

SPECIAL EDITION

WASTELINE
Omaha Public Works
Environmental Quality Division
5600 South 10th Street
Omaha, NE 68107-3501



WASTELINE

Recycling, Garbage and Yardwaste Information for the Citizens of Omaha, Nebraska
Public Works Department Robert G. Stubbe, P.E., Director Environmental Quality Division

July 2017
City of Omaha
Jean Stothert, Mayor

**Countdown to a
New Solid Waste
Collection Contract
Begins Now!**

Editor's Note:

THIS ISSUE OF **WASTELINE** is different — the usual parts explaining garbage, yardwaste, and recycling collection are not included.

There are no changes in collection. Garbage, yardwaste, and recycling collection remain the same. If you are new to Omaha, or need a refresher about solid waste collection, visit <http://www.wasteline.org/wasteline.pdf>.

If you have questions or service issues, you may call the Solid Waste Helpline at 402-444-5238. City staff will answer your call from 8AM to 8PM weekdays and 8AM to NOON on Saturday. At other times, an answering service will assist you.

The current solid waste collection contract began on January 1, 2006. It will expire on December 31, 2020.

For the last year, the City has been studying various options that may be part of the next solid waste contract. This issue of **WASTELINE** reviews the reports, surveys, and pilot programs that will help to develop the new contract.

The complete reports are available at <http://future.wasteline.org>.

O!



Favor de llamar al 402-444-5238 si tiene alguna duda sobre el sistema de colección de basura en Omaha.

Collection Contract Preparation

BIG CHANGES ARE COMING in the next solid waste collection contract. The next solid waste collection contract must be in place by January 1, 2021.

As the City prepares for the next solid waste collection contract, four open houses are being held.

The four open houses will all have the same format and materials available. There will not be any presentations. The public may come at any time during the open house.

At the open houses you will see collection equipment and get your questions answered.

This issue of **WASTELINE** gives a synopsis of what is being examined for the next contract. More in-depth information is available at <http://future.wasteline.org>. The website contains complete reports and videos.

O!

Open House Schedule

- ▶ Come at any time during the open house.
- ▶ No formal presentations.
- ▶ All open houses will provide the same information.

Wednesday July 26, 2017 5:30PM to 7:30PM

Nathan Hale Middle School
6143 Whitmore Street

Thursday July 27, 2017 5:30PM to 7:30PM

Elkhorn Ridge Middle School
17880 Marcy Street

Wednesday ... August 2, 2017 ... 5:30PM to 7:30PM

Columbus Park Community Center
1515 South 24th Street

Thursday August 3, 2017 ... 5:30PM to 7:30PM

Westside Community Conference Center
3534 South 108th Street



▲ Demonstration of an Automated Side-Load truck.

Variety of carts. ▶



LEGAL NOTICE: Placement of solid waste (garbage, recyclable materials, and yardwaste) by a resident along a private owned street or road implies permission for the City's solid waste collection contractor to drive onto that street or road to perform contract work. Accordingly, such residents and owners of private streets and roads shall assume the risk of incidental damages incurred in the course of performing work while driving on the surface of these private streets and roads. Incidental damages may include cracks in the surface of the roadway or cave-ins due to collapsed sewers or poor street surface substrate. The City's contractor is not exempt from causal damages to personal property or premises adjoining private streets and roads. Please call the Solid Waste Hotline 402-444-5238 for questions or concerns about collection on private streets and roads.

PRESORTED
STANDARD
US POSTAGE
PAID
PERMIT NO. 1086
OMAHA, NE

Omaha Compared to Other Cities

EARLY IN 2016 the City Council asked the Public Works Department to conduct a benchmark survey of solid waste collection in local and regional cities. SCS Engineers were hired to complete the study. The goal of the study was to give the City a reasonable idea of what options might be available or need to be evaluated for the next solid waste contract.

Eight local and 13 regional cities were surveyed. Information collected included the services offered and the cost to provide the service.


