

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Our mission is to protect natural resources by promoting source reduction of waste through reuse, repair, and more mindful purchasing.

BOARD OF DIRECTORS MEETING

Thursday, January 18, 2024, 1:45 pm to 2:45 pm

In Person: San Rafael City Hall, 1400 Fifth Ave, 3RD Floor, Large Conference Room, San Rafael, CA 94901

AGENDA

Call to Order

1. Public Participation Instructions (Information Only) 1 Minute.
2. Open Time for Public Comment (Information Only) 5 Minutes.

Consent Calendar

3. Approve JPA Board Meeting Minutes from October 19, 2023 (Action) 1 Minute.

Regular Agenda

4. Executive Director Update (Information Only) 7 Minutes.
5. Legislative Update (Information Only) 10 Minutes.
6. EPA Letter of Support (Action) 5 Minutes.
7. Approve a Waste Characterization Study at WM Redwood Landfill and Recycling Center/WM Earthcare (Action) 5 Minutes.
8. Approval of new LTF members (Action) 5 Minutes.
9. Clarify the two SubCommittee's (Information Only) 5 Minutes.
10. Set the 2024 Executive Committee Schedule (Action) 5 Minutes.
11. Set the 2024 JPA Schedule (Action) 5 Minutes.
12. Suggested Agenda Items (Action) 2 Minutes.
13. Adjournment.



For disability accommodations please phone **(415) 473-4381** (Voice), CA Relay 711, or e-mail WasteMgmt@MarinCounty.org at least five business days in advance of the event. The County will do its best to fulfill requests received with less than five business days' notice. Copies of documents are available in alternative formats, upon request.

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

SPECIAL REMOTE PUBLIC INSTRUCTIONS

Thursday, January 18, 2024, 1:45 pm – 2:45 pm

The public can participate in the Marin County Hazardous and Solid Waste Joint Powers Authority (Zero Waste Marin) Board Meeting via a Zoom webinar on Thursday, January 18, 2024, from 1:45 pm – 2:45 pm.

Zoom Meeting

Please click the link below to join the webinar:

<https://zoom.us/j/97686197491?pwd=VGk3MHBGUXJXUHV4eDhxbDliRFR5QT09>

Meeting ID: 976 8619 7491

Passcode: 691553

Or One tap mobile:

+16699006833,,97686197491#,,,,*691553# US (San Jose)

+16694449171,,97686197491#,,,,*691553# US

Or Telephone: dial (for higher quality, dial a number based on your current location):

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Find your local number: <https://zoom.us/u/acRSzeUTF>

Comments

During the Meeting, select the Raise Hand icon during the public comment time, and you will be added to the queue and unmuted when it is your turn. If you are “Calling In,” press *9 during the public comment time, and you will be added to the queue and unmuted when it is your turn. (Press *67 before dialing if you want to hide your phone number).



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**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Kimberly Scheibly, Executive Director

County of Marin

Re: Open Time for Public Comment

Fairfax

The public is welcome to address the Board of Directors on matters not on the agenda within its jurisdiction. Please be advised that pursuant to Government Code Section 54954.2, the Board is not permitted to discuss or act on any matter not on the agenda unless it determines that an emergency exists or that there is a need to take immediate action which arose following the posting of the agenda.

Larkspur

Mill Valley

Recommendation

Novato

Receive public comment. Information Only.

Ross

San Anselmo

San Rafael

Sausalito

Tiburon

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Board of Directors Meeting - Minutes

Thursday, October 19, 2023

8:45 A.M – 9:45 A.M

Hybrid: 922 Machin Avenue, Womack Conference Room, 2nd Floor, Novato

MEMBERS PRESENT

Adam Wolff, Corte Madera
Cory Bytof, City of San Rafael (Alt.)
Catie Thow Garcia, Sausalito (Alt.)
Heather Abrams, Fairfax
Jessica Deakyne, Novato (Alt.)
Dan Eilerman, County of Marin (Alt.)
Greg Chanis, Tiburon
John Stefanski, San Rafael (Alt.)
Todd Cusimano, Mill Valley
Shannon O’Hare, City of Larkspur
Dan Schwarz, Larkspur
Gretchen Schubeck, Novato (Alt.)

MEMBERS ABSENT

Christa Johnson, Ross
Adam McGill, Novato
Anthony Boyd, Belvedere (Alt.)
Chris Zapata, Sausalito
Christine Alilovich, San Rafael
David Donery, San Anselmo
David Woltering, Ross (Alt.)
Matthew Hymel, County of Marin
Robert Zadnik, Belvedere

STAFF PRESENT

Andrew Shelton
Casey Fritz
Casey Poldino
Kimberly Scheibly
Melody Mitchell
Justin Newsome

OTHERS PRESENT

Meilin Tsao, Recology
Justin Wilcock, Marin Sanitary
Service
Dave Biggio, Mill Valley Refuse
Service
Greg Christie, Bay Cities Refuse
Holly Lawrence, City of San Rafael
Matt McCarron, City of Novato

Public

Cole Yoxall – Recology Sonoma-
Marin
Phoebe Goulden – Town of Corte
Madera
Sean Youra – Towns of San
Anselmo & Fairfax
Grace Ledwith – City of Mill Valley

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MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Call to Order

1. Remote Public Participation Instructions

Information only.

2. Open Time for Public Comment

No public comments were tendered.

Consent Calendar

3. JPA Board Meeting Minutes from September 21, 2023

Motion to approve the JPA Board Meeting Minutes from September 21, 2023.

Motion: Dan Eilerman. Second: Todd Cusimano. Abstain: Heather Abrams. Vote: Unanimous.

Regular Agenda

4. Executive Director Report

Kimberly Scheibly reported Zero Waste Marin's new Staff hiring for the Senior Planner for the HHW programs, and new Waste Management Specialist starting October 30th. For the two Senior Program positions, ZWM interviewed six candidates on (October) 16th and four of them have passed on to round two interviews, scheduled for next Monday.

A reminder was given to the cities, towns, and county, ZWM Staff are receiving phone calls from various staffers from jurisdictions confused with their roles in regard to SB 1383.

Vendor contracts for this fiscal year are now in place and work has begun.

Gigantic Idea Studio has been hired for ZWM's advertising and marketing. A new marketing plan for the fiscal year is in place. All social media efforts are in house for cost savings to a revamp of the website.

Casey Poldino has contracted with Agromin to procure 3,588 tons of compost that will be distributed to farmers in Central California. This does fulfill the 30% compliance target for 2023. Poldino is working with West Marin Compost and the Marin Resource Conservation District for a compost giveaway.

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A brief question and answer session was held.

Eilerman had concerns and wanted clarity with SB 1383 on exactly what is covered and what is falling over to Staff. Suggested regional talks to help bring clarity for all Board members regarding SB 1383.

Heather Abrams suggested organizing a meeting with town and city staff regarding Eilerman's concerns.

Scheibly agreed with Eilerman's concerns and took Abrams's suggestion for organizing a meeting and will follow up with the Board.

There were no further comments from attendees.

5. ZW Programmatic Subcommittee Update

Scheibly gave an update confirming the Subcommittee met on October 6th and discussed the CalRecycle assistance grant and the implication of this grant if awarded to the JPA on the Zero Waste Reimbursement program. Member agencies historically have expressed difficulties spending the grant and reimbursement money, while others are concerned if the reimbursement funds were no longer in existence on-going programs would not have necessary funding, specifically Climate Corp Fellows. If ZWM applies on behalf of JPA, member agencies that opt out would not benefit from any of the suggested uses for the money.

Staff proposed spending the local assistance grant of almost 1.1 million supporting new obligations outlined in SB 1383 Letters of Agreement. ZWM Staff would manage all aspects of the grant. The subcommittee recommended applying collectively as a JPA but with no formal decision made for a new reimbursement plan for each member agency to use at their discretion. Scheibly will bring the topic back up to the sub and executive committees for a decision.

Grant funding of this size could pose challenges to the budgeting process and may lead to a decrease in assessments for 2024 and 2025. The JPA budget will be discussed with the Executive Committee and with the Budget Subcommittee.

The Budget Subcommittee will meet before the next JPA Board meeting to discuss this topic. Scheibly proposed a recommendation that the Board adopt a motion to have ZWM apply for the CalRecycle local assistance grant on behalf of all member agencies.

A brief question and answer session was held.

Eilerman asked if an agency opts out would they still be able to apply.

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Scheibly answered that agencies that opted out would not be provided educational outreach, inspection and enforcement, and procurement. However, if an agency that opted out had an assignment outside of that they would be able to apply.

Cory Bytof questioned the tradeoff between agencies applying individually which would not impact the assessments and if applied for collectively then it would impact the assessments. Bytof also asked for clarification of the trade-off.

Scheibly did not have the budget impact regarding Bytof's concern at the time but confirmed it would not impact the current budget as the money would be available in April or May 2024.

Public Comments were made.

Motion to authorize Zero Waste Marin to apply for the CalRecycle Local Assistance Grant on behalf of all member agencies.

Motion: Chanis. Second: Bytof. Vote: Unanimous.

