Winnetka Environmental and Forestry Commission
Notice of Regular Meeting
May 11, 2022

The Winnetka Environmental and Forestry Commission will convene Wednesday, May 11, 2022, in Village Council Chambers, 510 Green Bay Road, Winnekta, IL at 7:00 p.m.

Agenda

Call to Order

1) Introduction & Chair's Remarks — Presenter Hanley

2) Public Comment

3) Review and Approval of Minutes

a. Approval of the March 09, 2022 Regular Meeting Minutes — Presenter Hanley

4) New Business/Old Business Updates

a. 2040 Comprehensive Plan and Sustainability Plan

i. Pillars and Goals: Planning Commission Update — Presenter Kunkle

ii. Recasting existing and additional 2040 Proposed Village Goals into Excel format — Presenter Hanley

b. Sustainable Materials Management — Presenter Kunkle

i. National Recycling Strategy

ii. U.S. Food Loss and Waste Action Plan

c. Public Trust Doctrine — Presenter Wynnychenko

5) Communications

a. Approval of May Communication Items — Presenter Puga

b. Discussion of June Communication Items — Presenter Puga

6) Committee/Staff Reports

7) Open Forum

8) Adjournment

_____
Posted Time and Date

NOTICE

All agenda materials are available at villageofwinnetka.org ***(Government > Council Information > Agenda Packets & Minutes); the Reference Desk at the Winnetka Library; or in the Manager's Office at Village Hall (2nd floor).*** The Village of Winnetka, in compliance with the Americans with Disabilities Act, requests that all persons with disabilities who require certain accommodations to allow them to observe and/or participate in this meeting or have questions about the accessibility of the meeting or facilities, contact the Village ADA Coordinator, at 510 Green Bay Road, Winnetka, Illinois 60093, 847-716-3543; T.D.D. 847-501-6041.

WINNETKA ENVIRONMENTAL AND FORESTRY COMMISSION
REGULAR MEETING MINUTES
March 9, 2022

A record of a legally convened meeting of the Environmental and Forestry Commission of the Village of Winnetka, which was held virtually via Zoom Wednesday, March 9, 2022, at 7:00 pm.

Call to Order:
Chairperson Dowding called the meeting to order at 7:01 p.m.; Voting Members present: Chairperson Chuck Dowding, Commissioners David Varca, Ted Wynnychenko, Liz Kunkle, and Patrick Hanley. Voting Members absent: Commissioners Roseann Park-Jones. A quorum of presently appointed members was present. Village Council Representative absent: Kim Mancini. Student Representatives present: Marcus Buccellato. Student Representatives absent: Scarlett Harper. Staff Liaison present: Diana Puga, Public Works Analyst. Public present: one member.

1) **Introduction & Chair's Remarks:**
Chairperson Dowding called the meeting to order at 7:01 p.m. and welcomed all Commission members and the public. Staff Representative Puga took roll call for attendance.

2) **Public Comment:**
Park District Board Commissioner, Colleen Root, announced the Winnetka Park District filed permits for the Centennial Elder Lane Bluff Stabilization and Beach Restoration on February 24, 2022. **The application will be made available on the Illinois Department of Natural Resources (IDNR) website when it is released for public comment.**

3) **Review and Approval of Minutes:**

a) Approval of the January Regular Meeting Minutes
Commissioner Wynnychenko made a motion to approve the January 10, 2022, minutes. The motion was seconded by Commissioner Kunkle.

AYES:	VARCA, WYNNYCHENKO, KUNKLE, HANLEY
ABSENT:	PARK-JONES
NAYS:	NONE

b) Approval of the February Regular Meeting Minutes
Commissioner Hanley made a motion to approve the February 9, 2022, minutes. The motion was seconded by Commissioner Varca.

AYES:	VARCA, WYNNYCHENKO, KUNKLE, HANLEY
ABSENT:	PARK-JONES
NAYS:	NONE

DRAFT

4) New Business, Old Business/Updates:

a) Climate Action Plan for the Chicago Region Presentation Update

Commissioner Kunkle announced the Climate Action Plan Resolution was unanimously passed during the February 15, 2022 Village Council Meeting and provided an overview of how the presentation went. Commissioner Kunkle will reach out to the Mayors Metropolitan Caucus to inform them Winnetka has adopted the resolution and will request to be added to the list of communities who have adopted the resolution.

b) 2040 Comprehensive Plan

Commissioner Kunkle provided an overview of the Plan Commission meetings. She informed the Commissioners the Plan Commission began working through the 12 pillars, which have now been reduced to 10 pillars. In January, the Plan Commission reviewed the vision statements for all the pillars. The Plan Commission will be reviewing the pillars from February through May.

During the February meeting they had 3 pillars on the agenda: (1) Community Infrastructure, Services, and Technology which has 12 identified goals, (2) Operational Efficiencies and Regional Coordination which has 4 identified goals, and (3) Sustainability and Climate Action which has 4 identified goals. Unfortunately, the Plan Commission did not have a chance to review the third listed pillar due to the depth of the pillars and associated goals.

The Plan Commission will have two separate meetings in March to continue their discussions of the pillars. The regular meeting will be held on Wednesday, March 23, 2022 and the special meeting to discuss the pillars will be held on Monday, March 21, 2022.

i) Integration Climate Action Plan/CEJA w/ Winnetka Sustainability Chapter

Currently no movement on this item, will re-visit during the April meeting.

ii) Additional Long-Term Goals

Chairperson Dowding reviewed the Comprehensive Plan Vision Pillars Goals and Initiatives Development Working Draft document pulled from the Plan Commission's February meeting. Under the fourth pillar, Sustainability and Climate Action, he added an additional goal for consideration. The Commissioners discussed the need for an additional goal that expands on goal 4. The Commission suggested that the goal identify objectives throughout the plan that a Commission or staff will monitor to ensure success. Commissioner Hanley offered to amend the language of the goal number 5 Chairperson Dowding presented.

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iii) Recasting existing and additional 2040 Proposed Village Goals into format below
Goal Objective Action-Item Partners Funding Time-Frame
In the interest of time, the Commissioners agreed to forward all outstanding long-term goals to Staff Liaison Puga; Staff Liaison Puga will forward all long-term goals to the Commissioners for review prior to posting the agenda to allow more time to review and prepare feedback and improve efficiency.

c) Mayors Monarch Pledge
Staff liaison Puga has updated the Mayors Monarch Butterfly proclamation which will be included alongside the Arbor Day and Earth Day proclamations to be reviewed during the April 19, 2022, Village Council Meeting.

Staff Liaison Puga will confirm with the Village Manger's Office who submitted the Mayors Monarch Pledge in 2021 and will inform Chairperson Dowding.

d) Sustainable Materials Management
No report or discussion

e) Senate Resolution 0706 (SR0706) – National Composting Week
The resolution will be re-introduced.

f) EFC Green Award Applications
Staff Liaison Puga reviewed the two applications received: Hadley and Winnetka Public Works Department.

Hadley applied for their recent landscaping renovation under the following categories: Land, Leadership, and Water/Stormwater. In 2021, they redesigned their gardens to add sensory elements, have crushed granite walkways that both lead visitors through the space and guides rainwater away from the building. The garden was also designed to replicate regions of Illinois with native species.

The Winnekta Public Works department applied for their recent LED lighting project under the following categories: Energy and Municipal Operations. The Public Works Department recently replaced 149 Compact Fluorescent Lightbulb (CFL) fixtures to LED fixtures reducing the overall wattage in the building by 14, 715 watts.

After a brief discussion, the Commissioners agreed to recognize and award the Green Award to both applicants. **Commissioner Varca so moved and Commissioner Hanley seconded.**

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AYES: VARCA, WYNNYCHENKO, KUNKLE, HANLEY
ABSENT: PARK-JONES
NAYS: NONE

5) Communications:

a) Approval of April Communication Items

The Commissioners reviewed the April Communication Items which included Composting at the Village, the Phosphorous Ordinance, and Earth and Arbor Day. Commissioner Wynnychenko also suggested including the Pesticide Alternatives communication in April.

AYES: VARCA, WYNNYCHENKO, KUNKLE, HANLEY
ABSENT: PARK-JONES
NAYS: NONE

b) Discussion of May Communication Items

The Commissioners reviewed the May Communication Items which included the Green Award Recipients, Stormwater Best Management Practices Guide for Residents, Environmental and Forestry Commission Recycling Tips for Breaking Down Boxes and Leaving Lids on Plastic Containers, and Pesticide Alternatives.

6) Commission/Staff Reports:

Staff Liaison Puga provided the Commissioners with a schedule for deadlines to streamline the agenda process.

7) Open Forum:

Chairperson Dowding announced Representative Jan Schakowsky will be at the Winnetka Congregational Church on March 22, 2022 at 6:30 PM **to discuss plastics and other environmental matters.**

8) Adjournment:

There being no further business, Chairperson Dowding asked for a motion to adjourn which was moved by Commissioner Kunkle and seconded by Commissioner Wynnychenko. The motion passed; the meeting adjourned at 8:51 pm.

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Attachment C

March 17, 2022 (DRAFT FOR COMMISSION REVIEW)

To: Winnetka Team

Fr: Lakota Team

RE: GROUP 2 – PILLARS 3, 6, 9 – GOALS AND INITIATIVES DEVELOPMENT
Winnetka Comp Plan – *Winnetka Futures 2040 – Our Heritage Forward*

Pillar 3: Community Heritage and Placemaking

"Winnetka's authentic heritage can be found in its walkable streets, its rich tapestry of commercial and residential architecture, and in its cultural activities."

HERITAGE BASED GOALS

GOAL 1:
The Village will adopt and utilize tools that support the preservation of Winnetka's rich heritage, which is reflected in its history, architecture, neighborhood character, open space, and natural resources.

Initiatives

1. In order to strengthen and maintain the rich and diverse character of the Village's neighborhoods, take steps to define a neighborhood's character and sense of identity by identifying each neighborhood's unique elements that contribute positively to the Village, be it a heavy concentration of mature trees, significant density of tree canopy, irregular terrain, private lanes without curb and gutter, grid street form with uniform setbacks, or predominately smaller or larger residential lots.

2. Ensure infill housing and new construction is contextually consistent with existing single-family housing in its neighborhood by creating guideline documents identifying the scale and form of new residential construction envisioned in Winnetka's various neighborhoods.

3. Conduct an architectural survey to identify important Winnetka architectural and historic resources and other physical contributions to its heritage and character.

4. Build upon Winnetka's history of major public works initiatives which have reshaped the community in the past, including lowering the railroad grade, enhancement of the Skokie Lagoons, and the purchase and conversion of the former *Chicago North Shore and Milwaukee* railroad to establish the *Green Bay Trail* .

5. Use open space and parkway lands for pollinator gardens, community gardens and native plants.

GOAL 2:
The Village will create and maintain new educational tools, publications, and programs that inform residents, developers, commercial property owners about the benefits of preserving the community's heritage.

Initiatives

1. Provide summary information and links to federal and state financial incentives, such as the State of Illinois Property Tax Assessment Freeze or federal and state historic tax credits, so that Winnetka property owners are aware of programs to offset costs to restore qualifying historic structures.

2. Provide to Winnetka property owners information concerning non-financial tools and resources available to assist with preservation of historic and architecturally significant structures.

3. Upon completion of the historic and architecturally significant building survey, publish its findings to educate property owners and developers of the Village's potentially significant buildings and structures.

GOAL 3:
The Village will identify policies, code amendments, and regulatory mechanisms that encourage context-sensitive design and building conservation solutions to maintain Winnetka's authentic commercial, institutional, and multi-family residential community character and sense of place.

Initiatives

1. Update existing commercial design guidelines to address current design issues, concerns, and contexts more adequately.

2. Review sign regulations to ensure they adequately address current sign technology and the needs of Winnetka institutions and the business community while maintaining the pedestrian-focused community character of these areas that residents have come to expect.

PLACEMAKING GOALS

GOAL 4:
The Village will encourage the enhancement of its public spaces, streetscapes, plazas, alleys, and corridors through creative, cost-effective placemaking and public art initiatives to enhance social gathering, events, and recreation for residents of all ages and abilities.

Initiatives

1. Continue to implement the Village's Downtown Master Plan and Downtown Master Streetscape and Signage Plan by constructing streetscape improvements, similar to those in the Elm Street Business District, in the Hubbard Woods and Indian Hill business districts so that these commercial streets are for both mobility and public spaces for gathering, events and socializing.

2. Pursue Green Bay Road improvements that increase and contribute to placemaking through the Village.

3. In cooperation with the Park District, pursue Green Bay Trail improvements that enhance its usability, through improved access and signage, and that enhances the landscaping through upgrades to the natural systems.

4. To encourage more outdoor dining opportunities in Winnetka, establish a Village-wide policy for such temporary uses on public sidewalks, public streets, parking lots, and in public parks.

5. Activate streets and open spaces with temporary and permanent uses that can be catalysts for future investment and growth.

6. Create gateways at Village entrances that integrate elements such as signage, wayfinding, landscaping, and building forms unique to Winnetka.

7. Benchmark and measure the outcomes of public investment in placemaking initiatives.

GOAL 5:
The Village will be prudent in its investment and management of public placemaking initiatives seeking a sustainable, long-term view in the selection of high-quality materials, product durability, product lifecycle, and maintenance responsibility.

Initiatives

1. Use decorative streetlights and other outdoor lighting as effective placemaking tools used along Green Bay Road, the Green Bay Trail and other high traffic commercial areas.

GOAL 6:
The Village will support community-wide arts and cultural efforts by providing welcoming spaces to support active participation, promotion, and programming efforts.

Initiatives

1. Identify and create additional gathering spaces in the community, whether public, non-profit, or private, for cultural and entertainment events such as live performances and concerts.

2. Partner with Winnetka institutions and businesses to integrate public art and art spaces throughout the Village and continue to support Winnetka as an arts and cultural destination.

Pillar 6: Healthy and Engaging Lifestyles

"A unique lakefront community that values a variety of carefully-managed and well-connected parks and open spaces and that treasures unlimited access to recreational opportunities and cultural pursuits to help residents achieve a balanced and fulfilled lifestyle."

GOAL 1:
The Village will promote and encourage partnerships with other units of government and agencies to conserve, restore and enhance natural features and ecosystems and to ensure accessibility to and among natural areas, parks, and other open or public spaces.

Initiatives

1 . Collaborate with the Park District, local school districts, Forest Preserves of Cook County, and others to create programs that enhance accessibility to the open spaces of Winnetka.

GOAL 2:

The Village will work with other agencies or units of government to support recreational facilities and programs that support the health of residents of all ages and abilities.

Initiatives

1 . Collaborate with the Park District, School District, Library District, Community House of Winnetka, and other community institutions to create programs that maintain active and thriving Village recreation programs offering a variety of sports, exercise, arts and crafts, cultural, life skills, educational, social, and leisure programs for residents of all ages and abilities.

2. Coordinate with the Park District, non-profit service providers, private leagues, and the school districts the sharing of information so that the public is made aware of the full range of available recreational opportunities.

3. Ensure that local regulations do not discourage businesses and not-for profits from providing private recreational and physical fitness training facilities in the community.

GOAL 3:

The Village will support and promote community institutions and other units of government in the advancement of programs and facilities that provide life-long educational opportunities that broaden all Winnetka residents' understanding of the world in which we live.

Initiatives

1. Support the efforts of community institutions such as the Winnetka-Northfield Public Library, Oakton Community College, and the Winnetka Youth Organization to create programs that provide life-long learning opportunities about Winnetka and the world.

2. Ensure that local regulations and processes do not discourage businesses and not-for-profits from providing supplemental educational opportunities for Winnetka parents and their children.

GOAL 4:

The Village will support community-wide arts and cultural efforts that provide cultural enrichment to community members through active participation, promotion and programming efforts with other businesses, community institutions and arts entities.

Initiatives

1 . Collaborate with businesses and community organizations, such as the North Shore Art League, to create programs that encourage participation in arts and culture programs.

2. Create and appoint residents to a Cultural Arts Advisory Board or Commission to collaborate with local organizations and facilitate the installation of public art around the Village.

GOAL 5:
The Village will support health and wellness through innovative and diversified recreation and cultural opportunities in its public parks, plazas, trails, and open spaces.

Initiatives

1. Support and promote health and wellness for all its residents through a safe, connected, and accessible pedestrian and bicycle network, and resources for recreation.

2. Initiate regular, scheduled meetings and information sharing with local bodies of government and other public and non-profit organizations regarding open space and recreation. Sharing resources, ideas, and concerns may lead to new solutions or efficiencies.

3. Improve existing or create new non-motorized linkages between recreation and open space facilities for Village residents, businesses, and schools, and between the facilities themselves. Ensure adequate linkages to regional trail systems are also in place.

4. Support the efforts of the Park District and other community organizations to expand and/or modify Winnetka's recreational programming to fill gaps in services from existing recreation service providers.

Pillar 9: Civic Engagement

"A community heritage founded on the fundamental principle of fostering beneficial public dialogue through active community engagement and volunteerism."

GOAL 1:
The Village will nurture a culture among community residents that is welcoming, inclusive, and equitable, and that promotes diverse perspectives and cultivates community engagement.

Initiatives

1. Orientation for new Council, board, or commission members, will include training on how the Village provides a welcoming and inclusive way in which all members of the public may participate in Village public processes.

2. Utilize active businesses and business groups to cultivate engagement among their customers and connect with different segments of the population.

GOAL 2:
The Village will foster, promote, and provide ample and structured opportunities for robust community dialogue to support and enhance community in Winnetka.

Initiatives

1. Support the effective use of digital civic engagement and traditional tools, including social media, for use of how residents of all ages and abilities interact with the Village.

2. Create a community open-source software program to engage the public on discussion of agenda items and Village sponsored projects before they become final.

3. Continue to make a high priority of posting online user-friendly information on Village finances, fiscal transparency, and projects.

GOAL 3:
The Village will continue to develop and improve strategies for active recruitment, engagement, and retention of a diverse and multigenerational cohort of volunteers.

Initiatives

1. Create a volunteer committee to work with the support of one staff person to focus on growing the field of volunteers and future leaders for the community and Village.

2. Pursue a variety of methods to attract volunteers such as holding open houses, creating a citizen's academy, collaborating with groups such as the Community House Winnetka, and reaching out to younger generations.

3. Use the Village's website to advertise the satisfactions and benefits volunteers receive from civic engagement.

4. Provide training to volunteers and employees to improve their data and information literacy and how they interact with the Village.

5. Identify obstacles and factors deterring residents from serving on Village boards and commissions. Provide comprehensive and detailed training to Village Board members and all commissioners.

GOAL 4:
Continue to cooperate with those organizations utilized by its Village residents to enhance civic involvement including various clubs, organizations, leagues, and the caucus system.

Initiatives

1. Inform Winnetka residents of community organizations that provide services to residents and include engagement of Village sponsored projects.

From: Charles Dowding
To: David Schoon
Cc: liz.kunkle@gmail.com; Scott Freres
Subject: RE: March 21 Special Plan Commission Meeting - Continued Comprehensive Plan Visioning
Date: Friday, March 18, 2022 10:02:00 PM

Hi Dave
Thanks for the information about the meeting on 21 March. Reviewing the Sustainability pillar 4 in May will be helpful. The EFC is likely to advise that one or two goals be added to the existing four.

I spent some time reviewing pillars 3, 6 & 9 and have some comments that relate to matters sustainable. Also listed below are additional initiatives for pillars 3 and 6 for consideration by the Planning Commission.

Pillar 3. Community Heritage and Place-making

1. Goal 1: …open space….
    a. Initiative 5… Pollinator gardens
        i. should be highlighted as sustainably related to follow the procedure developed during the last meeting.
2. Goal 3: …. Identify codes and regulations to maintain Winnetka…..
    a. Initiative 3 (new) Develop a village code that requires new construction to follow a national standard procedure for reducing energy consumed in home heating, ventilation, and air conditioning (HVAC)
        i. Existing procedures to calculate reduction in energy usage => EPA Energy Star Target Finder ASHRAE 90..or..Building Carbon Dioxide Equivalent Emissions ..or.. ASHRAE Building Energy Quotient
            1. In 2016 these procedures were fully developed for larger structures, and may now be available for residential structures
        ii. The MMC Climate Action Plan (endorsed by the Village Council) identified building energy as the third largest source of carbon dioxide emissions; almost as large as mobility. Therefore, some call for reduction of home energy usage needs to be included in the 2040 Comprehensive Plan

Pillar 6: Healthy and Engaging Lifestyles

1. Goal 1:….. ensure accessibility…..
    a. Initiative 2 (new): Develop policies that enhance public usability of Village owned right of way access points to Lake Michigan.
2. Goal 2: ….support health….
    a. Initiative 4 (new): Develop policies that reduce the use of chemicals to maintain the natural and built environment.
        i. Examples: bans on coal tar based sealers and phosphate fertilizers

Chuck Dowding
968 Elm St
Winnetka IL 60093
847-046-5675

From: David Schoon <DSchoon@winnetka.org>
Sent: Friday, March 18, 2022 11:37 AM
To: David Schoon <DSchoon@winnetka.org>
Subject: March 21 Special Plan Commission Meeting - Continued Comprehensive Plan Visioning

Good Morning Zoning Board of Appeals, Landmark Preservation Commission, Design Review Board, and Environmental and Forestry Commission –

At the Monday, March 21 Plan Commission special meeting, the Commission will continue to work with The Lakota Group and staff on developing vision statements, goals, and initiatives for each of the community pillars that have been identified. At the March meeting, the Commission will discuss the following pillars:

- **Community Heritage and Placemaking,**
- **Healthy and Engaging Lifestyles, and**
- **Civic Engagement.**

The agenda and materials for the meeting can be found here.

The meeting will be held in-person in the Village Hall Council Chambers starting at 7:00 p.m. You are welcome to attend the meeting and share your thoughts on these topics. If you are unable to attend the meeting, you may send an email to me with your thoughts and comments, and I will share them with the Plan Commission members.

The Commission is currently scheduled to consider the other community pillars at upcoming meetings as follows:

- April meeting
  - Vibrant Business Districts
  - Quality, Livable Neighborhoods
- May meeting
  - Educational Excellence
  - Mobility and Accessibility
  - Sustainability and Climate Change (This pillar was originally scheduled to be discussed at the February Plan Commission meeting, but due to the late hour of that meeting, this pillar is currently scheduled to be discussed at the May meeting.)

Feel free to share this email with others you know who may be interested in the Village's work on creating a vision for the community's future.

If you have any questions, please let me know.

David Schoon
Community Development Director

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Draft EFC Objectives

Pillar	Goal	Initiative	Partners	Funding	Timeframe
4. Sustainability and Climate Action	4.1 The Village will establish a community framework for sustainability with the adoption, implementation, and maintenance of a dynamic and achievable Sustainability Action Plan ("SAP") that will serve as the basis for goal-setting, tracking, and encouraging sustanability activities in the Village.	4.1.1 The Sustainability Action Plan will address at a minimum the following areas in terms of sustainability: Climate, Economic Development, Energy, Land, Leadership, Mobility, Municipal Operations, Sustainable Communities, Waste & Recycling, and Water.	EFC	N/A	Short-term (Q3-Q4 2022)
		4.1.2 The SAP will identify resources necessary to achieve the SAP's goals and initiatives.	EFC	N/A	Short-term (Q3-Q4 2022)
		4.1.3 The EFC will revise and update the SAP at regular intervals to keep the plan relevant, useful, and consistent with local and regional partnerships and objectives.	EFC	N/A	Long-term (2023 - 2040)
		4.1.3 Consider expanding the role of the Environment and Forestry Commission to advise the Village Council on all matters related to the environment, sustainability, forestry and other natural resources. Consider changes to the Village Code establishing the EFC and its roles, as well as evaluating its name, member composition and the like.	EFC	N/A	Mid-term (2023-2025)
	4.2 The Village will evaluate and consider appropriate public resources to guide, manage, and educate the residents on the value of the SAP	4.2.1 Evaluate what will be the appropriate staffing for community sustainability initiatives either through dedicated staff resources, on-call consultant, or the creation of a Sustainability team as a shared responsibility.	EFC		Short-term (Q3-Q4 2022)
		4.2.2 Implement sustainable practices within residential neighborhoods to the extent possible.	Public works EFC		Mid-term (2023-2025)
	4.3 The Village will identify opportunities with community businesses and institutions to incorporate sustainability into their ongoing operations and planning	4.3.1 Help businesses identify and secure technical and financial resources to assist them with operating their businesses in a more sustainable manner.	Winnetka-Northfield-Glencoe Chamber of Commerce Village business community	N/A	Mid-term (2023-2025)
		4.3.2 Establish the position of Sustainability Coordinator for the Village.	Village	AmeriCorps	Short-term (Q3-Q4 2022)
	4.4 The Village will develop, maintain, and support local and regional partnerships with other organizations to leverage and share information on sustainabile initiatives, shared resources, technical assistance, and tools for broader community engagement.	4.4.1 Continue to endorse and support the goals of regional sustainability plans such as the Metropolitan Mayors Caucus' Greenest Region Compact 2 ("GRC2") and the Metropolitan Mayors Caucus 2021 Climate Action Plan for the Chicago Region ("CAP").	Metropolitan Mayors Caucus Environmental & Forestry Commission		Short-term (Q3-Q4 2022)

Pillar	Goal	Initiative	Partners	Funding	Timeframe
		4.4.2 Partner with the school districts, Park District and other local agencies to reduce GHG emissions and to address other sustainability initiatives.	Environmental & Forestry Commission		Mid-term (2023-2025)
	4.5 The Village will hold itself accountable to sustainability objectives set out throughout the 2040 Plan	4.5.1 Monitor and assess, at regular intervals, sustainability objectives identified throughout 2040 Plan (i.e. X, Y, Z), ensuring alignment with the latest iteration of the SAP.	Environmental & Forestry Commission		Long-term (2023 - 2040)
X. Encourage municipal and residential transition from fossil fuels to alternative energy consumption	X.1 Conduct planning process for extension or transition regarding municipal electric plant, resulting in a decision document for consideration by Village Board	X.1.1 Conduct cost-benefit analysis for transition to new energy source, taking into consideration investment required to transition, differential cost of inputs, long-term risks associated with transition, possible supplier universe and associated market dynamics. X.1.2. Develop decision-document outlining considerations for extension vs. transition, including timeline, relevant deadlines, and next steps	Municipal utility (Brian)	Staff-time Potential need for consulting work	Short-term (Q1-Q2 2022)
	X.2 Investigate possibility of alternative energy installations	X.2.1 Explore feasibility, cost of alternative energy production solutions, such as solar, hydrogen, wind, or thermal	Municipal utility (Brian) EFC MMC		Mid-term (2022-2025)
X. Reduce water consumption and improve water quality	X.1 Reduce Winnetka's water consumption by 10%	X. Conduct Village diagnostic to determine where/how water is being used (residential v. commercial v. government; seasonal usage; areas of highest usage) X. Review Village practices around water usage and identify areas for improving efficiency X. Support residents and businesses with best practices and data on most/least wasteful uses of water (e.g draughts) X. Evaluate new water rate structures to progressively increase cost of water for highest users X. Replace pre-1992 toilets in Winnetka - partner with real estate agents to encourage/incent replacement during purchase? Identify plumbing partners and communicate to Village?	Village businesses (Chamber of Commerce) Village residents Real estate community Plumbing companies	Staff-time required Potential fixed investments in water efficient equipments	Mid-term (2022-2025)
	X.2 Review, monitor, and/or improve Winnetka's water infrastructure to increase efficiency, water quality	TBD	Public works / water utility	Need to better understand current practices*	Mid-term (2022-2025)
	X.3 Replace lead service lines	TBD	Public works / water utility	Cost of replacement?	Ongoing
	X.4 Reduce to zero beach closures due to pollution	X. Introduce municipal green infrastructure program (e.g. native plants, trees in public areas) to reduce and filter runoff X. Introduce/increase use of beet salt during wintertime X. Explore permeable pavement solutions for municipal buildings and explore ways to encourage permeable pavement for residential construction	Metropolitan Water Reclamation District Illinois Department of Transportation	Need to better understand current practices*	Mid-term (2022-2025)

Pillar	Goal	Initiative	Partners	Funding	Timeframe
X. Manage water infrastructure to ensure efficiency and quality	3.5 Protect surface and groundwater from runoff and contamination, support post development runoff reduction and mitigation	X. Revisit salt use during winter, explore alternatives, such as beet, etc. that may have more neutral impact on ecosystem (explore impact on waste plant bacteria) X. Partner with Green Pact partners to quantify incremental impact of green infrastructure on runoff reduction/purification X. Review flood map alongside curbside map to identify possible green infrastructure installations	Public works / water utility	Staff time	Short-term (Q1-Q2 2022)
	3.6 Encourage residents and businesses to properly assess and address flood risks on their property		Realtors Residents Chamber of Commerce	N/A	Mid-term (2022-2025)
X	X.1Create a (Full/Half) Staff Position for Sustainability Coordination inorder to accomplish the following 1) Streamline Public Works & EFC web pages 2) Manage The EFC, 3) Enforce environmnetally ordinces, 4) Audit environmental metrics of success, 5) Manage chemical applicators in Village, 6) Maintain Right of Way & Trees, 7) Coordinate with other agencies, 8) Other Sustainability tasks	X.1.1 Enhance the job description of the Village Forester to include management and coordination of the 1) EFC Liaison, 2) Water treatment plant operator (to address chemical issues) 3) Other Public Works Dept personnel X1.2 Enhance the job description of Community Development person to coordinate activities		No funding needed	1 to 2 years
		X.1.2 Add another position in Public Works Department		Additionl Funding from Landscaper registrations fees	2 to 4 years
3 Community Heratage and Placemaking	3.3 …. Identify Codes and Regulations to maintain Winnetka…..community charater	3.3.3 Develop a village code that requires all new construction to follow a national standard for reducing energy consumed in home heating, ventilation, and Air Conditioning (HVAC)	EPA Energy Star Target Finder ASHRAE 90.1 Building Carbon Dioxide Equivalent Emissions, ASHRAE Building Energy Quotient	As of 2016 exists for commercial buildings. May also exist now for residential buildings	1 to 2 years

Draft EFC Objectives

Pillar	Objective	Action Item	Partners	Funding	Timeframe
Healthy & Engaging Lifestyles	Improve community access to lakeshore returning access to its historical level	The Winnetka Futures 2040 Plan analysis identified healthy and engaging lifestyles, culture and community character, and parks and open space as Pillars of the Community. The Villages lakefront has historically allowed individuals to walk along the shore of Lake Michigan for significant distances, while respecting the rights of riparian property owners along the lake. Unfortunately, in recent years, riparian property owners have been allowed to drastically change the character of the lakeshore in an attempt to stabilize beaches and bluffs along the lake.			
Culture & Community Character	Stabilize bluffs and beaches and increase enjoyment of Lake Michigan	While the intent of these changes is encouraged, these changes have drastically altered the character of the lakeshore and prevent individuals from enjoying the lake. Furthermore, these changes have effectively transferred public land to private individuals, and riparian owners have not been held to account for violations of special conditions included with permits for construction. Therefore, access to the lakeshore should be restored.			
Parks & Open Space		Action 1: Signs – Riparian owners have placed warning signs suggesting that lakeshore beaches are “private.” These signs are misleading, and often false. The Village should adopt ordinances barring riparian owners from displaying false information along the lakeshore.	No partners.	There are no significant costs to the Village.	Timeframe could be immediate.
		Action 2: Tower – Lloyd path – The lakeshore and beach (above the ordinary high water mark) between Tower and Lloyd Parks is not privately owned. The Village should support the Park District in constructing a boardwalk, or similar structure, to allow individuals to walk from one beach to the other along the lakeshore.	Partner with the Park District	There will be costs associated with construction and permitting, and these costs could be funded in a similar manner to all capital improvement projects.	Timeframe could be within 2-3 years.
		Action 3: Stairs over barriers – Riparian owners are required to maintain public access to public property. The breakwaters constructed, and being constructed, along the lakeshore significantly prevent public access to public lands. The Village should direct riparian owners to install stairways over any and all constructed breakwaters to reestablish the public’s access to public land.	Partner with the USACE, IL DNR, and IL EPA as necessary	There should be no significant costs to the Village, unless the riparian owners refuse to provide the access required of them by the permits that have been granted. In such an event, the Village should fund any required legal action in the same manner as it has previously funded legal action to compel behavior of residents when structures have been constructed on public land.	Timeframe could be immediate to within 1-2 years.