Omaha provides solid waste collection service to households and does not charge a fee for the service. The City does this because of Nebraska Revised Statute 13-2020. Omaha is the only city in Nebraska that must follow NRS 13-2020. Omaha pays for collection from the General Revenue Fund which is derived from property and sales taxes.

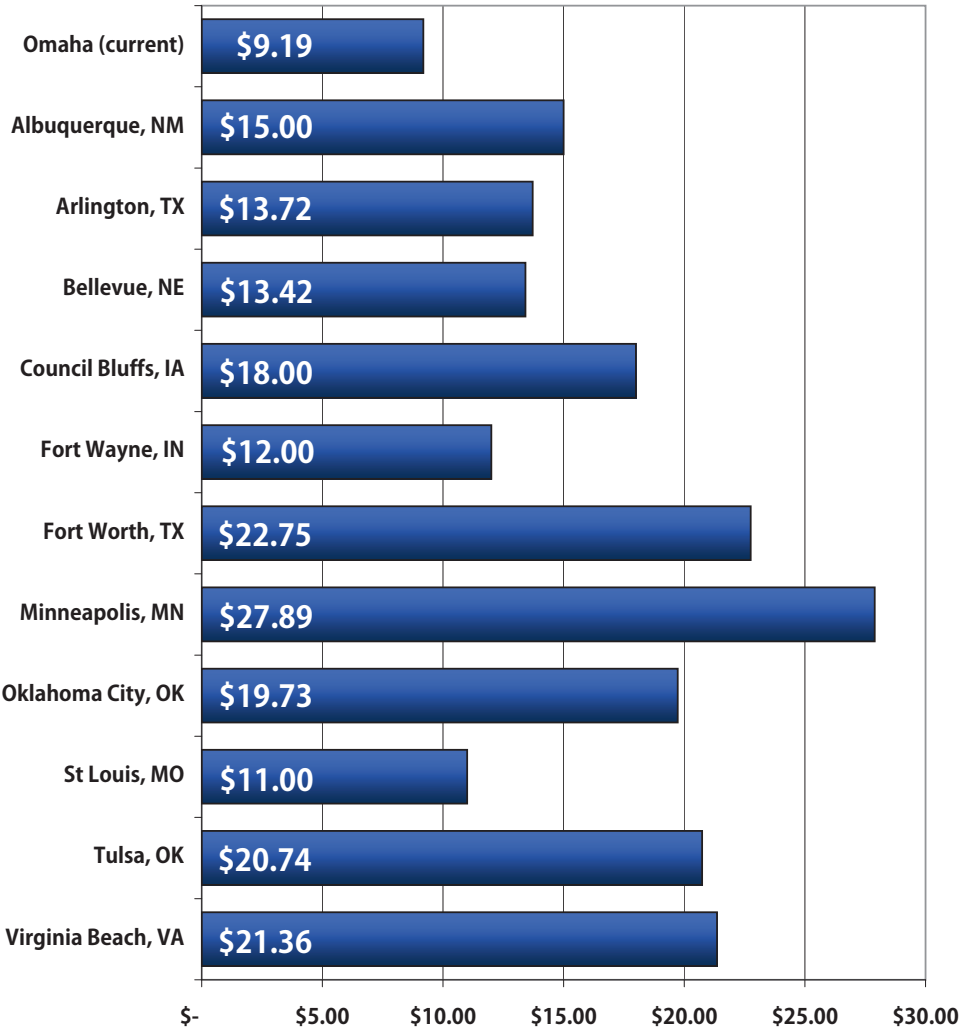
Of the local cities contacted, only Council Bluffs, IA, and Bellevue, NE, provide collection service to their residents. Two of the regional cities, Wichita, KS, and Colorado Springs, CO, don't provide collection service

to their residents. That brings the total number of cities used in the benchmark survey to 13.