6. CalRecycle Grant Resolutions

Poldino addressed the Board. CalRecycle has changed its resolution requirements for some of their grant programs. To submit an application for CalRecycle Household Hazardous Waste Grant and Local Assistance Grant the Board needs to approve two revised resolutions to allow the JPA to apply. ZWM applied for the HHW Grant submitted the grant on August 15th and was informed that a new resolution was needed. Once the resolution is signed, it will be submitted to CalRecycle. The new resolutions have followed passed resolutions that the Board approved which allowed JPA to apply to all applicable grants.

Recommended grants:

1. The Board adopt a motion approving and directing the Chair to sign attached resolutions.
2. Motion to approve and sign a letter of authorization for the Local Assistance Grant.

Sample letter in packet is needed to be put on letterhead and signed by Board member and sent to ZWM Staff to submit the packet November 15th. Also, copies are needed for the amended JPA agreement with Board signatures.

Motion approving and directing the chair to sign the attached resolutions.

Motion: Chanis. Second: Cusimano. Vote: Unanimous

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Motion to sign the Letter of Authorization for the local assistance grant.

Motion: Chanis. Second: Cusimano. Vote: Unanimous

7. Annual Report Presentation

Casey Fritz, Senior Planner, presented ZWM's measurable impact of program accomplishments for the fiscal year 2022-23. Staffing improvements include the hire of the new Executive Director. Since 2015 the School's Program is now supporting 35 schools and during the previous fiscal year the first platinum certified school site was achieved (Strawberry Point of Mill Valley). The Household Hazardous Waste facility is now under the supervision of ZWM for this fiscal year. The Edible Food Recovery Program is underway and is being built out by the designated contractor.

Some goals for the upcoming fiscal year 2023-24 include Staff hirings that have been approved for the budget, expanding the Take Back Program and developing strategies for education for community events in member agency jurisdictions. Staff will also update and refine ZWM's workplan and continue to focus metrics and measurable impact programs.

A brief offering of congratulatory Board member comments were made.

8. Zero Waste Marin Mission Statement

Poldino read the mission statement. Board member and Staff provided feedback, and the resulting mission statement was approved as:

"Our mission is to protect natural resources by promoting source reduction of waste through reuse, repair, and more mindful purchasing. To make recycling and composting easy, we offer a variety of programs including: HHW, schools outreach education. These programs align with countywide goals to act on climate change to promote healthy, safe, and sustainable communities."

Motion approving the mission statement as read.

Motion: Cusimano. Second: Cory Bytof. Vote: Unanimous

9. Suggested Agenda Items for November Meeting

Legislative update
Introducing new Staff

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Set 2024 agenda schedule
Updates on SB1383

- 10. Adjournment
Next meeting TBD

Board Chair: Please confirm the vote on this item by reading the following items out aloud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Kimberly Scheibly, Executive Director

County of Marin

Re: Executive Director Update

Fairfax

The Executive Director will provide an update on recent and ongoing activities provided by staff.

Larkspur

Recommendation

Mill Valley

Receive oral report. Information only.

Novato

Ross

San Anselmo

San Rafael

Sausalito

Tiburon

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Fritz, Senior Planner

County of Marin

Re: Legislative Update

Fairfax

California has passed several significant waste laws that affect local jurisdictions. In order to keep Board members up to date on current waste legislation, Zero Waste Marin staff will provide a legislative update. This update will review highlights of significant legislative action or interpretation.

Larkspur

For this meeting's legislative update, staff will focus on the following:

Mill Valley

- SB 1383
- SB 54: Plastic Pollution Reduction
- SB 244: Right to Repair
- SB 353: Bottle Bill Update

Novato

Recommendation

Ross

Receive oral report. Information only.

San Anselmo

San Rafael

Sausalito

Tiburon



LEGISLATIVE UPDATE

Zero Waste Marin JPA Board Meeting

November 2023



SB 1383

- Upcoming deadlines for January 1, 2024
 - Tier 2 commercial edible food generators required to donate:
 - Restaurants 250 seats+
 - Health facilities 200 beds+
 - State facilities w/ cafeteria
 - Hotels w/ 200+ rooms
 - Local Education Agencies w/ on-site food facility
 - Large venues and events serving 2,000 people / day
 - Inspection and enforcement processes required to begin at local level
 - ZWM finalizing compliance flows for each requirement:
 - Collection
 - Contamination
 - Edible Food Recovery
- Local Assistance Grant funding
 - County-wide application as a JPA complete
 - Funding determinations in March 2024
 - Grant period through April 1, 2026



SB 54

- Plastic Pollution Prevention and Packaging Producer Responsibility Act
- Passed into law on June 30, 2022
- Goals for 2032:
 - Reduce single-use plastics by 25%
 - 65% of single-use plastics in foodware and packaging must be recycled
 - 100% of single-use plastic packaging and foodware must be recyclable or compostable
- Mandates the creation of a Producer Responsibility Organization to manage implementation, overseen by CalRecycle
- \$5 billion raised for fighting plastic pollution and supporting disadvantaged communities over next 10 years

SB 54

Producer Responsibility Organizations



Create Programs



Increase Recycling



Cut Trash Pollution in Disadvantaged Communities



Enroll Manufacturers



Pay All Implementation Costs

CalRecycle



Oversees Program



Appoints Advisory Board



Researches Packaging Waste Types



Reviews Plan and Budget



Publishes Recyclable or Compostable Material Categories List



Calculates and Publishes Recycling Rates for Covered Materials



SB 244

- “Right to Repair” Act
- Passed October 2023
- Requires manufacturers to make tools and parts available to repair facilities / owners of covered products on “fair and reasonable” terms
- Will make repair more accessible outside of large manufacturers, will help reduce e-waste
- Examples of covered items:
 - Computers
 - Radios
 - TVs
 - Fridges, freezers, ovens, microwaves



SB 353

- Update to the Bottle Bill
- Passed October 2023
- Expands the Bottle Bill to include CRV for:
 - 100% fruit juice containers of any size
 - 100% vegetable juice containers of any size
- Will result in an estimated additional 200 million containers per year in the recycling system

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Meilin Tsao, Waste Management Specialist

County of Marin

Re: EPA Letter of Support

Fairfax

The Marin County Hazardous and Solid Waste Management Joint Powers Authority would like to express our public comment on the U.S. Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics, Docket ID No. EPA-HQ-OLEM-2022-0415, which drives progress to reduce food loss / food waste by 50% by 2030 (from 2015 levels).

Larkspur

Mill Valley

Food loss occurs on farms or during manufacturing, processing, storage, and distribution. Food waste also occurs at the retail, food service, and or household level.

Novato

The four primary objectives of the draft are to:

Ross

- o Prevent loss of food
- o Prevent waste of food
- o Increase recycling rate of all organic waste
- o Support policies that incentivize and encourage food loss and waste prevention and organics recycling.

San Anselmo

Attachments:

San Rafael

Attachment 1: ZWM Public Comment Letter

Sausalito

Attachment 2: Draft EPA Strategy for Reducing Food Loss and Waste and Recycling Organics

Tiburon

Recommendation

Adoption of a Motion approving the JPA Board submit ZWM Public Comment Letter to the EPA.

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**MARIN COUNTY HAZARDOUS AND SOLID WASTE
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Board Chair: Please confirm the vote on this item by reading the following items out loud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Belvedere

Date: January 18, 2024

Corte Madera

To: Ms. Carolyn Hoskinson, Director
Office of Resource Conservation and Recovery
U.S. Environmental Protection Agency (28221T)
1200 Pennsylvania Ave., NW
Washington, DC 20460

County of Marin

Fairfax

Re: Public Comment of U.S. Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics

Larkspur

Dear Director Hoskinson,

Mill Valley

The Marin Hazardous and Solid Waste Joint Powers Authority (Zero Waste Marin) is responsible for ensuring Marin County is compliant with California state laws regarding hazardous and solid waste and SB 1383 compliance. We appreciate the opportunity to provide public comment on the U.S. Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics (Strategy). Zero Waste Marin (ZWM) supports the goals and objectives outlined in the Strategy, though we believe there are fundamental pieces missing that would ensure the success of meeting these goals. In the paragraphs below, we will answer the key questions requested for public comment.

Novato

Ross

San Anselmo

Question 1 – What actions could help the U.S. meet its goals that are not reflected in the draft?

San Rafael

Sausalito

There is a lack of numerical benchmarks, milestones, and goals that would contribute to data tracking and hold accountability if the United States is not on target to meet the national and international goals outlined in the background of the Strategy. The action of implementing stronger initiatives, with specified research-based milestones, will help ensure that the United States meets its targets.

Tiburon

We recognize the importance of outlining the allocated funds that will go towards increasing education on food loss and providing opportunities to acquire the necessary infrastructure that will aid in the decrease of food loss, but believe further actions are necessary. We suggest that the Interagency Collaboration establish Technical Councils to facilitate the collaboration between the stakeholders throughout the supply chain. Technical Councils should comprise members from every sector of the supply chain and should include representation from as diverse a population as possible.

