ITEM #:	**36**
DEPT:	**PW**

Staff Report

STAFF REPORT ON RESIDENTIAL CURBSIDE RECYCLING

August 12, 2025

BACKGROUND:

On June 24, 2025, City Council received a staff report detailing conceptual design and financial modeling for a Resource Recovery and Recycling Campus (R3C). The R3C represents a new approach for the disposal of municipal solid waste (MSW) and is intended to receive solid waste, recyclables, and yard waste. The facility will become operational in 2027.

The DNR charges landfills a fee on a per-ton basis for the disposal of MSW. The fee varies based upon the amount of waste that is diverted away from the landfill. The more landfill diversion occurs, the lower the per-ton fee. Under the terms of Ames' new agreement with the Carroll County Solid Waste Management Commission, Ames will pay its fees directly to the DNR, based on the amount disposed of at the landfill. Historically, Ames has accomplished significant landfill diversion through the waste-to-energy process and recycling that occurs at the Resource Recovery Plant. **As the City moves away from waste-to-energy, the waste diversion obligations of the City must be met through different efforts.**

Under the City's new approach to waste disposal, it is anticipated that curbside residential recycling will need to be implemented. Because of the varied needs of commercial and industrial customers, recycling efforts for these customers would not be addressed with this program. These customers would be able to contract privately for recycling collection, or could arrange to deliver their recyclable materials to the R3C.

Staff is not seeking direction from the City Council at this time. The purpose of this report, rather, is to introduce the issues related to curbside recycling and prepare the Council for further discussion and decision-making that will occur at a later date. If the Council identifies questions that it wishes staff to research, further information can be brought back to the City Council at that time.

The primary method of public engagement regarding this topic has been the City's annual resident satisfaction survey. The 2023 survey results suggest support for recycling, with over 80% indicating support for some type of recycling (Table 1). Over 80% also indicated they would sort glass, metal, and plastic from their garbage (Table 2). These questions were not included in the 2024 survey. However, in 2024, 70% of respondents selected "Waste-to-energy improvements/reducing waste emissions" as a top three climate action step, more than any other climate action step listed.

Table 1. Preferred method of disposing of sorted waste items

Method	2022	2023
No-charge centralized drop-off	30.5%	26.2%
Curbside collection for a fee	23.0%	23.1%
Would participate in either one	30.7%	30.8%
Not interested	11.0%	14.3%
Other	4.8%	5.7%

Table 2. Respondents' preferences for sorting waste types from their garbage

Waste Type	2022	2023
Glass	54.9%	87.2%
Metal	64.0%	80.3%
Plastic	64.8%	80.0%
Organics	38.4%	48.8%

As part of the planning for the R3C, staff anticipates providing free drop-off for separated recyclable materials. This service builds on the success and popularity of the drop-off area created at the Resource Recovery Plant. Commingled recyclables would be accepted at the R3C for a fee.

Curbside Recycling Program

Staff has researched community best practices around recycling program design. **Additional information about existing curbside recycling programs in Iowa, including pricing, is attached in Appendix A. The following topics are brought to the City Council for initial discussion and feedback concerning curbside recycling.**

1. Level of Access*
2. Provider*
3. Implementation Timeline
4. Container Ownership*
5. Frequency of Service*
6. Contractor Compensation
7. Multifamily Housing (MFH)
8. Story County and Partner Communities
9. Performance Incentives
10. Education and Outreach

The topics above that include an asterisk are those which are accompanied by an initial staff recommendation and which ultimately will require Council direction at a later date. The remaining issues are more informational in nature.

1. Level of access

Recycling participation rates vary significantly depending on the level of access, community education and outreach efforts, and cultural factors. Nationwide averages are presented below, based on data from studies conducted by the Recycling Partnership and the Sustainable Packaging Coalition. The studies state that 75% of Iowans currently have access to recycling, 44% through curbside and 31% through drop-off only. The figures below should be used as rough, order-of-magnitude estimates and not exact projections.

Level of Access	Description	Estimated Participation Rate (households)	Estimated Diversion Rate (waste tonnage)
a) **Curbside universal access, cart included**	All eligible residents are charged for the service and receive a recycling cart. This would result in the highest diversion and participation rates. However, this model presents the highest risk of contamination due to the likelihood of some trash being placed in the carts.	75%	30%+
b) **Curbside universal access, opt-in cart**	All eligible residents are charged for the service but must opt in to receive a cart. This model would reduce contamination risks but also reduce participation and diversion rates. While many residents would opt in to receive a cart, many residents would pay for a service they are not using. This model also adds complexity in coordinating cart delivery only to those who opt in.	30% - 40%	~10%
c) **Curbside opt-in**	Only residents who opt in will be charged for the service and receive a cart. This would further lower participation and waste diversion tonnage, but only charge residents who sign up for the service. Fees would increase relative to options a and b, as costs would be spread among a smaller rate base.	20% - 30%	~5%
d) **Drop-off site(s) only**	Currently in place. Offering and managing collection from drop-off locations would be the only direct involvement from the City in recycling.	10%	< 5%

With ongoing education and outreach, along with consistent program offerings, long-term diversion rates can be much higher. For example, ISU has achieved a landfill diversion rate of 74% and with a goal of achieving 85% by the end of fiscal year 2025.