Pillar	Objective	Action Item	Partners	Funding	Timeframe
		Action 4: Overlooks at street ends - In addition to Park District beaches, there are multiple points along the lakeshore at ends of Village streets that are not private, but publically owned. The Village should incorporate improvements for public access and enjoyment of these areas with any proposed changes that will be constructed as part of stormwater mitigation efforts. These improvements can also be designed to compliment stormwater management.	Partner with the Park District and other entities involved in stormwater planning.	Funding for these improvements could be integrated into the costs of stormwater mitigation.	Timeframe could be over the next 3-8 years as the Village's stormwater plan is developed.
Sustainability & Climate Action	Utilize landfill property to full potential	The Winnetka Futures 2040 Plan analysis identified sustainability and climate action as a Pillar of the Community. The Village owns a significant amount of generally undeveloped land on top the Village landfill. While this area is currently used, there are no significant structures located on it, and the site could be developed to include an extensive solar array for power production while maintaining the site's usability for other purposes. The development of such a solar facility would reclaim unused land that is unlikely to be used for a higher purpose, support the Pillar by advancing sustainability, and provide diversification of the Village's electrical supply which may make the Village's power system more resilient in the face of increasing and intensifying storm events.			
	Install Renewable Energy Resources on underutilized Village Property	Action 1: Install solar on elevated frames at landfill – The top of the Village's landfill is essentially undeveloped. The Village should develop the site with a large photovoltaic solar array mounted on elevated frames/supports. This would allow continued use of the site, and would also provide a clean and renewable source of energy for the Village's residents.	Partner with the IMEA as necessary.	Either Village or individual residents will pay upfront costs and then recover those in the future.	Timeframe could be over the next 3-8 years.
	Redevelop Underutilized Properties	There will likely be significant upfront costs associated with such an installation which could be paid for as are other infrastructure developments/improvements within the Village. Alternatively, the Village could solicit individual residents to support such a development. Over time, the production of power would yield revenues that would offset the upfront costs of development, which would be recovered by either the Village or private individuals, based on the initial funding of the development.			

Draft EFC Revised Waste Goals and Initiatives

Pillar	Goal	Initiative	Partners	Funding	Timeframe
7. Infrastructure, Services, and Technology	7.11 The Village will provide a waste and recycling system that encourages community members to reduce the amount of waste they generate and to recycle or reuse generated waste. (Lakota draft) The Village will provide a comprehensive sustainable materials management system that encourages Village-wide waste reduction and the reuse, recycling, and composting of, and recovery of energy from, generated waste. (elk draft)	7.11.1 Consider expanding the Village Pay-As-You-Throw waste and recycling program to include food scrap composting, commercial & multi-family recycling, and discouraging the use of unrecyclable products (e.g., plastic bags and utensils).	EFC, Go Green Winnetka, Chamber of Commerce, Commercial Landlords	?	Short-term (Q3-Q4 2022) and ongoing
		7.11.2 Continue working to make public events Zero Waste.	EFC, Go Green Winnetka, Chamber of Commerce, Park District	?	Short-, medium-, and long-term (2022 - 2040)
		7.11.3 Understand impacts of remaining waste landfill lifespan.	EFC, Public Works, SWANCC	N/A	Medium-term (2023 - 2025)
		7.11.4 Increase composting and biological treatment of waste and encourage use of compost and biosolids in landscaping	EFC, Public Works, SWANCC, MWRD	?	Short-, medium-, and long-term (2022 - 2040)
		7.11.5 Educate community members regarding the links between material production, transport, and disposal and GHG emissions	EFC, Go Green Winnetka	N/A	Short-, medium-, and long-term (2022 - 2040)

All suggestions are draft, pre-decisional, and for discussion purposes only

Draft EFC Objectives

Pillar	Objective	Action Item	Funding
Mobility	Support safe and effective active transportation	Invest in projects that further a network of on- and off-street bike facilities to enhance east-west connections to the Green Bay Trail as well as other destinations such as the Skokie Lagoons and the lakefront	Support efficient transportation that uses resources wisely
	Maintain a diverse, safe, and efficient transportation network	Integrate sustainability into transportation policies, programs, and regulations	Funding suggestion for action item 2
	Promote public and sustainable transportation choices		Funding suggestion for action item 3
	Develop incentives to reduce consumption of gasoline		

Draft Goals & Objectives For Leadership, p.11, 1.3

Goal	Objective	Action Item	Partners	Funding	Time Frame
Include WEFC representation on other Village commissions and boards	*To enable the WEFC to assist the Village in achieving its environmental, forestry, and sustainability goals *To provide other Village commissions and boards a resource on environmental, forestry, and sustainability items when they conduct business *To provide the WEFC with a liaison to the Village commissions and boards to keep the WEFC informed of current items being discussed and provide the WEFC an opportunity to assist with those items	*Chairperson Dowding to connect with President Rintz to gauge interest and find out what else the WEFC can do to further the decision making process *If President Rintz is supportive of the goal (including whether those representatives from the WEFC will have a vote on the various commissions and boards), the WEFC will draft a recommendation to be reviewed and approved by the Village Council to implement this change *The selected member from the Village of Winnetka will reach out to the Winnetka Park District Board to gauge the interest of a member of the WEFC being added to the Winnetka Park District Board and find out what is needed to be done to complete this *Once the resolution is adopted by the Village Council, President Rintz will appoint commissioners on the WEFC to the following commissions and boards: Design Review Board Landmark Preservation Commission Plan Commission Planned Development Commission Zoning Board of Appeals Winnetka Park District Board *Assist the Winnetka Park District Board to complete the necessary approvals to add a WEFC commissioner to the board	President Rintz, Chairperson Dowding, Trustee Cripe, Village Council, and Village Manager Bahan	None required	Within the next six months
Enabling additional environmental and/or forestry related ordinances to fall under WEFC's review	*To enable the WEFC to assist the Village in achieving its environmental, forestry, and sustainability goals *For the WEFC to be able to provide the Village Council with some assistance by managing environmental and/or forestry related ordinances and other related activities	*Chairperson Dowding to connect with President Rintz to gauge interest and find out what else the WEFC can do to further the decision making process *If President Rintz is supportive of the goal, the WEFC will draft a recommendation to be reviewed and approved by the Village Council to implement this change	President Rintz, Chairperson Dowding, Trustee Cripe, Village Council, and Village Manager Bahan	None required	Within the next six months

Diana Puga

From: Charles Dowding <c-dowding@northwestern.edu>
Sent: Tuesday, March 15, 2022 3:24 PM
To: Andrew Lueck; Diana Puga; Kristin Kazenas
Cc: Michael Essig; Karen Essig
Subject: Help with 2022 Mayor's Monarch Pledge (MMP)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Andrew, Diana, and Kristin

The EFC wishes to proceed with the 2022 MMP in the same fashion as what we understand occurred last year.

1) Village Council Proclaims April 22 as Monarch Remembrance Day as currently planned for 19 April.
2) Diana Puga or Andrew Lueck completes the pledge form. URL for pledge at bottom of this message.
3) Village Manager's office submits pledge to National Wildlife Federation.

The three, 3, most appropriate action items to choose in the Pledge for this year would be
Communications and Convening

1) Issue a Proclamation to raise awareness about the decline of the monarch butterfly and the species' need for habitat.
    1. Issue a Monarch Day Pledge
    2. Incorporate monarchs into your Earth Day, Pollinator Week or other Proclamation. **(Please include the MMP with the Arbor Day Proclamation information in Village communications e-blast or other)**

Program and Demonstration Gardens

2) Add or ***maintain*** native milkweed and nectar producing plants in public community gardens. **(Mike Essig and supporters are organized to maintain the garden through 2022. See schedule from his Eagle Project Workbook below)**
3) Display educational signage at monarch gardens and pollinator habitat beyond monarch demonstration gardens.
    1. Make sign that identifies garden (**Sign is needed at the Public Works site. EFC will suggest appropriate language that can be fabricated with Village signage equipment)**
    2. Add location and pollinator information of two gardens (Hadley, Garden Guild and Pub Works) on EFC website.

The URL for the MMP pledge follows below
https://www.nwf.org/MayorsMonarchPledge/About/Pledge-Action-Items

Month	Group
Sep 2021	Winnetka Congregational Church
Oct 2021	Go Green Winnetka
Mar 2022	Essig Family
Apr 2022	Essig Family
May 2022	Troop 18
June 2022	Troop 18
Jul 2022	Essig Family
Aug 2022	EFC
Sep 2022	Winnetka Congregational Church
Oct 2022	Go Green Winnetka

Sustainability calendar, showing all the groups who will be in charge of taking care of the garden once it has been planted.

Chuck

FOOD LAW and POLICY CLINIC
HARVARD LAW SCHOOL

NRDC

ReFED

WWF

Opportunities to Reduce Food Waste in the 2023 Farm Bill

APRIL 2022

Prevention

Recovery

Recycling

Coordination

AUTHORS

The authors of this report are **Emily M. Broad Leib, Joseph S. Beckmann, Ariel Ardura, Sophie DeBode, Tori Oto, Jack Becker, Nicholas Hanel,** and **Ata Nalbantoglu** of the Harvard Law School Food Law and Policy Clinic (FLPC), along with **Yvette Cabrera, Andrea Collins, Darby Hoover, Madeline Keating,** and **Nina Sevilla** of NRDC (Natural Resources Defense Council), **Samantha Goerger** and **Dana Gunders** of ReFED, and **Stephanie Cappa, Alex Nichols-Vinueza,** and **Pete Pearson** of World Wildlife Fund (WWF).

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Report design by Najeema Holas-Huggins.

About the Harvard Law School Food Law and Policy Clinic

FLPC serves partner organizations and communities in the United States and around the world by providing guidance on cutting-edge food system issues, while engaging law students in the practice of food law and policy. FLPC is committed to advancing a cross-sector, multi-disciplinary and inclusive approach to its work, building partnerships with academic institutions, government agencies, non-profit organizations, private sector actors, and civil society with expertise in public health, the environment, and the economy. FLPC's work focuses on increasing access to healthy foods, supporting sustainable and equitable food production, reducing waste of healthy, wholesome food, and promoting community-led food system change. For more information, visit www.chlpi.org/FLPC.

About NRDC (Natural Resources Defense Council)

NRDC defends the rights of all people to live free from environmental harm in a clean, healthy, and thriving natural world. We combine the power of more than three million members and online activists with the expertise of some 750 scientists, lawyers, and policy advocates across the globe to ensure the rights of all people to the air, the water, and the wild. For more information, visit www.nrdc.org.

About ReFED

ReFED is a national nonprofit working to end food loss and waste across the food system by advancing data-driven solutions to the problem. We leverage data and insights to highlight supply chain inefficiencies and economic opportunities; mobilize and connect supporters to take targeted action; and catalyze capital to spur innovation and scale high-impact initiatives. Our goal is a sustainable, resilient, and inclusive food system that optimizes environmental resources, minimizes climate impacts, and makes the best use of the food we grow. To learn more about solutions to reduce food waste, please visit www.refed.org.

About World Wildlife Fund

WWF is one of the world's leading conservation organizations, working for 60 years in nearly 100 countries to help people and nature thrive. With the support of 1.3 million members in the United States and more than 5 million members worldwide, WWF is dedicated to delivering science-based solutions to preserve the diversity and abundance of life on Earth, halt the degradation of the environment, and combat the climate crisis. Visit www.worldwildlife.org to learn more.

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Table of Contents

EXECUTIVE SUMMARY

The United States produces and imports an abundance of food each year, but approximately 35% of it goes unsold or uneaten.[1] Annually, 80 million tons of surplus food are not consumed. Of this, 54.2 million tons go to landfill or incineration, or are left on the fields to rot.[2] Farmers, manufacturers, households, and other businesses in the United States spend $408 billion each year to grow, process, transport, and dispose of food that is never eaten.[3] This waste carries with it enormous economic, environmental, and social costs, but also represents great opportunity. ReFED, a national nonprofit working with food businesses, funders, policymakers, and more, to reduce food waste, analyzed 40+ food waste solutions, and found that the implementation of these solutions has the potential to generate $73 billion in annual net financial benefit, recover the equivalent of 4 billion meals for food insecure individuals, save 4 trillion gallons of water, and avoid 75 million tons of greenhouse gas emissions annually.[4]

The federal government has an important role to play in the continued effort to reduce food waste. In 2015, the United States Department of Agriculture (USDA) and the United States Environmental Protection Agency (EPA) jointly announced the nation's first-ever food waste reduction goal, aiming to cut food waste in the United States by 50% by the year 2030.[5] While the food waste reduction goal is a step in the right direction, in order to make this goal a reality, it is imperative for the federal government to make food waste reduction a legislative priority.

Congress has started to take these necessary steps. In 2018, for the first time ever, Congress included measures in the Farm Bill to reduce food waste, for example, by clarifying liability protections for food donors, financing food recovery from farms, encouraging food waste recycling through community compost funding, and better coordinating food waste reduction efforts across the federal government.[6] Many of these programs were suggested in the *Opportunities to Reduce Food Waste in the 2018 Farm Bill* report, on which this report is based.[7] While the inclusion of these programs was an important first step, there is significant room for improvement in the 2023 Farm Bill. The farm bill authorizes roughly $500 billion over five years in expenditures across the entire food system, and the upcoming farm bill is poised to use a portion of this funding to build upon the successful pilot programs launched in 2018 and ensure more comprehensive investment in food waste reduction.

Opportunities to Reduce Food Waste in the 2023 Farm Bill details how Congress can take action to reduce food waste and offers specific recommendations of provisions to include in the 2023 Farm Bill. Given the bipartisan support for measures to reduce food waste,[8] the next farm bill provides an exciting opportunity to invest in food waste reduction efforts for greater social, economic, and environmental benefits. This report breaks food waste recommendations into four categories, based on whether they are intended to prevent food waste, increase food recovery, recycle food scraps through composting or anaerobic digestion, or coordinate food waste reduction efforts.

Below are a summary of the four categories and the top recommendations for each that are described in greater detail later in this report as well as mentions of relevant pending federal legislation (that are also included in further detail in Appendix C):

FOOD WASTE PREVENTION

Prevention efforts focus on interventions at the root causes of food waste—they locate and address inefficiencies in the food system and food related practices before excess food is produced, transported to places where it cannot be utilized, or discarded rather than eaten. More than 85% of greenhouse gas emissions from landfilled food waste result from activities prior to disposal, including the production, transport, processing, and distribution of food.[9] The greenhouse gas emissions embodied in the food wasted by consumers and consumer-facing businesses account for more than 260 million metric tons of carbon dioxide equivalent (CO_2e) per year,[10] which is equivalent to the annual emissions of 66 coal-fired power plants.[11] Food waste prevention efforts keep millions of tons of food out of the landfill and have the most potential for environmental,

economic, and social benefits. Altogether, the food waste prevention policies discussed in this section have the potential to annually divert nearly 7 million tons from landfills, while generating more than $27.4 billion each year in net financial benefit.[12]

Standardize and Clarify Date Labels

There is no federal regulation for date labels used on food. Instead, each state decides whether and how to regulate date labels, leading to a patchwork of inconsistent regulations and myriad date labeling terms such as "sell by," "best by," "expires on," and "use by." Manufacturers have broad discretion over what dates to affix to their food products, often using dates that typically reflect food quality and taste rather than food safety. Yet businesses, individuals, and even state regulators frequently misunderstand date labels and interpret them to be indicators of safety, leading to the unnecessary waste of wholesome food. Some states even restrict or forbid the sale or donation of past-date foods that are still safe to donate and eat. These inconsistent and misguided state laws lead to wholesome foods unnecessarily being discarded rather than donated. In order to reduce consumer confusion and the resulting food waste, the 2023 Farm Bill should standardize date labels through the Miscellaneous Title or a new Food Waste Reduction Title.

Launch a National Food Waste Education and Awareness Campaign

American consumers alone are responsible for 37.2% of all U.S. food waste.[13] Research shows that while consumers understand the importance of food waste reduction in the United States, they do not recognize their own role in these efforts. So far there have been successful small-scale campaigns to educate consumers, but to really move the needle, a coordinated, well-funded national campaign is needed. The 2023 Farm Bill can address and correct wasteful practices by providing $7 million annually through 2030 for a national food waste education and awareness campaign—with $3 million for research into effective consumer food waste reduction strategies and $4 million for consumer-facing behavior change campaigns—within the Miscellaneous or a Food Waste Reduction Title.

Relevant Pending Legislation

Food Date Labeling Act of 2021 (H.R. 6167, S.3324 117th Cong. 1st Sess., 2021); School Food Recovery Act of 2021 (H.R. 5459, 117th Cong. 1st Sess., 2021)

SURPLUS FOOD RECOVERY

Food recovery solutions aim to recover surplus food and redistribute it to individuals experiencing food insecurity. Recovering surplus food within the supply chain and reducing barriers to food donation could result in the recovery of roughly 2.3 million additional tons of food each year and a net financial benefit of $8.8 billion.[14] Nearly half of this new food recovery potential comes from farms, more than a third from restaurants, and the rest from grocers and retailers.[15]

Strengthen and Clarify the Bill Emerson Good Samaritan Food Donation Act

Many businesses are reluctant to donate food because of perceived liability concerns associated with donation, such as a food recipient getting sick.[16] To eliminate these barriers to surplus food donation, the 2023 Farm Bill should strengthen and clarify the Bill Emerson Good Samaritan Food Donation Act, which protects food donors from liability.[17] It should do so by delegating authority over the Act to the USDA and mandating that the USDA publish regulations interpreting the Act. The 2023 Farm Bill should also modify the Act to protect donors who donate directly to individuals and organizations that charge a small fee for donated food.

Increase Funding Support for Food Recovery Infrastructure and for Post-Harvest Food Recovery

The USDA should expand investments in food recovery infrastructure and innovative food recovery models to overcome barriers to increased food recovery and donation. To support the development of food recovery operations, Congress should increase funding for food infrastructure efforts, either through new 2023 Farm Bill investments or by making several funding initiatives from the COVID-19 response permanent. Additionally,

it should continue supporting innovative food recovery models by increasing funding for the Community Food Projects Competitive Grants Program within the Nutrition Title and earmarking a portion of the grants for food recovery projects. Congress should also increase funding for the Local Agriculture Market Program in the Horticulture Title, increase its applicability to food waste reduction beyond just "on-farm food waste," and earmark a portion of its funding for food waste prevention and recycling and food recovery.

Relevant Pending Legislation
Further Incentivizing Nutritious Donations of Food (or FIND) Act of 2022 (H.R. 7313, 117th Cong. 2nd Sess., 2022); Food Donation Improvement Act of 2021 (H.R. 6521, S.3281, 117th Cong. 1st Sess., 2021); Fresh Produce Procurement Reform Act of 2021 (H.R. 5309, 117th Cong. 1st Sess., 2021).

FOOD WASTE RECYCLING

Food waste is the largest component of landfills nationwide—contributing over 36 million tons to landfills each year[18] and accounting for 24.1% of landfilled municipal solid waste.[19] Food waste alone produces 4% of all U.S. greenhouse gas emissions per year.[20] Further, instead of being wasted, these organic inputs could contribute to better soil matter and reduce soil loss, contributing to a more circular economy. Despite improvements in food waste prevention and recovery initiatives, some food is inevitably discarded. Recycling remaining food waste has the annual potential to divert 20.9 million tons of food scraps from landfills and produce a net financial benefit of $239.7 million.[21] The 2023 Farm Bill should support methods of food waste management that are sustainable, economically beneficial, and limit the use of landfill space and reliance on incinerators.

Provide Grants to Support Proven State and Local Policies that Reduce Food Waste Disposed in Landfills or Incinerators

Landfills continue to be overburdened by food waste.[22] States and cities are running out of space to store organic waste as they continue to rely on landfills to manage this waste.[23] Further, as food items decompose in landfills, they release harmful greenhouse gases at alarming rates, which can cause potential harm to human health, agriculture, and other natural ecosystems and resources.[24]

State and local policies such as organic waste bans, waste diversion requirements, landfill taxes, and Pay-As-You-Throw policies have been shown to move the needle on reducing food waste and are essential to divert food waste from landfills and incinerators. When food waste generators that produce a certain threshold of food waste (e.g., grocery stores and hospitals) are prevented from transporting organic waste to landfills or have a strong financial reason not to waste food, they will make changes such as offering smaller portions, donating surplus food, recycling food scraps, and repurposing their leftovers. The 2023 Farm Bill should provide $650 million in yearly funding for ten years for state, local, and tribal governments, independently or as part of a public-private partnership to plan or implement proven policies that reduce food waste in landfills and incinerators.[25] As part of this program, Congress should require the USDA (in collaboration with EPA) to maintain a database of the state and local food waste reduction policies that have proven success, and data on their impacts. Congress can establish this program in the 2023 Farm Bill within the Miscellaneous Title or a dedicated Food Waste Reduction Title.

Provide Grants and Loans for the Development of Organic Waste Processing Infrastructure

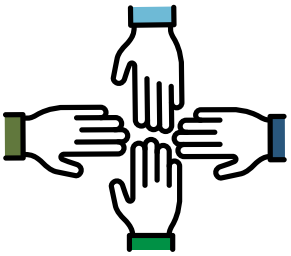
In addition to implementing waste bans, waste diversion requirements, zero waste goals, and waste prevention plans, state and local communities must also develop their organic waste processing capabilities to manage the organic waste diverted from landfills and to realize the benefits of these strategies. Both compost and anaerobic digestion infrastructure have the potential to convert food waste into productive soil amendments.

These organic waste processing capabilities are also costly. In the 2018 Farm Bill, Congress authorized the creation of the Community Compost and Food Waste Reduction Project (CCFWR) to provide pilot funding for local governments in at least ten states to study and pilot local compost and food waste reduction plans.[26] CCFWR

funding enables localities to enhance their waste prevention capacities and has already fostered a positive impact within communities.[27] Congress should build on the existing CCFWR program and adopt new strategies to develop composting and anaerobic digestion infrastructure. In order to scale the program's benefits, Congress should increase the total and per project funding available for the CCFWR program in the next farm bill. In addition, as CCFWR projects are generally small community projects, Congress should provide larger funding for the development of new compost and anaerobic digestion facilities, by providing $200 million per year for ten years in new composting infrastructure.

Relevant Pending Legislation

Cultivating Organic Matter through the Promotion Of Sustainable Techniques (or COMPOST) Act of 2021 (H.R. 4443, S.2388, 117th Cong. 1st Sess. 2021); Zero Food Waste Act of 2021 (H.R. 4444, S.2389, 117th Cong. 1st Sess. 2021).



FOOD WASTE REDUCTION COORDINATION

Data and research on food waste are critical to providing insight on areas that future policymaking should prioritize. A lack of comprehensive research and federal agency coordination in this space prevents effective management of national resources to address food waste. In the 2018 Farm Bill, Congress established a USDA Food Loss and Waste Reduction Liaison, a welcome step towards reducing food waste and increasing food recovery at the federal level. The 2023 Farm Bill should build upon this by further developing and funding food waste reduction coordination.

Increase Funding for the Food Loss and Waste Reduction Liaison and Create a Broader Research Mandate

The Food Loss and Waste Reduction Liaison (the Liaison) fills an important role for federal food waste reduction. The Liaison coordinates food waste reduction efforts across agencies, researches and publishes research on sources of food waste, supports organizations engaged in food loss prevention and recovery, and recommends innovative ways to promote food recovery and reduce food waste.[28] However, the Liaison only receives enough funding to staff the individual Liaison position with no funding for additional support staff, which inhibits the Liaison's ability to fulfill their statutory mandate.[29] Congress should increase the funding and develop the Liaison position into a Food Loss and Waste Office, so that there are more staff and capacity to carry out the duties set out in the farm bill. Congress should also identify modernizing and expanding national food waste data and farm food waste loss measurement as explicit goals for the Liaison, using the additional funding provided.

Provide Funding for the Federal Interagency Food Loss and Waste Collaboration

In 2018, the United States Food and Drug Administration (FDA), the USDA, and the EPA launched an interagency task force known as the Federal Interagency Food Loss and Waste Collaboration (the Collaboration) that is committed to working towards the national goal of reducing food loss and waste by 50% by 2030.[30] The Collaboration plays a vital role in the federal government's involvement in food loss and waste reduction efforts. Congress should authorize $2 million in annual funding for the Collaboration in the 2023 Farm Bill to better position it to meet the United States' 2030 food waste reduction goal.[31] Congress should require a broader set of federal agencies to engage in the Collaboration such as the Department of Defense, the Department of Transportation, the Department of Homeland Security, the Department of Education, and the General Services Administration, among others. Congress should also require the Collaboration to deliver regular reports to Congress on its progress towards achieving the national food waste reduction goal. These provisions can be included in the Miscellaneous Title or in a new Food Waste Reduction Title.

Relevant Pending Legislation

National Food Waste Reduction Act of 2021 (H.R. 3652, 117th Cong. 1st Sess. 2021).