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MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

We also suggest the establishment of a partnership with U.S. Department of Energy to provide additional grant funding for individuals, small businesses, and environmental justice communities to purchase refrigerated electric trucks. These trucks will increase the time perishable food can remain in transport, thus reducing unintended food loss. Grants accessible to individuals, small businesses, and environmental justice communities present a multiplicity of benefits and will help the Strategy comply with Biden-Harris Justice40 Initiatives.

A supplementary action that would reduce food loss would be the development and implementation of a National Food Runner Volunteer Program. This multifaceted program would provide invaluable, and currently underrepresented, data on the tonnage and type of foods lost, and will connect underserved communities to healthy, nutritious foods.

Question 2 – What type of research should be funded?

To address food loss along the supply chain, it is vital to know the areas where food is lost, the most common items, and the reason for their loss – demand, perishability, purposefully, etc. We propose EPA and USDA conduct multiple analyses across the supply chain to formulate holistic data to answer the above questions. Not only will this newfound data provide the missing baselines highlighted in “Challenges” of the Strategy, but it will also pinpoint areas of focus with the highest rate of environmental and economic return.

We would also like to see a stronger dataset and corresponding map of food deserts and food swamps throughout the entire United States. Both food deserts and swamps present communities with very few minimally processed food options and often lack healthier, nutritious choices or fresh produce. The results of this research should guide the formulation of a program strategy to direct produce that may have previously been lost in the supply chain to communities and individuals who will benefit.

ZWM proposes additional research into the technology and feasibility of refrigerated electric trucks for the movement of perishable goods. We hope that additional funding and research will also bring down costs in this burgeoning market, enabling lower-income businesses and individuals to participate.

We urge the USDA to conduct research and publish an updated final ruling on Certified Organic Agriculture requirements that includes studies of using finished compost products that contain PLA, mycelium-based plastic, PHA, and other “compostable plastics”.

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With these results we hope to see a change in USDA Organic Requirements definitions, or a USDA / EPA unified statement to urge Congress to adopt legislation to phase out the “compostable” composites. This research will lead to exponential reductions in contamination at compost facilities, thus creating a more nutritious compost product that will absorb GHGs at a faster rate.

Very important to the increase of organics recycling is the need for organics recycling infrastructure. ZWM urges the EPA to conduct a national analysis of the challenges and timelines of designing, permitting, building, and implementing additional organics recycling facilities. In addition to categorizing the results by state, this analysis should also compare the challenges and timelines specific to organics processing facility types. We hope the outcome of this deeper understanding leads to legislative discussions that could make the development easier for recyclers, and/or establish a national program to provide technical assistance for the formation of organics recycling facilities.

Question 3 – What actions would result in more equitable outcomes for underserved and/or food insecure communities?

The Strategy outlines the many grant, loan, and assistance programs that EPA, FDA, and USDA currently offer that will help satisfy the goals and objectives. Though, a very important component that is missing is underserved communities’ ability to access the technical and financial assistance outlined. It is great that the Biden-Harris Administration has allocated 40 percent of certain federal funding for disadvantaged communities, though these communities often need additional support to learn about programs and apply for funding. Zero Waste Marin suggests that the Interagency Collaboration establish local offices or liaisons to work directly with underserved communities.

An example of a program that could be implemented from the partnerships between local offices and community organizations is the necessary technical and financial assistance to plan, build, permit, and operate community compost facilities and education centers.

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The joint hub should provide learning opportunities and job training to prepare individuals to become employed by organizations that prevent the loss and waste of food, recover, and recycle organic waste products, or enter into the public sector to work on policy changes that will help the U.S. accomplish the goals and objectives outlined in the Strategy.

ZWM would like to thank EPA, FDA, USDA, NRC, and Ms. Carolyn Hoskinson for the opportunity to present a public comment on the Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics.

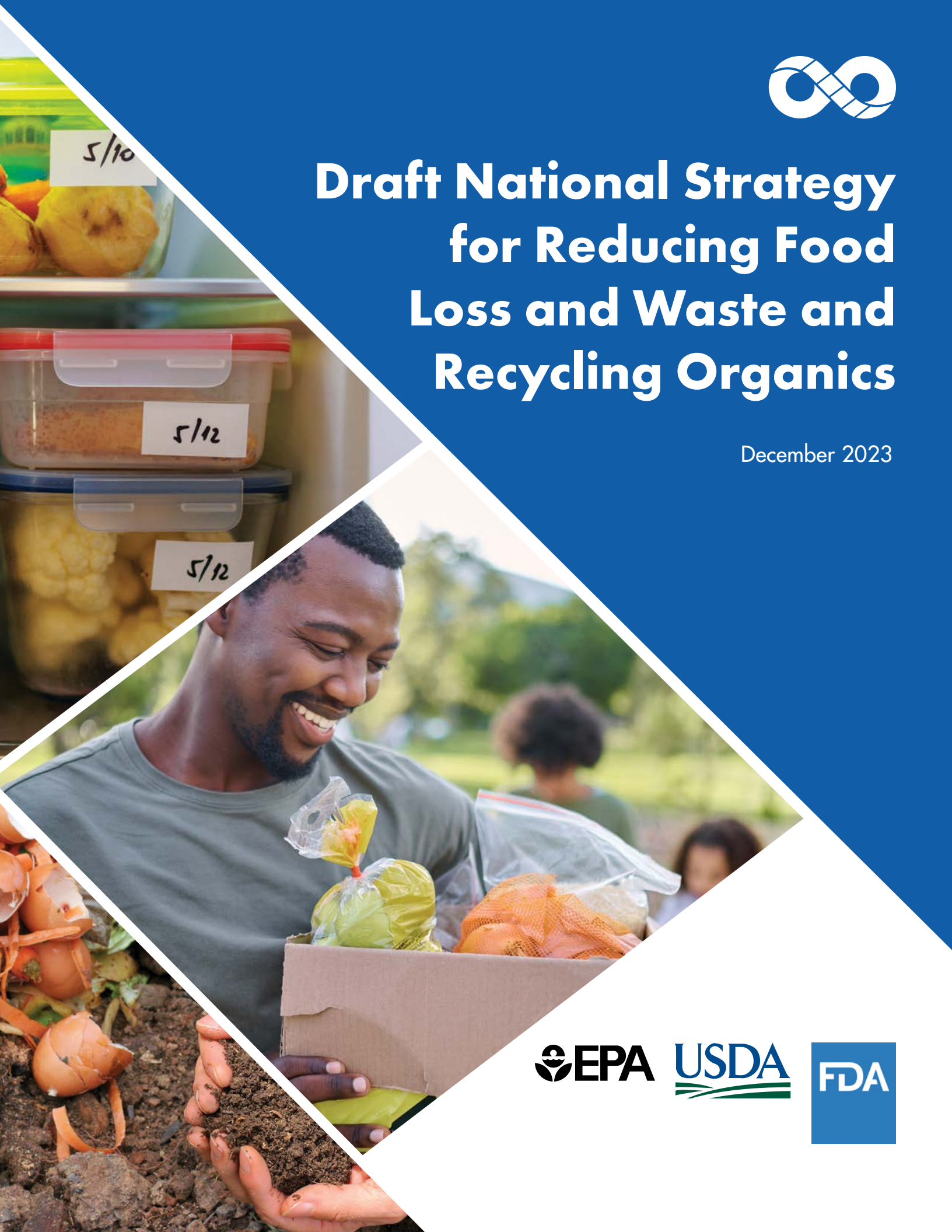
Sincerely,

Kimberly Scheibly, Executive Director, Zero Waste Marin



Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics

December 2023



Background

In 2015, the U.S. Environmental Protection Agency and the U.S. Department of Agriculture jointly announced an ambitious national goal to reduce food loss and waste by 50% by 2030. In 2021, EPA directly aligned the food waste part of the goal with the United Nations Sustainable Development Goal (SDG) Target 12.3:^{1,2} “by 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.”³ Recycling food and other organic waste (e.g., composting, creating other beneficial byproducts) will also drive progress toward EPA’s nationwide goal of a 50% recycling rate by 2030 and support the USDA Climate Smart Agriculture and Forestry Strategy.⁴ Achieving these complementary goals supports the *U.S. Methane Emissions Reduction Action Plan*,⁵ which identified reducing food waste in landfills as an Administration action to reduce methane emissions.⁶ Lastly, food waste is responsible for 58% of landfill methane emissions released to the atmosphere,⁷ so diverting food waste from landfills is an effective strategy to reduce harmful landfill emissions, including methane. The concentration of methane (a potent greenhouse gas) in the atmosphere has more than doubled over the past 200 years. Scientists estimate that this increase is responsible for 20 to 30% of climate warming since the Industrial Revolution.⁸ Per the Fifth National Climate Assessment (NCA5), the increase in global greenhouse gas emissions is causing rapid warming and other large-scale changes, many unprecedented in thousands of years, including rising sea levels, changing rainfall patterns, shift in timing of seasonal events, and others.⁹

Through this *Draft National Strategy for Reducing Food Loss and Waste and Recycling Organics*, the Biden-Harris Administration identifies concrete steps—and complementary EPA, USDA, and Food and Drug Administration actions—that will accelerate the prevention of food loss and waste, where possible, and the recycling of the remainder with other organic waste, across the entire supply chain.¹⁰ To build a more circular economy for all, EPA, USDA and FDA seek to highlight opportunities to use raw materials more efficiently, enable those resources to be used for their highest value, and recover valuable resources from discarded materials. EPA, USDA and FDA seek to accomplish this in ways that address climate change while being inclusive of all communities, consider environmental justice concerns and the potential to reduce food and nutrition insecurity, and drive innovation and economic growth. EPA, USDA and FDA collaborate on food loss and waste efforts, and all three work closely with a variety of public- and private-sector partners. The three federal agencies have a formal interagency agreement focusing on the cooperation and coordination of efforts to reduce food loss and waste.^{11,12}

Audience: Governmental and non-governmental organizations, communities and businesses focused on preventing food loss and waste and increasing organics recycling.

