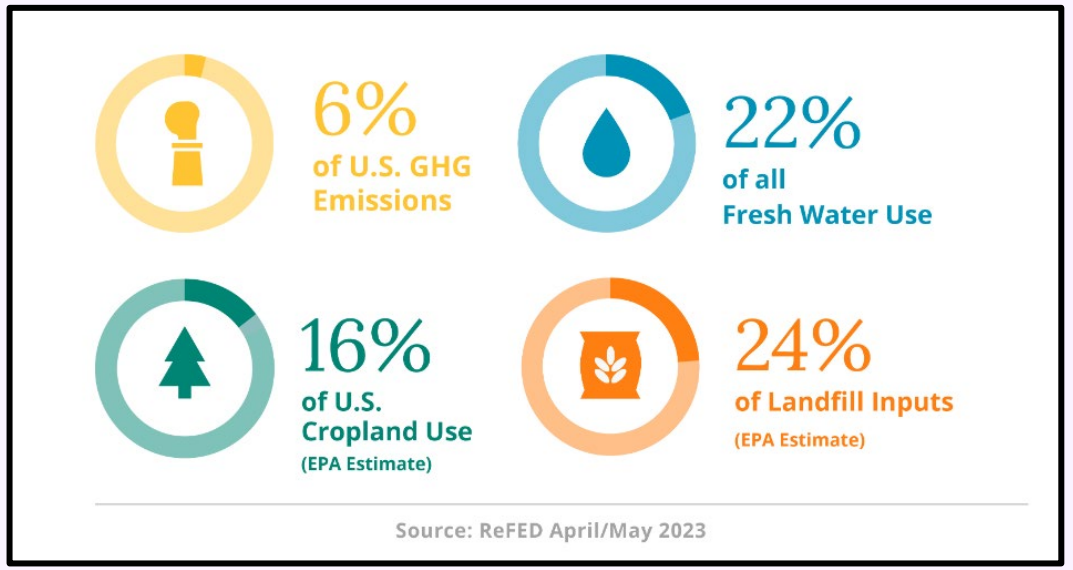
MODEL MUNICIPAL ZONING ORDINANCE ON COMMUNITY COMPOSTING

The Big Picture on Food Waste

Up to **40**% of all food in the U.S. goes uneaten, which is the equivalent of nearly **145 billion meals** and roughly **1.8% of U.S. GDP**.

Uneaten Food Consumes:



Source: ReFED, https://refed.org/food-waste/the-problem/, accessed May 2024.

The Big Picture on Food Waste

Food waste generally has **bipartisan support**.


NRDC

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Obama Administration Sets Goal of Reducing Wasted Food Nationwide by 50 Percent

September 16, 2015


EPA

MENU

News Releases: Headquarters

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Trump Administration Sets the Pace for Food Loss and Waste Reduction Efforts to Continue

EPA, USDA, and FDA renew formal agreement aimed at reducing food waste

December 17, 2020


EPA

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News Releases: Headquarters | Land and Emergency Management (OLEM)

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Biden-Harris Administration Releases Draft National Strategy to Reduce Food Loss and Waste

EPA, USDA, and FDA announce steps to reduce waste and increase recycling of organics to reduce climate pollution, save families and businesses money, and support a circular economy for all.

December 2, 2023

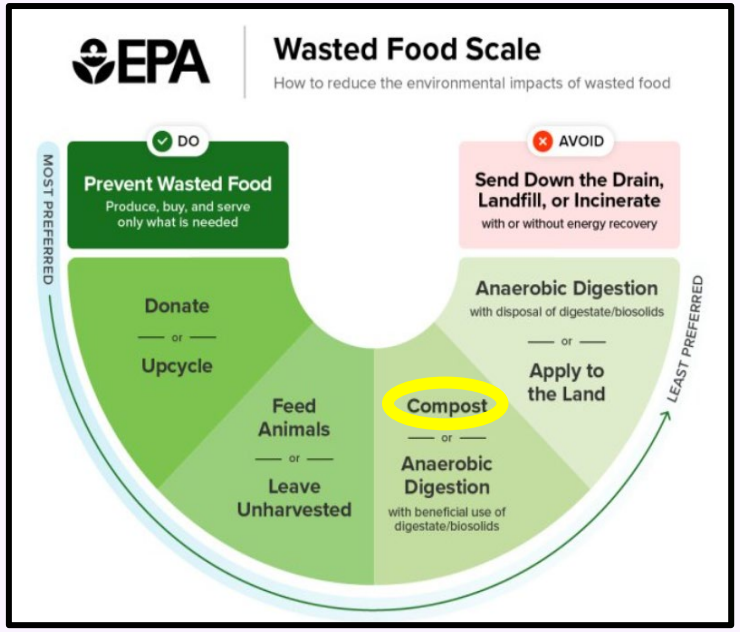
Sources: NRDC, https://www.nrdc.org/press-releases/obama-administration-sets-goal-reducing-wasted-food-nationwide-50-percent, 2015; EPA, https://www.epa.gov/newsreleases/trump-administration-sets-pace-food-loss-and-waste-reduction-efforts-continue, 2020; EPA, https://www.epa.gov/newsreleases/biden-harris-administration-releases-draft-national-strategy-reduce-food-loss-and, 2023.