INTRODUCTION

The amount of food wasted in the United States poses an enormous problem. Even though an abundance of food is produced and imported in the United States each year, about 35% of it goes unsold or uneaten.[32] This means that annually, 80 million tons of surplus food are not consumed. Of this, 54.2 million tons go to landfill or incineration, or are left on the fields to rot.[33] Food loss and waste carries enormous economic, social, and environmental costs. Farmers, manufacturers, households, and other businesses in the United States spend $408 billion each year to grow, process, transport, and dispose of food that is never eaten.[34] Producing food that ends up uneaten consumes 21% of all freshwater, 19% of all fertilizer, and 19% of all cropland used for agriculture in the United States.[35] Food waste generates about 270 million metric tons of carbon dioxide equivalent (CO_2e) greenhouse gas emissions each year, the same as 58 million passenger vehicles.[36]

Despite the surplus of food produced, 10.5% of American households faced food insecurity in 2019 and 2020, both before and after the COVID-19 pandemic began.[37] While the food insecurity rate did not rise in 2020 because of the massive federal investment in financial and direct assistance, the pandemic exposed the need for food system reform to ensure that our food supply can adapt and continue to serve the needs of Americans even when faced with unprecedented disruptions. The amount of food that goes to waste each year makes little sense when paired with the data on the number of food insecure households. In fact, according to the United States Environmental Protection Agency (EPA), significantly more food is wasted than would be required to feed every food-insecure individual in the United States.[38]

Reducing food waste is an important area for resource conservation and climate change mitigation that remains underdeveloped in federal policy. However, in recent years, the federal government has initiated efforts that acknowledge its important role in the effort to reduce food waste. In 2015, the U.S. Department of Agriculture (USDA) and the EPA jointly announced the nation's first-ever food waste reduction goal, aiming to halve U.S. food waste by 2030.[39] In 2018, the USDA, the EPA, and the United States Food and Drug Administration (FDA) signed an Memorandum of Understanding to work together towards this goal.[40] In 2019, these three agencies launched the *Federal Interagency Food Loss and Waste Collaboration* (formerly the *Winning on Reducing Food Waste Federal Interagency Collaboration)* which set priority actions to reduce food loss and waste, including enhancing interagency coordination, increasing consumer education and outreach efforts, and improving coordination and guidance on food loss and waste measurement.[41]

State and local actors also are recognizing and acting on the need for reform. At the local level, many cities, including New York, Austin, San Francisco, and Washington, D.C., promote food waste reduction through creative initiatives to reduce and better manage food waste.[42] For example, San Francisco introduced the first ever mandatory composting requirements for businesses and residents in 2009.[43] Since then, at least seven large cities or counties followed San Francisco's lead and implemented organic waste bans or mandatory organic waste recycling laws.[44] States have also implemented a variety of policies to reduce food waste. These include tax incentives for food donation,[45] organic waste bans,[46] and liability protections for food donors and food recovery organizations that exceed the federal floor.[47]

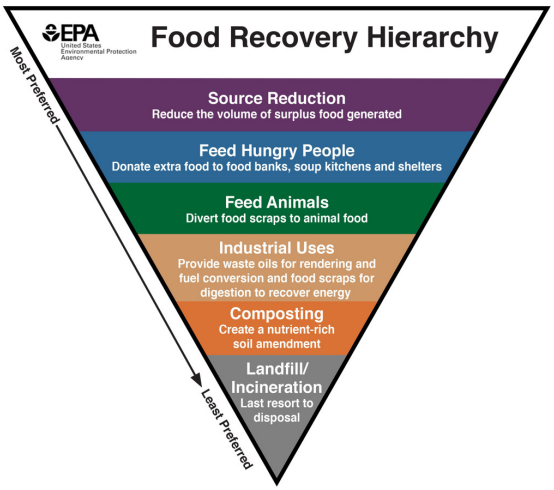
Reducing food waste has unique bipartisan appeal because it can simultaneously increase profits and efficiencies across the food system, increase access to wholesome food, and protect the planet from the harmful environmental consequences associated with wasted food. According to an analysis by ReFED, a national nonprofit working with food businesses, funders, policy makers, and more, to reduce food waste, implementing 40 priority food waste solutions has the potential to generate $73 billion in annual net financial benefit, recover the equivalent of 4 billion meals for food-insecure individuals every year, and create 51,000 jobs over ten years.[48] Adding to these economic and social benefits, food waste solutions also have the potential to save 4 trillion gallons of water and avoid 75 million tons of greenhouse gas emissions annually, among other environmental benefits.[49]

In order to meet our national food waste reduction goal, the federal government must make food waste reduction a priority in all of its policy areas.

In the 2018 Farm Bill, Congress responded for the first time ever to the pressing need for action on food waste reduction, with an unprecedented inclusion of various food waste related programs and funding.

Food Waste Provisions Included in the 2018 Farm Bill:

- Pilot Project to Support State and Local Composting and Food Waste Reduction Plans
- Grant Resources for Food Recovery Infrastructure Investments
- Food Loss and Food Waste Liaison and Study on Food Waste
- Food Donation Standards for Liability Protections
- Milk Donation Program
- Local Agriculture Marketing Program
- Spoilage Prevention
- Carbon Utilization and Biogas Education Program



Of particular relevance is the farm bill. Passed every five years, the farm bill is the largest piece of food and agriculture-related legislation in the United States and provides a predictable and visible opportunity to address food waste on a national scale. With food waste becoming a major focus in both states and the federal government, this legislation offers an opportunity to address multiple sectors of the food and agricultural system and effect system-wide change to reduce food waste. In 2018, Congress, for the first time ever, included measures related to food waste in the farm bill.[50] These provisions are enumerated in the first Text Box above and are described in more detail as relevant throughout this report. Many of these provisions were suggested in the *Opportunities to Reduce Food Waste in the 2018 Farm Bill* report, on which the current report is based.

These provisions offer an important starting point for investing the resources needed to meet our national food waste reduction goals. This report offers opportunities for Congress to build upon its noteworthy achievements in the 2018 Farm Bill by expanding the pilot programs and grants initiated in the 2018 Farm Bill and developing noteworthy and necessary new programs. Building from the preliminary funding in the 2018 Farm Bill, the 2023 Farm Bill is poised to help the federal government take more effective and wide-ranging action to reduce food waste. Food waste reduction programs could be included in a dedicated Food Waste Reduction Title or by modifying existing titles and programs to incorporate food waste reduction as a priority. Several provisions presented in this report could alternatively be implemented through standalone federal legislation.

The recommendations presented in this report are organized to reflect the priorities outlined in the EPA Food Recovery Hierarchy (pictured above).[51] As in the Food Recovery Hierarchy, this report highlights food waste prevention as the most important goal and begin by making proposals to prevent waste. Waste prevention efforts aim for intervention at the root causes of food waste—they locate and address inefficiencies in the food system and food related practices before excess food is produced, transported to places where it cannot be utilized, or discarded rather than eaten. Waste prevention efforts keep millions of tons of food out of the landfill, and altogether, the waste prevention policies discussed have the potential for the most considerable environmental benefit. Next, the report outlines opportunities to facilitate redirection of wholesome surplus food to food-insecure individuals by connecting farmers, retailers, or food service establishments with food banks, food rescue organizations, community organizations that provide food, emergency feeding operations, and other intermediaries (collectively referred to as "food recovery organizations"). Then, the report outlines recommendations for supporting recycling food scraps through composting or anaerobic digestion, rather than disposing of waste in landfills or incinerators. The report concludes with recommendations to coordinate and streamline food waste reduction efforts and elevate food waste reduction to be a federal priority. Taken together, the recommendations presented in this report can

strengthen the economy, preserve the environment, help withstand disasters—like pandemics—and improve the lives of millions of Americans, all by reducing the unnecessary waste of healthy, wholesome food that can be eaten, and by recycling remaining food scraps.

U.S. Food Loss & Waste Policy Action Plan:

On April 6, 2021, the Harvard Law School Food Law & Policy Clinic (FLPC), NRDC (Natural Resources Defense Council), ReFED, and World Wildlife Fund (WWF)—along with many additional supporters, including the American Hotel and Lodging Association, Compass Group, Food Recovery Network, Google, Hellmann's Best Foods, Hilton, Hyatt, Marriott International, the Kroger Company, Unilever, several local government agencies, and other businesses and non-profit organizations[52]—published the U.S. Food Loss & Waste Policy Action Plan for Congress & the Administration (Action Plan).[53] The Action Plan calls upon Congress and the Biden administration to take ambitious action to achieve the goal of cutting U.S. food loss and waste in half by 2030. It recommends five key policy recommendations ranging from investing in infrastructure and programs that measure and prevent food waste to standardizing date labeling at the federal level. The recommendations in this report that are also included in the Action Plan, and thus endorsed by a broad set of partners, are notated with ★ symbol. They are also listed together in Appendix A.

FOOD WASTE PREVENTION

Standardize and Clarify Date Labels ★

Annual potential to divert 582,000 tons of food waste, reduce 2.73 million metric tons of CO_2e, and save 162 billion gallons of water, with a net financial benefit of $2.41 billion[54]

ISSUE OVERVIEW

A major driver of food waste is confusion over date labels.[55] Consumers face an array of unstandardized labels on their food products, and many people throw away food once the date passes because they mistakenly think the date is an indicator of safety. However, for most foods the date is a manufacturer's best guess as to how long the product will be at its peak quality. When consumers misinterpret indicators of quality and freshness for indicators of a food's safety, this increases the amount of food that is unnecessarily discarded.

There is currently no federal scheme regulating date labels on food products other than infant formula.[56] Congress has given general authority to the FDA and the USDA to protect consumers from deceptive or misleading food labeling.[57] Both the USDA[58] and the FDA[59] published recommendations regarding the language to be used for date labels, but neither agency has used its authority to implement a comprehensive, mandatory regulatory scheme.

In the absence of federal regulation, states have enormous discretion to create regulatory schemes for date labels, resulting in high variability. Most states regulate some food items, while few states have created a comprehensive date labeling scheme, and some do not regulate date labels at

all.[60] Some states even restrict or forbid the sale or donation of past-date foods, even though most date labels are not safety indicators, creating unnecessary barriers to the donation of safe food.[61]

Manufacturers generally are free to select whether to use a date label, which explanatory phrase they will use (e.g., "best by," "use by," "best before," or "sell by"), and how the timeframe for the date will be measured. Manufacturers use a variety of methods to determine the timeframe for label dates, almost all of which are intended to reflect when the food will be at its peak quality and are not intended as safety indicators.[62] Yet businesses, individuals, and even state regulators frequently misinterpret the dates to be indicators of safety, leading to the unnecessary waste of wholesome, past-date food.[63] ReFED estimates this confusion accounts for 20% of consumer waste of safe, edible food—approximately $29 billion worth of wasted consumer spending per year.[64]

Federal standardization of date labels has the potential to dramatically reduce food waste in the United States. According to ReFED's Insights Engine, standardizing date labels is one of the most cost-effective ways to reduce food waste, with the potential to divert 582,000 tons of food waste per year from landfills, and the opportunity to provide $2.41 billion per year in net economic value.[65]

RECOMMENDED DATE LABELING SCHEME

Congress should standardize and clarify date labels by establishing a dual date labeling scheme that applies to all food products nationally and limits date labeling language to two options: either a label to indicate food quality or a label to indicate food safety. This would align with the preexisting industry Voluntary Product Code Dating Initiative established in 2017 by The Food Industry Association (FMI) (formerly the Food Marketing Institute) and the Consumer Brand Association (CBA) (formerly the Grocery Manufacturers Association), which recommends manufacturers use the term "BEST If Used By" where foods are labeled as a quality indicator, and the term "USE By" on foods labeled to indicate that they may pose a safety risk if consumed after this date.[66] Date labels used to signify food quality, which comprises most date labels on food products, should be required to use the language "BEST If Used By." For foods that increase in safety risk past the date, manufacturers should use a safety date, indicated with the language "USE By."

This would build on the momentum already underway. According to CBA, their members self-reported that 87% of products were using these streamlined labels as of 2018, less than two-years after CBA began the initiative.[67] Further, federal agencies recommend quality labels use the "Best If Used By" language, as evidenced by the USDA Food Safety Inspection Service (FSIS) 2016 recommendation that food manufacturers and retailers use this label to communicate quality[68] and the FDA's 2019 open letter supporting voluntary efforts to use "Best If Used By" to indicate quality.[69] Further, this dual date labeling scheme is ideal for communicating effectively with consumers. A 2016 national consumer survey conducted by FLPC, the National Consumers League, and Johns Hopkins University found that "best if used by" was the language best understood by consumers to indicate quality, while "use by" was one of two phrases that best communicated food safety.[70]

Requiring standard date labels would align the United States with its peer countries. Internationally, the *Codex Alimentarius* 2018 update, General Standard for the Labelling of Prepackaged Foods, sets out a dual date labeling scheme as the model practice.[71] The *Codex Alimentarius* is a set of international food standards developed by the Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO). Aligned with the *Codex* standards, the European Union requires companies to use a safety-based, "use by" date label for foods that are considered "highly perishable," and unsafe to consume after the date. All other foods use a quality-based, "best before" date label, after which food may still be perfectly safe to consume and donate.[72]

In addition to standardizing date labels, federal action is also needed to preempt state restrictions on the sale or donation of food that is past its quality date. Currently, 20 states restrict the sale or donation of past-date foods, even when the dates on those foods have no bearing on safety, leading to unnecessary waste.[73] However, since only past-date foods bearing the "USE by" date label would pose a safety risk, the sale and donation of foods past the "BEST if Used By" date should be permitted.

To support the implementation of this change, Congress should instruct the FDA and the USDA to collaborate to inform consumers about the update, explicitly defining what these two labels mean in an education campaign.[74] Ensuring that consumers are aware of the new date labels and their meanings will help prevent unnecessary discarding of safe,

wholesome food. This could be included in the national food waste education campaign discussed in Section I(B) of this report.

IMPLEMENTATION OPPORTUNITY

The next farm bill should take the easy and cost-effective step to reduce food waste by standardizing and clarifying date labels with a uniform, nationwide policy that applies to all food products. This standardization should take the form of the two labels: "BEST if Used By" to indicate quality, and "USE By" to indicate safety. The initiative should also include a consumer education campaign.

The farm bill has previously addressed food labeling concerns,[75] and is an appropriate vehicle for standardizing date labels. This scheme should be implemented through a new Food Waste Reduction Title or in the Miscellaneous Title. Language implementing the above recommendations could be taken from the bicameral, bipartisan Food Date Labeling Act of 2021.[76]

Launch a National Food Waste Education and Awareness Campaign ★

Annual potential to divert 1.38 million tons of food waste, reduce 7.41 million metric tons of CO_2e, and save 281 billion gallons of water, with a net financial benefit of $6.08 billion[77]

ISSUE OVERVIEW

American consumers waste an estimated 30 million tons of food each year—accounting for about 37.2% of the food that goes to waste.[78] While many consumers understand the importance of food waste reduction, they generally do not recognize their own role in reducing food waste.[79] American consumers "perceive themselves as wasting little, with nearly three-quarters reporting that they discard less food than the average American."[80] Most consumers report that they discard less than 10% of their food and believe that much of their food waste is unavoidable.[81] However, the average household wastes 31.9% of the food it buys.[82] This mismatch regarding consumers' individual contribution to food waste and their perception of the quantity of their own waste demonstrates a problematic lack of awareness.

NATIONAL FOOD WASTE EDUCATION CAMPAIGN

Congress can promote national food waste education and awareness through a public awareness campaign. ReFED estimates that a national consumer education campaign is one of the most cost-effective solutions to reduce food waste, with the potential to divert 1.38 million tons of food annually and create $6.08 billion net economic value.[83] Because consumers unknowingly produce a massive amount of food waste, a national food waste awareness campaign should be geared towards increasing consciousness of the issue and changing consumer behavior. This campaign should incorporate elements of behavioral science to illustrate how much food goes to waste in households across the country, highlight methods for preserving and storing foods, provide consumers tips to identify whether food is still safe and edible, and teach consumers how to compost food scraps.[84]

Evidence indicates that a national education campaign has tremendous potential to impact consumer behavior. National education campaigns effectively changed United States consumer behaviors in other areas and consumer food waste practices in other countries. Domestically, the United States Centers for Disease Control and Prevention's (CDC) nine-week, national anti-smoking education campaign, "Tips from Former Smokers," motivated almost 2 million Americans to attempt to quit smoking.[85] In the United Kingdom, the Waste and Resources Action Programme's (WRAP) "Love Food Hate Waste" nationwide campaign reduced consumer food waste by 21% in five years.[86] The program cost £26 million (~$34.43 million USD) over five years to implement but was responsible for £6.5 billion (~$8.6 billion USD) in savings to households in avoided food costs, as well as £86 million (~$114 million USD) in savings to U.K. government authorities in avoided waste disposal costs.[87] Altogether, the initiative reaped a total benefit-cost ratio of 250:1. Between 2015 and 2018, the U.K. avoided 1.6 million tons of greenhouse gases and diverted 480,000 tons of food waste directly attributable to the nationwide campaign.[88]

A national food waste education campaign in the United States could similarly cultivate a cultural movement against food waste. In 2016, the Ad Council and NRDC launched "Save the Food," a public awareness campaign that encourages Americans to reduce food waste.[89] "Save the Food" has been featured on television, radio, billboards, and waste trucks in several large cities across the country, including Chicago and New York City.[90] As of 2019, more than $111 million of media space was donated, and survey results demonstrated that those aware of "Save the Food" ads were more likely to say that they had reduced the amount of food they had thrown away in the prior 6 months, compared to those not aware of the ads.[91]

While the "Save the Food" campaign is a first step, consumer education on food waste is needed on a larger national scale. With many American consumers still unaware of the impacts of food waste as well as their contribution to the issue, a nationwide targeted campaign could unify the messaging regarding consumer food waste and ensure that it reaches all Americans.

A national food waste education campaign will only be effective if it is properly targeted at consumers with well-tested messaging. It is essential that research be conducted to consider consumer insights and develop campaign approaches that resonate with target markets and incorporate elements of behavioral science to optimize campaign effectiveness.[92] Research should go towards investigating which population segments to target, understanding how to best target them, and determining which strategies are most effective in changing consumer habits, rather than just increasing awareness of the issue.[93] The research can also help identify the best messengers, which likely will differ across segments and markets (i.e., using celebrities or television shows that resonate with children to target the youth audience, social media to target young adults, and more traditional advertising streams to target adults), even though the messages themselves will be consistent. Pilot projects with strong assessment tools, including waste audits in communities where the campaigns are piloted, should be used before implementation of a full campaign to maximize effectiveness.

In the UK, WRAP used a consumer insight-driven research program to determine that 18- to 35-year-old people waste more food than any other age group, making them the ideal target, and the best way to interact with this group was through digital media messaging.[94] This type of targeting has also been used effectively at a smaller scale in the United States. In the City and County of Denver, the Department of Public Health and Environment has been integrating Community Based Social Marketing (CBSM) strategies targeted specifically at reducing food waste from leftovers.[95] The United States should learn from the targeting strategies used in these campaigns to optimize the consumer education and awareness campaign.

The Sustainable Management of Food program at the EPA created an implementation guide and toolkit for its food waste education program: *Food: Too Good to Waste.*[96] The guide is intended for community organizations and local governments interested in reducing food waste from households.[97] The guide offers advice on how to select a population to target and execute the education campaign. While the EPA has produced these helpful resources, they have not launched a full-scale consumer education campaign that is necessary to effectively reduce food waste nationally. The federal government, led by the USDA working with the EPA, could leverage these existing assets and research related to consumer outreach and behavior change when starting a national food waste education and awareness campaign.

IMPLEMENTATION OPPORTUNITY

The next farm bill should instruct the USDA in collaboration with EPA to launch a national food waste education and awareness campaign. A widespread consumer education campaign should be supported with funds appropriated through a Food Waste Reduction Title or through the Miscellaneous Title. Congress should appropriate $7 million annually through 2030, with $3 million for research into effective consumer food waste reduction strategies and $4 million into consumer behavior change campaigns.

Provide Funding to K-12 Schools to Incorporate Food Waste Prevention Practices in Their Programs

Annual potential to divert 7,060 tons of food waste, reduce 33,600 metric tons of CO_2e, and save 1.69 billion gallons of water, with a net financial benefit of $13.2 million[98]

ISSUE OVERVIEW

Every year tons of wholesome food are wasted in schools, costing the federal government as much as $1.7 billion annually.[99] This waste undermines efforts to address food insecurity, mitigate environmental degradation, and achieve food sustainability.

Schools provide close to 100 million meals to children each day as part of the National School Lunch Program (NSLP).[100] In the spring of 2019, WWF, with support from The Kroger Co. Foundation and the EPA Region 4 (Southeast), analyzed food waste in 46 schools in nine cities across eight states.[101] The report found that the schools wasted 39.2 pounds of food per student annually.[102] Based on these numbers, WWF extrapolates that schools participating in federal meal programs could waste 360,000 to 530,000 tons of food each year.[103]

The environmental impact of food waste in schools is significant. Given that over 100,000 schools participate in the NSLP, the food waste translates to 1.9 million metric tons of CO_2e of greenhouse gases and over 20.9 billion gallons of embedded water (the water that went into producing the food that went to waste).[104] Given the scale of waste resulting from school meal programs, schools should be a focal point for food waste education and reduction efforts.

SUPPORTING FOOD WASTE REDUCTION STRATEGIES IN SCHOOLS

Food waste in schools occurs for several reasons, including incorrect portion sizes and situational issues such as unpleasant eating environments and insufficient time periods for students to consume their meals.[105] There are several ways to address these issues; however, schools often struggle with implementation due to costs, a lack of guidance on how to adopt the changes, or insufficient program funding from the government.

Congress can support schools in conducting food waste audits, student surveys, and other methods to gather data on the types and quantity of food thrown away in school cafeterias. Food waste auditing helps administrators understand the scope of their food waste problem and identify specific areas for improvement.[106] In a 2019 study analyzing food waste at 46 schools in eight states, WWF found that students at each school were producing approximately 40 pounds of food waste per year, which is 9% higher than average Americans waste in homes (normalized by meals).[107] Once informed by their waste baseline, the schools conducted six weeks of food waste audits and recorded a total average waste reduction of 3%, with elementary schools seeing a greater reduction at 14.5%. Of the waste types measured including fruit and vegetable, milk, and other organic wastes, milk waste saw the greatest decrease with an average of 12.4%.[108]

Yet, many schools currently lack the funding to take on an auditing project. Even a $10-20 million grant program would help many schools reduce their food waste and change their cafeteria practices to ensure more food is eaten and not wasted. The program can build on the School Food Waste Reduction Grant Program proposed in the bipartisan School Food Recovery Act of 2021 (SFRA).[109] The SFRA seeks to establish a similar competitive grant program for local educational agencies to achieve food waste reduction goals. Grant programming directed at reducing school food waste will not only provide schools with needed funds to administer specific programs, including audits, but it will also encourage schools to devote more time and attention to food waste, and reward schools for engaging in these beneficial activities.

Once schools conduct audits and better understand the quantity of food waste they produce, they can introduce strategies proven to be effective in reducing food waste including longer lunch periods,[110] share tables,[111] and collaborating with students to improve meals.[112]

In addition to support for schools undertaking food waste audits, any funding or incentive for schools to conduct food waste audits, measure their waste, and take actions to reduce it or to redirect or donate surplus food could help move schools towards accounting for and changing their practices to be more sustainable. This is particularly true in schools utilizing additional grant funding for food service or educational programs.

To ensure that state and local health inspectors are aware of food waste policies in schools—specifically food donation and share tables, which may raise initial food safety concerns—Congress should mandate that the USDA educate officials about how these strategies work and that they are permissible.

MANDATING AN OFFER VERSUS SERVE MODEL ACROSS THE SCHOOL SYSTEM

When students are forced to take food they do not plan to eat, food is inevitably wasted. To remedy this problem, the USDA encourages schools to adopt the "Offer Versus Serve" (OVS) model[113] which allows students the opportunity to choose desired components of their NSLP and School Breakfast Program (SBP) meals to reduce food waste.[114] For schools to participate in NSLP and SBP, they must abide by federal and state rules on nutrition and food procurement.[115] Meals that are eligible for NSLP reimbursement must consist of five components: fruit, vegetable, whole grain, meat/alternative, and milk.[116] The OVS policy allows students to decline up to two of these five components if they take either a fruit or vegetable.[117] By contrast, students in schools without an OVS policy would be required to accept all five components, regardless of whether they intend to eat all the foods they are given.

Confusion surrounding the OVS policy leads to waste when schools mistakenly believe that students must elect to take a certain component of the meal, for example milk, for the meal to be reimbursable under federal regulations.[118] However, while milk must be *offered*, students are *not required* to take that option.[119] This confusion contributes to up to 45 million gallons of milk waste in school cafeterias nationwide.[120]

Currently OVS is mandatory for high schools and optional for elementary and middle schools, which may explain the higher rates of food waste in the lower grade levels.[121] Implementing this model across all schools would reduce the immense amount of waste produced in schools. The USDA should provide simple and clear instructions to schools implementing this program to avoid confusion and misunderstanding of the current rules that may lead to food waste. These instructions should be accompanied by an awareness program to increase understanding of the policies targeting both students and school staff (such a program may be as simple as posters explaining the requirements to hang in the lunchroom).

IMPLEMENTATION OPPORTUNITY

In the next farm bill, Congress should lower the financial burden on school food waste reduction efforts by providing dedicated grants to conduct food waste audits and implement waste reduction programming. The grants should be available to schools on a competitive basis and should be part of the Nutrition Title.

In addition to authorizing a new grant program, Congress should modify existing school grant program selection processes to preference applicants that have food waste reduction programs. The USDA currently administers several grant programs for schools, including the NSLP Equipment Assistance Grants[122] and the Farm to School Program (F2S).[123] Congress should require the USDA to give priority to applications from schools that include a food waste reduction or food donation plan as part of their application. These changes should be made through the Nutrition Title.

Lastly, Congress should mandate OVS across all schools, for both NSLP and SBP, but preserve some flexibility for schools to decline to use OVS for the youngest grade levels if doing so is difficult to implement or if it is deemed inappropriate for the school population. It should further require the USDA to publish additional guidance and implement training for teachers and staff to adequately prepare for the transition. These changes should be made through the Nutrition Title.

Promote Food Education and Food Waste Education in K-12 Programming

Annual potential to divert 14,800 tons of food waste, reduce 70,200 metric tons of CO_2e, and save 3.45 billion gallons of water, with a net financial benefit of $25.5 million[124]

ISSUE OVERVIEW

There is a gap in school programming for food waste education. While there are programs

providing grant funding to schools for food and agriculture related education, including the Food and Agriculture Services Learning Program (FASLP), a program created in the 2014 Farm Bill that provides funding for agriculture and nutrition education in K-12 schools,[125] there is no required focus on food waste. Additionally, the existing grant programs for food education generally do not have sufficient funding to reach all interested schools and thus are unable to maximize their positive impact.

Educating students on food waste can immediately reduce food waste.[126] Educating students will also realize long-term benefits because knowledge gained in early education significantly impacts the practices of individuals as they become participants in the marketplace.[127] Schools can play an integral part in educating future generations of consumers and establishing sustainable food consumption habits.

Congress should support efforts for schools to educate students on food waste reduction strategies. One program for which food waste reduction education should be required is FASLP, which should include a focus on food waste reduction strategies in nutrition education, such as portion size awareness, how to utilize surplus food, composting, and correctly storing perishables.[128] Modifying the language around the FASLP in the next farm bill to include food waste reduction techniques will motivate schools to expand their offerings, better account for food waste reduction, and educate the next generation of consumers on better food waste reduction practices.

Beyond food waste-specific education, Congress should increase support generally for education on food production and food systems to prevent waste. One way to educate kids on food in schools is through USDA's Farm to School Program (F2S).[129] F2S combines food education with improved access to local food by connecting schools with local farmers.[130] By helping students develop a greater appreciation for the origins of their food, this program helps students, and in turn schools, waste less.[131] Data from the 2013-2014 school year program revealed that F2S resulted in a 17% reduction in plate waste.[132] The USDA currently offers planning, implementation, and training grants ranging from $20,000 to $100,000 for F2S programs.[133] For the 2015-2016 school year, $120 million was requested and approximately $25 million was awarded.[134] This data demonstrates large demand for F2S programming, indicating that schools are interested in these initiatives but lack sufficient funding for them. By increasing funding for F2S, which has already been shown to reduce food waste in schools, more schools will be able to participate in the program and thus reduce their food waste.

IMPLEMENTATION OPPORTUNITY

The next farm bill should reauthorize and modify the FASLP program's authorizing language in the Nutrition Title to direct the USDA to award extra points on grant applications to schools that include food waste reduction education as a focus in their program.

The next farm bill should reauthorize and increase funding for the F2S program. This program has been shown to effectively reduce waste in schools. Increasing funding will allow additional schools to participate.[135] This program was originally a part of the Healthy, Hunger Free Kids Act of 2010,[136] but could be included in the farm bill going forward under the Nutrition Title.

Utilize Existing Federal Household-level Food Education Programs to Increase Food Waste Awareness

ISSUE OVERVIEW

On average, American households spend $1,866 per year on food that ends up going to waste.[137] According to the USDA Economic Research Service (ERS), 10.5% of American households faced food insecurity in 2020.[138] Many of these families participate in food assistance programs (e.g., Supplemental Nutrition Assistance Program (SNAP), Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)), and have limited budgets to spend on food. As discussed above, individuals are often unaware of how much food they waste and how to reduce their own food waste at home.[139] There are multiple existing USDA programs targeting those 13.8 million households with food and nutrition education, yet currently none of these programs are required to address food waste.