Scope: Food loss and waste is created throughout the food supply chain from production through household consumption. This Strategy focuses on preventing food loss and waste and recycling organic waste (including food, yard and tree trimmings) and other organic materials along the entire supply chain.

The term “organic” in this Strategy means “carbon-based materials”; it does not refer to food and fiber certified under the Organic Foods Production Act of 1990.

In the United States, the average family of four spends \$1,500 each year on food that ends up uneaten.¹³ More than one-third (nearly 100 million tons) of the U.S. municipal waste stream is organic waste, including food, yard and tree trimmings and other organic materials.¹⁴ Sixty-six million tons of this is food.¹⁵ Food is also the single most common material found in landfills, comprising 24% of municipal solid waste in landfills,¹⁶ and 61% of methane generated by landfilled food waste is not captured by landfill gas collection systems and is released to the atmosphere.¹⁷ The production and current management of this material as waste uses significant resources. It also contributes to a broad range of environmental impacts, including:

- Climate change.
- Air pollutants.
- Water scarcity.
- Biodiversity loss.
- Soil and water quality degradation.

For example, producing, grading, packing, processing, distributing, retailing, preparing and disposing of the amount of food that is currently wasted annually in the United States contributes greenhouse gas (GHG) emissions equivalent to those of 60 coal-fired power plants and requires enough water and energy to supply more than 50 million homes each year.^{18,19} Food loss and waste and other organic materials are resources rich in essential plant nutrients that can be recovered and returned to soils, building soil health and resiliency in urban to rural environments and reducing reliance on mined and synthetic fertilizers.²⁰ Preventing food loss and waste where possible, and recycling organic waste, can substantially reduce environmental impacts. This effort will also provide social and economic benefits which can also help address the needs of underserved communities, such as:

- The potential to increase food access for food-insecure Americans and increase the recovery and donation rate of wholesome food, for example through the emergency food system.
- Creating materials management or food waste reducing innovation-related new jobs, industries and sectors of the economy.
- Increasing supply chain resiliency.
- Delivering financial savings to households.

Food loss and waste (FLW) happens when food intended for human consumption is not ultimately consumed by humans.

Food loss happens when food leaves the human food supply chain on the farm, following harvest, or in the processing or distribution sector.

Food waste leaves the human food supply chain in the retail, food service or household sector.

Prevention of food loss and waste in this Strategy broadly refers to preventing food from becoming waste in the first place (i.e., source reduction) and keeping it in the human food supply chain by rescuing and/or upcycling it.

Organics recycling in this Strategy refers to collecting and processing food loss and waste and other organic (carbon-based) materials, such as yard and tree trimmings, that would otherwise be landfilled or incinerated, and turning it into new products, such as soil amendments (e.g., by composting food scraps). Some organics recycling solutions also generate heat and/or biogas that can be captured and used to produce electricity or fuel.

With the release of this draft Strategy, the Biden-Harris Administration is seeking input from diverse partners—including local, state, Tribal, and territorial governments; professional and industry associations; individuals, private companies, and those working in food and agricultural industries; academic institutions; and non-governmental and community-based organizations. In many cases, this Strategy builds upon the successful work and input of these partner organizations.²¹ The Biden-Harris Administration will address the comments received on this draft Strategy, finalize it, and begin implementation of the final Strategy in 2024. EPA will use the Bipartisan Infrastructure Law’s materials management grants,²² and other resources available, to implement actions in this Strategy as appropriate. Specifically, under the law, at least 40% of these investments, as part of the Justice40 initiative²³, will fund projects that benefit disadvantaged communities. USDA will use American Rescue Plan Act (ARPA) and Inflation Reduction Act (IRA) funds, capacity, and competitive research, education, Extension funding, and other resources available to implement actions, as appropriate to their authority. The Biden-Harris Administration is seeking input from individuals and partners on what federal actions should be included or modified in the Strategy and how best to collaborate on those efforts with partners across all sectors of society.

Goal of the National Strategy for Reducing Food Loss and Waste and Recycling Organics

Prevent the loss and waste of food, where possible; increase recycling of food and other organic materials to support a more circular economy for all; reduce GHG emissions; save households and businesses money; and build cleaner, healthier communities.

The actions detailed in this Strategy will help the United States meet its *National Food Loss and Waste Reduction Goal*^{24,25} to halve food loss and waste by 2030 and contribute to achieving the National Recycling Goal²⁶ to achieve a 50% recycling rate by 2030, as well as contribute to global achievement of the United Nations SDG Target 12.3.^{27,28} Preventing food loss and waste and recycling food and other organic waste will also reduce landfill methane emissions, in support of the *U.S. Methane Emissions Reduction Action Plan*.²⁹ Coordinated efforts to reduce food loss and waste will complement the Administration’s additional efforts to reduce methane emissions from landfills and agriculture (e.g., supporting anaerobic digestion). These efforts are part of the Administration’s whole-of-government methane strategy—including actions to cut emissions from landfills and food waste, agriculture, the oil and gas sector, abandoned mines, and other major sources, while improving measurement and monitoring—to fulfill the Global Methane Pledge, which aims to reduce anthropogenic methane emissions by at least 30% by 2030 from 2020 levels.

Scope of materials included in this Strategy

This Strategy addresses organic waste, defined as food, yard and tree trimmings, and other organic (carbon-based) materials in the waste stream. States and local jurisdictions often vary in the materials included in their definitions of organic waste. Organic materials such as yard and tree trimmings are often recycled on their own, but they may also be recycled together with food and therefore are included in this Strategy. Composting nitrogen-rich materials, like food, requires carbon-rich materials such as woody yard and tree trimmings and dried leaves.

Environmental justice and equity

Identifying and addressing the challenges related to food loss, food waste and organic waste to help meet the needs of Tribal communities and communities with environmental justice concerns is an integral part of the Strategy. These communities bear the brunt of the adverse environmental, social and economic consequences of waste management, among other systems. More equitable outcomes, including waste or recycling collection and/or materials management options, require addressing their needs. Furthermore, this Strategy was a deliverable in the Biden-Harris Administration's National Strategy on Hunger, Nutrition, and Health, and these efforts align with Pillar 1, "Improve Food Access and Affordability," which seeks to reduce barriers to food recovery by making it easier for food retailers and the service industry to donate wholesome foods.³⁰

Strategies to recover food that would otherwise be lost or wasted could help deliver additional wholesome foods, especially fresh fruits and vegetables, to emergency food assistance organizations, such as food banks and food pantries. This in turn could have health and economic benefits for households that use such sources when they are experiencing food insecurity. Such strategies would also contribute to feeding the growing global population with less environmental impact. The Strategy highlights opportunities, especially where there are environmental justice concerns, to build community-scale organics recycling infrastructure; reduce pollution; create jobs within underserved communities; and use compost made from recycled organic waste, including food, to support green infrastructure and build healthier soil across communities.


A central part of addressing environmental justice and equity is the meaningful engagement of communities in decisions that affect them. Robust engagement with communities most affected by the obstacles identified below is a foundational component of this Strategy. Through community partnerships grounded in equity, this Strategy will ensure that communities most in need will be deeply engaged in its development and implementation—and will be beneficiaries of its success.

Challenges

Many challenges must be overcome to prevent half of food loss and waste (*National Food Loss and Waste Reduction Goal*) and to recycle half of all waste, including food and other organic waste (*National Recycling Goal*). This Strategy addresses seven key challenges:

- **Limited outreach and education.** A national, coordinated behavior change campaign that goes beyond awareness could enable businesses across the food supply chain, and also consumers, to make a noticeable difference on reducing food loss and waste. Limited outreach efforts have focused on awareness and fallen short of this goal.
- **Limited fundamental research funding.** Fundamental research in both the technical sciences and the social sciences can provide the groundwork for the development of new and innovative technologies, solutions and practices; improve capacity building; lead to the widespread commercialization of valuable innovations; and improve our understanding of why people waste food and what solutions can drive changes. USDA funds some foundational research on food loss and waste as part of its overall research portfolios but does not have dedicated funding for food loss and waste.