Key points from the Study are:

- ▶ Only Denver, CO, and Kansas City, MO, don't charge a fee for collection service.
- ▶ Most cities use carts and either semi- or fully- automated collection trucks
- ▶ The monthly per household fee ranges from \$12.00 (Fort Wayne, IN) to \$27.89 (Minneapolis, MN). Omaha currently pays Waste Management \$9.19.
- ▶ Nine of 13 cities provide separate yardwaste collection. Two do not collect yardwaste and two collect yardwaste combined with garbage.

SCS Engineers collected many details about fees, containers, collection methods, collection vehicles, and other aspects of solid waste management. The complete report of their findings is available at <http://future.wasteline.org>. 



Pilot Program and Post Pilot Survey

IN OCTOBER, 2016, 2,500 homes in five neighborhoods were notified of a pilot program they would be part of. This pilot tested wheeled carts for collection by an automated side loading truck. The pilot ran from November 7, 2016 to April 21, 2017.

Each home in the pilot was provided one 96-gallon cart for combined garbage and yardwaste, and a second 96-gallon cart for recyclables. For any extra yardwaste, households were allowed to set out, up to six paper yardwaste bags. Recycling was collected every other week during the pilot. The carts were on loan from Waste Management, who also provided the special collection truck and the labor for cart delivery, at no cost to the City.

Recycling Analysis

During the pilot, one of the things the City wanted to examine was the impact on recycling. Before and after the pilot, and twice during the pilot, the

city pulled samples of recyclables for a one week period. These recyclables were then sorted to determine the amount of contamination (non-recyclable material).

From the pilot, there are strong indicators that recycling would grow when changing to carts. During the pilot, 73 percent of the households set out recycling. Outside of the pilot only 61 percent set out recycling.

Carts also had some bad results. The non-recyclable items placed in the carts got bigger, and they were not items that would easily be confused as something that was recyclable. In the samples of recycling we found; a wicker basket, a Speak-n-Spell® toy, a toddler's wooden puzzle, and a metal shower caddy. These contaminants were in addition to the more common contaminants of plastic bags, glass bottles, and Styrofoam®.

Survey


Near the end of the six-month pilot, a public opinion survey was conducted by Wiese Research Associates and the results analyzed by SCS Engineers.

The survey was conducted by phone with live operators over several weeks beginning March

25, 2017. The survey was sampled to give a high degree of confidence that the results would represent the whole city.

The results indicated that the residents in the pilot were overwhelmingly satisfied. A combined 85 percent were either totally or mostly satisfied with the pilot. Asked if they would favor the City moving to a cart collection system like the pilot, the survey again resulted in overwhelming approval. With 82 percent selecting either strongly, or moderately favoring carts as Omaha's new collection system.

Specific to the carts, it is clear that at best, "One size fits most." Those in the pilot were mostly satisfied with the size of the 96-gallon cart and only a very few found them difficult to wheel around. For both garbage and recycling there were responses that said the cart was either too large or not large enough.

To read the report on the survey, including the verbatim responses of those surveyed, visit <http://future.wasteline.org>. 



Evaluating Yardwaste

During much of 2015 and all of 2016, yardwaste was collected with garbage and landfilled. Co-collection was necessary because of a shortage of qualified drivers. The Mayor and Council determined yardwaste collection should be examined before the next contract.

The Public Works Department hired SCS Engineers to quantify the economic and environmental aspects of dealing with yardwaste collection and disposal in a variety of ways.

Economic Evaluation

For the economic part of the study, SCS Engineers examined five different scenarios of how to handle garbage and yardwaste.

Scenario 1 is comparable to the current contract terms. Yardwaste and garbage are separately collected. Yardwaste is composted. In this version, three trucks are used for route collections, one each for garbage, yardwaste, and recyclables. Composting is done at the City's Oma-Gro operation and the resulting compost sold through retail outlets.

Scenario 2 is how collection was done in 2015. Garbage and yardwaste are co-collected and taken to the Pheasant Point Landfill. At the landfill methane gas from decomposition powers the Omaha Public Power District's Elk City Station. Two trucks are used for route collection.

Scenario 3 is a variation of Scenario 1 but instead of Oma-Gro, an independent composting operation is used. Three trucks are used for route collections like Scenario 1.