With almost one-third of household food being

wasted, education regarding strategies to reduce food waste would inevitably save all consumers money. Congress should promote national food waste awareness by taking advantage of existing food education programming to provide educational materials to Americans about food waste prevention. The authorizing language for the Expanded Food and Nutrition Education Program (EFNEP) and for SNAP Education (SNAP-Ed) and SNAP-Ed guidance documents should include education related to increasing the efficiency of food usage or reducing food waste.[140] These are existing programs and are therefore easy to leverage, but additional efforts should be made by the federal government to educate all consumers on better food usage and reducing food waste.

EXPANDED FOOD AND NUTRITION EDUCATION PROGRAM OPPORTUNITIES

EFNEP is a federally funded farm bill[141] grant program that aims to enable low-income Americans to "engage in nutritionally sound food purchasing and preparation practices," by providing funding to land grant universities to deliver nutrition and physical education programs in each state.[142] EFNEP is funded annually through appropriations.[143] It typically receives around $69 million per year.[144] While the program already provides educational materials with strategies for shopping for healthy food on a budget, the authorizing language should also mention food waste reduction as a strategy to support household food budgets. One of the four stated core areas is increasing the ability of participants to buy, prepare, and store nutritional food.[145] This section of the program could mention food waste reduction. It will be important to make sure the education is culturally appropriate and applicable to the situations of the recipients, especially if many of them are depending on providers like food banks, where recipients do not typically get a choice in the foods they receive. Education about food waste reduction could help to extend the budgets of Americans, while helping to address the nation's food waste problem.

SNAP-ED OPPORTUNITIES

With over 42 million people receiving SNAP benefits each year, SNAP-Ed represents an enormous opportunity to educate individuals about food waste and food waste prevention.[146] SNAP-Ed is a federally funded grant program that seeks to improve the likelihood that SNAP recipients will make healthy food choices within a limited budget and engage in physically active lifestyles consistent with the current Dietary Guidelines for Americans and the USDA food guidance.[147] SNAP-Ed was first established in 1981 as "Nutrition Education" through the Food Stamp Program and now receives funding through annual appropriations bills—typically receiving just over $400 million split between the states.[148] Like EFNEP, SNAP-Ed focuses on "promoting healthy eating and active lifestyles," while stipulating that program providers "must consider the financial constraints of the SNAP-Ed target population in their efforts."[149]

SNAP-Ed offers an opportunity to educate Americans on how to best prevent food waste while in no way diverting resources or attention away from the primary objectives of the program—improving nutrition outcomes. Some states, including Maine and Connecticut, already include food waste education within their SNAP-Ed programming.[150] These states provide guidance on how to reduce food waste and how to understand date labels.[151] However, many states do not address food waste in their programming, which represents a tremendous missed opportunity. Rather than leaving it to states to decide to include guidance on reducing food waste, this instruction should come from Congress through the farm bill. The 2014 Farm Bill amended SNAP-Ed to include education on physical activity, which suggests that additional goals can be included in the 2023 Farm Bill.[152]

SNAP-Ed funding should be used to increase awareness of food waste and share techniques to reduce food waste—such as how to properly store leftovers, how to use some ingredients that people receiving food donations may be unfamiliar with, and how to interpret date labels. Additionally, it should be used to develop tools (for example, a meal planning tool) to help participants prevent food waste. Such a tool could be developed out of existing information and tips on meal planning available through multiple states' SNAP-Ed programs.[153] Again, any educational tools should also take into consideration cultural appropriateness, quality of food provided, and food access problems that might also lead to food waste.

By adjusting the goals and priorities for SNAP-Ed and EFNEP, Congress can tackle both food insecurity and food waste, ensuring that more Americans are provided with the necessary tools to get the most out of their food dollars by properly storing perishable items, reusing, and repurposing leftovers, and ultimately reducing food waste.[154]

IMPLEMENTATION OPPORTUNITY

The next farm bill should renew support for EFNEP in the Research, Extension, and Related Matters Title of the 2018 Farm Bill and modify the authorizing language to include food waste prevention education. Including an explicit focus on food waste reduction as a program goal in the authorizing language will ensure EFNEP providers include food waste reduction in their programs.

Similarly, Congress should add language about food waste education in the program goals of SNAP-Ed in the Nutrition Title. The 2023 Farm Bill should include an amendment including food waste education so SNAP-Ed strategies will assess nutrition, physical activity, *and* food waste reduction.

Provide Grant Funding for New Technologies to Reduce Food Spoilage and Food Waste

ISSUE OVERVIEW

Advances in food technology could prevent an enormous amount of food waste, however, insufficient funding has been dedicated to research and development in this space. New technology has the potential to reduce food waste on-farm and post-harvest, during transportation and processing, and on the shelf. There has been some development of such technology, however, many of these products are in the early stages, are too costly to apply at scale, and lack funding, which has held up the opportunity for new solutions, especially as the market for such solutions is uncertain. Federal investment has the potential to fill in the gaps that venture capital and other funding streams are missing, and should prioritize new companies and those without venture backing.

There is significant room for new technology to reduce on-farm food loss as well as help connect surplus food to avenues for its use. According to ReFED, 21% or 17 million tons of food loss occurs on farm.[155] Technology to help prevent this loss or to help redirect edible food may include harvesting technology such as improved picking machinery for high loss crops, tracking technology to monitor produce and optimize harvest schedules, and blockchain for demand forecasting and decision making across the supply chain. This technology could create more economic value for growers while reducing food loss.

In addition to technology to reduce on-farm food loss, packaging technologies and food treatments that slow spoilage and prolong the shelf life of produce, meat, poultry, fish, and other perishable products could have a tremendous impact on reducing food waste. It is important to note that new packaging prioritized for funding should not increase the use of fossil-fuel-based materials, non-recyclable/non-compostable materials, or single-use plastics. Some examples of innovative packaging technologies that address this issue include: It's Fresh!, which removes ethylene from produce to extend shelf life;[156] BluWrap, which works to reduce and monitor oxygen levels in meat, poultry, and fish packaging;[157] and Apeel, which applies an amphiphilic coating to lock moisture in produce while keeping air out.[158] However, these products remain largely in pilot phases, and food manufacturers may be unwilling to bear the cost of utilizing such packaging if the savings only benefit consumers who will save money by having food with longer shelf lives, rather than producers, who will likely face reduced sales if less food spoils, thus requiring replacement in the form of more sales.[159] According to ReFED, the use of innovative products to slow spoilage has the annual potential to divert 425,000 tons of food waste from the landfill, while creating $1.74 billion in net financial benefit.[160]

Investment is also needed in innovative upcycled food products or other byproduct utilization. Upcycled food is a growing sector of the economy that looks to find new, environmentally beneficial uses for previously discarded food products.[161] Upcycling creates new food products out of surplus food, unmarketable food, and even inedible food byproducts. New upcycling processes and products can be supported by funding for research and development. Funding can also support marketing to consumers to describe the benefits of foods that would otherwise have gone to waste. According to ReFED, upcycling food has the annual potential to divert 1.87 million tons of food waste from the landfill, while creating $2.69 billion in net financial benefit.[162] The USDA should promote research and development of technology to reduce on-farm food loss, slow food spoilage, and create upcycled food products.[163]

One farm bill grant program, the Specialty Crop Research Initiative (SCRI), can provide funding for the research and development of spoilage prevention technology and technology to reduce on-farm food loss. SCRI grants address needs related to "specialty crops"—which includes fruits, vegetables and tree nuts.[164] These grants are available to land grant universities (universities focused on teaching "agriculture and the mechanic arts"),[165] private universities, non-profit organizations, for-profit institutions (including small businesses), and state agricultural experiment stations.[166] There is an estimated total of $80 million available for funding each year for SCRI.[167] SCRI projects must address at least one of five focus areas, including efforts to improve production efficiency, handling and processing, productivity, and profitability over the long term.[168] The 2018 Farm Bill stated that SCRI should include "efforts to achieve a better understanding of systems to improve and extend the storage life of specialty crops."[169] By including this language, the 2018 Farm Bill took an important first step toward supporting innovative food spoilage prevention technology.

Even though SCRI *can* fund research on food spoilage technology as of 2018, and on technology to reduce on-farm food loss since the start of the program, none of the twenty grants given in 2021 addressed either issue.[170] In line with the United States national food waste reduction goal, and in order to increase support for innovations to reduce food loss, Congress should direct the USDA to further preference such projects during the selection process.

Beyond SCRI, other support for new packaging technologies is needed. SCRI does not cover research on products other than specialty crops, yet similar research is needed to extend the shelf-life and reduce waste of dairy, meat, poultry, and fish. Since animal products are generally more expensive for consumers and more resource-intensive to produce,[171] preventing their waste should be a high priority. Congress should create a program like SCRI that focuses on providing support for new technologies to extend the shelf life of dairy, meat, poultry, and fish.

SCRI also does not explicitly cover the research and development of upcycled food products, though it could arguably be included in its funding. Congress should specify that SCRI could also support research and development into upcycled products or should create a separate funding mechanism focused on research and development for upcycled food products. This can help drive more development of products using this beneficial practice.

IMPLEMENTATION OPPORTUNITY

In the Research, Extension, and Related Matters Title, Congress should increase funding for SCRI and should direct the USDA to further preference projects that target food waste by either extending the life of specialty crops or reducing on farm food loss during the SCRI selection process. Congress should also specify that funding from SCRI could be used for research and development of new upcycled products using surplus specialty crops.

Additionally, Congress should create a program like SCRI that supports new technologies to extend the shelf life of dairy, meat, poultry, and fish, and the development and manufacturing of upcycled food products using these food products. This program could be in the Research, Extension, and Related Matters Title, or the Miscellaneous Title, or in a new Food Waste Reduction Title.

Implement a Certification Program for Businesses that Demonstrate Food Waste Reduction

ISSUE OVERVIEW

Certification programs have effectively changed corporate and consumer behavior in other sectors and could prove similarly successful in reducing food waste. For example, in 1992, the EPA launched the Energy Star Certification program to formally recognize energy-efficient products.[172] The EPA worked with technical experts from computer and appliance companies to establish criteria that would qualify consumer electronics for Energy Star Certification.[173] Now, approximately 75,000 product models have earned the Energy Star Certification, and consumers purchase over 300 million Energy Star-Certified items each year.[174] As a result, the EPA estimates that Energy Star Certification has achieved 4 billion metric tons of greenhouse gas

reductions since the start of the program.[175]

The private sector already supports the creation of a food waste reduction certification system. In 2012, the U.S. Zero Waste Business Council (USZWBC) created a zero-waste certification program for businesses called TRUE.[176] In 2016, USZWBC merged with Green Business Certification Inc. (GBCI) to expand the certification program to drive sustainability across all sectors.[177] TRUE certification is available to any physical facility and their operations if they meet the seven minimum program requirements, which include achieving an average of 90% or greater overall diversion from landfills, incineration, and the environment for solid, non-hazardous wastes.[178]

A certification program similar to TRUE that focuses on food waste would help consumers identify businesses with good food waste reduction practices and could inform their purchasing choices, thereby using consumer preferences in the marketplace to reduce overall food waste. This program should include consumer education that raises awareness about the meaning of the certification and the importance of reducing food waste. Congress could task USDA, EPA, or the two to work together to oversee this program. This could build on the USDA and EPA's U.S. Food Loss and Waste 2030 Champions that identifies businesses and organizations that have made a public commitment to reduce food loss and waste in their own operations in the United States by 50% by the year 2030,[179] or the EPA's Food Recovery Challenge launched in 2011, which had offered technical assistance and acknowledgement to over 800 participants.[180] The agency should work with technical experts to establish criteria that would qualify certain businesses for the food waste reduction certification and should create consumer education materials to maximize the program's impacts.

IMPLEMENTATION OPPORTUNITY

The next farm bill should create a food waste reduction certification program, under the Miscellaneous Title or a new Food Waste Reduction Title, to encourage businesses to prevent or otherwise reduce food waste as consumer-facing businesses contribute 28% of the United States' total food waste.[181] The certification program can be administered by the Food Loss and Waste Reduction Liaison within the USDA, or by EPA, or by the two agencies jointly, building on their joint United States Food Loss and Waste 2030 Champions program.

Provide Financial Incentives to Businesses for the Adoption of Technologies that Reduce Food Waste by at Least 10%

ISSUE OVERVIEW

Roughly 42% of food waste results from inefficiencies in the food supply and food management chain by the manufacturing, retail, and food services sectors.[182] After food leaves the farm, businesses at all levels of food production, distribution, and retail experience inefficiencies—including spoilage, equipment issues, and handling errors—that result in waste.[183] For example, businesses at the product distribution level that transport food, especially food that is temperature sensitive, may contribute to food waste due to long transportation times or changes in temperature that increase the speed of spoilage.[184] At the retail level, 20% of unsold food is due to handling errors, 14% is due to spoilage, and 12% is due to equipment issues.[185]

Businesses along the supply chain can cut food waste by enhancing food product distribution systems. Existing technology can help businesses reduce these inefficiencies and reduce food waste by improving handling, forecasting, inventory management, and temperature monitoring. For example, trucks with advanced cooling technology can help reduce food waste during transportation.[186] Intelligent routing technology can help businesses identify when products have a change in shelf life and route the product to the nearest location.[187] Unfortunately, this technology can be expensive upfront, which creates an uptake barrier to businesses obtaining and implementing these kinds of food waste reduction solutions.

Providing incentives for businesses to adopt these technologies can not only scale deployment, but it can also create a more robust market for innovative, novel technologies. Congress should provide a financial incentive for businesses to employ

technologies that demonstrate an ability to prevent food waste by at least 10%.

The financial incentive should be structured in the form of a tax credit, much like the Federal Solar Investment Tax Credit (the ITC).[188] The ITC provides a 26% tax credit on installation costs for business that install, develop, and/or finance solar energy systems.[189] A similar tax credit model could be applied to food waste reduction technologies. Congress should direct agencies to establish a list of the technologies that have evidence to show that they reduce food waste by 10% and maintain a list of the technologies that are eligible for such a tax credit.

IMPLEMENTATION OPPORTUNITY

Congress should create a federal tax incentive for the commercial adoption of post-harvest food waste reduction technologies under a Trade and Tax Title or under the Miscellaneous Title or a new Food Waste Reduction Title. In order to qualify for this credit, Congress should direct agencies to maintain a list of eligible technologies that demonstrate a 10% reduction in food waste. Agencies should develop the approval program for the tax credit.

SURPLUS FOOD RECOVERY

Strengthen and Clarify The Bill Emerson Good Samaritan Food Donation Act ★

Annual potential to divert 57,000 tons of food waste, recover 95 million meals, and produce a net financial benefit of $159 million[190]

ISSUE OVERVIEW

While over 10.5% of Americans struggle to satisfy their food needs, up to 35% of food produced in the United States goes to waste.[191] Much of this food is safe, edible, and fit for consumption, but barriers stand in the way of donation. One of these barriers is that businesses are reluctant to donate food because of misperceptions regarding liability concerns associated with donation, such as a food recipient getting sick.[192] Congress responded to these concerns in 1996 by passing The Bill Emerson Good Samaritan Food Donation Act (Emerson Act).[193] The Emerson Act encourages food donation by providing comprehensive civil and criminal liability protection to food donors, gleaners, and non-profit organizations that distribute donations to those experiencing food insecurity.[194]

While the Emerson Act provides significant protections, a 2016 survey conducted by the Food Waste Reduction Alliance found that 50% of food manufacturers and 25% of retailers and wholesalers still cite liability concerns as a main obstacle to food donation.[195] And, according to ReFED, educating potential food donors on liability laws has the potential to divert 57,000 tons of safe, surplus food from landfills annually.[196] This means that liability concerns remain a significant barrier with room for improvement through the Emerson Act.

There are several shortcomings of the Emerson

Act that Congress should address to facilitate food donation. Specifically, Congress should help ensure there is federal agency capacity to interpret and provide guidance on the provisions of the Act and update several areas of the Act to provide additional flexibility for food donations.

PROVIDE THE USDA WITH AUTHORITY TO INTERPRET AND ISSUE GUIDANCE ON THE EMERSON ACT

Many provisions and terms in the Emerson Act are ambiguous and no federal agency has provided an authoritative interpretation of the Act's provisions. For example, donors must donate in "good faith" but have no guidance as to what activities meet that bar, and they cannot act with "gross negligence" but do not have any guardrails to know what food donations would be considered gross negligence. Also, donors may be concerned about facing liability if they donate a food that is past the date or mislabeled in some way.[197] Further, the lack of case law interpreting the Emerson Act makes it difficult for donors to know how the provisions would be interpreted by a court.[198] This may deter potential food donors who want to be sure they will receive liability protection before they donate. Guidance can clarify the meaning and interpretation of the Emerson Act's provisions.

In the 2018 Farm Bill, Congress took a step toward increasing the USDA's responsibility for the Emerson Act by mandating that the USDA create a Food Loss and Waste Liaison position to coordinate food waste efforts. The responsibilities of the Liaison include to "raise awareness of the liability protections afforded under the Bill Emerson Good Samaritan Food Donation Act."[199] While recent efforts have been made by the USDA to clarify donation liability laws as requested by Congress in the 2018 Farm Bill,[200] the lack of Congressional delegation limits the agency's authority. Congress should delegate authority to the USDA to interpret the Emerson Act and should require the USDA to write regulations interpreting and clarifying the terms of the Emerson Act.

THE EMERSON ACT SHOULD COVER DIRECT DONATIONS

The Emerson Act currently covers food donated to non-profit organizations, but it does not cover food donated directly to individuals.[201] This means that food producers and licensed food service establishments that give food directly to people experiencing food insecurity are not covered under the Emerson Act's protections. Extending protections to direct donations will increase efficiency, reduce costs, and enable timely use of perishable food. Individuals experiencing food insecurity would also be able to pick up food from accessible locations, such as local restaurants and grocery stores. In order to ensure direct donations will be made safely, the provisions should be limited to establishments that already comply with food safety requirements—such as food service establishments, institutions, and retail stores—or to farmers, as fresh produce poses fewer safety risks. Currently, several states provide enhanced liability protection for donors who donate directly to the end recipient, however, to maximize impact, the protection needs to be expanded by the federal government.[202]

The 2018 Farm Bill amended the Emerson Act to define a new term, "qualified direct donor" and instructed the USDA to issue guidance on the protections available to those direct donors.[203] However, since the farm bill did not update the Emerson Act itself, it did not actually offer protection to qualified direct donors. Offering protections for direct donors would be in line with the growing support to offer protection to donations directly to food-insecure individuals rather than only those made through intermediary non-profits.[204]

THE EMERSON ACT SHOULD COVER NON-PROFIT ORGANIZATIONS CHARGING A SMALL FEE

The Emerson Act only provides liability protections to donors and non-profit food recovery organizations when the individual receiving the food "is not required to give anything of monetary value."[205] This means that the Emerson Act does not extend liability protection when the ultimate recipient pays, even at a reduced rate, for food. As a result, innovative food recovery and repurposing models are excluded from coverage. These models, such as social supermarkets that sell surplus food at a low cost,[206] can fill a need for individuals experiencing food insecurity in addition to food assistance programs or pantries.

Several social supermarkets in the United States have shown potential for success.[207] Innovative retail models are particularly effective in geographical

areas with limited access to affordable and nutritious food. The USDA estimates that up to 17.4% of the population lives in such locations.[208] In Massachusetts, The Daily Table is a social supermarket with three locations that works with local food producers to recover healthy food that they later offer at reduced prices.[209] The Daily Table provides 1 million nutritional servings every month, with an average savings of 30% compared to other grocery stores.[210] It also employs over 65 individuals, many of whom are local community members.[211] In 2016, ReFED estimated that innovative retail models and secondary resellers have the potential to divert 167,000 tons of safe, surplus food from landfills per year and to provide $37 million per year in economic value.[212]

Currently, the Emerson Act's "no-charge" provision deters donations to innovative non-profit organizations and discourages traditional food recovery organizations from testing out new models due to fear of losing liability coverage. While providing food free of charge to individuals in emergency situations can be necessary, making space for other food recovery models such as social supermarkets enables food recovery organizations to reach a broader range of individuals experiencing food insecurity and food access challenges. Requiring that the recipient organization be a non-profit, as the Emerson Act does, ensures that any profits will be used for the organization to further serve its charitable purpose.[213] Some states already provide liability protection to non-profit organizations that sell food at a low cost and to the donors that donate to them.[214] Congress should institute this across all states by amending the Emerson Act to provide liability protection even if food is sold to the end recipient at a low price that reflect the cost of handling, transporting, or storing the food.

IMPLEMENTATION OPPORTUNITY

Liability protection is a low-cost policy change that can unlock more food donation. Congress should improve the Emerson Act's protections and clarity through the 2023 Farm Bill in the ways outlined above. Congress can make these changes in a new Food Waste Reduction Title or through the Miscellaneous Title. The bipartisan, bicameral Food Donation Improvement Act of 2021 offers model language that could be used to implement these changes.[215]

Increase Funding Support for Food Recovery Infrastructure and for Post-Harvest Food Recovery

Improving donation transportation and storage infrastructure has the annual potential to divert 908,000 tons of food waste, reduce 1.316 million metric tons of CO_2e, and save 127.6 billion gallons of water, with a net financial benefit of $3.287 billion[216]

ISSUE OVERVIEW

The costs and logistical challenges of preparing, processing, and transporting food for donation make it financially difficult for many food producers and vendors to donate surplus food.[217] Many food donors are not willing or able to spend additional money in order to donate food that they would otherwise send to disposal. Thus, food recovery organizations generally need to bear these costs in order to make donation cost-effective for donors. However, since the funds of food recovery organizations are limited, requiring these organizations to bear the costs of food recovery may prevent them from accepting all food donations or expanding operations to new donors or areas.

In addition to transportation costs, when food recovery organizations do receive donated food, capacity limitations at food recovery organizations can be a bottleneck leading to waste.[218] Canning, freezing, or processing food allows organizations to handle large volumes of perishable produce. However, processing requires access to sufficient facilities, appropriate equipment, and trained staff; these efforts thus are limited by an organization's resources.

The federal government can support food recovery infrastructure through grants to food recovery organizations. Further, the government can utilize the Local Agricultural Market Program (LAMP) to support farmers in developing supply relationships to provide surplus food to food recovery organizations that can help surplus food get to food-insecure individuals. Investing in food recovery infrastructure can create new and more sustainable methods for food recovery while supporting both producers and food recovery organizations.

INVESTING IN FOOD RECOVERY INFRASTRUCTURE

Investing in food recovery infrastructure, like transportation and storage, can support economic development while strengthening emergency food assistance. Scaling up food recovery operations contributes to local economies by generating new jobs in logistics and transportation, while also increasing access to food and reducing the amount of food going to waste.[219] ReFED estimates that an annual investment of $442 million, with $69.3 million from government sources, in transportation for food recovery would have a potential net benefit of $2.46 billion.[220]

In June 2021, as a one time COVID-19 response initiative, the USDA announced funding of up to $100 million in food recovery infrastructure grants for food assistance organizations, particularly those that reach underserved areas.[221] The grants can be used for efforts such as developing storage and refrigeration capacity, which help these organizations to rescue more food by increasing their capacity.[222]

Given the vast potential benefit of investments in food recovery infrastructure, Congress should ensure that these grants are integrated into regular USDA's operations instead of being a one-time initiative. Alternatively, Congress should expand its investment beyond this COVID-19 response program.

While existing grants are focused on infrastructure, another avenue with the potential to make a significant impact is technological solutions supporting food recovery. Congress should authorize funding for grants to food recovery organizations and other nonprofit and community based organizations developing donation matching infrastructure, such as a website or application, that would provide real time updates to connect organizations with surplus food with those able to distribute it. Such technology exists,[223] but current coverage is spotty and limited to only certain parts of the country. These grants could help support new solutions or the expansion of existing technology to additional areas.

One model to support this ongoing need is for Congress to create a new block grant program for the USDA to award annual grants to states to carry out projects that develop and support food recovery infrastructure and innovative food distribution models. States would be able to distribute their block grant funds to applicable food recovery organizations and local governments that apply for funding to fill a gap in needed food recovery infrastructure. This grant format would enable state governments to take a holistic approach to food recovery within their state and use grant funding to support geographic regions that would most benefit from new or improved food recovery and distribution infrastructure. This program should be modeled off the Specialty Crop Block Grant Program, which offers annual grants to state agriculture departments to implement projects that increase specialty crop competitiveness.[224]

ENHANCE GRANT PROGRAMS INCLUDING COMMUNITY FOOD PROJECT (CFP) AND LOCAL AGRICULTURAL MARKET PROGRAM (LAMP) TO SUPPORT POST-HARVEST RECOVERY

The USDA already has a variety of grant programs that could help support infrastructure for food recovery, such as CFP grants and funding under LAMP. Amending and enhancing these grants can support long-term food recovery efforts and innovative food recovery models.

CFP grants support community-based projects that can become self-sufficient after a one-time infusion of federal funds and provide communities with access to healthy, local foods.[225] The program is particularly well-suited to promote innovation, reflected by its goal to "support the development of entrepreneurial projects"[226] and its prioritization of organizations with innovative models for reducing food insecurity.[227]

CFP already includes gleaners among its eligible recipients and should continue to promote its relevance for both gleaners and other food recovery organizations.[228] The 2018 Farm Bill provided $5 million annually in mandatory funding for CFP,[229] less than the $9 million provided annually in the 2014 Farm Bill.[230] This makes an already competitive CFP grant even more difficult to receive, with only 18% of applications receiving funding.[231] Congress should increase funding for CFP and earmark some portion of this funding for community projects that focus on food recovery.

LAMP is an umbrella program created by the 2018 Farm Bill that includes the Value-Added Producer Grant (VAPG), the Farmers Market and Local Food Promotion Program (FMLFPP), and the Regional Food System Partnership (RFSP).[232] The 2018

Farm Bill allocated $50 million annually to support grants of up to $500,000 under these programs.[233] This allocation includes funding for "new business opportunities and marketing strategies to reduce on-farm food waste," which is responsible for 21% of the United States' total food waste.[234] However, despite the fact that the LAMP statutory authority allows the USDA to fund projects that reduce on-farm food waste and support regional and local food recovery infrastructure, in 2021, only 1 out of 88 Farmers Market Promotion Program projects[235] and 3 out of 84 Local Food Promotion Program projects worked with food banks.[236]

Congress could make the program more accessible and more impactful by increasing funding, removing the matching funds requirement, and earmarking some portion of funding for food recovery projects. In May 2021, the USDA expanded LAMP funding due to the COVID-19 pandemic, offering $92.2 million in grants under LAMP.[237] Making this increased funding permanent or further increasing funding in the 2023 Farm Bill could allow more organizations to receive grants under LAMP, which would help fund more innovation. In addition, Congress could remove matching funds mandates that require grant recipients to contribute either 25% (FMLFPP and RSFP) or 100% (VAPG) of the grant's value.[238] This would eliminate barriers for potential grantees, such as startup organizations that may not have sufficient funds to match grants at the start of their operations. Setting aside dedicated funding within LAMP for food recovery could boost the program's impact in the space as well. Congress should also extend VAPG funding to non-profits; at present, this funding cannot be used by food recovery organizations as most of these organizations are structured as non-profits, partially to take advantage of benefits available for food donation to non-profit organizations.

IMPLEMENTATION OPPORTUNITY

Congress should increase funding for food recovery infrastructure, either through new 2023 Farm Bill investments or by making COVID-specific investments permanent. Congress should establish a new block grant program that funds food recovery and distribution infrastructure at the state level. This program could be established in the Nutrition Title of the farm bill. Congress should also support post-harvest food recovery by increasing funding for the CFP grant program through the Nutrition Title of the farm bill and earmarking a portion for food recovery projects. Within the Horticulture Title of the farm bill, Congress should increase funding for LAMP, remove or reduce the matching requirements, extend VAPG funding to non-profits, and earmark a portion for food waste reduction and food recovery.

Offer Grant Resources and Procurement Programs to Increase Food Recovery from Farms

Interventions aimed at optimizing on-farm harvests could produce a combined net financial benefit of over $8 billion[239]

ISSUE OVERVIEW

As the USDA has noted, food waste from farms is a significant problem.[240] This is especially true for produce, which is more perishable than grain crops or other commodity crops.[241] In 2019, farms wasted 16.7 million tons of produce.[242] Not only is this a staggering amount of safe food that could otherwise have been donated to people experiencing food insecurity, but produce is a highly nutritious product and may not otherwise be readily available to those facing food insecurity. USDA programs that connect food-insecure Americans with surplus food from farms fill an important gap.

ADJUST AND INCREASE FUNDING OF THE TEFAP FARM TO FOOD BANK PROGRAM

In order to start addressing the financial hurdles to harvesting surplus crops for donation, the 2018 Farm Bill created a new program within The Emergency Food Assistance Program (TEFAP), called the TEFAP Farm to Food Bank Project Grants. This grant program aims to reduce food waste, provide food to individuals, and develop relationships between food providers and food recovery organizations.[243] The TEFAP Farm to Food Bank Project has a budget of $4 million annually to fund projects that involve "harvesting, processing, packaging, or transportation" of food products donated by farmers, processors, or distributors to emergency feeding organizations.[244] The grant covers costs including those associated with

harvesting food, transportation from farms to food recovery organizations, and stipends or salaries for volunteers/staff members working on a TEFAP Farm to Food Bank Project, but the grant cannot be used for purchasing the food itself.[245] The USDA provides states with funding under the TEFAP Farm to Food Bank Project, and states have discretion in choosing how to allocate the funds.[246] Twenty-nine states are participating in the project in FY2022, including 7 states that have not previously participated.[247]

Several food recovery organizations ("Emergency Feeding Organizations," or EFOs, under the statute[248]) that were funded through the TEFAP Farm to Food Bank Project report great success.[249] One EFO reported that the funding helped them recover over 100,000 pounds of produce that would otherwise have gone to waste in 2020.[250] This funding can be crucial to the functioning of EFOs, as supply chain issues, labor shortages, and the rising cost of pallets have created challenges in food recovery.