- **Need for collaboration.** The drivers of organic waste, including food loss and waste, vary by stage of the supply chain. In many cases, they can be best overcome by actors from multiple stages of the supply chain working together. Partnerships within the private sector, as well as between the private and public sectors, including underserved communities, will be needed to identify effective solutions, scale up their implementation, and measure progress toward the national goal.
- **Obstacles facing underserved communities.** Lack of access to healthy and affordable food in communities leads to higher rates of food insecurity. Underserved communities may face greater challenges around food and nutrition security and may rely on emergency food assistance organizations more than other communities. In addition, underserved communities may not have access to composting options that improve soil health and keep the economic and job benefits of organics recycling in those communities.
- **Insufficient infrastructure and planning.** Current organics recycling infrastructure is not sufficient to meet the National Recycling Goal, in part because the goal is insufficiently reflected in state and local government planning processes. Funding, equipment, reliable hauling collection services, assistance with obtaining siting approval and permitting, and identification of suitable locations will be needed to increase recycling of certain types of food waste and other organic waste into animal food (e.g., where wholesome), compost, energy and other products at industrial and community scales. Moreover, infrastructure to distribute wholesome food to emergency food assistance organizations and to properly store it to extend its usable life (e.g., sufficient cold storage) is also limited.
- **Organics recycling market expansion.** Markets for the use of recycled products made from organics, such as compost, must be expanded to increase the economic incentive for organics recycling. Opportunities exist in a variety of applications to increase the use of compost to enhance soil health and water retention, reduce soil erosion and stormwater runoff, build resilience to climate change impacts, and serve as a contaminated site remediation tool. However, contamination in the waste stream for organic materials, especially with plastic packaging and persistent chemicals, must be addressed. Furthermore, market expansion of compost is limited by lack of awareness and education, among compost producers and customers, about the various uses and benefits of compost application; by challenges the composting industry faces around distributing compost and marketing it to a wider audience; by the need to produce different types of compost for different sectors; and by compost quality concerns.
- **Obstacles to estimating food loss and waste and progress toward goals.** USDA, EPA and ReFED (a national nonprofit with a formal agreement with the Federal Food Loss and Waste Collaboration³¹) have been collaborating to improve data and estimation methodologies, but there are many obstacles, such as limited, nationally representative data on food loss and waste in some areas (e.g., on the farm and during production stages). Data gaps and limitations make it difficult to understand the extent and consequences of food loss and waste, track progress toward the national goal, and measure success. The Administration also has been working to expand and enhance tools and strategies to more precisely



monitor, measure, verify and report methane emissions from food waste and other sources. For example, in 2023, NASA partnered with NOAA, NIST, and EPA to fly next-generation cameras and sensors over several North American cities (Los Angeles, Chicago, New York, Baltimore/D.C., Toronto) to identify methane emissions from landfills and other sources.

Objectives

Building on the latest evidence on food loss and waste, this National Strategy proposes four objectives:

- 1. Prevent food loss where possible.**
- 2. Prevent food waste where possible.**
- 3. Increase the recycling rate for all organic waste.**
- 4. Support policies that incentivize and encourage food loss and waste prevention and organics recycling.**

For each objective, the Strategy highlights strategic actions that EPA, USDA and FDA could take to address the key challenges and build on collaborative stakeholder efforts already underway. The Strategy includes EPA, USDA and FDA actions underway or planned to help meet the national goals, and it is not meant to be comprehensive of all environmentally positive actions possible in this area. Many programs included here have competing priorities and may include food loss and waste as only part of their total funding. Specific actions ultimately adopted will be informed by evidence-based research to the extent available and stakeholder engagement, and implemented through technical and financial assistance, pilots and programs, and policies, where appropriate and subject to funding and resource availability.

Preventing the loss and waste of food (i.e., source reduction) and rescuing and upcycling food are powerful strategies to reduce the environmental impact of feeding a rapidly growing global population³² while potentially improving the economic security of producers, potentially supporting emergency food assistance organizations that serve food-insecure people, and providing resources for new types of businesses and jobs. Improved food system efficiency may reduce the need for agricultural expansion into tropical forests and other critical ecosystems, both in the United States and abroad. By one estimate, more than 85% of the GHG emissions associated with food waste occur before the food reaches the landfill (i.e., during production, processing and distribution).³³ This means that prevention offers the greatest opportunity of all food loss and waste strategies to decrease GHG emissions, protect critical ecosystems and address climate change.³⁴

The first two objectives below address prevention of food loss and waste. (Food loss occurs on farms or during food manufacturing/processing, storage and distribution, whereas food waste occurs in retail, food service or households.)

Objective 1: Prevent the loss of food where possible

Opportunities to reduce food loss at the production and distribution stages of the food supply chain can lead to greater economic returns for producers, manufacturers and distributors. By some estimates, food loss and waste and surplus food was valued at roughly 2% of U.S. gross domestic product—or \$444 billion—in 2021.³⁵ Innovation, collaboration and market development will drive progress toward preventing the loss of foods and enable significant social, environmental and economic benefits from farm to table. Some actions, such as policy adjustments and innovations, can apply to both food loss and waste and can allow the equitable development of new technologies at all levels of government that help the United States meet its National Food Loss and Waste Reduction Goal.

Strategic actions

- A. Optimize the harvest or collection of raw commodities and foods.** Deepen collaboration among farmers, fishers, livestock producers, processors, distributors, retailers, schools and emergency food assistance organizations (such as food banks and pantries) to develop new business models and data to support new policies that use a greater share of foods produced. Examples could include but are not limited to whole crop purchase and/or partial order acceptance by retailers, procurement models to source local produce in select circumstances (e.g., between farms and schools that accept produce donations), specification changes for market orders, better integration of production and processing facilities, improved on-farm storage, and technical assistance on loss reduction approaches through public-private partnerships. Incorporate loss-reducing business, agricultural and technological innovations, such as improvements in demand forecasting, cultivars, machinery and technologies including predictive analytics (i.e., Artificial Intelligence), and strengthen on-farm food rescue and the equitable distribution of surplus food.³⁶
- USDA's Food and Nutrition Service (FNS) aims to continue supporting The Emergency Food Assistance Program (TEFAP) Farm to Food Bank Projects, subject to continued authorization and funding from Congress. These projects are designed to reduce food waste at the agricultural production, processing or distribution level through the donation of food and provide food to individuals in need; and build relationships between agricultural producers, processors, and distributors and emergency feeding organizations through the donation of food. Projects are administered by state and local agencies to cover the cost to harvest, package, process and transport commodities that may otherwise go to waste.
 - The USDA Farm Service Agency's (FSA's) Farm Storage Facility Loan Program provides low-interest financing so producers can build or upgrade facilities to store commodities (e.g., cold storage for produce and frozen foods) to increase the shelf life of products

so they are more likely to make it to market. A “microloan” category addresses the needs of smaller farms and specialty crop producers.

- USDA’s Local Agriculture Market Program (LAMP) consists of several programs by the Agricultural Marketing Service and Rural Development that, in addition to other priorities, provides support for on-farm food loss and waste activities such as food recovery, community composting and K–12 education.
- USDA’s National Institute for Food and Agriculture (NIFA) is investing \$15 million in ARPA funding in the Community Food Projects (CFP) Competitive Grants Program to develop links between food producers, providers, food recovery organizations (e.g., gleaners) and emergency feeding organizations to get surplus wholesome food to individuals via emergency food assistance organizations. NIFA will solicit proposals that focus on food loss and waste efforts, and strengthen the evaluation (metrics) collected on these topics. This funding also covers a new partnership with the USDA NIFA Sustainable Agriculture Research and Education (SARE) program, which will increase future training and technical assistance efforts to build capacity for food loss and waste initiatives.
- USDA is investing in innovations to reduce food loss and waste or to make new products out of food scraps and other resources—including plant-derived coatings to protect fruits from frost damage before harvest, fruit cultivars with longer shelf lives, using insect meal for animal food, harvest machinery that reduces bruising, and new tools that prevents cross-contamination.³⁷ USDA’s Agricultural Research Service (ARS), through its national Product Quality and New Uses program, will continue to research solutions to agricultural challenges from farm to table by improving quality, reducing spoilage and finding ways to convert wholesome agricultural processing byproducts and waste into valuable food and other products.
- USDA will also continue to help move ARS research discoveries to market to solve agricultural problems and expand the economic impact of ARS research and development through ARS’s Office of Technology Transfer, which works on partnerships, patenting and licensing.

B. Reduce food loss in food manufacturing/processing, storage and distribution.

Optimize handling, routing and storage; improve transportation, inventory and supply chain management with best practices and technologies, such as artificial intelligence, blockchain technology and remote sensing. Upcycle food ingredients or products and processing byproducts into new foods for human consumption and create animal food with remaining food that would otherwise be lost, where economically feasible, wholesome and safe.

- USDA will continue to invest in emerging technologies through the Small Business Innovation Research (SBIR) program, the Small Business Technology Transfer (STTR) program, and other programs to improve supply chain resiliency, including food waste reduction and utilization.

- USDA will continue to invest in innovative manufacturing technologies which, amongst other priorities, include improving the monitoring of product quality, food packing materials (including nanotechnology), and systems to extend shelf life and prevent food loss and waste.
- USDA will research food packaging materials from biobased and renewable sourced polymers using novel physical processes and chemical modifications. These products protect and enhance food products, eliminate or reduce pathogens, address antimicrobial resistance, extend shelf-life, and reduce food waste and reliance on fossil-fuel-based packaging.