Scenario 4 is a variation of Scenario 3. An independent composting operation runs a transfer station (a place where material is moved from a garbage truck to a semi truck)

within the city limits. Three trucks are used for route collections like Scenario 1. More efficient long haul trucks are used to take material to the composting facility outside the city.



Scenario 5 is a variation of Scenario 2. Yardwaste is allowed to be co-collected with garbage and taken to the landfill. Residents have the option to self haul their yardwaste to an independently run drop off location within the city to have their yardwaste composted. Two trucks are used for route collections like Scenario 2. Resident's vehicles are used for a portion of yardwaste collection.

Economic Analysis

The current contracted cost of collecting garbage, yardwaste, and recyclables is \$9.19 per household per month. The comparable modeled cost (Scenario 1) is \$18 per household per month. The least expensive modeled cost (Scenario 2 or 5) is \$13 per household per month.

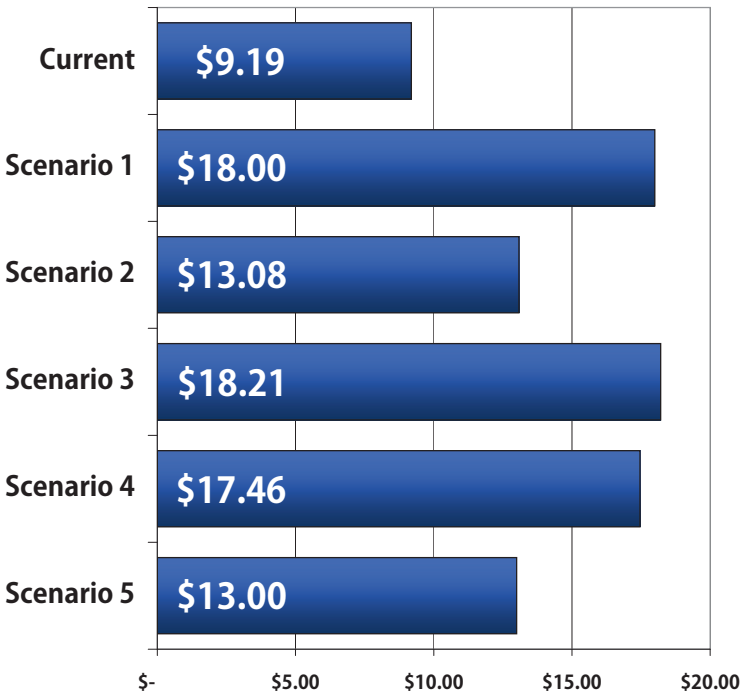
The low cost of the current contract is a result of a contract bid more than 12 years ago at a very favorable price from the beginning.

From an economic perspective, the most cost-effective scenario is number

2. This reduces the number of trucks and employees needed for collection by approximately 30 percent. It also eliminates the net cost incurred to operate the City's compost operation.

Landfill Life

The impact of the various economic scenarios was applied to the projected life of the Pheasant Point Landfill. According to Waste Management — who owns and operates the landfill — it has an anticipated life of 122 years. In Scenario 2 the landfill's anticipated life would be shortened by four years, less than 4 percent of the landfill's total life if Omaha co-collected garbage and yardwaste until the landfill closed.



Environmental Evaluation

For the environmental assessment part of the study, SCS Engineers examined two different scenarios for collecting and disposing of garbage and yardwaste.

Scenario A is the separate collection of yardwaste and garbage used in Scenarios 1, 3 and 4. The purpose is diversion of material from the landfill. Three trucks are used for route collections of the three materials; garbage, yardwaste, and recyclables. This sets a baseline for diversion of 90 percent of the yardwaste to compost during the growing season. The remaining 10 percent is material not suitable for composting at Oma-Gro's facility.



Scenario B is co-collection of garbage and yardwaste used in Scenarios 2 and 5. The purpose is to reduce the number of trucks needed to complete collections. Two trucks are used for route collections of two materials; garbage/yardwaste and recyclables.

