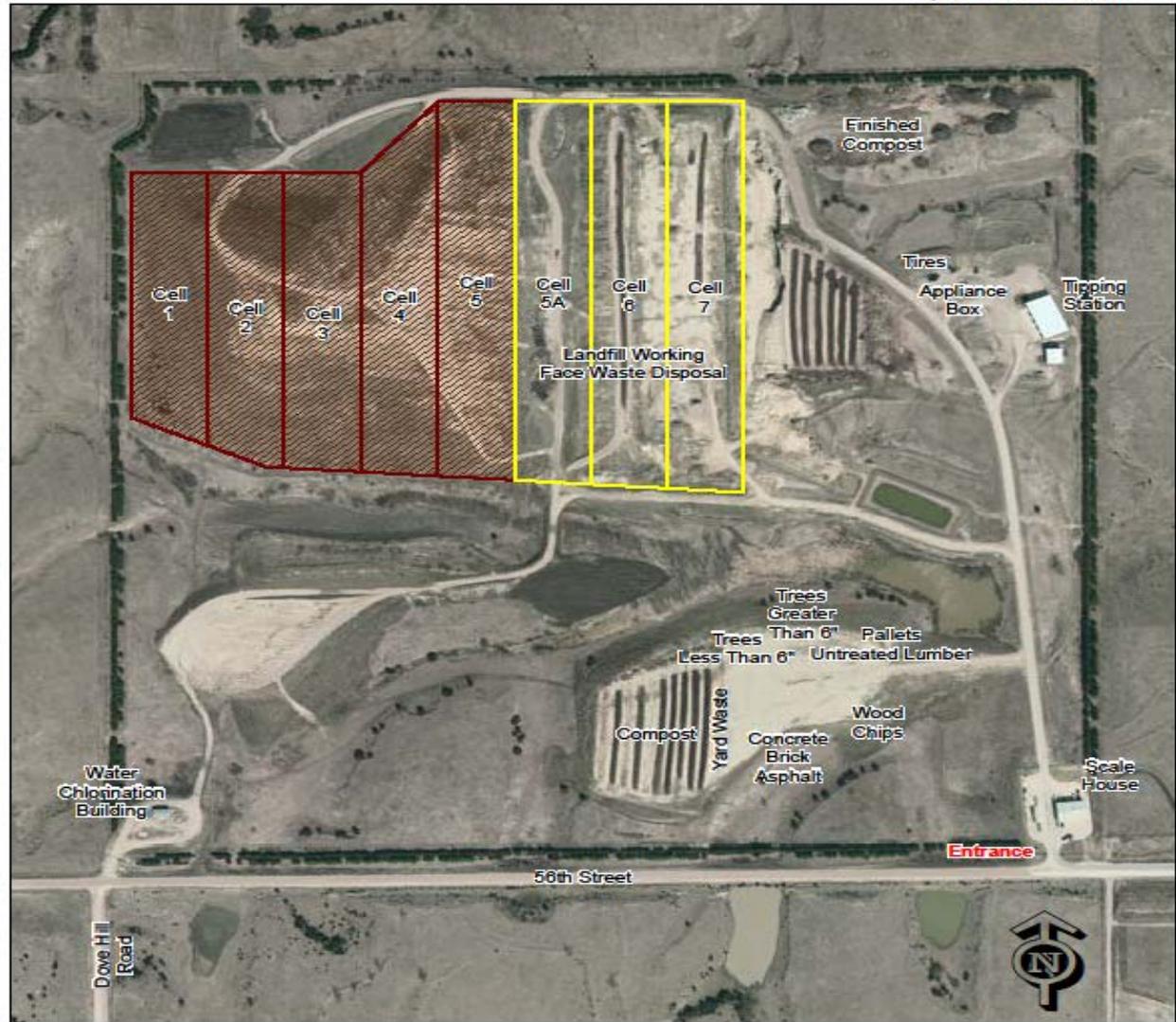


# Kearney Area Solid Waste Agency Landfill

6711 West 56th Street

Updated: November 2011

Kearney Area Solid Waste Agency Landfill consists of a Scale House, Tipping Station, Appliance Box, Tire Area, Individual Cells, a Pallet Pile, a Compost area.



# The Compactor



The Landfill has a compactor that is used to increase the compaction in the landfill. With a purchase price of \$500,000, this machine weighs approximately 100,000 pounds and is able to crush and compact garbage, helping to increase the life of our landfill.

# Tarping System

- Tarping system used to cover the working face of the landfill.
- Saves space
- Increase the life of the landfill by not covering the working face with the required 6 inches of dirt.



# Litter Fences

Portable litter fences are used to prevent garbage from blowing out of the landfill. There are approximately 130 litter fences at the Landfill, or 2,880 feet of litter fence.



