

The 7 R's of Sustainability:

The Northglenn Sustainability Committee wants to promote waste reduction as a way we can all work as individuals to improve our environment. **Did you know that 'recycling' is step 6 of the 7 Rs of sustainability? The other R's are just as important even if they are often forgotten.**



What is the point of the R's?

The number one benefit of the 7 R's are the reduction of the amount of waste sent to incinerators and landfills. The EPA website provides a lot of useful information.³ Other benefits that we can reap from implementing these concepts in our life are (as listed on the EPA website):

- Prevents pollution caused by reducing the need to harvest new raw materials
- Saves energy from not making a new product
- Reduces greenhouse gas emissions that contribute to climate change
- Helps sustain the environment and natural resources for future generations
- Saves money from processing our waste
- Increases economic security by tapping a domestic source of materials
- Helps create jobs in the recycling and manufacturing industries in the United States

1. https://www.northglenn.org/government/departments/public_works/trash/recycling.php.

2. <https://www.nrdc.org/stories/composting-101>

3. <https://www.epa.gov/recycle>

Northglenn Recycling Information

The 6th R is for Recycle. If you live in a Single-Family Residential home, you are served by the City's recycling program. The purpose of this article is to answer questions about recycling in Northglenn, because items that can be recycled are different community to community depending on which recycling center the items collected are delivered to. Northglenn delivers the City's recyclables to Waste Management. Feel free to contact Public Works Sanitation Division at 303.450.4004 or the Sustainability Committee with any other recycling questions you have.

Is Recycling Cost Effective?

Yes! The city pays a tip fee (\$15.62 per ton in 2022) to the landfill for trash, whereas the recycling company accepts material, sorts it and then either charges the city for items that cannot be sold on the recycle market or provides a reimbursement to the city for materials that have a value. The city was billed \$195,000 by the recycling contractor over the past 10 years, which means we lost more money than we received from our recyclables. Here is the breakdown by years:

Year	Single Stream Recycling (Tons)	Annual Revenue	Average Revenue per Ton Recycled
2012	1,374	\$44,652.41	\$32.50
2013	1,488	\$22,687.27	\$15.25
2014	1,587	\$24,199.78	\$15.25
2015	1,775	\$(183.52)	-\$0.10
2016	1,817	\$(9,406.37)	-\$5.18
2017	1,833	\$13,788.38	\$7.53
2018	1,728	\$(34,663.21)	-\$20.06
2019	1,709	\$(96,930.97)	-\$56.73
2020	1,938	\$(106,183.67)	-\$54.78
2021	1,700	\$(28,338.25)	-\$16.67
Totals	15,348	-\$195,029.15	-\$9.825*

*Cost per ton average over 10 year period.

These figures are what the city gets charged by Waste Management. It does not include the city's cost of collection and delivery of recyclables. The latter is probably little or nothing, since if the materials were not recycled, they would have to go into the landfill and the same collection and delivery costs would be incurred.

However, trash that goes directly to the landfill costs the city about \$15.62 per ton (2022 contracted price) which would have cost \$214,872 for recyclables collected over 10 years, had they gone to the landfill instead. Recycling saved the city this amount while billing from the recycling contractor was only \$195,000.

- Cost of dumping: \$215,000.
- Cost of recycling: \$195,000.
- Net gain \$20,000.

**Note recycled materials are considered a commodity and dependent on a market. The years the City was billed more for materials was due to the Chinese market no longer purchasing recycle materials.

All in all, recycling makes economic and environmental sense.

Fluorescent Bulbs

Can fluorescent bulbs be recycled? This question often gets asked. Here is the answer:

The City does not collect fluorescent bulbs for recycling, because the City does not have an effective or efficient way to do it. The landfill does not have a concern with the bulbs in the regular trash. There is an abundance of information on the web about where, why and how bulbs can be recycled. Depending on the type of bulbs there may or may not be a charge for disposal.

Here are a few websites to look at:

- [Recycling Center Near Me](#)
- [The Happy Beetle](#)

The [Northglenn website](#) states: **NO Light bulbs in recycling (under the Food & Beverage Glass tab)**

Home Depot will take Compact Fluorescent Light-bulbs, but that is the only depository. But, if you want to save yourself a guilt trip, you can put your fluorescents in the trash. Waste Management is not concerned by the amount of mercury contamination they contain, so it must not be significant.

What are the latest ins and outs of recycling?

From Waste Management, the contractor handling Northglenn's recycled materials: (with slight edits by the author)

"Over the past few years the recycling business has undergone some large changes. For example, none of the fiber generated from our Denver recycling operations is sent to China. It now stays in the US or Mexico. I can confirm that no recyclable materials [placed in the recycling stream] are being landfilled. They have value and help protect the environment. The plastic island in the Pacific comes mainly from litter and developing countries that don't have strong recycling and solid waste programs. As a matter of fact WM [Waste Management] no longer exports any plastic that is collected in a residential program."

1. Aluminum is not gold but does have a value roughly \$2,000 per ton. HDPE natural containers (mike jugs) are a close second. You can see the value of these materials in our monthly billing statement.
2. Can lids are recyclable and can be captured in our modern plants.
3. Lids on or off of plastic containers is the age old question. We accept them both ways. Most important thing to remember is to make sure the container is empty and crushed in some form so the system can capture the bottle. Bottles in their original shape are harder for the system to capture.
4. Glass is a great recycling story. It can go from your recycling can to a new glass bottle in less than 30 days. Glass containers are infinitely recyclable and it takes less energy to make a bottle from recycled material than raw materials.
5. Most of the time recycling programs are less expensive than trash programs. Key is to get folks to get more of the aluminum cans in the container and keep the trash in the trash can.

Waste Motor Oil

[Northglenn will pick up your used motor oil.](#)

The reason the City will only collect used motor oil in clear containers (not the jug that the oil came in) is so that if any water is mixed with the oil it can be separated or discarded. The oil is burned to heat city buildings and water or anti-freeze contamination is detrimental to that process.

“The city will collect up to five gallons of used motor oil or antifreeze per week on your regular trash pick-up day. The chemicals must be placed in clear plastic, one-gallon containers with the resident’s address clearly marked on the container. Used milk jugs work well for this purpose. Just set the containers next to your trash cart.”

Methane from landfills

Most landfills produce methane gas, as well as carbon dioxide. The landfills Northglenn uses (Republic) burn their methane gas to produce energy.

What’s Next

The Sustainability Committee plans to find ways to communicate the latest recycling information regularly, so that we can all benefit from recycling. For example, plastic/paper cartons have been on again, off again as far as recycling. Also, current directives say numbered plastics are acceptable but styrofoam is not.

Is it possible landfills will become the country’s new “mines” as we discover more and better ways to recycle? For example, you can look at Cripple Creek gold mines where mine tailings left behind for decades are now being processed for the gold that was lost in the original mining. The new mining operations use huge costly machines to extract what used to be inextractable. This alone should substantiate the efficacy of recycling.

If you have any suggestions to improve recycling in Northglenn, contact anyone on the Sustainability Committee.

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Many thanks to Rob Webber, Northglenn Public Works, for providing most of the facts and figures.