Environmental Analysis

Methane gas emissions from landfills are the largest potential source of greenhouse gases in the solid waste industry. Methane from landfills can be effectively collected and used to generate electricity. When used for energy production most of the harmful greenhouse gas effects are eliminated.

To predict the greenhouse gas emissions, several models (formulas) were used. These models were developed by the U.S. Environmental Protection Agency. The models used include: Waste Reduction Model (WARM), Landfill gas-to-energy (LFGE) benefits calculator, and the Carbon-dioxide (CO₂) emission conversion factors.

Under Scenario A the landfill-gas powered Elk City Station could grow from its present size of 6.2 megawatts to 9.6 megawatts by 2040.

Under Scenario B the Elk City Station would grow more rapidly. Yet in 2040 the total capacity would be only slightly larger than Scenario A. The potential capacity for Scenario B is projected to be 10.7 megawatts.

The collection vehicle's greenhouse gas emissions were included for both scenarios. Scenario B includes the emissions from the compost turning equipment. Scenario B also accounts for emission reductions from the use of compost.

Using the total lifecycle approach, Scenario B results in emission reductions equal to removing the tailpipe emissions of more than 3,500 passenger cars each year.

The complete report may be reviewed at <http://future.wasteline.org>. The report is 49 pages and has detailed data about all the highlights given here.



Solid Waste Public Opinion Survey

A PUBLIC OPINION SURVEY WAS conducted to gauge the public's satisfaction of the current collection contract. The survey was conducted by Wiese Research Associates and the results analyzed by SCS Engineers.



WIESE
RESEARCH
ASSOCIATES, INC.

The survey was conducted by phone with live operators over several weeks beginning the end of October, 2016. The survey was sampled to give a high degree of confidence that the results would represent the whole city.

The survey measured the general knowledge of the current solid waste services offered. This included services that go “beyond the curb” such as the recycling drop-off sites, bulky item drop-off and the UnderTheSink facility. General collection knowledge was strong, but “beyond the curb” services were known by less than 50 percent of those surveyed.

Residents were generally satisfied with the collection service provided. There was no widespread dissatisfaction with the service. The dissatisfaction was relatively nominal and not focused on any particular performance factor.

Garbage

Approximately half of those surveyed said that a single 32-gallon trash can meets their typical weekly garbage collection needs. Adding a second container meets the needs of more than 80 percent. A third container satisfies a full 90 percent of the survey sample. From this, one could conclude that nine out of ten households would be satisfied with 90 to 100 gallons of available disposal volume per week.

Recycling

Three-fourths of those surveyed were satisfied with the 18-gallon recycling bin for recycling collection. Of those not satisfied, the responses were that the bins were too small, need a lid, or needed to be more durable. A single bin, collected weekly, was satisfactory for two-thirds of the respondents. Two bins, collected weekly, met the needs of nine out of ten households.

Yardwaste

Over 90 percent of those surveyed indicated that they set out yardwaste at least occasionally. Slightly more

than half reported that they have set out more than six containers of yardwaste at some time in the previous year. When questioned if there should be a limit on the amount of yardwaste collected each week, more than 50 percent stated they were in favor of a limit.

Questions were asked that measured the public's satisfaction or dissatisfaction with the practice of co-collecting yardwaste and garbage. Two-thirds stated they support the separate collection of yardwaste. Even after an explanation of landfill gas collection, energy production, and vehicle emissions reduction, nearly two-thirds supported separate collection. The survey was conducted during a time when yardwaste was being co-collected with garbage.

Future Contract Options

To gauge the public's acceptance of possible future contract options, a variety of options were described then followed by questions. Most prominent were questions about City provided 96-gallon carts, and a truck that is able to empty the cart using a mechanical arm controlled by the driver.

Over 90 percent of those surveyed stated that a 96-gallon cart would be enough for their weekly garbage disposal needs. When asked how extra waste should be handled, the preference was homeowner provided bags or trash cans. This preference was by a two to one margin over a second 96-gallon cart.

