

A photograph of the Chicago skyline, featuring several skyscrapers, with a train on an elevated track in the foreground. The text "CITY OF CHICAGO WASTE STRATEGY" is overlaid in large white letters.

CITY OF CHICAGO WASTE STRATEGY

AGENDA

I. Chicago Waste Strategy

- i. Existing Conditions Report
- ii. Peer City Analysis
- iii. Waste Generation & Characterization Update Report
- iv. Guiding Principles
- v. Materials Management Strategies
 - i. Near-Term Priorities for 2021 and 2022
- vi. Implementation & Next Steps

II. Discussion & Feedback

WASTE STRATEGY: PROJECT OVERVIEW

PROJECT OVERVIEW

Objective:

The City of Chicago partnered with Delta Institute to develop an overarching assessment, planning, and implementation strategy to create a clear pathway for a series of tasks and activities to **overhaul the City's materials management systems with a goal to reduce waste, increase diversion and recycling, and recover assets in the waste stream for economic opportunity.**

Through this project, Delta and the City of Chicago sought to:

- Review current waste and recycling related **policies, contracts, data, and infrastructure**
- **Engage with stakeholders** in the City, the private sector, and Chicago communities
- Learn from other cities' **successes, failures, and best practices**
- **Develop and prioritize strategies** for waste reduction, recycling, and reuse that consider **diverse material types and waste generators**

PROJECT OVERVIEW

Redesigning how the City manages waste and recycling and addresses long standing environmental justice issues requires a long-term commitment on behalf of many stakeholders. **This initiative represents the first step.** This first phase of work will provide guidance that accounts for the many perspectives in the city regarding waste and addresses the budgetary realities and other systemic challenges to prioritize **actionable strategies to achieve ambitious goals.**

City of Chicago Waste Strategy Documents:

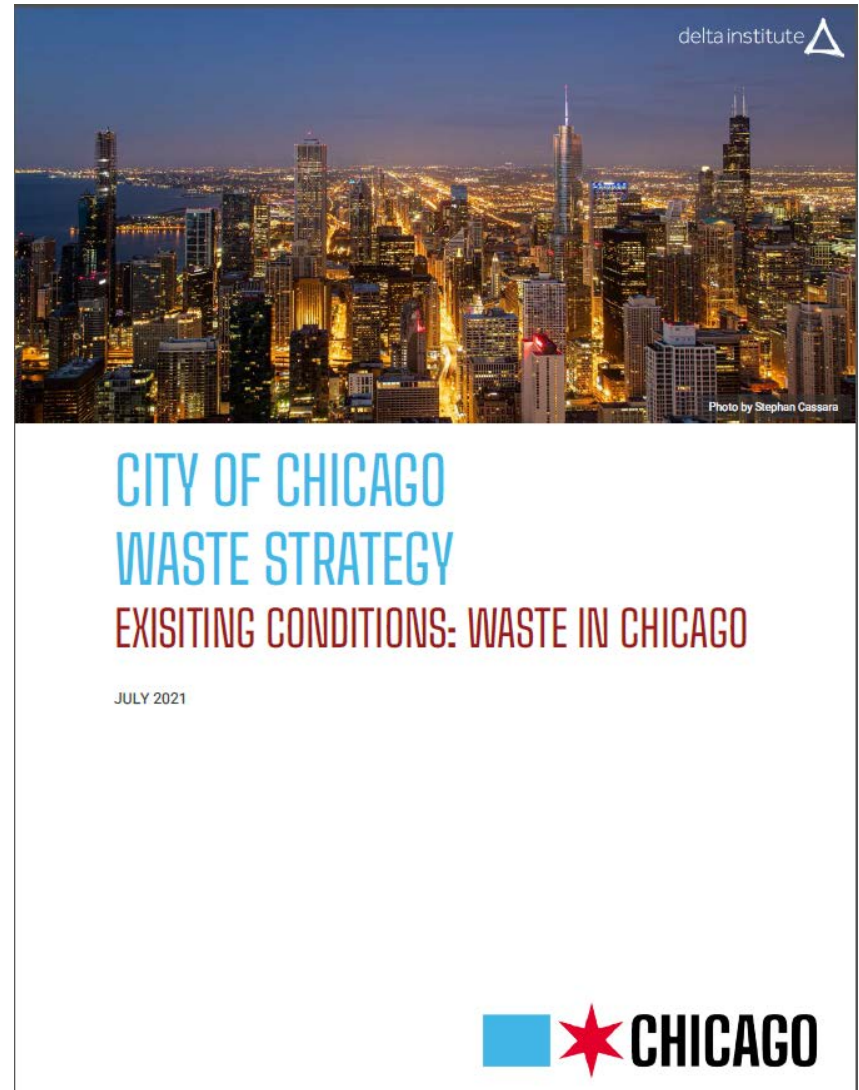
- Executive Summary
- Existing Conditions Report
- Peer City Analysis
- Waste Characterization & Generation Update Report
- Materials Management Strategies