What is Composting?

Composting is the process of **recycling organic matter**, such as yard trimmings and food scraps, into a **valuable soil amendment** that can enrich soil and improve plant growth.

Composting is an **important complement** to other food waste reduction strategies. It is especially useful for inedible food scraps such as banana peels, corncobs, and coffee grounds.

Composting can occur across a **spectrum of sites** and operational **scales**, from backyard composting to community composting to large industrial facilities.



Source: EPA, https://www.epa.gov/sustainable-management-food/wasted-food-scale, last updated April 2024.

Source: Flickr, https://www.flickr.com/photos/mpcaphotos/4568159409, 2018; BioCycle, https://www.biocycle.net/composting-ad-california/, 2019; BioCycle, https://www.biocycle.net/community-scale-composting-urban-gardens-farms/, 2018

What is Community Composting?

Community composting takes many different forms, operates at varying sizes and scales, and has flourished in a wide range of settings. As such, the Model's definition of community composting is intentionally flexible.

Key characteristics:

- Operating at a **smaller scale than industrial**,
- Sourcing organic material and using/distributing finished compost **locally**, and
- Generally **engaging the community** in the composting process.

Benefits of Composting Generally

Composting and compost use offer myriad **environmental, economic,** and **social benefits**.

Composting diverts organic waste from landfills and incinerators, which can reduce:

- **Greenhouse gas emissions,** particularly **methane**;
- **Disposal costs** associated with landfilling and incineration; and
- The need for expansion or construction of new landfills and incinerators**,** which have **harmful public health effects** and are disproportionately sited in environmental justice communities.

The compost industry overall also sustains **more jobs** than landfilling or incineration on a per-ton basis.

Source: EPA, https://www.epa.gov/land-research/quantifying-methane-emissions-landfilled-food-waste, last updated Jan. 2024.

Benefits of Compost Use

Composting and compost use offer myriad **environmental, economic,** and **social benefits**.

Applying **finished compost** to soil can:

- **Decrease the need for chemical fertilizers and pesticides** – which are costly, energy intensive to produce, and polluting;
- **Help soil retain moisture** – which in turn helps:
  - Prevent erosion,
  - Reduce stormwater runoff,
  - Lower irrigation costs, and
  - Conserve water resources; and
- Improve the soil's capacity to **hold nutrients** and **sequester carbon**.

Source: Picryl, https://picryl.com/media/nrcsca060081471 2nrcs-photo-gallery-78a37b, 2011.

Benefits of Community Composting

Community composting is **designed** to meet local needs, serve local interests, and engage the community.
By keeping the process and the product **local**, community composters keep the many benefits of composting local.

Community composting can provide:

- **Education** on food systems and sustainability;
- **Local green space** for community members to enjoy;
- Low-cost **soil amendment** for community members to use; and
- **Job training** and **local jobs**.

Due to their local focus, community composters can:

- Be particularly **efficient** in terms of conserving time, money, and energy;
- **Simplify quality control,** as they typically process a relatively narrow array and small quantity of material;
- Minimize **transportation** and **distribution costs**; and
- Promote **equity**.

Zoning: An Unintended Challenge For Community Composters

- The Model assumes **Euclidean zoning** is in use, as it is the most common approach to municipal zoning in the United States.
- Under Euclidean zoning, municipalities typically **establish zoning district categories** (e.g., residential, commercial, industrial, and agricultural) and **regulate the land uses** that are allowed in each.
- If a zoning code treats composting facilities the same way it treats large waste facilities such as landfills and incinerators – or if the zoning code doesn't explicitly cover composting at all – then local zoning laws may **unnecessarily prevent or restrict the siting of community composting facilities**.