Objective 2: Prevent the waste of food where possible

Food waste from consumers and consumer-facing businesses (retail and food service), which comprises roughly half of U.S. food loss and waste,³⁸ carries larger environmental and economic costs than food losses upstream (i.e., on-farm or within food processing and distribution), since costs accumulate as food is wasted further down the supply chain. The first two actions below are built on the recommendations of the *National Academies of Sciences, Engineering and Medicine's A National Strategy to Reduce Food Waste at the Consumer Level*.³⁹

Measurement: Progress will be measured by federal government estimates, and evaluation methods will be developed as part of the actions below.

Strategic actions

A. **Develop, launch and run a national consumer education and behavior change campaign.**

Akin to successful efforts in other countries, a national consumer campaign is needed to raise awareness about the environmental and economic impacts of food waste and to share food waste prevention tactics—such as food storage or meal planning—with consumers, with emphasis on those in underserved communities. The campaign should be informed by research and delivery of messaging through community-trusted communication routes. Community leaders, advocacy groups, business leaders and influencers can help drive education and messaging to all levels of society.

- Building on its *Blueprint for a National Campaign to Prevent Wasted Food* and in consultation with USDA, EPA will fund the development and implementation of a national wasted food prevention campaign aimed at households. Communities will be able to customize the campaign to fit their needs and audiences. The campaign will be informed by learnings from community-level food waste prevention intervention projects. In addition to existing research, projects are being funded by EPA's Science to Achieve Results (STAR) grants, one of which is focused on low-income households.
- The Strategy also proposes to rigorously test and measure, with support from at least USDA, the effectiveness of different consumer education campaign messages in encouraging households to reduce food waste.
- Expertise from USDA and FDA, on subjects such as on date labeling and consumer-reaching food safety, will be considered in the national consumer education campaign design.

B. **Educate children and youth about strategies to reduce food waste; encourage development and adoption of lifelong best practices in schools to reduce food waste.**

Providing children and youth with knowledge about food loss and waste and reduction strategies can have the potential to change wasteful behavior before it gets entrenched.

Educational activities can build on and complement several of USDA's strategic actions:

- USDA is investing \$10 million of ARPA funds in NIFA's Food and Agriculture Service Learning Program (FASLP) grants for food loss and waste reduction on school grounds. These grants are to engage in and scale up efforts that increase capacity for students to learn how to prevent food waste, change the school environment (e.g., through student-led cafeteria food waste audits), and use cafeterias and other parts of school grounds as classrooms. Also, with this funding, NIFA and the National 4-H Council will develop food loss and waste leadership trainings for youth who attend national and state level events; these youth can take lessons back to their communities and implement them locally.
- USDA FNS's Patrick Leahy Farm to School Grant Program, among other priorities, can support farm-to-school activities related to food loss and waste, such as composting school cafeteria food scraps and using the compost for school gardens or teaching children to feed cafeteria food scraps to chickens they raise on school grounds.
- USDA FNS periodically conducts the School Nutrition and Meal Cost Study (SNMCS), which estimates the amount of plate waste in the National School Lunch and School Breakfast Program. The SNMCS has identified practices that school nutrition professionals can consider implementing in their school meals programs that may help reduce plate waste, such as offering more entrée choices, offering raw vegetables every day, addressing the time and length of mealtimes, and implementing offer versus serve (an option that allows students to decline some of the food offered in a reimbursable lunch or breakfast).⁴⁰

C. Partner with the private sector to find upstream solutions to consumer food waste.

Some of the most effective solutions to preventing consumer food waste may lie upstream from households. Changes in the consumer environment should be explored, with partners in retail, food service, and food manufacturing industries and food advocates, to make it easier for all consumers and community types to waste less food. For example, successful efforts in other countries have included changes in packaging design, date labeling, marketing promotions and portion sizes.

- EPA is partnering with the United Nations Environment Programme (UNEP), the Pacific Coast Collaborative, and the Consumer Goods Forum to fund the development and testing of new interventions with retailers, food service providers and manufacturers aimed at helping consumers waste less food. Results and learnings will be shared broadly to inspire industry-wide action.
- EPA and USDA will seek other opportunities to test solutions in settings such as traditional brick-and-mortar shopping settings, as well as online shopping settings.
- USDA and EPA are committed to expanding the U.S. Food Loss and Waste 2030 Champions, a public-private partnership that includes businesses that have publicly committed to reducing food loss and waste in their own U.S. operations in half by 2030.

D. Facilitate and incentivize food donations to improve access to healthy and affordable food.

- EPA will refine and expand on food donation infrastructure data in the *Excess Food Opportunities Map*,⁴¹ a national tool that provides information on potential sources of excess food as well as potential infrastructure to help businesses, organizations and governments make better use of food by ensuring it goes to feed people or recycling it.⁴²
- EPA will continue to support projects aimed at increasing food rescue and donation models.
- Through several programs, USDA will continue to help expand the food donation infrastructure and support research, education and extension projects that improve and innovate food donation channels. For example, FSA's Farm Storage Facility Loan Program and Rural Development's Community Facilities and Rural Energy for America Program (REAP) loan and grant programs can help fund cold storage infrastructure that helps extend shelf life. USDA will continue to clarify guidance on food safety for food donations. USDA will continue to provide guidance on the donation of eligible meat and poultry products to nonprofit organizations.
- USDA will continue to provide outreach on the benefits of using tax credits to encourage the donation of food.
- USDA will continue outreach to businesses on the liability protections afforded by the Bill Emerson Good Samaritan Food Donation Act.

E. Research and identify and address unique drivers of U.S. food loss and waste and the incentives to reduce it.

- USDA will partner with academics to build on their seminal research findings on the economic drivers in the farm and pre-retail sectors for fresh produce loss to other food groups and sectors.
- USDA will support research that provides estimates of the returns on investment for food loss and/or waste reduction activities (e.g., by sector or for particular food groups).
- EPA is partnering with UNEP, the World Resources Institute and the Waste and Resources Action Programme (WRAP) to identify systemic drivers of food waste unique to the United States and recommend strategies to address them.

F. Invest in behavioral science to determine the most effective strategies to change household behaviors related to food waste.

- EPA and USDA will explore investing in behavioral science expertise and research to guide iterative design and implementation of a national campaign.

- USDA's NIFA launched a new \$1.5 million cross-cutting Agriculture and Food Research Initiative (AFRI) program area titled "Center for Research, Behavioral Economics, and Extension on Food, Loss and Waste." This center will use a systems approach in conducting research and Extension outreach to address inefficiencies in the food system, such as food waste. The center should create meaningful momentum on food loss and waste prevention and recovery among land grant universities, their partners, and external stakeholders. The Center awardee will be announced in spring 2024.

G. Test new approaches in the United States and abroad, identify technology-based solutions, and facilitate sharing of best practices to reduce food loss and waste among retailers, manufacturers and food service providers, including in their supply chains.

- EPA is partnering with UNEP and the Pacific Coast Collaborative to fund projects that test interventions to prevent wasted food across the whole supply chain, with both large industrial-scale and smaller retailers and manufacturers. Learnings will be shared to increase awareness about food waste reduction opportunities among businesses and other leading organizations and amplify solutions.
- EPA and USDA will continue to provide funding opportunities through SBIR grants to small businesses seeking to develop new technological approaches to prevent food waste.
- USDA is supporting research to develop innovative tools that will enable organizations or group initiating or running food waste reduction campaigns geared towards households to affordably and accurately track progress and success.
- FDA will continue to work with industry to implement the New Era of Smarter Food Safety Blueprint-Tech-Enabled Traceability to allow stakeholders in the supply chain to adopt and leverage digitally enabled technologies and data sharing to more quickly and accurately pinpoint contaminated food product and remove it from the marketplace, reducing food loss and waste associated with such events.

H. Participate in international forums to share best practices, data and tools. Many countries around the world are interested in reducing food waste and see it as an important action to reduce GHG emissions. The United States is a leader in food loss and waste reduction practices, data and tools and can showcase these efforts internationally. It can also bring back successful best practices from other countries.

- EPA and USDA, with support from other agencies, will continue to collaborate with the Group of Seven (G7), the Group of 20 (G20), the Commission for Environmental Cooperation, the Asia-Pacific Economic Cooperation, and the Organisation for Economic Cooperation and Development to exchange policies and best practices for reducing and measuring food waste.
- USDA will continue to host its roundtable series on food loss and waste success stories in the United States and around the world.

- USDA will host sessions (e.g., workshops for states, municipalities/localities and Tribal communities) to share the development of other food loss and waste information and highlight and disseminate best practices.

Objective 3: Increase the recycling rate for all organic waste

Recycling organic waste offers the opportunity to recover valuable resources, such as nutrients and energy, and create healthy soils, in a way that also promotes environmental justice. Certain types of organic waste can be converted to animal food, composted, anaerobically digested, or converted into energy or other products, thus providing nutrients to livestock, returning nutrients to the soil, or displacing the use of fossil fuels—all while reducing GHGs. Organics recycling is essential to building a more circular economy for all and reducing landfill methane emissions.