While the grant program has been highly successful, there are some opportunities for improvement. First, the farm bill should remove or reduce the requirement of a 50% match by states or EFOs.[251] EFOs struggle to meet this matching requirement, creating unnecessary barriers to access. Second, increasing the funding of the TEFAP Farm to Food Bank Project could encourage increased and more consistent state participation. The USDA releases potential allocation amounts for each state if every state participated.[252] However, the low allocating funding amounts—less than $30,000 for more than 10 states[253]—may contribute to the low participation rate among states (ranging from 19 states in 2020 to 29 states in 2022), as the limited award may disincentivize states from spending resources to update their state plan. However, states that do participate are provided additional funds from the non-participating states, which may encourage their continuous participation.[254] The 2023 Farm Bill should dedicate additional funding to the grant program to incentivize increased state participation and ensure that states receive adequate funding.

ESTABLISH FUNDING TO HARVEST AND DONATE SURPLUS FOOD FROM FARMS

As another avenue to support food recovery from farms, Congress should establish permanent funding for the purchase and donation of surplus food from farms.

During the COVID-19 pandemic, the Farmers to Families Food Box Program provided over 173 million boxes of food to food-insecure Americans.[255] After the program ended, the USDA utilized some of its ongoing funding for initiatives like TEFAP fresh produce boxes for food banks and the Dairy Donation Program as well as funding for local food distribution infrastructure—mentioned in greater detail in the next section—and for cooperative purchasing agreements with states.[256]

The Farmers to Families Food Box Program helped mitigate distributor job loss, created contracting opportunities for small- and mid-sized farms (in early rounds of the program), and helped deliver food to food-insecure individuals in many parts of the country. However, the program could have better supported BIPOC-owned, women-owned, and local farms, ensured equitable distribution of food assistance to food-insecure populations around the country, and focused some attention on guaranteeing the program did not have the adverse effect of contributing to food waste.[257]

Congress should designate funding for a revamped program to purchase and distribute surplus food that utilizes the Farmers to Families Food Box Program as a model, but which addresses some of its primary issues and critiques. Any such program funded by Congress should focus on ensuring that the food procured and donated under the program is truly food that would otherwise have gone to waste—for example, produce that is off-grade and not fit for consumer markets, or produce that is clearly identified as surplus—thereby ensuring the program helps to reduce the amount of food going to waste and does not cannibalize market opportunities for food. Congress should ensure such a program has several key features, such as: ensuring that end recipients have the dignity of choice to choose produce that is culturally-appropriate, healthy, and desirable to them (rather than being given a standard, one-size-fits all assortment); ensuring that food is high quality and not at risk of spoilage; reporting the program's recovery of food that would otherwise be wasted; ensuring compensation for transportation costs incurred by local nonprofits associated with last mile delivery; requiring program participants (including growers, distributors, and food recovery organizations) to measure and report their own food waste levels of food procured under the program; and measuring the program's procurement from woman-owned farms, BIPOC-owned farms, and other socially disadvantaged farmers and ranchers.

The proposed Fresh Produce Procurement Reform Act of 2021 provides a model that incorporates some of these suggestions.[258] This Act would create a USDA program to contract with farmers and other food providers, procuring fresh produce for food recovery organizations to provide to food-insecure individuals. This Act would prioritize socially disadvantaged farmers and encourage sourcing from small- and mid-sized growers, furthering equity goals and addressing related critiques of the Farmers to Families Food Box Program.[259]

IMPLEMENTATION OPPORTUNITY

Additionally, Congress should expand the TEFAP Farm to Food Bank Project in the Nutrition Title of the 2023 Farm Bill and reduce or remove the state match requirement. Congress should designate funding for a tailored surplus food purchase and donation program, modeled from the Farmers to Families Food Box Program but with upgrades to address equity and ensure the program is reducing rather than furthering food waste.

Encourage USDA Grant and Loan Recipients to Donate Surplus Food by Incentivizing Food Donation

ISSUE OVERVIEW

As discussed in the previous section, the USDA supports regional and local food system development through grant programs like LAMP and CFP.[260] These grants have generated new income sources for small, beginning, veteran, and socially disadvantaged farmers and created new market opportunities for value-added and niche products.[261] The grant recipients often are non-profit and farm-serving organizations that have helped strengthen and stabilize participating farmers markets by creating marketing space; offering training programs; developing peer-to-peer learning networks; strengthening regional and local food system infrastructure and increasing vendor sales and on-farm revenue; and developing food hubs and shared use kitchens to increase regional capacity for processing, distribution, and storage.[262] Given the nature of the work funded by these grants, which aims to support food system development and opportunities for food producers, the USDA should also leverage these grant programs to incentivize food donation and food waste reduction.

GRANT SELECTION PREFERENCES

Congress should demonstrate its commitment to food waste reduction by encouraging all programs or organizations applying for USDA grant funding to donate surplus food and prevent food from being wasted in the first place. The USDA has already required program participants to donate food in certain contexts, like the USDA Farmers Market program,[263] which shows the feasibility of the USDA taking such action. Specifically, the USDA Farmers Market program "requires farmers and vendors to donate surplus food and food products at the end of each market day to a local non-profit organization identified by the USDA."[264] Expanding this premise to other USDA grant programs could have a significant impact on food waste reduction.

This could be done by modifying grant selection processes to preference applicants with surplus food donation contracts with a food recovery organization. This measure would encourage applicants to take the first step in donating edible food that would otherwise be wasted. As a model, California has regulations to require food donation contracts as part of their effort to reduce short-lived climate pollutants.[265] Starting in 2022, food generators like supermarkets and distributors are obligated to recover as much food as possible that would otherwise be wasted.[266] To prove they have a plan to do this, food generators must have a contract or written agreement with a food recovery organization or service.[267] This requirement ensures that when food providers have surplus food, donating the food will not impose an additional burden of finding a food recovery organization to accept that food.

Congress should enact these priorities and requirements for any grant programs where grant money is used for food procurement or for developing markets for food. LAMP programs, which received an infusion of $92.2 million in May 2021, are a prime example.[268] $76.9 million of this funding will go to FMLFPP, supporting "direct-to-consumer markets like farmers markets" and "indirect-to-consumer markets like food hubs and value-added product incubators."[269] Since the USDA is providing

funds to support facilities or markets where food will be developed or sold (and often where food may be wasted), it is a great opportunity to incentivize grantees to donate food. While the goals of these grant programs should be the priority, Congress can instruct the USDA to incorporate a food donation contract incentive or requirement into all relevant grant programs.

IMPLEMENTATION OPPORTUNITY

In the next farm bill, Congress should direct the USDA to prioritize grant applicants that have a food donation contract in place with a food recovery organization. This should be implemented across a range of farm bill grant programs, with a focus on grant programs in which grantees procure or develop markets for food (throughout various titles such as through LAMP in the Horticulture Title and CFP in the Nutrition Title).

Expand Federal Tax Incentives for Food Donation ★

ISSUE OVERVIEW

Food donation can be an expensive and time-consuming process. Donors sometimes allocate substantial time and money to harvest, package, transport, and deliver food products to donees.[270] Farmers and food businesses may often find it less expensive or onerous to till under or send surplus food to landfills instead of donating it.

Tax incentives can offset some donation costs and make donation more financially feasible. Under federal law, two tax incentives are available for food donation: the general deduction and the enhanced deduction. The general deduction allows taxpayers to claim a deduction in the amount of the basis value of the donation (the cost to acquire the product) and is available for all in-kind donations.[271] The enhanced deduction is specific to food products and enables a donor of food to deduct the lesser of (a) twice the basis value or (b) the basis value of the food plus 50% of the expected profit margin of the product (fair market value minus basis value).[272] Through the enhanced deduction for food donations, a donor may be able to deduct up to twice as much as the general deduction.[273]

Tax benefits are a cost-effective strategy to promote food donation, as donors only receive the incentive if they indeed make a donation. Further, they have been successful in reducing food waste by lowering the cost barrier to donation. For instance, in 2005, Congress expanded the coverage of the enhanced deduction to include all business entities with the aim of encouraging more food donation.[274] This led to an increase of 137% in donations over the next year.[275] Recognizing the program's success, Congress made the change permanent by expanding enhanced deduction coverage to all businesses in the Protecting Americans from Tax Hikes Act of 2015 (PATH Act).[276] This is a welcome development and allows more companies to utilize the enhanced deduction.

CREATE AN ALTERNATE TAX CREDIT FOR FOOD DONATION

Congress should further develop effective tax incentives to maximize food recovery and donation. With the PATH Act, enhanced donations are now technically available to all businesses; however, tax deductions are generally not equally beneficial to all companies. A tax deduction lowers a donor's taxable income (which determines the amount of taxes owed).[277] For smaller companies, such as small- and mid-sized farmers and independent food businesses that operate on a low-profit margin, a deduction is not an effective incentive because taxable income may already be quite low. Farmers also may not claim an enhanced tax deduction because it requires too much record-keeping (to determine the value of the deduction as laid out above). By contrast, a tax credit directly applies to and reduces the amount of taxes owed,[278] and is often more beneficial to lower-margin businesses. Congress should create an alternative tax credit and give farmers the choice between this tax credit and the enhanced tax deduction. Offering a tax credit could make food donation more financially feasible for farmers and make it easier to donate surplus foods. Several states have already created a tax credit applicable to farmers, in recognition of the fact that this additional benefit is needed to support donation from farms.[279]

TAX BENEFITS SHOULD ACCOUNT FOR UNDERLYING COSTS IN DONATIONS

An effective food donation tax incentive also should

account for the underlying costs donors incur while donating food, such as transportation, food storage, and labor needed to prepare and transport donated food. Improving donation transportation and storage infrastructure has the annual potential to divert 908,000 tons of food waste, reduce 1.307 million metric tons of CO_2e, and save 127.6 billion gallons of water, producing a net financial benefit of $2.873 billion[280] These costs can add up quickly, deterring donation efforts in favor of cheaper options like sending food to the landfill.

To solve this problem, Congress should amend the enhanced tax deduction for food donation to include an additional tax deduction to offset the costs of transportation, labor, or storage of food for donation. For example, the incentive could offer a benefit to logistics and transportation companies that ship donated products, storage providers who store surplus inventory until donation, or retailers/producers that either directly deliver or pay for the shipment of their donation. California has implemented such a strategy at the state level, offering a 50% tax credit for transporting donated food.[281] Implementing a similar incentive at the federal level would help offset donation costs. Focusing on transportation and storage would address a significant cost barrier for donors and help get more food to those who need it most.

CONGRESS SHOULD AMEND RESTRICTIONS ON THE ENHANCED DEDUCTION TO PROMOTE INNOVATION

Congress should amend the restrictions imposed by the federal enhanced tax deduction to promote innovation and streamline the donation process. Like the Emerson Act described above,[282] the enhanced tax deduction is only available to donors who make donations to non-profit organizations that do not charge the end-users for the food.[283] Because of this "no-charge" requirement, donors cannot claim the enhanced deduction for donations made to a food recovery organization that charges even a low price to the end recipient. This disincentivizes donating to innovative food recovery and donations groups. Congress should allow the enhanced tax deduction to be claimed when donations are made to a non-profit organization that either distributes the food for free or at a low cost to cover the expenses associated with handling the food.

IMPLEMENTATION OPPORTUNITY

In the 2023 Farm Bill, Congress should create an alternative food donation tax credit that farmers can opt to claim instead of the enhanced tax deduction. It should also amend the current enhanced deduction to offset the underlying costs donors incur while donating food, such as transportation and storage. In addition, Congress should incentivize innovative food recovery models by removing the requirement that non-profit organizations provide donated food for free. Language implementing the above recommendations could be taken from the bipartisan Further Incentivizing Nutritious Donations of Food Act or FIND Food Act of 2022 (H.R. 7317, 117th Cong. (2d Sess., 2022)).

The 2008 Farm Bill had a title dedicated to tax issues: the Trade and Tax Provisions in the Farm Bill.[284] The next farm bill can revive the tax title from 2008 or create a new Food Waste Reduction Title and include these provisions there. Alternatively, the tax incentives can be placed in another existing title such as the Horticulture Title or the Miscellaneous Title.

Instruct the USDA Risk Management Agency and Approved Crop Insurance Providers to Better Support Gleaning

Gleaning has the annual potential to divert 78,500 tons of food waste and save 2.14 billion gallons of water, with a net financial benefit of $152 million[285]

ISSUE OVERVIEW

The USDA Risk Management Agency (RMA) permits and encourages farmers to donate damaged crops for gleaning purposes while still allowing farmers to receive insurance compensation for their lost crops.[286] Despite policies that allow for gleaning, few farmers take advantage of these policies

due to a deficit in knowledge around gleaning opportunities—whether the RMA allows gleaning of crops after an insurance claim has been made, when/how gleaning is permitted, and what legal risks exist for farmers. The RMA has created one document—a one-page gleaning crop fact sheet published in 2017—to educate farmers and crop insurance agencies on gleaning policies,[287] but this document has proven insufficient as miscommunication and confusion still exists around gleaning.[288]

One major source of confusion surrounds whether farmers can allow gleaning of crops covered under federal crop insurance. The government's two primary programs for crop insurance, the Federal Crop Insurance Program (FCIP) and the Noninsured Crop Disaster Assistance Program (NAP), permit farmers to allow gleaning on their farms.[289] However, the requirements under these programs can be ambiguous, leaving farmers unsure whether they will receive the insurance payments they rely on if they allow gleaning on their farms.[290] This confusion increases the likelihood that farmers will let their produce go to waste rather than allowing gleaning to take place.

FCIP and NAP guidelines both limit many aspects of the gleaning process. First, FCIP and NAP only allow gleaning when it is done by a 501(c)(3) non-profit and the insured producer has not received any compensation in exchange for the crops.[291] If the farmer receives any compensation in exchange for the crops, the harvesting will not be considered gleaning, and the producer will be unable to collect crop insurance on the produce.[292] However, farmers are still able to receive their insurance payments if they receive compensation for non-crop expenses, such as labor for harvesting or the transportation of gleaned crops.[293] Additionally, FCIP and NAP limit how gleaning can be done.[294] Before allowing gleaning, a producer must first have the fields inspected by a qualified Commodity Credit Corporation loss adjuster who will approve the insurance claim, and the producer must keep a record of the quantity of the crop gleaned.[295] When the adjuster visits the fields, they provide the farmer with a certificate for destruction that must be completed by the farmer. Some farmers believe that this certificate requires the leftover crops to be destroyed in front of the insurance provider; however, that is only the case for tobacco plants, a crop that would not be gleaned.[296] For other crops, the farmer can allow for gleaning of the crops after receiving the certificate rather than destroying the remaining crops, as long as no compensation is collected for the crops.[297]
Another area of confusion is whether farmers may collect crop insurance if they also file for the enhanced tax deduction for donated food. Farmers are concerned tax deductions may fall under the aforementioned prohibition on compensation for the gleaned crops—but this is a misunderstanding. The RMA guidance states that "situations not to be considered compensation for the crop include state tax credits and other state and federal tax advantages for donating gleaned commodities."[298] However, many farmers still mistakenly believe that they cannot benefit from the enhanced deduction for food donations if they have filed a crop insurance claim for the crops.

Another barrier to gleaning is fear regarding potential liability if a volunteer gleaner were to be injured on a farmer's land. However, this concern is misplaced as farmers are protected by federal law under the Emerson Act.[299] Section D of the Emerson Act provides that a person who allows the gleaning of donations will not be subject to civil or criminal liability that arises due to the injury or death of the gleaner.[300] Despite this existing liability protection, many farmers remain unwilling to allow gleaners onto their land because they believe there is still a liability risk.[301]

OPPORTUNITY FOR CLARIFYING RMA GUIDANCE

There is a general lack of awareness regarding gleaning as an option for farmers, particularly regarding crops for which a farmer has filed a crop insurance claim. RMA guidance is very limited, and crop insurance agents are not encouraged to promote gleaning to farmers and may also themselves misunderstand the gleaning policies. Thus, the burden of educating farmers on gleaning falls upon gleaning organizations which lack the capacity and funding to promote awareness.[302]

Congress should require the USDA to develop and disseminate semi-annual information sheets or reminder notices to farmers, crop insurance agents, RMA agents, and gleaning organizations. This will ensure that all parties involved can promote gleaning and effectively address any concerns or apprehensions farmers may have. This guidance should, (1) promote gleaning and increase awareness of gleaning as an option for farmers who may be entirely unaware of gleaning practices; (2) clarify how crop insurance allows for gleaning (to

this, it should explain that crop insurance can still be collected if farmers allow for gleaning),[303] clarify that farmers can still claim tax incentives for donated food in addition to crop insurance, and clarify that farmers can receive payment for non-crop expenses associated with gleaning (i.e., transportation, labor);[304] (3) provide contact information for local gleaning organizations for each farmer to the extent possible; and (4) ensure that farmers are aware that they are protected from liability claims regarding both the safety of the food gleaned and for any injuries sustained by volunteers on their land under the Emerson Act.[305] The USDA could utilize the USDA Cooperative Extension service, which already has established connections to producers across the United States, to disseminate gleaning guidance to farmers.

IMPLEMENTATION OPPORTUNITY

Congress should use the 2023 Farm Bill to instruct the RMA to institute an expanded education and awareness program by developing more guidance materials and utilizing semi-annual reminders. This instruction can be included within the Crop Insurance Title, which addresses FCIP, or the Commodities Title, which addresses NAP.[306] This change would encourage more farmers to allow for gleaning of their lands, thus reducing the number of crops that go to waste and allowing for the healthiest foods—fruits and vegetables—to be made available to people experiencing food insecurity.

FOOD WASTE RECYCLING

Provide Grants to Support Proven State and Local Policies that Reduce Food Waste Disposed in Landfills or Incinerators ★

ISSUE OVERVIEW

The ongoing reliance on landfills to manage organic waste is problematic for several reasons. Landfills continue to be overburdened by organic waste (which makes up around 24.1% of municipal solid waste in landfills by weight),[307] and states and cities are running out of space to store their waste.[308] Moreover, as food items decompose in landfills, they release harmful greenhouse gases at alarming rates. Municipal waste landfills are the third-largest source of human-created methane emissions, accounting for 15.1% of methane created by humans in the United States in 2019[309] and 8-10% of all global anthropogenic greenhouse gas emissions from 2010 to 2016.[310] Eighty times more portent than CO_2 in the short term, and 25 times more potent than CO_2 overall[311] methane traps heat in the atmosphere and disrupts geologic processes such as air and water temperatures, weather, and the carbon cycle.[312] These disruptions expose human health, agriculture, and other natural ecosystems and resources to potential harms.[313]

ORGANIC WASTE BANS

Organic waste bans, mandatory recycling laws, waste diversion requirements, food donation requirements, landfill taxes, and similar policies to reduce food in landfills are proven policies to reduce food waste and are growing in popularity. These policies take various actions to limit the amount of food that goes to landfills or incinerators or to make it more costly to send food to landfills or

incinerators. For example, organic waste bans are policies that prevent entities that produce a certain threshold of food waste (e.g., grocery stores and hospitals) from transporting that waste to landfills or incinerators, subject to certain exceptions. Where these bans are implemented, waste generators can no longer rely on waste disposal and must utilize other strategies to reduce their footprint. Waste generators might reduce food waste by offering smaller portions, donating surplus food, recycling food scraps, or repurposing their leftovers. In addition to organic waste bans, other effective policy options include mandated food scrap recycling,[314] Pay-As-You-Throw policies that charge a higher fee for sending organic waste to landfills,[315] and an increased landfill tax charged per unit of trash in addition to landfill tipping fees.[316]

These types of policies have been shown to successfully reduce food waste. In Massachusetts, after one year with an organic waste ban, businesses diverted food waste from landfills at a rate five-times higher than before the organic was ban was adopted.[317] Massachusetts saw more than a 25,000-ton increase in food donation.[318] Vermont also saw a 60% increase in food donation following implementation of the state's organic waste ban.[319]

Organic waste bans are gaining popularity as a food waste reduction model, as evidenced by a recent uptake of several states and localities. Connecticut,[320] Massachusetts,[321] New York,[322] Rhode Island,[323] New Jersey,[324] Maryland,[325] and Vermont,[326] have all adopted state organic waste bans, and California enacted a waste recycling law that requires commercial waste generators to compost or anaerobically digest their organic waste.[327] California also enacted a law requiring businesses in the state to donate at least 20% of edible food that is currently wasted.[328] Austin (TX), Boulder (CO), Hennepin County (MN), Portland (OR), New York City (NY), San Francisco (CA), and Seattle (WA), enacted local organic waste bans,[329] and Washington, D.C., recently enacted a mandatory waste recycling law.[330]

Another opportunity to improve food waste diversion is to improve food waste measurement strategies. There is no national requirement for businesses or waste facilities to measure food waste, and state- or city-level studies are conducted only periodically or inconsistently. A lack of transparency around food waste makes it difficult for state and local governments to monitor organic waste generation and limits the government's ability to implement tailored and innovative waste reduction strategies.

Because waste is managed on the state and local level, state and local actors are more familiar with regional and local food waste issues than are federal leaders; they are the actors best situated to identify and implement most organic waste reduction initiatives. However, studying, planning, implementing, and enforcing such initiatives is costly. The federal government can support these promising policies by providing funding to states and localities to adopt proven policies to reduce food waste. The funding could be used to plan, implement, or enforce these policies. Funding could also be used to support the creation of a state or local government staff position specifically committed to food waste reduction coordination, which would then oversee the jurisdiction's new food waste reduction policies. By providing funding for states or localities to plan or implement these policies, Congress can incentivize the uptake of such projects and help actualize the environmental and societal benefits associated with food waste reduction projects.

One model to support these state and local policies is articulated in the proposed Zero Food Waste Act of 2021.[331] This Act would create a grant program for state, tribal, and local governments to reduce the amount of food waste by 50% by 2030.[332] Under this Act, grants may be awarded to an eligible entity that is a nonprofit organization to study the generation of food waste in the state or area in which the entity is located, identify policies and programs that significantly reduce the amount of food waste, and develop a plan under which the organization will carry out at least one food waste reduction activity.[333] Alternatively, a grant may be awarded to collect and publish data on the amount of food waste generated in a state or area in which the origination is located or for an organization that carries out or otherwise supports a food waste reduction activity.[334]

IMPLEMENTATION OPPORTUNITY

The next farm bill should provide grants to state and local governments, and to public-private partnerships, to encourage them to implement proven or promising food waste reduction

policies, such as organic waste bans, mandatory recycling laws, landfill taxes, Pay-As-You-Throw laws, and other policy measures to make it comparatively costlier or more difficult to send food to landfills or incinerators.

To accelerate the adoption of these strategies, the farm bill should provide $650 million per year for ten years for state, local, and tribal governments, independently or as part of a public-private partnership to plan or implement an organic waste ban or other proven food waste reduction policy.[335] As part of this program, Congress should require the USDA (in collaboration with the EPA) to maintain a database of the state and local food waste reduction policies that have proven successful and data on their impacts.

This program should be established within the Miscellaneous Title or a dedicated Food Waste Reduction Title.

Provide Grants and Loans for the Development of Organic Waste Processing Infrastructure ★

Investing in centralized anaerobic and composting infrastructure has the annual potential to divert 17.64 million tons of food waste and reduce 5.852 million metric tons of CO_2e, with a net financial benefit of $220.4 million[336]

ISSUE OVERVIEW

In addition to implementing waste bans, zero waste goals, and waste prevention plans, states and local communities must also develop their organic waste processing capabilities to manage the organic waste diverted from landfills and to realize the benefits of these strategies.

Both compost and anaerobic digestion infrastructure have the potential to convert food waste into productive soil amendments. Adding compost to soil improves soil structure, increases water and nutrient retention capacity, and contributes nutrients and carbon to often-depleted soil.[337] In fact, initial findings from University of California-Berkeley's Silver Lab show that food-waste derived compost poses better climate change mitigation potential than manure or plant waste compost.[338] Recent studies examining industrial composting processes continue to improve the greenhouse gas capture potential of such facilities.[339] Anaerobic digestion infrastructure simultaneously captures biogas, a type of energy that can fuel vehicles and generate electricity. The EPA, in February 2022, recognized the importance of scaling anaerobic digestion capacity across the country and delegated $2 million to 11 organizations for anaerobic digestion projects.[340]

Alternative to compost and anaerobic digestion, animal feed facilities take animal and/or vegetable food scraps, heat treat them, and re-sell them as animal feed for swine and cattle.[341] Not only is food-scrap-derived animal feed cheaper than traditional feed,[342] but it is more sustainable as well. One organization, Do Good Food, has recognized the potential to sell animals raised on food scraps animal feed to consumers, capitalizing on its status as a more environmentally friendly product than traditionally raised animals.[343]

Composting, anaerobic digestion, and animal feed processing infrastructure is costly. An anaerobic digestion facility that processes around 50,000 tons of waste per year costs over $20 million to construct.[344] Meanwhile, it costs $5-9 million to build and $17-28 per ton to operate a large composting facility.[345] One full-service composting facility can process between 5,000 and 100,000 tons of organic waste every year.[346] For reference, the City of Madison, Wisconsin (a city of nearly 270,000) estimates they produce at minimum 10,000 tons of potentially compostable food scraps annually.[347]

Sometimes, local governments (e.g., Madison, WI) limit the amount of local organic waste they collect for compost because they do not have the infrastructure necessary to process it.[348] Building composting facilities and infrastructure is critical to ensure organic waste does not end up in landfills.

COMMUNITY COMPOST AND FOOD WASTE REDUCTION PROJECT

In the 2018 Farm Bill, Congress authorized the creation of the Community Compost and Food Waste Reduction Project (CCFWR) within the

USDA Office of Urban Agriculture and Innovative Production (UAIP) to provide pilot funding for local governments in at least ten states to study and pilot local compost and food waste reduction plans.[349] A total of $25 million was authorized to be appropriated to CCFWR, UAIP, and urban agricultural grants.[350] While the specific amount allocated to CCFWR projects per year may vary within that total, in FY2020, $900,000 was available for CCFWR projects, and each applicant could request a maximum of $90,000 for a two-year grant.[351] In FY2021, total CCFWR funding was $2 million, but the maximum request amount remained at $90,000 per project.[352]

CCFWR funding enables localities to enhance their waste reduction capacities and has already fostered a positive impact within communities.[353] Entities eligible to apply for the grant include city or township governments, county governments, state-designated or federally recognized Indian Tribes, and special district governments.[354] The CCFWR pilot projects may focus on several different areas, including: waste management and permaculture business development, local food waste, and diversion (including transportation) of food waste from landfills.[355] Examples of 2021 projects include creating a network of food scrap drop-off stations, developing and promoting community gardens, building small-scale composting sites, testing innovative models around household compost pick-up, building composting infrastructure or funding the full-operative of composting infrastructure, and educating the public.[356]

The first two years of CCFWR have proven its grant model a success,[357] however, there is room to improve the CCFWR grant model and scale its benefits.[358] First, grant recipients reported that the $90,000 funding cap is too low to fund large projects in highly populated cities because the grant does not provide enough money to scale a project across the whole city.[359] As a result, CCFWR projects in large cities only benefit a limited number of people. CCFWR grants are also too small to fund the development of new facilities or composting systems or to develop long-term projects.[360] This means that localities that do not already have anaerobic digestion and composting infrastructure gain limited benefit from CCFWR grants.

Second, the CCFWR grant only goes to local governments, which limits the opportunity for government officials at the regional or state level to use the funds for organic waste reduction projects. This removes the possibility of scaling across a region, which would increase the efficiency of some projects. Congress should expand the program to authorize private partnerships (i.e. with non-governmental organizations) to incentivize CCFWR projects across regions and within communities with resource-constrained local governments. Addressing these problems within the CCFWR program would help localities to scale and improve upon the benefits that drive them to apply for the grant funding in the first place.

Third, CCFWR recipients need to match at least 25% of the federal grant through direct funding and/or in-kind contributions.[361] Although a few cities reported that the matching requirement was not a burden given the in-kind contribution allowance, at least one city had to divert direct funding to the project.[362] Eliminating the matching requirement would allow the grantees to receive the full grant in direct funding.

Finally, previous CCFWR projects primarily focus on composting. Future iterations of the CCFWR program should also prioritize food waste prevention and food recovery. Emphasizing food waste prevention and recovery keeps food higher in the Food Recovery Hierarchy. Congress should instruct the USDA to provide better guidance to communities seeking funding for food waste reduction methods outside of composting.