All reports available online at <https://www.chicago.gov/city/en/progs/env/2021-waste-strategy.html>

EXISTING CONDITIONS REPORT

The Existing Conditions Report sets the stage for current and historical waste and recycling programs and services, plans and policies, stakeholders, and related climate, economic, and equity impacts and challenges for the City of Chicago.

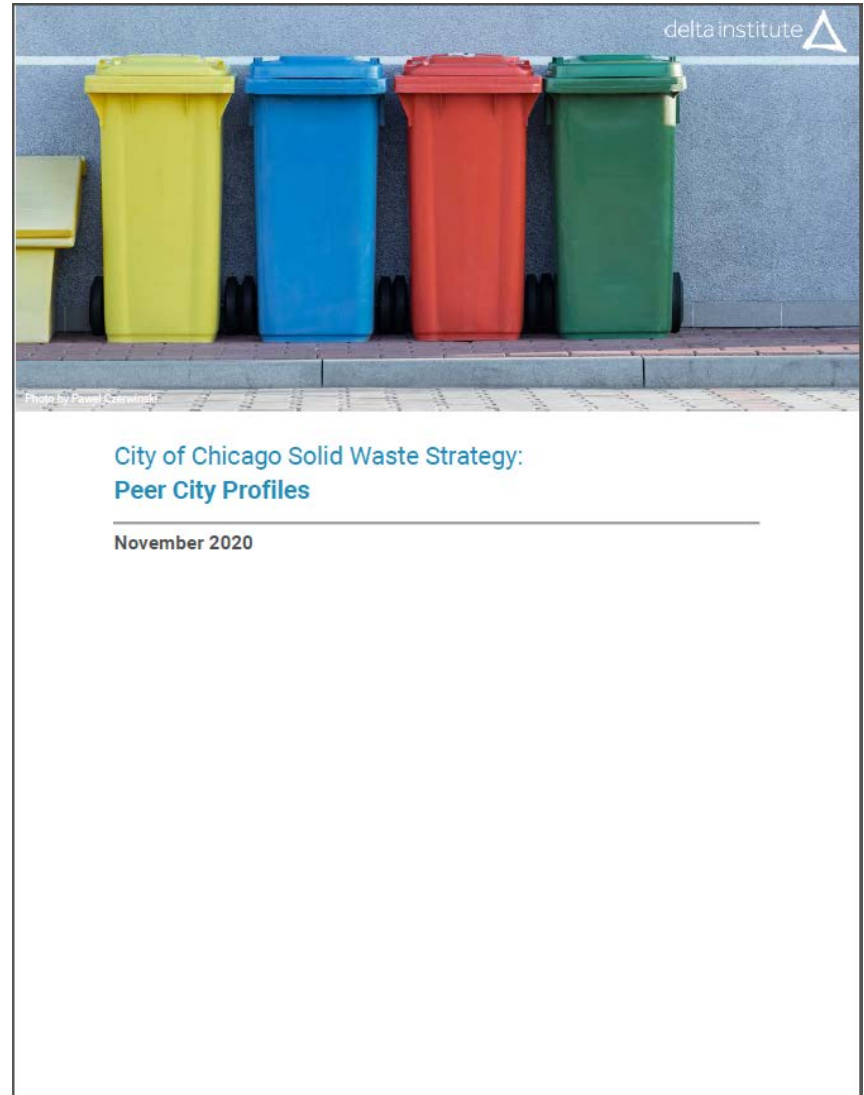
Chicago has a strong network of stakeholders in the public and private sectors that will be critical partners in implementing materials management strategies. The waste and recycling system is complex and has significant impacts on Chicago's residents, environment, and economy. Recognizing these impacts, as well as the current and potential actors in the system, will support lasting and equitable improvements.