Measurement: Progress will be measured by EPA's metric for food waste and other organics (by management pathway destination—e.g., composting, anaerobic digestion, landfill).⁴³

Strategic actions

- A. Support the development of additional organics recycling infrastructure through grants and other assistance for all communities, especially those that are underserved.** The development of additional organics recycling infrastructure will be essential to meet the *National Recycling Goal* and to ensure that all communities can participate and share in the benefits of organic waste recycling. These actions will support centralized and de-centralized (i.e., community-scale) organics recycling operations, as well as education and training for community members.
- USDA Rural Development's REAP guarantees loans of up to \$25 million and provides grants of up to \$1 million to agricultural producers and rural small businesses for renewable energy systems or to make energy efficiency improvements, including anaerobic digesters that incorporate food waste as feedstock.
 - USDA is investing \$30 million over three years in the Office of Urban Agriculture and Innovative Production's (OUAIP's) Composting and Food Waste Reduction (CFWR) cooperative agreements. This program engages private producers and their local governments and partners to develop, implement and test strategies for planning and implementing municipal compost plans and/or food waste reduction plans.
 - EPA will fund up to \$275 million in grants through the Solid Waste Infrastructure for Recycling Grant Program (SWIFR)⁴⁴ (part of the Bipartisan Infrastructure Law), which includes supporting organics recycling infrastructure (e.g., composting and anaerobic digestion) as eligible activities. EPA anticipates providing technical assistance and peer networking opportunities to SWIFR grantees and will make available future funding opportunities under SWIFR.
 - EPA will fund up to \$75 million in grants through the Recycling Education and Outreach Grant Program (REO)⁴⁵ (part of the Bipartisan Infrastructure Law), which includes supporting education and outreach efforts for food and organics recycling

as eligible activities. EPA will provide technical assistance and peer networking opportunities to REO grantees and will make available future funding opportunities under REO.

- EPA will continue to convene the recipients of its *Supporting Anaerobic Digestion in Communities* funding to share information and lessons learned from their demonstration projects, feasibility studies, and technical assistance and education projects focusing on anaerobic digestion of food waste.
- EPA's AgSTAR program will continue to provide technical assistance support and guidance for on-farm anaerobic digesters that co-digest food waste.

B. Expand the market for products made from recycled organic waste. Education and outreach on the value of recycled products made from organic waste—compost as well other beneficial products—can help increase the market for procurement and use of these products by municipalities, state transportation departments, real estate developers, farmers, landscapers and other entities. Research to support market expansion can include the value and benefits of these recycled products made from organics. For example, it can include the benefits of compost and other beneficial products when used to improve soil quality, increase water retention, serve as green infrastructure to control erosion and stormwater runoff, build climate resilience, and aid in cleanup of contaminated soils.


- USDA and EPA will continue to conduct research and develop new materials to communicate the benefits, costs and impacts of using compost, digestate and other organic soil amendments in a variety of applications, such as building climate resilience and a more circular economy. For example:
 - › USDA's Natural Resources Conservation Service (NRCS), in consultation with various land-grant universities, will continue to support research and outreach material related to compost and other soil-related products.
 - › EPA will publish a report quantifying and communicating the environmental and economic values of using compost for a variety of purposes, including improving soil quality, remediating soil contamination, reducing soil erosion, and building resilience to a changing climate.
 - › USDA NIFA's Bioeconomy, Biorefining, and Biomanufacturing will continue prioritizing research projects that investigate how food waste and mixed waste can be diverted from the landfill and used as a feedstock for other bioproducts.

C. Enhance support to advance de-centralized (i.e., community-scale and home composting) organics recycling, with emphasis on Tribal communities and communities with environmental justice concerns, allowing all communities to benefit—economically and environmentally—from certain types of organics recycling efforts. Federal resources could be used to provide tools and increase capacity for communities for certain types of organics recycling and end-product use where possible. These efforts should include community investment and job creation.

- EPA is providing up to \$275 million in funding through SWIFR⁴⁶ (part of the Bipartisan Infrastructure Law). This funding could include support for capacity building and training for underserved communities, including efforts to enable increased decentralized composting.
- USDA is investing \$30 million over three years through CFWR cooperative agreements, which engage private producers and their local governments and partners to develop, implement and test strategies for planning and implementing municipal/community compost plans and/or food waste reduction plans and identify food waste solutions.
- EPA and USDA will identify model community composting operations and share outreach materials to support the advancement of community composting, highlighting its environmental, economic and social benefits.
- EPA and USDA will continue to strengthen opportunities for Tribes to develop composting programs on Tribal lands—for example, through training workshops, funding support and technical assistance.

D. Build, refine, and share tools and data to aid decision-making about infrastructure investments, waste management policies, and waste management pathway destinations (e.g., composting, anaerobic digestion, landfill).

- EPA will promote its new Wasted Food Scale,⁴⁷ a tool that ranks wasted food management methods based on their environmental impacts and contribution to circularity. The tool's ranking is based on the findings of EPA's 2023 report *From Field to Bin: The Environmental Impacts of U.S. Food Waste Management Pathways*.⁴⁸
- EPA will create a decision support tool that identifies the best pathways for managing waste within given circumstances (e.g., geography, type of waste, facilities/ technologies available).
- EPA will develop or refine tools, such as the Co-Digestion Economic Analysis Tool (CoEAT), that help decision-makers assess economic feasibility and benefits of adding food waste into existing organics recycling programs and infrastructure.
- EPA will continue to gather data on organic materials management, including but not limited to the generation, collection, recycling and use of organic materials. EPA commits to developing new information collection tools as needed and to make any data collected publicly available.
- Several USDA programs mentioned above, such as CFWR and REAP, will share selected aggregated data and information publicly, as well as information and tools, on food waste management pathway destinations (e.g., composting, anaerobic digesters) with awardees.
- Department of Energy will continue to provide assistance for the development of community-centered solutions and business plans for resource and energy recovery



from organic waste streams, including \$10 million for awards for Community Scale Resource and Energy Recovery from Organic Wastes and over \$1.5 million in ongoing technical assistance provided by the National Renewable Energy Laboratory. This technical assistance assists U.S. municipalities and counties in the lower 48 states, Alaska, Hawaii, and U.S. territories—as well as Tribal governments—with addressing knowledge gaps, specific challenges, decision-making considerations, planning, and project implementation strategies related to waste to energy technologies.

- *The National Strategy to Advance an Integrated U.S. Greenhouse Gas Measurement, Monitoring, and Information System* includes a task to establish measurement test beds that combined atmospheric observations of carbon dioxide and methane with activity data from landfill operations to improve municipal solid waste landfill emissions models, emissions factors, and activity data. Additionally, agencies will advance development of cost-effective measurement and monitoring approaches with landfill emissions. These tasks will be aligned and supported by parallel efforts to monitor and quantify food loss and waste reduction strategies.

E. Address contamination in the organic waste recycling stream. One current limit on organics recycling is the contamination of this waste stream with plastics, persistent chemicals and other materials.


- As requested, EPA and USDA will provide subject matter expertise and technical assistance to state, Tribal, territorial and local governments (as well as other entities) to address contamination in the organic waste recycling stream.
- EPA and USDA will support research on the uptake and bioaccumulation of PFAS in plants and animals, including PFAS bioaccumulation via biosolids application.⁴⁹
- In coordination with actions under its draft *National Strategy to Prevent Plastic Pollution*,⁵⁰ EPA will consider how to scale and refine existing solutions that address non-compostable plastic contamination in the organic waste recycling stream.
- EPA will continue to share effective outreach materials that communities can customize and use to address and reduce contamination in their composting programs through its *Composting Food Scraps in Your Community: A Social Marketing Toolkit*.⁵¹

Objective 4: Support policies that incentivize and encourage food loss and waste prevention and organics recycling

Policies that incentivize and encourage the prevention of food loss and waste, redistribution of surplus food, development of additional organics recycling infrastructure, and expansion of markets for recycled products made from organics and soil amendments made from food and other organic waste—at all levels of government—can help the United States meet its *National Food Loss and Waste Reduction Goal and National Recycling Goal*. For example, efforts can include sharing case studies; promoting state and local goal setting and climate planning; and facilitating peer learning on effective and equitable surplus food redistribution systems, organic waste collection and processing infrastructure, cost-benefit analytical tools, and market-based incentives or policy approaches to divert organic waste from landfills and incinerators (such as “pay-as-you-throw” programs or landfill bans on organic materials). Many states and cities have enacted policies to prevent the waste of food and to keep organic waste out of landfills. In 2021 alone, 25 different states introduced food waste legislation.⁵²

Strategic actions

- A. Support international policymakers aiming to build more circular economies.** The United States is advancing a range of circular economy approaches internationally in several priority sectors, including agriculture and food loss and waste.
 - EPA and USDA, with support from other agencies, will continue to collaborate with the G7, the G20, the Commission for Environmental Cooperation, the Asia-Pacific Economic Cooperation, and the Organisation for Economic Cooperation and Development to exchange best practices and policies for the reduction and measurement of food waste.
 - USDA, with support from other agencies, continues to support the United States’ participation in the Food Is Never Waste Coalition, which was launched in Rome in 2021 at the UN Food Systems Summit to reduce food loss and waste while emphasizing financial and economic sustainability.
 - USDA Secretary and EPA Administrator are members of the Champions 12.3 coalition, which consists of executives from governments, businesses, international organizations, research institutions, farmer groups and civil society dedicated to inspiring ambition, mobilizing action and accelerating progress toward achieving SDG Target 12.3 by 2030.
- B. Support Tribal, territory, state, and local policymakers aiming to build more circular economies.**
 - EPA and USDA will provide subject matter expertise and technical assistance to Tribes, territories, states and local governments, as requested, on policy approaches and



options for reducing food loss and waste and increasing food waste and/or other organics recycling.