OTHER FARM BILL PROGRAMS

Other federal programs help build anaerobic digestion and composting capacity in rural areas including the Solid Waste Management Grant (SWMG) program[363] and the Water and Waste Disposal Loan and Grant program.[364]

In the 2018 Farm Bill, Congress reauthorized the SWMG program under the Rural Development Title.[365] Congress authorized up to $10 million in annual appropriations to provide technical assistance for solid waste management practices.[366] However, the Rural Utilities Service has consistently allocated only about $4 million per year to SWMGs since 2018.[367] The Rural Utilities Service intends for these grants to fund technical assistance and training on improving planning and management at solid waste sites.[368] Although these grants need not incorporate organic waste reduction strategies,

some projects include organic waste reduction plans.[369] The 2017 SWMG program awarded extra points to applications that involved composting projects that reduced organic waste in landfills.[370]

In addition to SWMGs, states and localities can also utilize the Water and Waste Disposal Loan and Grant program, which primarily funds wastewater systems, including those that derive energy from food waste.[371] The program received a $1.45 billion funding package for FY2021,[372] and offers applicants low fixed-rate loans with payback periods of up to 40 years.[373]

The CCFWR, SWMGs, and the Water and Waste Disposal Loans and Grant program all provide tailored funding opportunities to improve local food waste reduction plans. However, there is still a lack of sufficient funding for the growing needs of food waste diversion infrastructure. Building anaerobic digestion and composting capabilities is a costly process, but once constructed, these facilities keep food waste from landfills and generate profound long-term advantages for society.

According to ReFED, $14 billion in annual investment is needed to revamp how the federal food system prevents food from going to waste, recovers surplus food, and recycles food scraps. ReFED projects that around $1.2 billion of this needed investment should come from government grants and project financing in food waste recycling.[374] The federal government is far away from meeting this need in food waste recycling funding.

Several pending federal bills offer models for increased investment. The COMPOST Act of 2021[375] would authorize a USDA grant and loan program to fund composting infrastructure projects in states and local governments.[376] This Act would authorize $200 million per year for ten years for composting infrastructure projects, with each project able to obtain a grant or loan for up to $5 million.[377]

The Zero Food Waste Act of 2021, mentioned above, provides grant funding for "food waste reduction projects," which could include composting infrastructure and anaerobic digestion projects within the $650 million funding allocation.[378] Those anaerobic digestion projects would be restricted to ones in which the grantee guarantees that the anaerobic digestion food waste by-product is used as soil amendment that does not create an environmental hazard, that the project will limit the amount of animal waste used as anaerobic digestion input, and that the project will use source-separated organics.[379]

IMPLEMENTATION OPPORTUNITY

The next farm bill should build on existing grant programs and adopt new strategies to develop composting and anaerobic digestion infrastructure. Congress should amend the CCFWR program to increase the total and per project funding available, reduce or eliminate the matching requirement, and expand the list of eligible entities who may apply for grant funding to also include state governments, as well as non-governmental organizations and community groups that work with partners in rural locations or across regions. For local projects, Congress should increase the per project cap from $90,000 to $300,000 to ensure all cities regardless of size can scale their food waste reduction projects. For regional or state projects, Congress should implement a project cap of $500,000.

In addition, Congress should increase funding for the SWMGs and the Water and Waste Disposal Loans and Grant program and should continue to prioritize projects in which the implementing agencies prioritize food waste reduction. Congress should consider extending the SWMG program to two years for more robust projects.

Congress also should create funding streams along the lines envisioned in the COMPOST Act of 2021 and Zero Food Waste Act of 2021 to support new compost and anaerobic digestion infrastructure. Beyond funding the construction of this infrastructure, Congress should also consider expanding the COMPOST Act of 2021 and Zero Food Waste Act of 2021 to include funding to develop and maintain large-scale transportation infrastructure necessary to haul compost from these communities to the compost and anaerobic digestion sites.

The next farm bill should enact these measures under the Miscellaneous Title or a new Food Waste Reduction Title.

Require Federal Food Procurement Contractors to Measure, Recover, Recycle, and Prevent Food Waste in Federal Contracts ★

ISSUE OVERVIEW

The federal government can serve as a role model for positive environmental practices. Every year, the federal government purchases billions of dollars' worth of food for school food programs, military service members, veteran hospitals, incarcerated persons, and other federal feeding programs.[380] Yet, the federal government does not necessarily have plans in place to address food waste generated by federal procurement policies and contracts.

The federal government should use its contract power to require government entities and their contractors to measure and report food waste. The Federal Food Donation Act of 2008 (Food Donation Act of 2008) was passed to take a first step towards reducing food waste among agencies. The Food Donation Act of 2008 requires federal procurement contracts of over $25,000 to include specific language that *encourages* federal agencies and contractors to donate safe, excess food to food recovery organizations.[381] However, outside of merely including the required language in contracts, federal agencies and contractors are neither required to donate excess wholesome food, nor are they required to measure and report food waste, or to ensure food that cannot be recovered is recycled instead of thrown in the trash to be landfilled or incinerated. The Council on Environmental Quality (CEQ) already tracks and publishes several energy efficiency and sustainability data points reported to the CEQ Office of the Federal Chief Sustainability Officer by each federal agency's sustainability lead.[382] The CEQ could use this existing dashboard to track and publish food waste and recovery data generated by federal agencies.

Further, the Food Donation Act of 2008 does not require any reporting on how much food is wasted or donated, so there is little information about how much food is wasted by federal agencies and their contractors, or whether any agencies or their contractors are making efforts to donate surplus food. Congress should require agencies to receive and compile reports from their contractors regarding food excess and waste that results from the food procurement agreement.

IMPLEMENTATION OPPORTUNITY

Congress should modify the Federal Food Donation Act of 2008 to require all federal agencies that enter food procurement contracts to include contract language requiring their contractors to donate any surplus food and to compost any inedible food scraps. They should also require their contractors to measure and report food donation and food waste that results from the contract. Additionally, Congress should designate responsibility to track and publicly report federal food donation and waste to either CEQ, another government agency (i.e., the USDA or the EPA), or to the Federal Interagency Food Loss and Waste Collaboration. Congress should implement these changes as part of the Miscellaneous Title or a dedicated Food Waste Reduction Title.

Support Compost End Markets Through Crop Insurance Benefits and Increased Federal Procurement of Compost Products

ISSUE OVERVIEW

Growing the compost market benefits entities all along the food chain. In particular, creating end markets for compost products will support increased composting, and by giving compost facilities a market to sell compost, the facilities may be able to reduce their tipping fees and draw more food waste generators to compost rather than landfill their waste. In turn, this will make composting a more viable and less expensive option than throwing organic waste materials in a landfill. Farmers can also benefit from compost end markets as they can use the soil amendment products derived from composting or anaerobic digestion (compost products) to improve the quality of their

soil.[383] The environmental benefits of compost stem not only from diverting food waste from landfills, but also from treating fields with compost, which reduces or eliminates the need to use chemical fertilizers, leads to higher agricultural yields, increases soil water retention, and increases carbon sequestration.[384]

States and localities are investing in compost and anaerobic digestion infrastructure to process food waste.[385] These cities are also scaling their compost and food waste collection efforts, which will inevitably increase the total amount of compost products created by compost and anaerobic digestion processing facilities. Creating more end markets for composting will also encourage the development of more compost facilities. In order to bolster these state and local efforts to realize the social and environmental benefits of composting, the federal government should support the development of compost end markets.

Likely recognizing the benefits of supporting compost end markets, President Biden's Executive Order 14057, published in December 2021, calls on all federal agencies to support markets for recycled products.[386] The USDA is also increasingly recognizing the importance of developing and incentivizing climate-smart farming practices. In February 2022, the USDA announced the new Partnerships for Climate-Smart Commodities, which will provide funding for specified entities to develop pilot projects likely to generate greenhouse gas benefits and increase soil carbon sequestration.[387] The program announcement specifically lists adding soil amendments (which includes compost) as a qualifying practice.[388] The federal government can use both its purchasing power and other means to develop the private compost market. Most notably, the federal government should incentivize farmers to use compost products in their fields. This will encourage farmers to reap the environmental benefits associated with composting and will increase the financial viability of the burgeoning composting industry.

THE MODEL: PANDEMIC COVER CROP PROGRAM

During COVID-19, the federal government initiated an incentive program that paid farmers a $5 per acre premium under crop insurance for the planting of cover crops.[389] This program, known as the Pandemic Cover Crop Program (PCCP), ran for the 2021 planting year and helped producers realize more profits from their land.[390] The PCCP allows farmers to realize the considerable environmental benefits associated with cover crops. These benefits include: decreasing the breakdown of soil,[391] which increases soil organic matter and helps plant growth;[392] storing nutrients from manure and other on-farm inputs until the following years' crop can utilize them; reducing nitrogen losses to the environment; and reducing the use of purchased nitrogen fertilizer that is produced using fossil fuels and lower costs of production.[393]

Compost use has similar plant health and environmental benefits. It can be used on annual crops, perennials, orchards, vineyards, and grasslands to improve soil properties, provide nutrients in a stable organic form, and increase plant growth and health.[394] Further, compost increases water retention capability and improves drought resilience.[395] Compost can also be used to increase carbon sequestration (i.e., long-term storage of carbon in soils and vegetation).[396] In fact, studies and literature reviews by the Marin Carbon Project and its partners found that a one-time application of a quarter inch of compost can double the soil's carbon sequestration potential (approximately one ton of carbon per hectare).[397] Finally, given rising fertilizer costs,[398] compost may be a cost-effective alternative to fertilizer.

The federal government should use PCCP as a model for an incentive program that encourages farmers to apply compost products to their fields.

FEDERAL ACQUISITION REGULATION

Congress should require federal agencies to purchase compost made from recycled organic waste materials for any of their landscaping services. Following a number of executive orders aimed at supporting sustainable products and services, including President Clinton's Executive Order 12873 in 1993[399] and President Bush's Executive Order 13423 in 2007,[400] the Office of Management and Budget modified the Federal Acquisition Regulation (FAR) to be more environmentally friendly. The FAR requires federal agencies to ensure that 95% of all products and services purchased are energy and water efficient, bio-based, environmentally preferable, non-ozone depleting, or made with recovered materials.[401] However, the FAR does not specifically mention

or suggest purchasing compost made from recycled organic waste materials. Instead, it has selection criteria including selecting products that lower environmental impacts and reduce waste management costs, among other things.[402] Given the aforementioned environmental benefits and waste management cost reductions associated with composting, Congress or the Administration should direct the FAR Council to revise the FAR to require federal purchasers to procure compost made from recycled organic waste materials when procuring landscaping services.

Congress has used the federal government's purchasing power to set standards around environmental issues in other areas. For example, the Department of Defense is legally required to give preference to electric and hybrid vehicles when purchasing or leasing vehicles.[403] The Energy Policy Act requires new federal fleets to meet certain alternative fuel vehicle and electric vehicle requirements.[404] Using federal government purchasing power to stimulate demand and to encourage private market uptake of sustainable technology is a demonstrated, successful model of setting environmental policy. Congress should implement this model, using the federal government's purchasing power to develop private markets to stimulate composting product markets.

IMPLEMENTATION OPPORTUNITY

To increase viability for compost products, Congress should create a crop insurance premium incentive program that pays farmers a per acre bonus for applying compost products to their fields before planting. Congress also should increase federal procurement of compost products containing recycled organic waste materials, by requiring federal agencies to prioritize purchasing of compost made from recycled organic waste materials when purchasing landscaping services. Congress should establish this program in the Farm Bill's Crop Insurance Title.

Encourage Diversion of Food Waste into Animal Feed Where Appropriate ★

ISSUE OVERVIEW

Food scrap feeding refers to feeding livestock animals food scraps or food residuals, which can include edible by-products of food production. Food scraps are most often sourced from restaurants, retail, and institutions such as schools.[405]

Food scrap feeding is regulated under federal law and requires animal-derived food scraps to be heat-treated (but not necessarily vegetable-derived food scraps) in addition to a number of storage and transport requirements.[406] Food scrap feeding is also regulated at the state level, often with stricter requirements such as outright bans of feeding of animal-derived and/or vegetable waste to certain animals, or requirements that one or both types of waste be heat-treated.[407] When done in accordance with the federal laws, food scrap feeding is safe for animals, and it realizes all the same environmental benefits associated with diverting food waste from landfills. Numerous studies demonstrate that properly heat-treated food scraps are safe for animals that consume feed derived from those scraps, and for consumers who eat those animals.[408] Food scrap-derived animal feed is a more environmentally friendly option than conventional feed when comparing a range of environmental factors, including climate change potential, emissions of carcinogens and toxins, and particulate matter emissions.[409]

Private companies are increasingly recognizing their ability to divert food to animal food scraps. For example, the company Do Good Foods partners with grocery stores to recover food first for donation to food banks, and any left-over food is processed into animal feed for chickens.[410] Another company in this space, FeedBack Earth, collects postconsumer food scraps from entities such as restaurants and cafeterias and converts them into animal feed for livestock.[411]

To build on the increased interest in diversion of food scraps to animal feed, Congress should require the USDA to write guidance encouraging states

to update their laws around animal scrap feeding to the federal laws outlined below. Furthermore, Congress should create a tax incentive for private businesses to divert food waste to animal feed to make that pathway more economically viable than sending the scraps to the landfill. It is essential that Congress makes this tax incentive smaller than the enhanced tax deduction for businesses to donate surplus food for human consumption, to best align with the highest use on the Food Recovery Hierarchy.

SWINE HEALTH PROTECTION ACT AND OTHER RELEVANT LAWS

The Swine Health Protection Act (SHPA), the federal legislation governing food scrap feeding to swine, sets a food scrap feeding regulation floor that can stand on its own or can be exceeded by more stringent state-level regulations.[412] SHPA and its implementing regulations, overseen by the USDA Animal and Plant Health Inspection Service, demand food scrap treatment facilities to comply with a number of storage, transport, licensing, recordkeeping, and treatment requirements.[413]

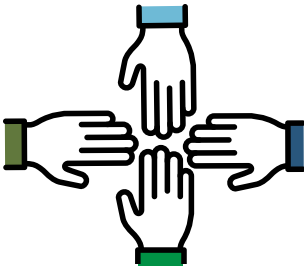
SHPA essentially gives states the option of whether to allow food scrap feeding and gives states the option to seek primary enforcement responsibility under the Act[414] or to work with the Secretary of Agriculture to oversee regulations such as permitting within the state.[415] However, despite the demonstrated environmental benefits and food safety assurances, two states forbid any food scrap feeding and fifteen states forbid animal-derived food scrap feeding.[416] It is also important to note that a few state laws exist that govern the feeding of food scraps to other animals such as poultry and cattle.[417] Congress can take a more active role in encouraging and incentivizing innovative food waste recycling strategies including the diversion of food scraps to animal feed.

In addition to SHPA, the FDA's "Current Good Manufacturing Practice, Hazard Analysis, and Risk-Based Preventive Controls for Food for Animals" regulation, authorized under the Food Safety Modernization Act,[418] regulates facilities that use animal byproducts as animal feed and includes a requirement to develop a plan that identifies potential hazards and implements controls around those hazards.[419] The FDA also works with the Association of American Feed Control Officials (AAFCO) to standardize animal feed ingredients and labeling requirements.[420]

The FDA also prohibits the use of mammalian protein (i.e., animal tissue) in feeds for ruminant animals under its Bovine Spongiform Encephalopathy (BSE)/Ruminant Feed Ban Rule.[421] This ban covers all "ruminants," meaning animals that have a stomach with four chambers through which feed passes during digestion, such as cattle, sheep, goats, deer, elk, and antelopes, among others (swine and fowl are not ruminants).[422] The regulations apply to any "protein derived from mammalian tissue."[423] The ban specifically lays out the types of products that can and cannot be fed to particular types of ruminants.[424]

IMPLEMENTATION OPPORTUNITY

To maximize the potential for food scraps diversion to animal feed, Congress should require the USDA to write guidance encouraging states to update their laws around food scrap feeding to animals. This guidance should provide clear recommendations on ways to streamline state-level laws and explain why states should remove any unnecessary restrictions that do not exist within the federal-level animal feed laws. Congress should also create a tax incentive for private businesses to divert food waste to animal feed that is lesser than the enhanced tax deduction for businesses to donate surplus food to food-insecure individuals in order to ensure food goes to its most beneficial use. Congress should implement these changes as part of the Miscellaneous Title or a dedicated Food Waste Reduction Title.



FOOD WASTE REDUCTION COORDINATION

Increase Funding for the USDA Food Loss and Waste Reduction Liaison and Create a Broader Research Mandate

ISSUE OVERVIEW

In the 2018 Farm Bill, Congress formally established a Food Loss and Waste Reduction Liaison (the Liaison) within the USDA.[425] The creation of the Liaison is a welcome step towards addressing food loss and waste at the federal level. Establishing a central coordinating position brings harmony to food loss prevention efforts, provides technical assistance across different agencies, and designates an office tasked with leading essential research.

The Liaison coordinates food loss and waste measurement and reduction efforts across all levels of government and with private businesses and nongovernmental organizations.[426] The Liaison's duties include: coordinating food waste reduction efforts between the USDA, the EPA, and the FDA; reinforcing and promoting federal programs to measure and reduce food waste; supporting and providing information to organizations engaged in food loss prevention and recovery; raising awareness on the liability protections available to food donors; and recommending innovative ways to recover food and reduce food waste.[427]

The Liaison's broad research mandate under the 2018 Farm Bill authorizes the Liaison to conduct comprehensive national research that identifies and quantifies sources of food waste.[428] The 2018 Farm Bill calls for the Liaison to evaluate and determine different aspects of food waste, such as how waste is measured, what factors contribute to waste, and what the current cost and volume of food loss is.[429] To carry out these duties, the Liaison is authorized to enter into agreements with universities and non-governmental organizations (NGOs).[430] Following a study on food waste,[431] the Liaison is required to produce a report detailing the findings and analyzing the impact of food waste reduction efforts conducted by the USDA.[432]

LIMITED RESOURCES

Even though the Liaison was authorized to perform a number of duties in the food loss and waste space, the position lacks adequate funding to carry out those duties. The position was authorized in the 2018 Farm Bill, and received $400,000 in funding the following year.[433] The Liaison most recently received $500,000 in appropriations for FY2021,[434] however, this funding is insufficient to support more than one full-time position and to engage in the range of tasks Congress envisioned for the Liaison.

Given the scale of the challenge of United States food waste and the range of opportunities, a Food Loss and Waste Office with multiple staff members would be better equipped to address the challenges. This would mean increased funding for additional staff and for internal and external research and pilot projects. This increased funding will enable the Liaison or Office to coordinate initiatives more effectively within government offices and between all levels of government and private institutions.

Increased funding could also be used to create a network for the Liaison to coordinate with regional hubs, as the types of food waste and the barriers to food recovery vary across regions. Congress could model this new regional research component on the National Food Waste Reduction Act of 2021.[435] This Act would create a Food Waste Research Program within the Liaison office that establishes a partnership with 5 regional partner institutions.[436] In

partnership with the Liaison, these regional partner institutions will plan, conduct, and arrange for public research, data, education, and recommendations pertaining to food waste reduction and food recovery issues, locally, regionally, and nationwide.[437]

INSUFFICIENT RESEARCH

In addition to its critical role in acting as a point of contact across agencies and between government and private actors, the Liaison could play an important part in increasing federally funded food loss and waste research. Data and research on food waste are critical because they can inform how federal grants should be awarded and provide insight on areas that future policymaking should prioritize. Currently, research focused on supply chain food loss and waste is lacking. Two areas where more research is needed are on farm food loss and waste (estimated 17 million tons of waste per year) and household food loss and waste (estimated 30 million tons of waste per year).[438]

The USDA Economic Research Service (ERS) has sporadically researched supply chain food loss but does not update this research consistently. In 1997, the ERS conducted a preliminary food loss study and estimated loss at every stage of the supply chain based on available data and expert input from the 1970s.[439] Likely due to the fact 2018 Farm Bill does not specify food waste as an ERS research priority and the ERS' prioritization of other research topics, the ERS has not conducted comprehensive follow-up studies or published new reports.[440]

Federally-funded research fails to address several key issues. For example, existing research does not adequately quantify on-farm food waste. Farmers and other food producers often do not measure unsaleable produce since they are not required to publicly report on these losses. Moreover, since it is expensive to visit farms and track the data regularly, studies on food waste either do not engage on-farm food waste or refer to older data. By researching methods to measure farm losses, the federal government could provide the data necessary to identify tailored solutions to on-farm food waste. Further, no government entity consistently researches and reports on supply-chain food loss.

The upcoming farm bill should provide explicit funding for comprehensive food waste research. This funding could be directed toward the Food Loss and Waste Liaison or Food Loss and Waste Office, potentially in conjunction with ERS. The funding should support comprehensive research on the amount of food wasted with a focus on on-farm food waste and supply chain inefficiencies accounting for the most loss and waste.

IMPLEMENTATION OPPORTUNITY

Congress should increase the funding and authorize a Food Loss and Waste Office. Congress also should dedicate funding for comprehensive national and farm-level food waste research. Congress should implement these changes under the Miscellaneous Title or within a dedicated Food Waste Reduction Title.

Provide Funding for the Federal Interagency Food Loss and Waste Collaboration ★

ISSUE OVERVIEW

Acknowledging the role that the federal government should play in reducing food loss and waste, in 2018 the FDA, the USDA, and the EPA launched an interagency task force now known as the Federal Interagency Food Loss and Waste Collaboration (the Collaboration).[441] The Collaboration committed to working towards the goal of reducing food loss and waste by 50% by 2030.[442] In support of this goal, in 2019, the Collaboration published a national food waste reduction strategy.[443] The strategy identifies six priority areas: enhancing interagency coordination; increasing consumer education; improving guidance on food loss and waste measurement; improving guidance on food safety, date labels, and food donations; collaborating with private industry; and encouraging intra-government food waste reduction.[444]

The Collaboration periodically reports through its website on various projects the Collaboration conducts to reduce food waste.[445] For example, in line with the first objective to increase interagency coordination, the Collaboration created the Interagency Working Group.[446] In pursuit of the second objective to increase consumer education,

the agencies increased their social media presence, developed informational websites, hosted webinars, and developed other educational materials related to food waste.[447] In pursuit of the fifth objective to collaborate with private industry, the task force solicited assistance from industry leaders and other stakeholders to combat food waste across the supply chain.[448]

While it has taken successful steps and is a positive development, the Collaboration should be given funding and a mandate to expand its membership and continue to scale its work. Congress should also require the Collaboration to create a national plan to meet the national goal to halve food waste by 2030. As part of this plan, the Collaboration should establish food waste reduction timelines, metrics, and benchmarks to track the government's progress in reaching the national goal. This can also help food businesses chart progress and develop their own plans to support achievement of the national goal.

In addition to enshrining the Collaboration in law, Congress should require a broader set of federal agencies to engage in the Collaboration, as many other agencies play a role in the food system through food safety enforcement, food procurement, and food distribution, and could improve their impact on food waste reduction and food recovery. This could include agencies such as the Department of Defense, the Department of Transportation, the Department of Homeland Security, the Department of Education, and the General Services Administration, among others.

Congress can further require the Collaboration to create an external advisory committee to provide needed input on programming and policy issues. By establishing an advisory committee, the Collaboration will be in a better position to understand existing and future challenges facing food waste, to acquire the latest data regarding food loss and waste, and to stay on top of innovative solutions from leading experts. Participating stakeholders should represent a diverse array of perspectives, from the private sector to farmers to non-profit organizations, including businesses and food recovery organizations of varying sizes.

IMPLEMENTATION OPPORTUNITY

Congress should authorize the existence of the Collaboration by creating an explicit mandate for the Collaboration in the 2023 Farm Bill. In addition, Congress should authorize $2 million in annual funding for the Collaboration to better position it to meet the United States' 2030 food waste reduction goal.[449] To ensure this investment is well-spent, Congress should require the Collaboration to deliver regular reports to Congress on its progress towards achieving the national food waste reduction goal. These provisions can be included in the Miscellaneous Title or in a new Food Waste Reduction Title.

Establish New Positions for Regional Supply Chain Coordinators at the USDA ★

Real-time donation coordination has the annual potential to divert 144,000 tons of food waste, recover 239 million meals, reduce 552,000 metric tons of CO_2e, and save 30.8 billion gallons of water, producing a net financial benefit of $595 million[450]

ISSUE OVERVIEW

The food supply chain in America is extremely vulnerable to shocks. As the COVID-19 pandemic demonstrated, small disruptions in manufacturing can quickly lead to empty shelves and high food prices.[451] These disruptions disproportionately harm low-income individuals who have little room for flexibility in their food budgets.[452] COVID-19 highlighted the already-present need for changes that make the food supply chain more resilient.

Numerous factors during transit, such as breaks in refrigeration, vibrations from the road, and shipping delays, affect the freshness of food.[453] When these supply chain factors change a food product's shelf life, manufacturers and other entities transporting

food between two locations might find that the most affordable and reasonable option for their food product is to donate it. However, a lack of real-time food supply data makes it difficult for manufacturers and drivers to connect their would-be food donations with food recovery organizations.

This logistical gap in the food donation supply chain calls for regional point persons who can connect entities that sporadically have food to donate with food recovery organizations within the given region. In addition to facilitating food donation within regions, regional supply chain coordinators could facilitate more systemic research and planning around addressing recurring regional supply chain problems. The coordinators could connect with stakeholders including producers, distributors, manufacturers, local and state officials, and other agency leaders to address supply chain barriers to food waste reduction. Further, the coordinators could work with food recovery organizations to identify willing recipients for rescued food and connect them with donors. When implementing their mandate, the coordinators could collaborate with the Rural Development state and regional offices. Having regional coordinators could help with planning during normal times to ensure more resilience and coordination during local, regional, or national disasters.

IMPLEMENTATION OPPORTUNITY

The next farm bill should establish regional supply chain coordinators within the USDA that partner with food producers, distributors, and food recovery organizations and act as regional points of contact to facilitate real-time food recovery as well as understand and develop the capacity needed for ongoing food recovery. Authority and funding for these regional supply chain coordinators should be established within the Miscellaneous Title, or a new Food Waste Reduction Title.

Appendix A
U.S. Food Loss & Waste Policy Action Plan Recommendations and Additional Report Recommendations

The U.S. Food Loss & Waste Policy Action Plan for Congress & the Administration, discussed on page 3 of this report, was published in 2021 by the Harvard Law School Food Law & Policy Clinic (FLPC), NRDC (Natural Resources Defense Council), ReFED, World Wildlife Fund (WWF), along with many additional supporters. The Action Plan calls upon Congress and the Biden administration to take ambitious action to achieve the goal of cutting United States food loss and waste in half by 2030. It recommends five key policy recommendations ranging from investing in infrastructure and programs that measure and prevent food waste to requiring a national date labeling standard. This report pulls in several key recommendations from the Action Plan that fall within the legislative purview of the farm bill, and includes additional recommendations that are specific the farm bill. The recommendations in this report that are also included in the Action Plan are listed below, followed by the additional recommendations outlined in the report.