PEER CITY ANALYSIS

The Peer City Analysis Report describes solid waste management programs, practices, and policies better understand of how peer cities have created and implemented innovative solid waste management strategies and help inform decisions about Chicago's materials management system.

The report includes information on programs and policies in cities, states, and counties across the U.S., with a specific emphasis on large metropolitan areas and the Midwest to provide reasonable comparisons to the City of Chicago.



WASTE GENERATION & CHARACTERIZATION UPDATE REPORT

WASTE CHARACTERIZATION & GENERATION UPDATE REPORT

The University of Illinois at Chicago (UIC) supported the Chicago Waste Strategy by conducting data analysis and modeling to project waste generation and characterization for Chicago in 2020.

In lieu of a full-scale waste audit, the UIC team provided waste and recycling estimates based on Chicago historical data, along with regional and national datasets. Material-specific trends, innovations, and consumer expenditures were identified and summarized as well.

Chicago Waste Generation and Characterization Update 2010-2020

Submitted to the Delta Institute
March 1, 2021

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WASTE STRATEGY: GUIDING PRINCIPLES

WASTE STRATEGY GUIDING PRINCIPLES (1 OF 6)

Reframe Chicago's materials as resources, instead of waste

*Change existing perceptions using tailored educational programs to reframe waste materials as valuable resources that are not being utilized, and **reconfigure Chicago's materials management system away from disposal***

*Shift materials interventions upstream to capture value and materials **before they enter any waste stream** (e.g. procurement changes, reuse, repair)*

WASTE STRATEGY GUIDING PRINCIPLES (2 OF 6)

Center equity and environmental justice in program design

Consider **neighborhood-specific impacts** (both positive and negative) based on current and historical land use, and projected climate change impacts

Analyze strategies for **potential unintended consequences**

Avoid creating additional burdens (financial or otherwise) for low- to moderate-income (LMI) Chicagoans

WASTE STRATEGY GUIDING PRINCIPLES (3 OF 6)

As the City, identify opportunities for establishing internal and external partnerships

*Clarify and document the **role of the Mayor's Office, legislative body, and City departments and agencies** to determine how coordination can improve*

*Partner with **early-adopters (institutions, corporations, and organizations)** already pushing innovation in waste reduction in Chicago*

*Identify how the City can **create the conditions** to sustain impactful partnerships and a more participatory materials management system*

WASTE STRATEGY GUIDING PRINCIPLES (4 OF 6)

Prioritize initiatives with revenue potential, no/low cost, or a positive return on investment when applied at scale

*Identify opportunities for **economic benefit, revenue generation, and additional cost savings** through materials management*

*Consider **budgetary realities** to develop realistic strategies*

*Prioritize most **critical investment needs** to meet identified City goals*

WASTE STRATEGY GUIDING PRINCIPLES (5 OF 6)

Identify opportunities to include goal setting, metrics, and data sharing to demonstrate progress and increase transparency