Staff Recommendation:

To achieve meaningful diversion of material from the landfill, staff believes that drop-off only recycling (Option D) must be supplemented by a broader recycling effort. Curbside recycling could achieve this. A voluntary-only curbside collection program (Option C) is not expected to have a significant impact on the diversion of materials. Therefore, staff believes that Option A (universal access with all households provided a cart) or Option B (universal access, but opt-in to cart delivery) are the best approaches to achieve the community's diversion goals.

In either Option A or B, the charge to the customer will be the same. Requiring each household to have a cart regardless of whether they wish to use it (Option A) may increase the likelihood of contamination. Increased contamination can reduce revenues received for the recyclable commodities. Therefore, Option B, where customers must call to request a cart, may be a better approach.

2. Provider

For curbside residential collection, there are two alternatives for how a provider will deliver the service:

1. **Require existing haulers to offer curbside recycling as a service**. There are seven existing licensed haulers of MSW in Ames. Two of the haulers currently offer residential curbside recycling. This approach requires less involvement from the City to establish and manage the services, instead relying on the private market to handle recycling. **However, this approach would result in a higher volume of truck traffic, varying services, and little ability for the City to track diversion rates. It may also result in pushback from those haulers who do not have the resources to offer curbside recycling service.**

   Additionally, because recycling is not regulated in the same manner as solid waste, haulers may choose not to utilize the R3C and directly haul recyclables to the Des Moines area material recovery facilities. This could make it difficult for staff to accurately measure the community's waste diversion efforts, and may result in residents experiencing different rules for disposal depending on which hauler (and disposal facility) ultimately handles their recycling.

2. **City-wide contract with one provider**. This approach would involve the City assuming responsibility for coordinating curbside recycling. Residents would be charged a fee on their Ames utilities bill. Only one contractor would provide service, minimizing truck traffic and offering city-wide consistency. **However, this approach would also eliminate the ability to choose a service provider.**

   In this approach, fees per household for this service would likely be lower compared to private contracting due to efficiencies gained by the scale of the program. This approach also enables consistent education and messaging, coordinated by the City in partnership with the selected contractor. A contract would require timely reporting and provide full transparency into diversion and participation. The City would also require that all recyclables be hauled to the R3C, ensuring full utilization of the facility.

   Contractor services would not include any processing or final disposal of recyclables.

City staff would direct the contractor to deliver the material to the R3C (or other facility as appropriate) and the fees for disposal would be paid by the City and charged back to residents through the monthly billing charge. Contractor services would include:

- Curbside collection and hauling of commingled recycling, including the following materials. Materials are specified based on marketability.
  - Cans
  - Cardboard
  - Plastics (1s and 2s)
  - Mixed paper
  - Glass
- An education and engagement partner that will work to maximize diversion rates.

Staff Recommendation:

Staff recommends that proposals be solicited for a City-wide contract with a single provider. This approach should result in lower fees, consistent service and education messaging, minimizing truck traffic, diversion reporting, and control over drop-off location.

Assuming the City Council pursues a City-wide contract, the following additional topics are presented for consideration:

3. Implementation Timeline

A 9-12 month lead time is anticipated from the time a Request for Proposal (RFP) is issued until the start of service. The R3C is expected to be operational in mid-2027. If curbside recycling were implemented in 2026, prior to the R3C opening, recycling would need to be directly hauled to a facility in Des Moines. This would result in higher program costs that would decrease when the R3C opens. Depending on the length of the contract, increased up-front costs could be spread across the life of the contract.

Depending on the amount of diversion achieved in the short term, the potential exists for significant savings to the Electric Utility if the amount of refuse-derived fuel generated can be reduced to an amount that can be burned exclusively in Unit 7 before the opening of the R3C in 2027.

4. Container Ownership

Three models of container ownership were identified to procure, finance, and maintain the approximately 18,000 carts that would be needed for community-wide curbside recycling:

1. **Contractor-owned**: The contractor would deliver and retain ownership of all containers. This approach results in the lowest costs to launch the service, as the cost of carts would not need to be financed by the customer charges. If the City switched contractors in the future, significant costs and disruptions to service could occur during the transition as carts are swapped with those of the new contractor. Additionally, with assets in place, the existing contractor would also hold an advantage in subsequent bids.
2. **City-owned**: The City would independently procure bins and deploy them for the contractor to service. The cost of the carts would be financed through debt service or a similar mechanism, costing approximately $1,000,000 in capital. Fees would need to be

calculated to repay the City for the investment in carts.

3. **City-owned, amortized**: The contractor would furnish City-branded containers, which are amortized over five years; after this period, the City assumes ownership. Delivery, maintenance, and repair services are carried out by the contractor. This would result in approximately $1 added cost per month, per household, for five years. Containers are expected to last 15-20 years. If the City engaged a new contractor in the future, the carts would remain deployed and be serviced by the new contractor, making the potential transition to a new contractor quicker and less disruptive.