Policy Recommendations Included in the U.S. Food Loss & Waste Policy Action Plan

1. Standardize and clarify date labels
2. Launch a national food waste education and awareness campaign
3. Strengthen and clarify the Bill Emerson Good Samaritan Food Donation Act
4. Expand federal tax incentives for food donations
5. Provide grants to support proven state and local policies that reduce food waste disposed in landfills or incinerators
6. Provide grants and loans for the development of organic waste processing infrastructure
7. Require federal food procurement contractors to measure, recover, recycle, and prevent organic waste in federal contracts
8. Encourage diversion of food waste into animal feed where appropriate
9. Provide funding for the Federal Interagency Food Loss and Waste Collaboration
10. Establish new positions for regional supply chain coordinators at the USDA

Additional Report Recommendations

1. Provide funding to K-12 schools to incorporate food waste prevention practices in their programs
2. Promote food education and food waste education in K-12 programming
3. Utilize existing federal household-level food education programs to increase food waste awareness
4. Provide grant funding for new technologies to reduce food spoilage and food waste
5. Implement a certification program for businesses that demonstrate food waste reduction
6. Provide financial incentives to businesses for the adoption of technologies that reduce food waste by at least 10%
7. Increase funding support for food recovery infrastructure and for post-harvest food recovery
8. Offer grant resources and procurement programs to increase food recovery from farms
9. Encourage USDA grant and loan recipients to donate surplus food by incentivizing food donation
10. Instruct the USDA Risk Management Agency and approved crop insurance providers to better support gleaning
11. Support compost end markets through crop insurance benefits and increased federal procurement of compost products
12. Increase funding for the USDA Food Loss and Waste Reduction Liaison and create a broader research mandate

Appendix B
Table of Recommendations and Implementation Opportunities by Title

Commodity Programs Title	Instruct the USDA RMA to initiate an expanded education and awareness program by developing more guidance materials and utilizing semi-annual reminders for NAP
Nutrition Title	Provide dedicated grants for schools to conduct food waste audits and implement waste reduction programming Mandate Offer-Versus-Serve (OVS) policies to be implemented across all schools for both NSLP and SBP Modify existing school grant program selection processes to preference applicants that have a food waste reduction or food donation program Reauthorize and modify the FASLP program's authorizing language to direct USDA to award extra points on grant applications to schools that include food waste reduction education as a focus in their program Reauthorize and increase funding for the Farm to School grant program Add language about food waste education in the program goals of the SNAP Education (SNAP-Ed) program Establish a new block grant to states that funds food recovery and distribution infrastructure Support post-harvest food recovery by increasing funding for the Community Food Projects (CFP) grant program and earmarking a portion of funding for food recovery projects Reauthorize and expand the TEFAP Farm to Food Bank Project and reduce or remove the state match requirement Designate funding for a tailored surplus food purchase and donation program modeled from the Farmers to Families Food Box Program with upgrades to address equity and ensure the program is reducing rather than furthering food waste Direct the USDA to prioritize, across a range of grant programs, applicants that have a food donation contract in place with a food recovery organization
Research, Extension and Related Matters Title	Renew support for the Expanded Food and Nutrition Education Program (EFNEP) and modify the authorizing language to include food waste prevention education Increase funding for the Specialty Crop Research Initiative (SCRI) and direct USDA to preference projects that target food waste reduction Create a new program (similar to SCRI) that supports new technologies to extend the shelf life of dairy, meat, poultry, and fish and the development and manufacturing of upcycled food products
Horticulture Title	Increase funding for the Local Agricultural Marketing Program (LAMP) and remove or reduce the matching requirement Extend Value-Added Producer Grant (VAPG) funding to non-profits, and earmark a portion of funding for food waste reduction and food recovery Direct the USDA to prioritize grant applicants that have a food donation contract with a food recovery organization across a range of farm bill grant programs such as LAMP

Crop Insurance Title	Instruct the USDA RMA to initiate an education and awareness program on the benefits and protections for gleaning, by developing more guidance materials and utilizing semi-annual reminders for FCIP Create a crop insurance premium incentive program that offers farmers a per acre bonus for applying compost products to their fields before planting Increase federal procurement of compost products containing recycled organic waste materials by requiring federal agencies to prioritize purchasing of compost made from recycled organic waste materials when purchasing landscaping services
Miscellaneous Title/Food Waste Reduction Title	Launch a national food waste education and awareness campaign Implement a food waste reduction certification program to encourage businesses to prevent or otherwise reduce food waste Strengthen and clarify the Bill Emerson Good Samaritan Food Donation Act and require USDA to publish regulations better explaining its provisions Provide grants to state and local governments to encourage the implementation of proven or promising food waste reduction policies such as organic waste bans, mandatory recycling laws, landfill taxes, PAYT laws, and other policy measures Reauthorize and amend the Community Compost and Food Waste Reduction (CCFWR) program to increase the total and per-project funding available, reduce or eliminate the matching requirement, and expand the list of eligible entities who may apply for grant funding to also include state governments and non-governmental organizations and community groups that work with partners in rural locations across regions Increase funding for the Solid Waste Management Grant (SWMG) and the Water and Waste Disposal Loans and Grant program and continue to prioritize projects in which the implementing agencies prioritize food waste reduction Authorize funding to support new compost and anaerobic digestion infrastructure, and support large-scale transportation needs for compost and anaerobic digestion Modify the Federal Food Donation Act of 2008 to require all federal agencies that enter food procurement contracts to require their contractors to donate any surplus food and to compost any inedible food scraps, and require such contractors to measure and report food donation and food waste that result from the contract, and require agencies to report this data to a central federal government authority Require the USDA to write guidance encouraging states to update their laws around food scrap feeding to animals Increase funding for the Food Loss and Waste Liaison and authorize creation of a Food Loss and Waste Office Provide funding for comprehensive national and farm-level food waste research Provide a mandate for the Federal Food Loss and Waste Collaboration and authorize $2 million in annual funding for the Collaboration to better position it to meet the United States' 2030 food waste reduction goal Establish regional supply chain coordinators within the USDA that partner with food producers, distributors, and food recovery organizations and act as regional points of contact to facilitate real-time food recovery as well as understand and develop the capacity needed for ongoing food recovery
Tax and Trade Provisions Title (If reestablished from the 2008 Farm Bill)	Create a federal tax incentive for the commercial adoption of post-harvest food waste reduction technologies that reduce food waste by at least 10% Create an alternative food donation tax credit that farmers can opt to claim instead of the enhanced tax deduction for food donation Amend the enhanced tax deduction for food donation to offset the costs of transportation and storage Amend the enhanced tax deduction for food donation to incentivize innovative food recovery models by removing the requirement that non-profit organizations provide donated food for free Create a tax incentive for private businesses to divert food waste to animal feed that is lesser than the enhanced tax deduction for businesses to donate surplus food to food insecure individuals

Appendix C
Table of Pending Federal Legislation

Report Section	Report Recommendation	Bill Name	Bill Number	Date Introduced	Cosponsors	Summary
Food Waste Prevention	Standardize and Clarify Date Labels	Food Date Labeling Act of 2021	H.R. 6167, S.3324 117th Congress	12/7/2021	**House:** Rep. Pingree, Rep. Newhouse, Rep. Blumenauer, Rep. Lieu, Rep. Kuster, Rep. McGovern **Senate:** Sen. Blumenthal	To establish requirements for quality and discard dates that are, at the option of food labelers, included in food packaging, and for other purposes.
	Provide Funding to K-12 Schools to Incorporate Food Waste Prevention Practices in Their Programs	School Food Recovery Act of 2021	H.R. 5459, 117th Congress	9/30/2021	Rep. Pingree, Rep. Newhouse, Rep. Bonamici, Rep. Hayes, Rep. McGovern, Rep. Case, Rep. Schrier, Rep. Bishop, Rep. Carbajal, Rep. Ruiz	To amend the Richard B. Russell National School Lunch Act to require the Secretary of Agriculture to carry out a grant program to make grants to eligible local educational agencies to carry out food waste reduction programs, and for other purposes.
Surplus Food Recovery	Expand Federal Tax Incentives	Further Incentivizing Nutritious Donations of Food Act or FIND Food Act of 2022	H.R. 7317, 117th Congress	3/31/2022	Rep. Brown, Rep. Pingree, Rep. Keller, Rep. Balderson	To amend the Internal Revenue Code of 1986 to incentivize food donation through tax credits and deductions, and for other purposes.
	Strengthen and Clarify the Bill Emerson Good Samaritan Food Donation Act	Food Donation Improvement Act of 2021	H.R. 6251, S.3281, 117th Congress	12/13/2021, 11/30/2021	**House:** Rep. McGovern, Rep. Newhouse, Rep. Pingree, Rep. Walorski, Rep. Keller, Rep. Reschenthaler, Rep. Wild, Rep. Brown, Rep. Hayes **Senate:** Sen. Blumenthal, Sen. Toomey, Sen. Braun	To amend the Bill Emerson Good Samaritan Food Donation Act to clarify and expand food donation, and for other purposes.
	Offer Grant Resources and Procurement Programs to Increase Food Recovery from Farms	Fresh Produce Procurement Reform Act of 2021	H.R. 5309, 117th Congress	9/21/2021	Rep. DeLauro, Rep. McGovern, Rep. Bishop, Rep. Valadao, Rep. Adams, Rep. Evans	To direct the Secretary of Agriculture to enter into contracts to provide individuals dealing with food and nutrition insecurity family-friendly fresh produce, and for other purposes.

Food Waste Recycling	Provide Grants and Loans for the Development of Organic Waste Processing Infrastructure	Cultivating Organic Matter through the Promotion of Sustainable Techniques or COMPOST Act of 2021	H.R. 4443, S.2388, 117th Congress	7/16/2021, 7/20/2021	**House**: Rep. Brownley, Rep. Pingree, Rep. Kuster, Del. Norton, Rep. Cicilline, Rep. Bonamici, Rep. Cleaver, Rep. Levin, Rep. Blumenauer, Rep. Hayes, Rep. Raskin, Rep. Spanberger, Rep. Krishnamoorthi, Rep. Newman, Rep. Neguse, Rep. Houlahan, Rep. Courtney, Rep. Jayapal, Rep. Payne **Senate:** Sen. Booker, Sen. Smith	To require the designation of composting as a conservation practice and activity, and to provide grants and loan guarantees for composting facilities and programs, and for other purposes.
	Provide Grants to Support Proven State and Local Policies that Reduce Food Waste Disposed in Landfills or Incinerators	Zero Food Waste Act of 2021	H.R. 4444, S.2389, 117th Congress	7/16/2021, 7/20/2021	**House**: Rep. Brownley, Rep. Pingree, Rep. Kuster, Del. Norton, Rep. Cleaver, Rep. Levin, Rep. Pocan, Rep. Blumenauer, Rep. Hayes, Rep. Raskin, Rep. Payne **Senate**: Sen. Booker, Sen. Smith	To provide grants to reduce the amount of food waste, and for other purposes.
Food Waste Reduction Coordination	Increase Funding for the USDA Food Loss and Waste Reduction Liaison and Create a Broader Research Mandate	National Food Waste Reduction Act of 2021	H.R. 3652, 117th Congress	6/1/2021	Rep. Axne, Rep. Pingree	To direct the Secretary of Agriculture to establish a food waste research and technical assistance program and grant program, and for other purposes.

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[110] A survey conducted by the Harvard School of Public Health and NPR found that 14% of parents report that their children receive less than 15 minutes to eat their lunch. The USDA encourages schools to increase lunchtime to 30 minutes to improve "dietary intake and reduce food waste." *See* The Mktg. Inst., Reducing Food Waste in Schools: The Business Case, WWF 1 (2019), https://files.worldwildlife.org/wwfcmsprod/files/Publication/file/8k9ldd2tdx_FoodWasteWarrior_BusCase_121119.pdf?_ga=2.127647173.957544864.1634142315-1035761673.1610483385 [https://perma.cc/R86K-2U5Q]; Harv. Sch. of Pub. Health, Nat'l Pub. Radio (NPR), Robert Wood Johnson Found. Survey, Education and Health in Schools: A Survey of Parents Summary 10 (2013), https://media.npr.org/documents/2013/dec/rwjf_npr_harvard_edpoll.pdf [https://perma.cc/A94Z-WBXR]; *Reducing Food Waste at K-12 Schools*, *supra* note 106.

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[112] Schools can work with students to improve school meals. Students complain that school meals are unpalatable, and while there are limitations on what changes can be made to the offered school meals, receiving input from students may help providers better cater to students' preferences. This can help provide schools with lunches that will get eaten rather than go to waste. One way to do this is through School Lunch Advisory Councils (SLACs). A few schools, including Park High School in Livingston, MT, and public schools in Brockton, MA, already implemented SLACs and may serve as models. Initiatives by the SLAC at Park High School led to a 35% decrease in overall lunch waste. *See* Stacy Blondin et al., *'It's just so much waste.' A Qualitative Investigation of Food Waste in a Universal Free School Breakfast Program*, 18(9) Pub. Health Nutrition 1565 (2014); Alicia White, *Students Get Involved in School Lunch though School Lunch Advisory Councils,* USDA (Feb. 21, 2017), https://www.usda.gov/media/blog/2016/09/22/students-get-involved-school-lunch-through-school-lunch-advisory-councils [https://perma.cc/M3EX-QFDD]; *Youth Advisory Committees,* Brockton Pub. Sch., https://www.bpsma.org/schools/school-lunch-program/youth-advisory-committees (last visited Oct. 12, 2021) [https://perma.cc/9DM7-GA7B].

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[116] *Id.* at § 210.10(c).

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395 *See Can Increased SOM Reduce Crop Insurance Payouts?*, BioCycle (Mar. 30, 2021), https://www.biocycle.net/can-increased-som-reduce-crop-insurance-payouts/ [https://perma.cc/473Y-KNGN].

396 *Compost and Mulch Use in Agriculture: Organic Materials Management*, *supra* note 394.

397 *See Science*, Marin Carbon Project, https://www.marincarbonproject.org/marin-carbon-project-science (last visited Mar. 4, 2022) [https://perma.cc/FSS7-N4AT]; *see* Rebecca Ryals et. al., *Long-term climate change mitigation potential with organic matter management on grasslands*, 25 Ecological Apps. 531 (Mar. 2015); *see* Rebecca Ryals & Whendee L. Silver, *Effects of organic matter amendments on net primary productivity and greenhouse gas emissions in annual grasslands*, 23 Ecological Apps. 46 (Jan. 2013).

398 *See* Joe L. Outlaw et al., Texas A&M U. Agric. & Food pol'y Ctr., Economic Impact of Higher Fertilizer Prices on AFPC's Representative Crop Farms (2022), https://afpc.tamu.edu/research/publications/files/711/BP-22-01-Fertilizer.pdf [https://perma.cc/V9WM-3VSM].

399 58 Fed. Reg. 203 (Oct. 20, 1993).

400 Exec. Order No. 13,423, 48 C.F.R. § 970.5223-6 (Oct. 1, 2010).

401 Federal Acquisition Regulation § 23.103.

402 U.S. Dep't of Energy Sustainable Acquisition Workgroup, *Priority Products*, Fed. Facilities Env't Stewardship & Compliance Assistance Ctr., https://www.fedcenter.gov/members/workgroups/sustainableacquisition/priorityproducts/ (last visited Jan. 18, 2022) [https://perma.cc/EM3W-LZ38]. Under the EPA's Comprehensive Procurement Guideline (CPG) Program—this is part of its Sustainable Materials Management initiative that promotes a system approach to reducing materials use, associated greenhouse gas emissions that contribute to climate change, and the other environmental impacts over the materials' entire lifecycle—the EPA designates products that are or can be made with recovered materials, and recommends practices for buying these products. *See Sustainable Materials Management: Comprehensive Procurement Guideline (CPG) Program*, EPA https://www.epa.gov/smm/

comprehensive-procurement-guideline-cpg-program (last visited Mar. 15, 2022) [https://perma.cc/5MQA-7PF9]. One such product under this program includes Compost Made From Recovered Organic Materials, which include but are not limited to yard waste, food waste, manure, and biosolids. *Id.*; *see also Sustainable Materials Management: Comprehensive Procurement Guidelines for Landscaping Products - Compost Made From Recovered Organic Materials*, EPA, https://www.epa.gov/smm/comprehensive-procurement-guidelines-landscaping-products#compost [https://perma.cc/D4P3-AMG5]. Under this program, procuring agencies of Compost Made From Recovered Organic Materials are required to purchase it with the highest recovered material content level practicable. *Sustainable Materials Management: Comprehensive Procurement Guidelines for Landscaping Products - Compost Made From Recovered Organic Materials, EPA*, https://www.epa.gov/smm/comprehensive-procurement-guidelines-landscaping-products#compost [https://perma.cc/D4P3-AMG5].

403 *See* 10 U.S.C. § 2922g(a).

404 42 U.S.C. § 13212; *see also Vehicle Acquisition and Fuel Use Requirements for Federal Fleets*, U.S. Dep't of Energy (Oct. 17, 2021), https://afdc.energy.gov/laws/357 [https://perma.cc/C4TP-GQ4X].

405 M. L. Westendorf & R. O. Myer, *Feeding Food Wastes to Swine*, U. of Florida Inst. of Food & Agric. Scis. (May 2004), https://edis.ifas.ufl.edu/publication/an143 [https://perma.cc/QV8T-T8DT].

406 *See* 9 C.F.R. § 166.1–166.15 (2020) (Swine Health Protection Act regulations).

407 *See* Emily Broad Leib et al., FLPC, Food Recovery Project, & U. Ark. Sch. of L., Leftovers for Livestock: A Legal Guide for Using Food Scraps as Animal Feed 8 (Aug. 2016), https://www.chlpi.org/wp-content/uploads/2013/12/Leftovers-for-Livestock_A-Legal-Guide_August-2016.pdf [https://perma.cc/G6HP-4NU4].

408 *See id.* at 3 (finding requirements under Swine Health Protection Act ensure scraps are disease-free when fed to animals). Numerous scientific studies demonstrate that the required heat-treatment of animal food waste renders microbials innocuous. *See, e.g.*, A.J. Garcia et al., *Biodegradable municipal solid waste: Characterization and potential use as animal feedstuffs*, 25 Waste Mgmt. 780, 782, 785–786 (2005); Steven Edwards, *Survival and inactivation of classical swine fever virus*, 73 Veterinary Microbiology 175, 177 (2000).

409 *See* Ramy Salemdeeb et al., *Environmental and health impacts of using food waste as animal feed: a comparative analysis of food waste management options*, 140 J. of Cleaner Prod. 871, 875 (2017).

410 *Do Good Foods*, *supra* note 343.

411 *Feedback Earth: Transforming discarded food into high-quality animal feed.*, FeedBack Earth, https://www.feedback.earth/ (last visited Mar. 11, 2022) [https://perma.cc/U6GB-FRGZ]; *see* Lisa Redmond, *Feedback Earth seeks to expand tonnage of food waste turned into animal feed*, Grafton News (May 23, 2021), https://www.thegraftonnews.com/story/news/local/2021/05/23/feedback-earth-animal-feed-human-food-waste-creeper-hill-road/5232449001/ [https://perma.cc/Z6W7-T7E9].

412 7 U.S.C. §§ 3801–3813.

413 9 C.F.R. § 166.1–166.15 (2020).

414 7 U.S.C. §§ 3803, 3807, 3809.

415 7 U.S.C. §§ 3803, 3808.

416 *See U.S. Food Waste Policy Finder: About the Policy Finder*, ReFED (Mar. 3, 2022), https://policyfinder.refed.org/about#:~:text=ReFED%20is%20a%20national%20nonprofit,driven%20solutions%20to%20the%20problem [https://perma.cc/PZT2-HCHE] (filtering state policy and recycling policy).

417 California, Georgia, Illinois, Iowa, Kansas, Massachusetts, Michigan, Minnesota, Nebraska, Nevada, New Jersey, New York, Pennsylvania, Puerto Rico, and South Dakota regulate the feeding of food scraps to other animals. *See* Leftovers for Livestock, *supra* note 407 at 10.

418 21 U.S.C. § 2201 et seq.

419 Leftovers for Livestock, *supra* note 407 at 5–6; 80 Fed. Reg. § 56169.

420 Leftovers for Livestock, *supra* note 407 at 7–8.

421 21 C.F.R. § 589.2000 (2016).

422 21 C.F.R. § 589.2000 (2016).

423 21 C.F.R. § 589.2000 (2016).

424 21 C.F.R. § 589.2000 (2016).

425 Agriculture Improvement Act, *supra* note 26 at § 6924.

426 *Id.* at § 6924(a).

427 *Id.* at § 6924(b).

428 *Id.* at § 6924(d).

429 *Id.*

430 *Id.* at § 6924(c).

431 *Id.* at § 6924(d).

432 *Id.* at § 6924(e).

433 USDA, FY 2021 Budget Summary 93 (2021), https://www.usda.gov/sites/default/files/documents/usda-fy2021-budget-summary.pdf [https://perma.cc/DYD8-NAXN] (Appendix Table APP-1).

434 Consolidated Appropriations Act, *supra* note 29.

435 National Food Waste Reduction Act of 2021, H.R. 3652, 117th Cong. (2021).

436 *Id.* at § 2(a).

437 *Id.* at § 2(b)(1).

438 *What is Food Waste?*, ReFED, https://refed.com/food-waste/the-challenge/#what_is_food_waste (last visited Apr. 27, 2021) [https://perma.cc/WS29-QER4].

439 Linda S. Kantor et al., *Estimating and Addressing America's Food Losses*, 20 Food Rev. 2, 3 (1997); *see* Gunders, Wasted, *supra* note 90.

440 *See Loss-Adjusted Food Availability Documentation*, USDA Econ. Rsch. Serv., https://www.ers.usda.gov/data-products/food-availability-per-capita-data-system/loss-adjusted-food-availability-documentation/ (last visited Apr. 27, 2021) [https://perma.cc/86R4-8JFA]; *see also* Jean C. Buzby et al., USDA Econ. Rsch. Serv., The Estimated Amount, Value, and Calories of Postharvest Food Losses at the Retail and Consumer Levels in the United States, 10 (2014), https://www.ers.usda.gov/webdocs/publications/43833/43680_eib121.pdf [https://perma.cc/YF7E-CYRS].

441 *Formal Agreement Among EPA, FDA, and USDA*, *supra* note 30.
442 *Winning on Reducing Food Waste*, *supra* note 30.
443 *Id*.
444 *Id*.
445 *Federal Interagency Food Loss and Waste Collaboration*, *supra* note 41.
446 *Id.*
447 *Id.*
448 *See, e.g.*, EPA ET AL., *Memorandum of Understanding Among The United States Environmental Protection Agency and The United States Food and Drug Administration and the United States Department of Agriculture and The Founding Partners of the Food Waste Reduction Alliance Relative to a Federal Government and Nongovernmental Organization Formal Collaboration on Industry Education and Engagement with Respect to the Importance of Food Waste Reduction* (Oct. 25, 2019), https://www.epa.gov/sites/production/files/2019-10/documents/signed_food_waste_mou.pdf [https://perma.cc/VA4S-PZGP].
449 US FOOD LOSS AND WASTE ACTION PLAN, *supra* note 25.
450 *ReFED Insights Engine Solutions Database: Donation Coordination & Matching*, REFED, https://insights-engine.refed.org/solution-database/donation-coordination-matching (last visited Feb. 23, 2022) [https://perma.cc/6BDP-RMGH].
451 *See generally*, JOSEPH BALAGTAS & JOSEPH COOPER, USDA OFF. OF THE CHIEF ECONOMIST, THE IMPACT OF CORONAVIRUS COVID-19 ON U.S. MEAT AND LIVESTOCK MARKETS (2021), https://www.usda.gov/sites/default/files/documents/covid-impact-livestock-markets.pdf [https://perma.cc/28UU-YGXD].
452 *See* Alfred Lubrano, *Inflation, supply-chain disruptions are hurting Philly food banks and low-income people*, PHILA. INQUIRER (Nov. 24, 2021), https://www.inquirer.com/news/pennsylvania/pandemic-food-banks-pantries-philabundance-share-supply-disruptions-20211124.html [https://perma.cc/V8MM-94HA].
453 *ReFED Insights Engine Solutions Database: Intelligent Routing*, *supra* note 187.

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US Food Loss & Waste Policy Action Plan *for* Congress & the Administration

INTRODUCTION

Reducing and preventing food loss and waste (FLW) is a global imperative. Up to 40 percent of all food produced is lost or wasted,[1] and addressing this challenge is essential to building a regenerative and resilient food system that helps to mitigate climate change, reverse nature loss, and deliver positive outcomes for both producers and consumers. An estimated $408 billion is spent each year in the US to grow, process, transport, store, and dispose of food that's never eaten.[2]

Yet proven solutions exist that save money, time, and natural resources.[3] In 2015, the US adopted a national goal of halving FLW by 2030. We can achieve that goal by accelerating public and private sector leadership and building on overwhelming public support for reducing FLW.[4] The Harvard Law School Food Law and Policy Clinic (FLPC), ReFED, the Natural Resources Defense Council (NRDC), and the World Wildlife Fund (WWF) recommend that the Biden administration and Congress take ambitious action to reduce FLW, prioritizing the following:

1. Invest in the infrastructure to measure, rescue, recycle, and prevent organic waste from entering landfills and incinerators
2. Expand incentives to institutionalize surplus food donation and strengthen regional supply chains
3. Assert the US Government's leadership on FLW globally and domestically
4. Educate and activate consumers via private and public food waste behavior change campaigns
5. Require a national date labeling standard

1 USDA, "Food Waste FAQs," 2020, https://www.usda.gov/foodwaste/faqs.
2 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine" (ReFED, February 2021).
3 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine."
4 Cary Funk, "US Public Views on Climate and Energy," *Pew Research Center Science & Society* (blog), November 25, 2019.

1 INVEST IN THE INFRASTRUCTURE TO MEASURE, RESCUE, RECYCLE, AND PREVENT ORGANIC WASTE FROM ENTERING LANDFILLS & INCINERATORS

Overview

Food is the single largest input by weight into US municipal landfills and incinerators,[5] where it has significant social and environmental impacts. Food waste produces high levels of methane emissions as it decomposes, along with local air and water pollutants from both landfilling and incineration. An estimated 80% of these municipal incinerators are in lower-income areas and on Indigenous lands, where they disproportionately affect underserved communities and communities of color.[6] With low tipping fees[7] in most parts of the country that fail to account for the true costs of waste, it is often cheaper to send organic waste such as food to landfills or incinerators than it is to donate, repurpose, or recycle it. Most businesses and municipalities will continue to landfill organic waste until it is cost-neutral or cheaper for them to change.

As Congress and the administration consider priority investments in US infrastructure and economic recovery, they should expand investments in and incentives for waste prevention, measurement, donation, waste-to-animal-feed, organics recycling, composting, and anaerobic digestion. The stated objective of these investments should be to measure, rescue, recycle, and prevent 50% of organic waste from entering landfills and incinerators by 2030.

Expanding food waste management infrastructure has the highest potential of any FLW solution to generate new jobs (an estimated 18,000 jobs annually through 2030).[8] Massachusetts' organic waste ban, for instance, supported 900 new jobs and $175 million in industry activity over its first few years.[9] This infrastructure can also reduce the country's annual emissions by 5.8 MMTCO2e,[10] return nutrients to degraded soils on American farms and public lands, and boost profitability for American farmers and ranchers.[11]

Most importantly, diversion from landfills and incinerators coupled with better measurement can accelerate FLW prevention. The US EPA's Food Waste Hierarchy prioritizes source reduction and practices that ensure surplus food is fed to hungry people before organics recycling efforts. Experience shows that the most successful organic waste management policies include provisions to measure FLW, prevent food from becoming waste, and incentivize rescue of surplus food. For example, Massachusetts, Vermont, and California have all followed this approach, offering funding and technical assistance for food waste prevention and rescue in parallel or as part of their organics recycling regulations—simultaneously reducing GHG emissions and costs associated with waste management, while increasing the amount of safe, surplus food to those in need.

Policy Recommendations

A Offer Funding for States and Cities that Incentivizes Organic Waste Measurement, Rescue, Recycling, and Prevention (Administration, Congress)

Provide annual funding through 2030 to support state- and city-level investment in infrastructure and other costs associated with implementing plans for organic waste measurement, rescue, recycling, and prevention that meet pre-defined quality standards. California has implemented a leading model for its jurisdictions and already invested $140 million in organic waste infrastructure funding.[12] Policy options for states and cities looking to follow a similar model include: organic waste landfill bans or organic waste recycling requirements;[13] mandated food scrap recycling;[14] Pay-As-You-Throw (PAYT) policies that disincentivize landfilling and incineration as opposed to recycling and composting organics;[15] a landfill tax per unit of trash added to the existing tipping fee;[16] and policies that stimulate demand for compost or promote organic

5 "Wasted Food Programs and Resources Across the United States," Overviews and Factsheets, US EPA, February 18, 2021.
6 Rina Li, "Nearly 80% of US Incinerators Located in Marginalized Communities, Report Reveals," Waste Dive, May 23, 2019.
7 Tipping fees refer to the gate fee or fee charged by a landfill operator to anyone disposing waste at a landfill
8 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine" (ReFED, February 2021).
9 "Massachusetts Commercial Food Waste Ban Economic Impact Analysis" (Massachusetts Department of Environmental Protection, 2016).
10 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine" (ReFED, February 2021).
11 Moises Velasquez-Manoff, "Can Dirt Save the Earth?," *The New York Times*, April 18, 2018, sec. Magazine; Sara Kroopf, "Spreading Compost on the Range Can Earn Ranchers New Revenue | Growing Returns," October 16, 2014.
12 "California's Progress Toward SB 1383 Organic Waste Reduction Goals," BioCycle, August 25, 2020.
13 FLPC, Bans and Beyond: Designing and Implementing Organic Waste Bans and Mandatory Organics Recycling Laws, 2019.
14 Yerina Mugica, "Tackling Food Waste in Cities: A Policy and Program Toolkit" (NRDC, February 11, 2019).
15 Mugica.
16 ReFED, "A Roadmap to Reduce US Food Waste by 20 Percent."; Alicia Kelso, "Startup's Solution Lowers Prices on Food as Expiration Date Approaches," Grocery Dive, July 9, 2018.

waste prevention and food rescue.[17] Organic waste bans have shown particular promise in reducing food waste in landfills—with a demonstrated impact in food waste prevention, donation, and recycling. For example, Vermont saw food donation triple after implementing its organic waste ban,[18] and Massachusetts documented a 22% increase in donation.[19] To accelerate the widespread adoption of these strategies and build the nation's organic waste recycling infrastructure, the administration and Congress should provide $650 million in annual funding for states and cities through at least 2030.

B Require the Development of Food Waste Measurement Planning and Transparency (EPA, Congress)

As the saying goes, you can't manage what you don't measure. Today, state- and city-level waste characterization studies[20] are conducted periodically (typically every five years), with few requirements for waste haulers and businesses to regularly report waste generation data publicly. High-quality organic waste measurement, rescue, recycling, and prevention plans by cities and states should include a strategy to aggregate, anonymize, and publicly report monthly or quarterly waste generation data through centralized databases like the ReFED Insights Engine.[21] This reporting will introduce much needed transparency and establish more timely monitoring of organic waste generation. The data can then be used by states and cities to develop detailed plans for organic waste recycling infrastructure requirements and prevention strategies, and to track their progress.