*Develop opportunities to **share data and resources** with the community*

*Prioritize **routine, equitable stakeholder engagement***

*Establish **goals and metrics for success** and determine how those metrics will be realistically evaluated*

WASTE STRATEGY GUIDING PRINCIPLES (6 OF 6)

Equip consumers with the education and tools needed to drive innovation in evolving waste systems

*Consider necessary investments to support **initial and continuous public education***

*Prioritize **routine, equitable stakeholder engagement***

*Highlight opportunities for **Chicago to act as a national leader in sustainability***

MATERIALS MANAGEMENT STRATEGIES

MATERIALS MANAGEMENT STRATEGIES

Delta Institute identified implementation opportunities across seven categories from municipal management and policy to the many waste streams that flow through the city. In each of those categories, several potential options for the City are presented to allow for short-term implementation, as well as long-term budgeting, planning, and partnership building.

In total, **63 materials management strategies were developed – 12 of which were identified as achievable, short-term priorities for 2021 and 2022.**

Materials Management Strategy Categories

- Municipal Management & Data Tracking
- Source Reduction, Reuse, & Repair
- Residential Waste Reduction
- ICI (Industrial, Commercial, Institutional) Waste Reduction
- Organics & Wasted Food
- Specialty Materials
- Construction & Demolition Debris

STRATEGY TYPE FRAMEWORK

Each topic section includes a menu of strategies for the City of Chicago to consider according to available funding, partners, and administration prioritization. This framework provides a tiered model for assessing key factors that impact each strategy's overall feasibility and readiness for implementation.

Optimal strategies are relatively complex and more demanding in terms of the coordination and resources required to implement. These will have the greatest relative diversion potential and, though they represent the most ambitious of the proposed strategies, they have been developed to reflect the realities of the current system.

Practical strategies can be readily implemented at full scale; they represent less ambitious, more attainable progress toward materials management goals with modest diversion potential. These strategies are characterized by a high degree of feasibility with fewer complexities related to implementation.

Pilot strategies are ready for site-specific implementation and are characterized by a high degree of feasibility and relatively low demand for additional coordination and resources.

MATERIALS MANAGEMENT STRATEGIES (1 OF 7)

Municipal Management & Data Tracking

This section details opportunities for improved municipal management of waste and materials to lead by example, strengthen capacity for citywide programs and initiatives, and improve data collection and management to enforce policies, improve how trends are identified, increase transparency in the process, and build trust among Chicago's residents more efficiently.

*Municipal management and data tracking strategies are organized under the following sub-categories: **Identifying Opportunities to Lead by Example, Improving Data Tracking and Sharing, and Building Municipal Capacity.***

MATERIALS MANAGEMENT STRATEGIES (2 OF 7)

Source Reduction, Reuse, & Repair

This section highlights impactful, upstream strategies related to source reduction, extending the useful life of materials, and reuse. Preventing materials from entering the waste (or recycling) stream reduces pressure on existing systems and infrastructure maximizes climate benefits, shifts the cultural norms towards circularity and away from traditional disposal models, unlocking potential for economic benefit and improved sustainability.

*Source reduction, reuse, and repair strategies are organized under the following sub-categories: **Supporting Material Reuse, Opportunities for Source Reduction, and Repair and Share.***

MATERIALS MANAGEMENT STRATEGIES (3 OF 7)

Residential Waste Reduction

This section offers strategies to reduce the waste volume and increase diversion rates in recycling, yard waste, and compost programs for Chicagoans in both low-density (single family homes and multifamily buildings with four or fewer units) and high-density (multifamily buildings with five or more units) residences.

*Residential waste reduction strategies are organized under the following sub-categories: **Improving Low-Density Residential Waste Diversion and Reducing Contamination, High Density Residential Waste Diversion, Public Education and Engagement, and Preventing Illegal Fly Dumping.***

MATERIALS MANAGEMENT STRATEGIES (4 OF 7)

ICI (Industrial, Commercial, Institutional) Waste Reduction

This section details opportunities for reduction and diversion of waste is generated by Chicago's ICI (industrial, commercial, and institutional) sector. This sector includes businesses, like restaurants and office buildings; institutions including government, cultural, and educational; and manufacturing and other industrial processes.