Purpose of the Model

1. **Remove potential zoning code barriers** to community composting by amending the zoning code to provide for CC as a permissible land use (subject to requirements based on the type of zone).
2. **Advance the many benefits** of community composting.
3. **Establish community composting as a land use** distinct from industrial-scale composting and municipal solid waste management and disposal.
4. **Encourage** the use of locally generated organic materials as a **community resource**.

Background on the Model Ordinance

The NRDC (Natural Resources Defense Council) and the Environmental Law Institute (ELI) Model Ordinance:

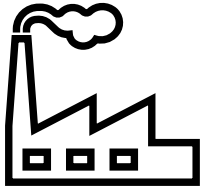
- Is based on **extensive research** and **best practices**
  - Draws from and builds on the U.S. Composting Council's (USCC) model zoning template and guidelines
  - Relies on the Institute for Self-Reliance's (ILSR) extensive resources and experience
- Can be **tailored** to needs of individual municipalities
- Is accompanied by a version **with commentaries** and **background memo** that provide background information and alternative approaches

Key Provisions of the Model

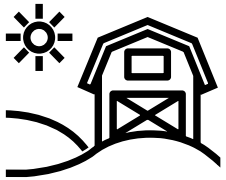
Community Composting as a Permissible Land Use

The Model **establishes and regulates community composting** as a clearly defined and **permissible land use** in five zoning districts:

Commercial
(by right, primary use)



Industrial
(by right, primary use)



Agricultural
(by right, accessory use)

Residential
(conditional use)

Mixed-use
(conditional use)

It also establishes community composting as an **accessory use** to permitted **urban agriculture** and **community gardens**.

Prohibitions

A community composting facility **cannot** receive, handle, or store:

- Hazardous or toxic waste
- Biosolids
- Any non-organic material

Conditional Use Standards for Residential and Mixed-Use Zones

A conditional use permit (necessary in residential and mixed-use zones) requires submission of a plan that:

- Shows the **locations of structures**, bins, and tipping & loading areas;
- Demonstrates landscaping/**buffering** to screen the facility from adjacent residential properties;
- Demonstrates that the facility will not negatively impact existing **water infrastructure**, **surface water**, **groundwater**, and **floodplains**; and
- Addresses potential **odor**, **pest control**, and **traffic** impacts.

Area, setback, and bulk requirements for a community composting facility are those required for other structures/facilities in the same zoning district.

Note: These are **performance-based standards** to allow flexibility to community composters while addressing potential neighbor and community concerns.

Application of Other Laws

Community composters still **must comply with all other applicable municipal, state, and federal laws and regulations**. This includes, for example:

- Obtaining any other required **permits**, **licenses**, or **other permissions**; and
- Operating in a manner so as to avoid creating a public or private **nuisance**.

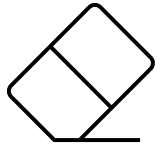
Exception for Backyard Composting

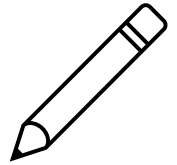
The Model **does *not* apply to backyard composting**, defined as "composting where the organic material is processed on site in a residential setting and the compost is typically used at the same location."

Policy to be Incorporated Into Comprehensive Plan

Where applicable, the Model requires that a policy establishing community composting as a permissible land use will be incorporated into the next scheduled review of the municipality's **comprehensive or master plan**.

Alternative Approaches Include…





Defining "Community Composting" Differently

- A municipal government could use a **quantitative threshold** (such as throughput volume or facility area) to determine what qualifies as a community composting facility.
- See, e.g., the USCC Model, which equates community composting to "small-scale composting" (up to 500 cu. yd. of organic material on-site at a time, 5,000 cu. yd. processed annually, and an area of one acre).

Modifying Conditional Use Standards

- A municipal government could remove or modify some of the listed conditional use standards, or even increase the stringency.
- See, e.g., the USCC Model, which requires a municipal engineering review, among other provisions.