C Build Demand for Compost (USDA, Congress)

In parallel with the efforts to divert organic waste to compost instead of landfills, policymakers should help stimulate demand for finished compost products. This should include updating the USDA's definition of compost products so that a greater number of potential buyers (such as farms, golf courses, or other operations near waterways) are encouraged to purchase compost; developing a marketing campaign to build compost demand; and streamlining the compost contracting process (e.g., by helping to match compost generators with potential buyers).[22] Congress should reauthorize and expand appropriations for the recent Community Compost and Food Waste Reduction pilot projects, authorized in the 2018 Farm Bill, through which the USDA invested $1 million into 13 projects to develop and implement municipal compost and food waste reduction strategies—with an emphasis on making compost accessible to farmers.[23]

D Fund the Development of FLW Public-Private Partnerships (Congress)

There is evidence that public-private sector partnerships can accelerate food waste reduction, with an estimated 80:1 return.[24] The Pacific Coast Collaborative's West Coast Voluntary Agreement to Reduce Wasted Food[25] and NRDC's Food Matters[26] project show how cities, states, and businesses can work together pre-competitively to share best practices, discuss common-sense policymaking, and address shared sustainability challenges around FLW. Congress should allocate $50 million in funding for cities and states to apply to develop these partnerships, which could be managed through the Federal Interagency Food Loss and Waste Collaboration.[27]

E Eliminate Restrictions and Barriers to Feeding of Food Scraps to Animals (USDA, FDA)

Many restaurants, grocery stores, food manufacturers, and small and large farms produce food scraps that are no longer suitable for human consumption but are still safe and wholesome for animals. In order to support more uniformity and science-based regulations on this process, FDA and USDA should provide guidance and technical assistance to states on optimal regulations regarding feeding food scraps to animals,[28] which state governments can use to review and eliminate any overly stringent restrictions or bans in place today.[29]

17 "Food Scrap Recycling Assessment: Baltimore - Report" (NRDC, 2019).
18 Vermont Agency of Nat. Resources & Vermont Dep't of Envtl. Conservation, Biennial Report on Solid Waste 3 (Jan. 15, 2019).
19 Kevin Pink, Food Rescue and Donation Continue to Increase Across Massachusetts, Recyclingworks Mass. (June 20, 2018).
20 Waste characterization is a method to segment (e.g., food waste, paper, glass, etc.) and measure discarded solid waste.
21 "ReFED Insights Engine," accessed February 3, 2021, https://insights.refed.com/.
22 "Food Scrap Recycling Assessment: Baltimore - Report" (NRDC, 2019).
23 "USDA Announces Cooperative Agreements for Community Compost and Food Waste Reduction," page, national-post-news-release, May 11, 2020.
24 Craig Hanson, "The Business Case for Reducing Food Loss and Waste | Champions 12.3" (Champions 12.3, Mach 2017).
25 A regional public-private partnership between WWF, West Coast governments, and major food companies to reduce FLW by 50% by 2030.
26 City and regional initiatives across the US led by NRDC to develop programs and policies to measure, prevent, rescue, and recycle FLW.
27 See page 6 for more information on the Federal Interagency Food Loss and Waste Collaboration (formerly the *Winning at Reducing Food Waste Initiative*).
28 "ReFED - Solution Database: Livestock Feed," accessed March 9, 2021, https://insights-engine.refed.com/solution-database/livestock-feed.
29 Emily Broad Leib et al., "Leftovers for Livestock: A Legal Guide for Using Food Scraps as Animal Feed" (Harvard Food Law & Policy Clinic, 2016).

2 EXPAND INCENTIVES TO INSTITUTIONALIZE SURPLUS FOOD DONATION AND STRENGTHEN REGIONAL SUPPLY CHAINS

Overview

Nationally, less than 10% of food is donated rather than wasted.[30] In 2020, the sudden demand shift at the onset of COVID-19 exposed the inflexible and siloed nature of existing supply chains, when cancelled contracts (in the restaurant and hospitality sectors, for example) left surplus food stranded on American farms—even as demand at food banks and grocery stores skyrocketed.[31] To help farmers become more resilient, profitable, and capable of donating food that would otherwise be lost, the USDA should develop stronger regional food supply chains that: 1) empower farmers to sell through new direct-to-consumer distribution channels, and 2) provide fresh produce and nutritious foods to the growing number of families facing hunger.[32] Congress should also revise donation policies to make it easier for retailers and food service organizations to donate excess food to food rescue organizations.

Policy Recommendations

A Expand the Federal Enhanced Tax Deduction for Food Donation to Include Non-Profit Sales and Transport (Congress)

Under current law, the federal enhanced tax deduction for food donations can only be claimed when food is donated to a non-profit that does not charge the end recipient for the food. Expanding the federal tax deduction can incentivize donations to more recipients, including social supermarkets that sell donated food at an extremely discounted price or food rescue organizations that charge recipients a minimal fee to help offset the costs of home delivery. Adding transport services for donated food as a separate cost eligible for an enhanced tax deduction will also help overcome one of the most expensive barriers for businesses and food rescue organizations to get excess food to those in need.

B Enable Greater Food Donation by Farmers (Congress)

The existing federal enhanced tax deduction for food donations is not well-suited to farmers and is not often claimed by them, as many farmers operate at low profit margins and do not make enough income to claim a tax deduction. Further, the calculation of the value of the deduction is very onerous for farmers. To incentivize farmers to donate surplus crops and offset some of the costs of donation (including labor), Congress could provide an alternative tax credit that farmers could opt to claim instead of the existing enhanced deduction.[33] Congress could also appropriate additional funds to support programs—such as the Farm to Food Bank Program created within The Emergency Food Assistance Program (TEFAP) in the 2018 Farm Bill—to help cover the harvesting, processing, packaging, and transportation costs of donating agricultural products to local food banks.

C Strengthen Liability Protections for Food Donation (Congress)

To encourage food donation, Congress could strengthen liability protections for food donation in a number of ways, including: 1) broadening protections to include food items sold at a low cost and "direct donations," or food donations offered directly from certain food business donors to end recipients; 2) granting administrative authority of the Federal Bill Emerson Good Samaritan Food Donation Act to USDA and directing USDA to write regulations that clarify the language of the Act; and, 3) requiring USDA to implement an education campaign on donation liability protection for potential food donors and food rescue organizations.

D Clarify Guidance on Food Safety for Donations (FDA, Congress)

US federal food safety legislation and regulations developed by FDA and USDA generally do not mention the food safety practices that should be followed for food donations, leading to confusion and varying rules in different states and localities. These laws and agency regulations should be updated to feature

30 "2018 Wasted Food Report" EPA Office of Resource Conservation and Recovery. November 2020.
31 David Yaffe-Bellany and Michael Corkery, "Dumped Milk, Smashed Eggs, Plowed Vegetables: Food Waste of the Pandemic," The New York Times, April 11, 2020, sec. Business.
32 Kim Chipman, "Vilsack at USDA Stokes Farmer Optimism on Biofuels, China Trade," Bloomberg Government, December 9, 2020.
33 Emily Broad Leib et al., "Keeping Food Out of the Landfill: Policy Ideas for States and Localities" (The Harvard Food Law & Policy Clinic, 2016).

donation-specific chapters—on topics such as temperature, transportation, and labeling of donated foods. In December 2020, USDA's Food Safety and Inspection Service (FSIS) published draft guidance along these lines that lays out the food safety protocols for meat or poultry to be donated from FSIS-inspected facilities.[34] FDA should follow suit with guidance on food safety protocols for donations from FDA-inspected facilities. As retail and food service establishments are licensed and inspected under state law rather than federal law, with guidance provided by the FDA Food Code, FDA also should provide guidance for states and localities on food safety for donated food. Such guidance can help promote more uniformity in state and local regulations around food safety for donations, and can also inform food donation practices by national food businesses. In the absence of action by FDA, Congress should require FDA to publish such guidance.

E Continue to Create Alternative Market Channels for Producers and Consumers (USDA, Congress)

At the state of the pandemic, the USDA took emergency measures, such as developing the Farmers to Families Food Box program, to help farmers find new distribution channels for unprecedented levels of surplus.[35] This created new supply lines between distributors, farms, food banks and other nonprofits, and families in need.[36] Anti-hunger experts believe that up to 50% of food bank supplies came from these emergency programs during a time when demand for food at food banks increased 60%[37] and as many as one in four American adults were facing hunger.[38] Federal policymakers should incorporate learnings from pandemic-era programs into traditional assistance programs. For example, the Farmers to Families Food Box Program could be a model for future procurement and distribution of fresh products, such as commodity purchasing programs like TEFAP and the USDA Foods in School program. USDA should ensure the contracting process for any such program is transparent and explicitly inclusive of different scale growers (especially minority- and women-owned, small- and mid-scale, or organic operations) and local food system groups.[39] This should include conducting outreach to train and develop the capacity of these small and mid-scale growers and food groups to participate in online and direct-to-consumer distribution—who can then be published in regional lists of "USDA-encouraged" or "USDA-supported" producers for USDA contractors to easily reference.[40] Congress and USDA should also work to ensure that SNAP benefit amounts are adequate to ensure a nutritious diet, and to support the roll out of technology that allows small-scale producers, independent retailers, farmers, and farmers markets to participate as vendors in online SNAP markets (building on the support from Congress in the American Rescue Plan). These efforts can help to increase the food security of SNAP participants, ensure small producers maintain market opportunities for their nutritious foods, and strengthen regional supply chains.

F Establish New Positions for Regional Supply Chain Coordinators at USDA (USDA, Congress)

A lack of real-time food supply data has led to an inability to efficiently find and transport food from where it is grown or stored to where it is needed most. In addition to investing in more transparent and centralized waste information flows, there is a critical need to invest in new positions within the USDA and with trusted partners to achieve supply chain resiliency goals. Regional Supply Chain Coordinators would oversee the efficiency and adaptability of regional food supply chains by aggregating critical data sources on surplus products, stranded assets, and gaps in cold storage and distribution infrastructure. These positions could be especially effective in bringing federal funding and assistance to food deserts and other communities facing barriers to access.

34 "FSIS Guideline to Assist with the Donation of Eligible Meat & Poultry Products to Non-Profit Organizations December 2020" (FSIS, December 2020).
35 Emily M. Broad Leib et al., "An Evaluation of the Farmers to Families Food Box Program" (The Harvard Law School Food Law and Policy Clinic, February 1, 2021).
36 Jessica Fu, "The Farmers to Families Food Box Program Is Winding down. Some Farmers Say It Left Them High and Dry.," The Counter, October, 2020.
37 Laura Reiley and Greg Jaffe, "Trump's Farmers to Families Food Box Program Was Set to End Dec. 31, but Vendors Are Already Running out of Money - The Washington Post," The Washington Post, December 8, 2020.
38 Diane Whitmore Schanzenbach, "Not Enough to Eat: COVID-19 Deepens America's Hunger Crisis" (Food Research Action Center, September 2020)
39 Jessica Fu, "The Farmers to Families Food Box Program Is Winding down. Some Farmers Say It Left Them High and Dry.," The Counter, October 22, 2020; Emily M. Broad Leib et al., "An Evaluation of the Farmers to Families Food Box Program" (The Harvard Law School Food Law and Policy Clinic, February 1, 2021).
40 Emily M. Broad Leib et al. "An Evaluation of the Farmers to Families Food Box Program" (The Harvard Law School Food Law and Policy Clinic, February 1, 2021).

3 ASSERT THE US GOVERNMENT'S LEADERSHIP ON FLW GLOBALLY & DOMESTICALLY

Overview

Redesigning food systems and reducing waste can generate enormous benefits for people and nature. The US has re-entered the Paris Agreement and an important priority of the Biden administration's climate plan is decarbonizing the food and agriculture sector.[41] Fixing long-standing social, environmental, and supply chain issues in the food system is critical to the administration's climate and COVID-19 recovery objectives.[42] The US has one of the world's highest levels of food waste per capita, and it is vital for the nation's food security, climate, and recovery objectives that the administration double-down on its FLW goals.[43]

Policy Recommendations

A Commit to FLW Reduction as a Lever to Mitigate US Emissions (Administration)

Taking sufficient steps to meet the US commitment to reduce FLW by 50% by 2030 can lower US GHG emissions by 75 $MMTCO_2e$ per year.[44] The administration should formally recognize this potential by making FLW reduction a part of its Nationally Determined Contribution (NDC) toward the Paris Agreement. The Federal Interagency Food Loss and Waste Collaboration is already aligned to the United Nations' Sustainable Development Goal (SDG) 12.3 to reduce FLW 50% by 2030, and the administration is well-positioned to lead by advancing FLW reduction alongside other climate solutions. Doing so would also send a market signal for states, cities, and companies to similarly make FLW reduction an official part of their climate strategies.

B Require Federal Facilities to Measure, Rescue, Recycle, and Prevent Organic Waste, and to Purchase Finished Compost Products (Administration, Congress)

The federal government can send a clear market signal by requiring federal facilities to divert all organic waste from landfills and incinerators. Government entities and agencies should be required to measure and annually report on the progress of a food waste action plan to prevent food from being wasted, rescue and donate surplus food, and recycle food scraps—all of which can also save the government money by eliminating waste. The existing Federal Food Donation Act of 2008 requires federal agencies to encourage federal contractors to donate excess food, yet it does not require such donations and does not stipulate that agency food donation be tracked or monitored in any way. Congress should amend the Act to instead have agencies require (in their contracts) that their contractors donate safe surplus food (for example, for any contracts over a certain baseline amount); and add a reporting requirement for agencies to report food waste and donation to incentivize more food donation. Secondly, the Sustainable Acquisition Policy[45] should be updated to require the purchase of compost by federal agencies made from recovered organic waste materials per the EPA's existing guidance,[46] giving preference to small business, women- or minority-owned composting facilities.

C Fund and Incentivize FLW Innovation (Congress)

State and local governments, food businesses, and NGOs are increasingly taking action to pilot new interventions that effectively prevent FLW.[47] Congress should allocate $50 million in grants for FLW research and innovation (that could be overseen via the Federal Interagency Food Loss and Waste Collaboration) to accelerate these efforts—similar to what Canada has recently done with its $20 million Food Waste Reduction Challenge.[48] Funding could also be used to target development of food donation and recycling infrastructure to underserved areas. The EPA Excess Foods Opportunity Map[49] showcases food banks, anaerobic digesters, and composting facilities to enable food businesses to better divert their surplus food and food scraps. It also makes visible the regions and states that are most lacking in donation and recycling infrastructure, where investment is most needed.

41 "Plan for Climate Change and Environmental Justice | Joe Biden," Joe Biden for President: Official Campaign Website, accessed January 9, 2021.
42 "Open Letter to the Transition Team on the US Food System," The Rockefeller Foundation (blog), accessed January 10, 2021.
43 Tim Searchinger et al., "Creating a Sustainable Food Future" (World Resources Institute, May 12, 2018).
44 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine."
45 "23.103 Sustainable Acquisitions. | Acquisition.GOV," January 19, 2021, https://www.acquisition.gov/far/23.103.
46 OLEM US EPA, "Comprehensive Procurement Guidelines for Landscaping Products," Overviews and Factsheets, US EPA, March 31, 2016.
47 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine" (ReFED, February 2021).
48 Canada, "Government of Canada Launches Food Waste Reduction Challenge," news releases, Government of Canada news, November 19, 2020.
49 "Excess Food Opportunities Map," Data and Tools, US EPA, June 8, 2016.

D Boost Funding for Food Waste Interagency Food Loss and Waste Collaboration (Congress)

The Federal Interagency Food Loss and Waste Collaboration is a joint effort launched by the FDA, USDA, and EPA in which the three agencies affirm their shared commitment to work towards the national goal of reducing FLW by 50% by 2030. To meet the initiative's target, it will take at least $2 million in funding for additional personnel to oversee the program and competitive grant funding outlined in this action plan.

4 EDUCATE AND ACTIVATE CONSUMERS VIA PRIVATE AND PUBLIC FOOD WASTE BEHAVIOR CHANGE CAMPAIGNS

Overview

Across the food supply chain, the largest amount of FLW in the US occurs at the household level (37%).[50] Waste reduction efforts must empower residents to change their behaviors everywhere that they eat. Recent polling confirms that the overwhelming majority of Americans believe food waste is a critical issue,[51] which over 80% of respondents said they are taking steps to address at home.[52] Yet American household food waste per capita is not declining fast enough, and more must be done to educate consumers on the steps they can take to reduce their waste at home.[53] Coordinating these campaigns with key interventions that businesses can implement (e.g., portion sizes, package design) can also drive consumers towards better food management and reduce GHG emissions by 34 MMTCO2e annually.[54]

Policy Recommendations

A Fund Research and Awareness Campaigns to Reduce Consumer Food Waste (Congress, USDA, EPA, FDA)

To address this, Congress should fund $3 million annually through 2030—with $1 million for research into effective consumer food waste reduction strategies and $2 million into consumer-facing behavior change campaigns. The UK, South Korea, and others have demonstrated that coordinated public campaigns to educate consumers on food waste reduction strategies can provide straightforward savings to government agencies, businesses, and consumers.[55] Policymakers can leverage existing national ad campaigns like NRDC's *Save The Food*[56], social marketing campaigns like the US EPA's *Food Too Good To Waste*[57], consumer education provided by FDA through web resources and consumer education animated shorts, as well as sector toolkits (developed by WWF for restaurants, hotels, hospitality, and schools) to build unified campaigns that businesses, governments, educators, NGOs, and others can use to drive awareness and action. Additional research is also needed to determine which household activities have the biggest impact in reducing household food waste. Congress should fund household food waste reduction research in alignment with the recommendations from the National Academies of Science's recent report: A National Strategy to Reduce Food Waste at the Consumer Level.[58] The USDA Food Loss and Waste Liaison—in partnership with EPA and FDA, and close coordination across USDA agencies (such as the National Institute of Food and Agriculture or Food and Nutrition Service)—should ultimately oversee these efforts.

B Pass the School Food Recovery Act (Congress)

The bipartisan School Food Recovery Act introduced by Representatives Chellie Pingree (D-Maine) and Dan Newhouse (R-Washington) in the 116th Congress would direct the USDA to provide funding for schools to engage in FLW efforts—enlisting teachers and students to turn cafeterias into classrooms by measuring and reducing their waste, publicly aggregating and reporting waste data, and driving greater awareness of FLW solutions across our communities. This model has already been piloted and studied through WWF's "Food

50 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine."
51 According to the World Resources Institute, food loss is food that spills, spoils, or is lost before reaching consumers. Food waste refers to food that is fit for consumption but is discarded and never eaten by consumers. FLW is the acronym used to refer to both in this paper.
52 Cary Funk, "US Public Views on Climate and Energy," Pew Research Center Science & Society (blog), November 25, 2019; Alex Tekip, "Oldest Americans Most Focused on Reducing Food Waste," Food, February 14, 2019.
53 "National Overview: Facts and Figures on Materials, Wastes and Recycling," Overviews and Factsheets, US EPA, March 2020.
54 "Roadmap to 2030: Reducing US Food Waste by 50% and the ReFED Insights Engine" (ReFED, February 2021).
55 Lipinski, "SDG Target 12.3 on Food Loss and Waste: 2020 Progress Report | Champions 12.3."
56 "Save The Food," Save The Food, accessed March 4, 2021, https://savethefood.com.
57 US EPA, "Food: Too Good to Waste Implementation Guide and Toolkit," Reports and Assessments, US EPA, February 4, 2016, https://www.epa.gov/sustainable-management-food/food-too-good-waste-implementation-guide-and-toolkit.
58 "A National Strategy to Reduce Food Waste at the Consumer Level" Consensus report. 2020. http://www.nap.edu/25876.

Waste Warrior" and NRDC's "True Food, No Waste" programs.[59] These programs have demonstrated the possibilities in decreasing student plate waste, increasing students' fruit and vegetable consumption, and cutting down on cafeteria plastic and packaging waste.[60]

5 REQUIRE A NATIONAL DATE LABELING STANDARD

Overview

Date label confusion is one of the leading causes of consumer food waste, estimated to drive nearly 85% of Americans to prematurely toss food that is still safe to eat.[61] Lack of consistency in labels contributes to additional waste among grocery stores and other consumer-facing businesses and unnecessarily restricts the safe donation of nutritious foods past their date labels to food rescue organizations.

Recent voluntary initiatives[62] in the US have coalesced around the standard labels "BEST if Used By" for food's peak quality and "USE By" for food safety. This standardization only works, however, if there is full adoption across the industry and education of consumers on how to interpret these labels. Without standardization at the federal level, current laws in more than half of our states restrict the ability for businesses to use these two standard labels and limit capacity for streamlined public education.[63]

Policy Recommendations

A Pass the Food Date Labeling Act (Congress)

The bipartisan Food Date Labeling Act, introduced in the 116th Congress by Representatives Chellie Pingree (D-Maine) and Dan Newhouse (R-Washington) and Senator Richard Blumenthal (D-Connecticut), requires FDA and USDA to ensure that businesses that choose to place a date label on their products to use one of two standard phrases to indicate either the peak quality ("BEST If Used By") or safety ("USE By") of food products depending on the type. The bill would clarify that food can be safely donated past the "BEST If Used By" date. The bill also critically requires FDA and USDA to educate consumers about the meaning of these date label terms. Effective implementation of consumer education is essential for date label reform to result in meaningful change in consumer behavior.

59 Jonathan Bloom, "True Food No Waste" (Natural Resources Defense Council, 2019); "Food Waste Warriors: A Deep Dive into Food Waste in US Schools" (World Wildlife Fund, 2019).
60 "Food Waste Warriors: A Deep Dive into Food Waste in US Schools" (World Wildlife Fund, 2019),
61 Roni Neff, "Misunderstood food date labels and reported food discards," *Waste Management*, March 2019.
62 "FMI | Product Code Dating," accessed February 13, 2021, https://www.fmi.org/industry-topics/labeling/product-code-dating.
63 FLPC, "Date Labeling: The Case for Federal Legislation," 2019.

May 2022 EFC Communications Content

1. **Green Awards Recipients**

   Summer Winnetka Report & E-Winnetka Newsletter

   (TBD after April 26th Village Council Meeting)

2. **Stormwater Best Management Practices Guide for Residents**

   E-Winnetka Newsletter

   In 2016, the Environmental and Forestry Commission developed a guide for homeowners of stormwater best management practices. This guide is a resource for homeowners to educate and give practical examples of ways to make properties stormwater-friendly. The recommended stormwater best management practices in this guide are intended to help with stormwater control and may not solve all stormwater problems. This guide can be found on the Village website: http://www.villageofwinnetka.org/government/boards-and-commissions/environmental-and-forestry-commission/. If you have any questions, please contact the Public Works department at 847-716-3568.

3. **Environmental and Forestry Commission Recycling Tip - Break Down All Boxes**

   E-Winnetka Newsletter

   Each ton of cardboard recycled saves 46 gallons of oil and 390 kWh of energy. The Village's recycling provider encourages the recycling of cardboard and other paper-based materials. Prepare cardboard for recycling by removing all materials in the box such as plastic wrap, polystyrene, and other packaging materials. Breaking down boxes saves storage space and reduces pick up costs. Keep cardboard dry and free from excessive food waste. Cardboard can get wet and still be recycled, but is more difficult to carry due to the added weight of the water.

4. **Environmental and Forestry Commission Recycling Tip – Leave Lids on Plastic Containers**

   E-Winnetka Newsletter

   To remove or not to remove lids when recycling? The Village's recycling provider, Lakeshore Recycling Systems, asks residents to leave caps on plastic bottles and glass jars when recycling. This keeps residual liquids contained and the small lids from clogging the sorting machines. Most plastic bottles are categorized as plastic #2, while their caps are plastic #5.

5. Pesticide Alternatives

E-Winnetka Newsletter

Pesticides are chemicals used to kill unwanted insects and pests (often mosquitoes). Often, they have negative effects on lots of other species, including bees, cats, fish, birds and even humans, especially children. There are many reasons not to use pesticides and plenty of alternatives. To keep your yard mosquito free without harming your bees, butterflies, pets and children, you could use safe repellents (be aware that many companies that advertise as organic and safe are not), mosquito repellent plants (such as lavender, marigolds, basil, sage, bee balm, lemongrass and rosemary), screened in porches (which allow outdoor bug free space) and eliminate standing water for mosquitoes to lay eggs. Before you use pesticides, consider what you are using in your yard and how it affects your animals and your neighbors.

June 2022 EFC Communications Content

1. Coal Tar Sealant Reminder

E-Winnetka Newsletter

In August of 2014, the Village of Winnetka implemented a ban on the use of coal tar-based sealing agents on all public and private driveways, parking lots and other roadway surfaces with Village limits. Coal tar is a waste material generated during coal processing that contains high levels of chemical compounds shown to be harmful to aquatic life and pose a potential risk to humans. This initiative was studied by the Village's Environmental and Forestry Commission as an effort to benefit water quality. As required by this ban, all contractors and multi-family property owners must obtain a Pavement Sealant Applicators License through the Public Works Department. Property owners of single family lots applying sealant themselves do not need a Pavement Sealant Applicators License.

As an alternative to coal tar-based sealants, the Village recommends using asphalt-based sealants (sold in most home improvement stores), replacing asphalt with concrete driveways, or leaving driveways unsealed.

In April, letters were sent to previously licensed contractors reminding them to renew their applicator license in 2022 to confirm their sealant meets Village requirements. For more information, please call Diana Puga in the Public Works Department at (847) 716-3550.

2. Ban of Gas-Powered Leaf Blowers from June 1 through October 1

E-Winnetka Newsletter

No noisy landscaping activity is to begin before 7:00 AM on weekdays, 9:00 AM. on Saturdays and 10:00 AM on Sundays and holidays. No such activity may continue after 7:00 PM on any evening. In Winnetka, it is illegal to operate gasoline powered leaf blowers at all times from June 1 to October 1. At other times of the year, they may be operated only between the hours of 8:00 AM and 7:00 PM, Monday through Friday, and from 9:00 AM to 6:00 PM on Saturday, Sunday and on holidays. Lawn care must be neighbor-friendly, so we can all enjoy as much of our few months of good weather as possible.

Electric blowers do meet summer landscaping needs. Most importantly, they have safer decibel levels and minimize dangerous airborne particulate matter.

3. Removal of Buckthorn and other Invasive Species

E-Winnetka Newsletter

Unlike native trees and shrubs, invasive species like buckthorn spread quickly across our woodlands, prairies, wetlands, and parks, competing with native species for resources needed for a stable, healthy environment. Examples of invasive species in northern Illinois include buckthorn, Lesser Celandine, Callery pear, Amur maple, burning bush, Norway maple, tree of heaven, and barberry. These invasive plants, trees, and shrubs thrive in our area mainly because of their ability to reseed.

A good way to remove and lessen the risk of spreading buckthorn is to remove the plants before they flower (May-June) and produce seeds (August-September). If you suspect that removed buckthorn or other invasive plants contain seeds, bag them in landscape waste bags and place them out on the same day as your trash pickup rather than composting them, as landscape waste is banned from landfills in Illinois.

4. Recycling Tip – Make sure all containers are free of liquid and food residue

E-Winnetka Newsletter

When recycling used food containers, it is important to remove leftover food waste and liquids. Containers or cardboard that have excessive food waste on them may contaminate other recyclable materials they are mixed in with. When recyclables are heavily contaminated with food waste, they become less desirable for resale. Empty all liquids and remove as much food waste as you can before putting your hard plastic, aluminum, and glass containers in your recycling bin. Many paper-based food containers may be compostable through one of Winnetka's container swap compost haulers (Collective Resource Compost and WasteNot Compost).

5. Recycling Tip – Plastic bags and film

E-Winnetka Newsletter

Plastic bags, wraps, and film can be recycled into new materials – they simply require a Plastic bags, wraps, and film can be recycled into new materials – they simply require a different collection system and processing equipment than many curbside recycling programs provide. DO NOT put plastic bags/wraps/film in your bin as the Village's recycling provider, Lakeshore Recycling Services, does not accept these items.

Plastic bags may be brought to grocery stores for recycling. Plastic bags are made out of "film", or thin flexible sheets of plastic. The majority of plastic films are made from polyethylene (PE) resin and are readily recyclable if the material is clean and dry. Plastic wrap and film packaging are generally #2 and #4 plastic, both of which are recyclable. Most plastic bags are recycled into composite lumber, but can actually become a wide variety of products.

Clean and dry plastic bags, film, wrap can be recycled at many grocery and retail stores. Be sure to completely empty the bags, film, and wrap of all food and liquid waste before taking them to your nearest participating store. A list of plastics that may be recycled at most stores is below:

- Grocery bags
- Bread bags
- Case overwrap (e.g. water, soda and juice bottles)
- Dry cleaning bags
- Newspaper sleeves
- Ice bags
- Wood pellet bags
- Ziplock/reclosable bags
- Produce bags
- Bubble wrap
- Salt bags
- Cereal bags