*ICI waste reduction strategies are organized under the following sub-categories: **Commercial Waste Generation and Hauling, Institutional Partnership Opportunities, and Waste System Infrastructure and Industrial Operations.***

MATERIALS MANAGEMENT STRATEGIES (5 OF 7)

Organics & Wasted Food

This section highlights opportunities to reduce organics and food currently sent to landfills in the residential and ICI sectors and bolster markets for finished compost.

*Organics and wasted food strategies are organized under the following sub-categories: **Citywide Food Waste Prevention and Food Rescue, Organics and Food Scrap Collection for Chicago Residents, ICI Food Waste Prevention and Food Scrap Diversion, and Compost Market Development.***

MATERIALS MANAGEMENT STRATEGIES (6 OF 7)

Specialty Materials

This section highlights strategies to address materials in Chicago's waste stream that cannot or should not be managed through traditional curbside recycling or composting initiatives including household hazardous waste (HHW), bulk items, electronic waste, pharmaceuticals, textiles, and plastic film.

*Specialty materials strategies are organized under the following sub-categories: **Permanent Collection Facilities, High Priority Safe Disposal, and High-Volume Specialty Materials Diversion Opportunities.***

MATERIALS MANAGEMENT STRATEGIES (7 OF 7)

Construction & Demolition Debris

This section provides strategies for diverting materials generated from construction, renovation, demolition, or deconstruction projects through recycling and reuse.

*Construction and demolition debris strategies are organized under the following sub-categories: **C&D Debris Diversion** and **Developing Opportunities for Building Material Reuse**.*

IMPLEMENTATION & NEXT STEPS

SHORT-TERM PRIORITIES FOR 2021 & 2022

Policy Review and Exploration

Opportunities to review existing materials management ordinances to identify opportunities to increase impact and conduct initial research for new potential legislation.

- Researching potential for implementing **waste hauling zones for commercial waste**
- Support ambitious statewide **extended producer responsibility (EPR) legislation**
- Assessing **Construction & Demolition Debris (C&D) Recycling Ordinance compliance** and identifying opportunities for increased contractor education
- Adjusting the C&D Recycling Ordinance to **specify targeted material types and parameters for reuse**

SHORT-TERM PRIORITIES FOR 2021 & 2022

Increasing Opportunities for Community Interventions

Opportunities to provide new programs and educational opportunities for residents to engage with the materials management system and improve residential diversion.

- Leverage the **National Resources Defense Council (NRDC) Food Matters Great Lakes Regional Cohort participation** to pilot food waste prevention and recycling programs
- Maintaining **clear and consistent messaging around recycling contamination**
- Introducing organics drop off locations through **seasonal “pumpkin smash” events**
- Developing a **directory of participating retail take-back options** for e-waste and HHW in Chicago
- Establishing a **revenue-sharing partnership with a textile recycling company** for collection of clothes, shoes, and other textiles otherwise ending up in landfills

SHORT-TERM PRIORITIES FOR 2021 & 2022

Strengthening Internal Operations

Opportunities to improve internal operations related to materials management to increase efficiency across departments and improve waste diversion in the City.

- Identifying appropriate **Blue Cart to black cart distribution and bin size options**
- Improving **high density residential recycling ordinance compliance** based on 2020 Chicago Office of the Inspector General report findings
- Improving Chicago’s existing **yard waste collection program** and incorporating **potential food scrap “ride along” options**

An aerial photograph of Chicago, showing the city skyline with several skyscrapers, including the Willis Tower. In the foreground, there are green parks, a road with traffic, and a large, modern building with a curved, glass-and-steel facade. The sky is clear and blue.

DISCUSSION & FEEDBACK