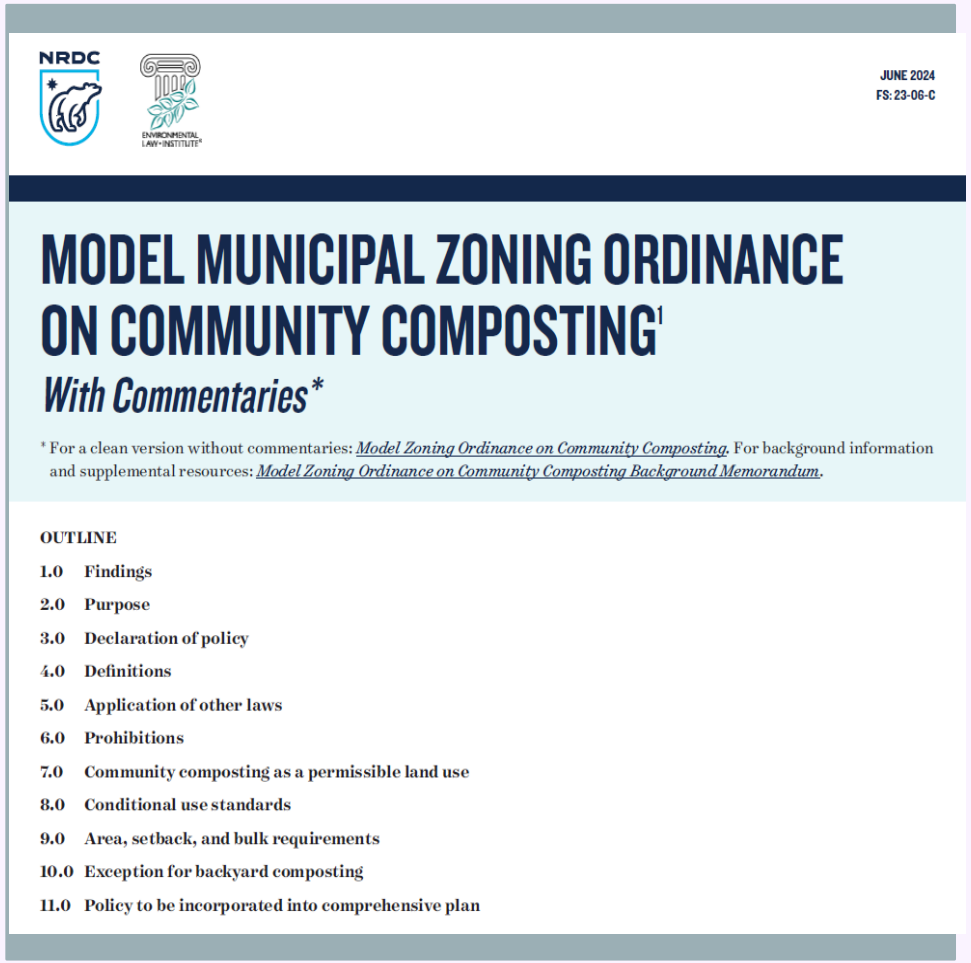
Additional Resources and Information

Dive into the Model Ordinance

Model Municipal Zoning Ordinance on Community Composting:
https://www.nrdc.org/resources/model-municipal-zoning-ordinance-community-composting-and-without-commentaries

Visit the link above to find:

- The full model ordinance, **with** commentaries
- The full model ordinance, **without** commentaries
- The accompanying **background memorandum**
- A copy of this **presentation**



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ENVIRONMENTAL LAW INSTITUTE

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MODEL MUNICIPAL ZONING ORDINANCE ON COMMUNITY COMPOSTING[1]

*With Commentaries**

* For a clean version without commentaries: *Model Zoning Ordinance on Community Composting*. For background information and supplemental resources: *Model Zoning Ordinance on Community Composting Background Memorandum*.

OUTLINE

1.0 Findings
2.0 Purpose
3.0 Declaration of policy
4.0 Definitions
5.0 Application of other laws
6.0 Prohibitions
7.0 Community composting as a permissible land use
8.0 Conditional use standards
9.0 Area, setback, and bulk requirements
10.0 Exception for backyard composting
11.0 Policy to be incorporated into comprehensive plan

Helpful Sources

NRDC Food Matters: https://www.nrdc.org/food-waste-reduction

ELI Food Waste Initiative: https://www.eli.org/food-waste-initiative

Nashville Food Waste Initiative: https://urbangreenlab.org/nashville-food-waste-initiative/

ILSR's Composting for Community Initiative: https://ilsr.org/composting/

USCC's Model Zoning Template and Guidelines:
https://www.compostingcouncil.org/page/Model-Zoning-Template-and-Guidelines

For more information, Please Contact:

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