Staff Recommendation:

The City-owned, amortized model is recommended, as it results in the benefits of asset ownership, including operational control and long-term consistency, while mitigating up-front costs by spreading them over five years and recovering the investment through rates. It also addresses maintenance concerns by assigning cart maintenance responsibilities to the contractor. In the event that the City changes to a different contractor in the future, no additional lead time would be necessary to procure carts. Additionally, the carts could be "City-branded" and could include Ames-specific stickers describing what should and should not be placed in them.

5. Frequency of service

Curbside recycling programs typically operate weekly or every other week service

1. **Every other week service** is more common because communities have experienced higher program efficiency through fuller bins and fewer trips. According to the EPA, collection costs for every-other-week service are 20%-40% lower than weekly collection. Many communities that have transitioned from weekly to every other week schedules have not seen significant decreases in participation or diversion rates. Larger carts (e.g., 96-gallon) would be necessary to accommodate the longer time between pickups.

2. **Weekly service** could result in slightly higher diversion rates but would also mean higher operational costs and increased truck traffic.

Staff Recommendation:

Every other week service would meet the community's need for recycling while keeping fees lower compared to weekly service.

6. Contractor compensation

The total costs to administer a recycling program consist of:

1. Collection and transportation (hauler compensation)
2. Disposal costs (tipping fees)
3. Equipment (carts)
4. Administrative costs (billing, marketing, etc.)

The hauler's compensation for collection and transportation is based on the prices bid per household or per ton collected. The City would pay the hauler for these costs, and would collect a fee from residents that covers the total of the hauler's compensation, disposal costs, the amortized cost of the cart, and the City's administrative costs.

Through this approach, the City maintains more flexibility to adjust rates independent of contractor costs (to establish a fund balance, to reduce pricing fluctuations that occur in the recycling commodities markets or fuel market, or to manage related recycling efforts).

7. Multifamily Housing (MFH)

Most communities with single-family home curbside recycling include properties with up to four units in the program. This would account for approximately 17,500 units in Ames. However, 40% (an additional ~11,500) of housing units in Ames are in properties with five or more units and would not receive initial access to curbside recycling.

Large MFH presents unique challenges for recycling, including container size and locations, space availability, contamination, and zoning ordinance issues. **Rather than adopting blanket recycling requirements for this type of housing, staff recommends a MFH pilot project, where the City would partner with interested properties to pilot recycling. Resource Recovery or Sustainability funds could be used to share the capital costs to establish recycling facilities at MFH properties.** Through the pilot project, the City and property owners will gain a better understanding of the obstacles and best practices surrounding MFH recycling.

At least six Iowa communities require multi-family properties to offer recycling by ordinance. The City Council could consider such a policy after initially developing the local MFH recycling market through these strategies.

8. Story County and Partner Communities

Since the Resource Recovery System provided a landfill diversion process for the other partnering communities in the area, these communities, like Ames, will need to adopt new methods to divert meaningful quantities of material from the landfill.

If the City Council is supportive of proceeding with an RFP for a provider to offer curbside recycling collection services, staff recommends including a request for optional pricing of services for Story County and the partnering communities in the County. This would enable communities and unincorporated Story County to participate in the same program at established costs with Ames' selected contractor, eliminating the need for each partnering community to issue its own RFP.

An alternative approach may be for the partner communities to collect curbside recyclables by themselves, or to implement drop-off trailers that could collect recyclables and be hauled to a facility periodically for emptying. Regardless of the option selected, any agency that signs on for the City of Ames to dispose of its MSW will be required to implement waste diversion practices in the form of recycling.

9. Performance Incentives

Incentives and/or penalties are important contracting tools for maintaining quality control in a multi-year contract. They could be structured as payments or payment reductions, liquidated damages, additional education/outreach programs at no cost, or contract renewals/extensions. Criteria that could be used to establish incentives and/or penalties include: contractor's response to complaints, missed pickups, customer satisfaction, accurate and timely reporting, diversion or contamination rates, or tonnage. Additionally, methods to reduce contamination include installation of smart cameras for automatic contamination detection and contractor employee training and incentives for waste diversion and contamination reduction best practices.

10. Education and Outreach

Education and outreach efforts are the most effective tools for increasing participation and diversion rates, as well as reducing contamination, especially in a City with high resident turnover. The selected contractor will be an important partner in these efforts, and certain education and outreach responsibilities should be clearly outlined in the request for proposals. Various industry strategies are listed below.

1. Education packages delivered with the recycling cart (magnet, booklet, etc.).
2. Signage included directly on the cart lid or side wall.
3. Contractor participation in community outreach events or initiatives.

STAFF COMMENTS:

City staff intends to present these initial concepts for the City Council to consider on August 12. **No action will be requested from the Council at that meeting.** Instead, this discussion is an opportunity to identify any concerns or questions the Council may have about the implementation of a residential recycling program. Staff will return to the City Council at a subsequent meeting to follow-up with further information if necessary and to obtain the City Council's direction regarding how to proceed.

ATTACHMENT(S):
Appendix A.pdf
Residential Recycling.pptx