While a single cart was enough for garbage collection, when considering co-collection of yardwaste and garbage, nearly one-half responded that one cart would not be enough space. When asked to consider a second 96-gallon cart, one-third still had concerns that this would not fulfill their need. Storage of a second cart was a concern for nearly 40 percent of those surveyed.

For recycling, 92 percent of those surveyed stated that a 96-gallon cart collected every-other-week would be enough for their needs. More importantly is that 25 percent indicated they would likely recycle more than they currently do if recycling bins are replaced with a cart.

The complete report including the raw data is available at <http://future.wasteline.org>.

2016 Omaha Solid Waste Stats

WASTE MANAGEMENT notified the City in early 2016 that they were having difficulty hiring enough qualified drivers. Without enough drivers, Waste Management would not be successful in collecting yardwaste on time.

To prevent yardwaste collection delays, Mayor Stothert authorized Waste Management to co-collect yardwaste and garbage. Decomposing yardwaste and garbage at the Pheasant Point landfill produces methane gas. The gas is collected and used to produce electricity at the Omaha Public Power District's Elk City Station.

The City notified Waste Management that they must recruit drivers by every

means possible. Contract compliance of separate yardwaste collection is the expectation for 2017. Waste Management now reports the job fairs they participated in, recruiting events held, hiring bonuses offered, and referral bonuses offered. Waste Management opened a training facility to assist helpers in obtaining their commercial drivers license.

Recycling showed a slight increase in 2016. Recycling struggles in part because prevalent and heavy recyclables of the past, magazines and newspapers, have lost favor to their on-line counterparts.

The tons of recyclables collected in 2016, equaled a landfill savings of \$430,000.

2016	Garbage†		Recycling†		Yardwaste†	
January	8,433.65	87%	1,315.43	13%	-	0%
February	8,409.66	87%	1,290.25	13%	-	0%
March	11,089.08	88%	1,470.97	12%	-	0%
April	12,132.88	90%	1,407.18	10%	-	0%
May	15,120.76	90%	1,594.95	10%	-	0%
June	13,428.64	90%	1,538.24	10%	-	0%
July	12,606.19	90%	1,336.63	10%	-	0%
August	13,873.97	90%	1,533.58	10%	-	0%
September	12,787.13	90%	1,395.56	10%	-	0%
October	12,534.42	90%	1,371.15	10%	-	0%
November	15,565.86	91%	1,563.89	9%	-	0%
December	9,861.50	87%	1,512.37	13%	-	0%
Total 2016	145,843.74	89%	17,330.20	11%	-	0%
Total 2015	134,957	86%	17,018	11%	5,661	4%
Total 2014	119,249	78%	16,493	11%	16,493	11%
Total 2013	108,566	74%	16,795	11%	21,109	14%
Total 2012	106,400	76%	16,129	11%	17,725	13%
Total 2011	127,102	84%	16,268	11%	7,433	5%
Total 2010	104,578	69%	16,268	11%	30,618	20%
Total 2009	101,874	68%	16,511	11%	30,770	21%
Total 2008	107,487	70%	17,586	12%	27,840	18%
Total 2007	99,164	66%	16,459	11%	34,176	23%
Total 2006	98,985	66%	15,156	10%	35,928	24%
Total 2005	98,270	65%	16,710	11%	35,391	24%

† Reported in Tons (2,000 pounds)

Solid Waste Holidays

THERE ARE SIX HOLIDAYS that are observed by the City's solid waste collection contractor when they occur during the work week.

Following a weekday holiday, collection is delayed by one day for the remainder of that week, with Friday's collection occurring on Saturday.

Holidays that delay collection by one day:

- ▶ New Year's Day: January 1.
- ▶ Memorial Day: Last Monday of May.
- ▶ Independence Day: July 4.
- ▶ Labor Day: First Monday of September.
- ▶ Thanksgiving Day: Fourth Thursday of November.
- ▶ Christmas Day: December 25.