# Tire Recycling

- September 27<sup>th</sup>-October 10<sup>th</sup> 2014, collected and recycled over 300 tons of tires from Buffalo County.
- Funding provided by the Nebraska Department of Environmental Quality.
- Normally, passenger car tires can be brought to the landfill for \$1.00 each.
- In the last 6 years the City has collected 2,008.36 tons of tires to be recycled through these grants. (This is equivalent to 182,000 car tires)



# Composting



# Yard Waste/Composting

The City of Kearney's yard waste and composting programs have been very successful.

- Extended landfill hours for yard waste as well as trees, tires, appliances, concrete and asphalt disposal.
- Landfill typically sees 2,000–3,000 vehicles bringing yard waste per month during the summer.

## Landfill Cells and Tipping Station

November 1 – April 5		April 6 – October 31, 2015	
Monday – Friday	8:00 a.m. – 5:00 p.m.	Monday – Friday	8:00 a.m. – 5:00 p.m.
Saturday	8:00 a.m. – 2:00 p.m.	Saturday	8:00 a.m. – 2:00 p.m.
Sunday	Closed	Sunday	Closed

## Yard Waste/Trees/Tires/Appliances/Concrete/Asphalt Disposal Hours

November 1 – April 5		April 6 – October 31, 2015	
Monday – Friday	8:00 a.m. – 5:00 p.m.	Monday – Friday	8:00 a.m. – 8:00 p.m.
Saturday	8:00 a.m. – 5:00 p.m.	Saturday	8:00 a.m. – 5:00 p.m.
Sunday	Closed	Sunday	1:00 p.m. – 5:00 p.m.

# Pallet/Clean Lumber Recycling



The pallet disposal site is utilized by many of the manufacturers in Kearney.

- Accepted at the Landfill for \$10.00/ton or \$1.00 per pallet
- Pallets are ground.
- Residents can use ground pallets for landscaping or to put around playgrounds.



## Additional Services

The Solid Waste Agency Landfill also accepts appliances and concrete. The concrete is crushed and sold through a bidding process once a large amount is accumulated. Approximately 5 tons of appliances are hauled to Hastings NE every month. Freon is recovered and the appliance is recycled responsibly.





# Grants Received



<u>Date:</u>	<u>Equipment:</u>	<u>Purchase Price:</u>	<u>Grant Awarded:</u>
1993-1994	Compost Turner	\$72,255.00	\$75,000.00
1993-1994	Recycling Containers	\$31,500.00	\$31,500.00
1993-1994	Baler	\$43,885.00	\$50,000.00
1993-1994	Bobcat	\$15,700.00	\$20,000.00
1994	Summit Baler	\$29,000.00	\$12,400.00
1995	Recycling Drop-off Trailers	\$9,794.00	\$13,000.00
1995	Landfill Compacter	\$207,500.00	\$65,700.00
1995	Trommel Screen	\$77,930.00	\$75,000.00
	Skid Steer Loader	\$23,550.00	\$16,500.00
2001-2002	Forklift	\$19,049.00	\$19,500.00
2002-2003	Cardboard Truck	\$69,500.00	\$90,000.00
2004-2005	Infloor Conveyer/Baler	\$266,000.00	\$225,000.00
2003-2004	**Kearney Area Recycling Center	\$1,369,000.00	**\$200,000.00
2006-2007	Sorting Line	\$280,955.00	\$288,774.00
2009-2010	Skid Steer Loader	\$30,550.33	\$29,060.00
2011-2012	Trommel Screen	\$170,825.00	\$84,860.00
2014-2015	**Household Hazardous Waste Facility	??	**\$220,000.00
	<b><u>Totals:</u></b>	<b>\$2,716,993.33</b>	<b>\$1,516,294.00</b>

\*\* Items are contributions from the Nebraska Environmental Trust



# Tire Grants

Date:	Tons of Tires Collected:	Grant Awarded:
March 1999	451.1	\$42,590.00
May 2004	349.6	\$31,461.00
November 2005	156	\$13,739.00
April 2007-June 2008	212.8	\$27,300.00
July 2009	290.86	\$27,600.00
September 2012	243	\$21,061.00
September 2014	305	\$25,622.00
<hr/>		
Total:	2008.36	\$189,373.00



# *Thank You*

*The Contributions and Grant money from organizations such as the Nebraska Environmental Trust, Nebraska Department of Environmental Quality, Keep Nebraska Beautiful and the Central Platte Natural Resource District have helped our programs to become successful. The funding has assisted the City in improving programs to meet the increasing needs of our growing community. The City would not have accomplished so much without this support.*