- EPA and USDA will identify barriers to decentralized community composting and share information with partners, such as state and local policymakers.
- EPA will continue to convene the National Compost and Anaerobic Digestion Peer Network, composed of state and local government staff working on organics recycling efforts, as well as the Food: Too Good to Waste Peer Network, composed of state and local government staff who share successful strategies for reducing household food waste. These networks aim to share information on current research, challenges and solutions and provide a platform for state and local governments to collaborate and learn from each other. EPA will continue to expand participation in both networks.
- EPA will continue to share example state and local climate action plans on its website that contain actions to reduce food loss and waste, as well as recycle organic waste.⁵³
- USDA will continue to host events that highlight success stories and sharing of information for food loss and waste prevention. These events could include information on building a more circular economy.
- FDA will continue to work to encourage uniform adoption of food donation practices updated in the Food Code, which provide consistency and uniformity for public health officials to ensure alignment with food safety requirements, by state, local, Tribal, and territorial retail food protection programs.

Measuring progress toward the objectives

EPA and USDA will work together and collaborate with external partners to improve measurement of food loss and waste and to track progress toward the *National Food Loss and Waste Reduction Goal*, the *National Recycling Goal*, and *SDG Target 12.3*.⁵⁴

EPA and USDA will rely on—and expand and improve where necessary and feasible given available resources—their existing datasets for food loss and food waste. More data will be needed in some areas, such as on-farm food losses, and more regular updates may be needed in other areas to track progress. All data sources will be peer-reviewed to ensure quality. Ultimately, this work will be partially guided toward data analytics that can be used for accurate predictive tools for food loss and waste along the supply chain. Models already exist for what and how these data could be provided so that tracking food loss and waste and seeking opportunities can become proactive rather than reactive.

EPA will also develop measures to track the environmental benefits achieved through progress toward the *National Food Loss and Waste Reduction Goal*, and will publicly report these measures in its *Report on the Environment*.⁵⁵ The first metric will quantify the methane emissions associated with landfilling food waste and will build on EPA's 2023 report *Quantifying Methane Emissions from Landfilled Food Waste*.⁵⁶

As noted above, agencies will coordinate under the *National Strategy to Advance an Integrated U.S. Greenhouse Gas Measurement, Monitoring, and Information System* to enhance quantification tools to measure landfill emissions. The agencies will also address composting and other strategies through ongoing efforts to measure, monitor, report on and verify greenhouse gas emissions reductions resulting from the adoption of conservation practices and strategies.

Glossary

Circular economy: An economy that uses a systems-focused approach and involves industrial processes and economic activities that (a) are restorative or regenerative by design; (b) enable resources used in such processes and activities to maintain their highest values for as long as possible; and (c) aim for the elimination of waste through the superior, cost-effective design of materials, products and systems (including business models).⁵⁷

Environmental justice: The just treatment and meaningful involvement of all people, regardless of income, race, color, national origin, Tribal affiliation or disability, in agency decision-making and other federal activities that affect human health and the environment.⁵⁸

Equity: The consistent and systematic fair, just and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, Indigenous and Native American persons, Asian Americans and Pacific Islanders, and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.⁵⁹

Food loss: Food intended for human consumption that is not ultimately consumed by humans because it is lost on the farm, post-harvest, or in the processing or distribution sectors.


Food loss and waste: Loss or waste that happens when food intended for human consumption is not ultimately consumed by humans. Crops grown to produce biofuel, feed or seed, or other non-food products are not included. Food loss and waste may also be referred to as “wasted food.”

Food rescue: Collecting and distributing surplus or excess food to keep the food in the human food supply chain. This often happens through donation.

Food waste: Food intended for human consumption that is not ultimately consumed by humans because it is discarded or recycled in the retail, food service or household sectors.

Green infrastructure: The range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters.⁶⁰

Organics recycling: Collecting and processing food loss and waste and other organic (carbon-based) materials, such as yard and tree trimmings, that would otherwise be landfilled or incinerated, and turning it into new products, such as soil amendments (e.g., by composting food scraps). Some organics recycling solutions also generate heat and/or biogas that can be captured and used to generate electricity and/or fuel.



Organic waste: Includes food, yard and tree trimmings, and other organic (carbon-based) materials in the waste stream. Materials included in the definition of organic waste vary by state and local jurisdiction (e.g., some state and local jurisdictions include lumber and manure). The term “organic” in this Strategy does not refer to food and fiber certified under the Organic Foods Production Act of 1990.

Prevention: In this Strategy, “prevention” of food loss and waste broadly refers to preventing food from becoming waste in the first place (i.e., source reduction) and keeping it in the human food supply chain by rescuing and/or upcycling it.

Surplus food: Food that is donated to food banks, pantries, and other organizations, or upcycled into new food products, and therefore kept in the human food supply chain. Surplus food is not considered food loss or food waste. May also be referred to as “excess food.”

Underserved community: A population sharing a particular characteristic, or a geographic community, that has been systematically denied a full opportunity to participate in aspects of economic, social and civic life.⁶¹

Upcycled food: Foods that use ingredients that otherwise would not have gone to human consumption, are procured and produced using verifiable supply chains, and have a positive impact on the environment.⁶²

Wasted food: This term can be used interchangeably with “food loss and waste” to mean food intended for human consumption that is not ultimately consumed by humans.

Endnotes

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MARIN COUNTY HAZARDOUS AND SOLID WASTE MANAGEMENT JOINT POWERS AUTHORITY

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Poldino, Program Manager

County of Marin

Re: Approval of Waste Characterization Study

Fairfax

Under SB 1383, Article 11, Section 18992.1, Organic Waste Recycling Capacity Planning, each county is responsible for estimating the amount of all organic waste in tons that will be disposed by the county and jurisdictions within the county. The next organic waste recycling capacity report is due to CalRecycle on August 1, 2024.

Larkspur

Mill Valley

The County of Marin nor Zero Waste Marin have conducted a comprehensive countywide Waste Characterization Study. The last statewide study was completed by CalRecycle in 2021 and published in 2022. This statewide study does not reflect the nuances of our county.

Novato

Ross

Previous studies completed by one hauler in the county also do not reflect the true number of solid waste and organics disposal county wide.

San Anselmo

Staff recommends conducting a county wide Waste Characterization Study that is reflective of current disposal levels and will provide more accurate data from all haulers bringing material to the local landfill and compost facility. This study is imperative to guide the organic waste recycling capacity report due in August and will also guide planning for biomass utilization.

San Rafael

Sausalito

Recommendation

Tiburon

Adoption of a Motion approving the JPA Board to conduct a Waste Characterization Study at WM Redwood Landfill and WM Earthcare.

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Board Chair: Please confirm the vote on this item by reading the following items out loud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Fritz, Senior Planner

County of Marin

Re: Approval of LTF Members

Fairfax

The Local Task Force currently has three vacant seats for the public: one for a representative from Southern Marin, one for a representative from Unincorporated Marin, and one for a representative from Ross Valley. Zero Waste Marin staff publicized this opening via social media, the Zero Waste Marin website, and by contacting the local sustainability groups representing the different areas of Marin County.

Larkspur

Mill Valley

Three applicants responded to these openings on the Local Task Force. Two applicants were for the Southern Marin seat, and one applicant was for the Unincorporated Marin seat. The Ross Valley seat remains open with no applicants. ZWM staff are making their recommendations based on the experiences of the applicants.

Novato

Ross

Recommendation

Adoption of a Motion approving the JPA Board to appoint two new public members of the Local Task Force:

- Chuck Hornbrook representing Southern Marin, and
- Deirdre Fennessy, representing Unincorporated Marin.

San Anselmo

San Rafael

Sausalito

Tiburon

8
**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Board Chair: Please confirm the vote on this item by reading the following items out loud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

November 27, 2023

To: Marin County Senior Planner Casey Fritz at casey.fritz@marincounty.gov

I was notified that Zero Waste Marin (ZWM) has restarted the Local Task Force (LTF) and is looking for regional volunteer representatives from Tiburon and other Southern Marin locations. From the ZWM website it is not clear if this spot is still available. None-the-less I thought I would submit a cover letter and a summary of my local government advisory and professional experience.

I am a resident of Tiburon and before moving to Tiburon 6-plus years ago I was a 19-year resident of San Francisco. I have an MS in Environmental Studies (in addition to an MBA, both from the University of Michigan). My master's thesis using life cycle assessment (LCA) and cost accounting principles focused on how to create a framework for environmental cost accounting (including solid waste). I am familiar with and understand solid waste and greenhouse gas (GHG) implications of the waste stream and how reducing, reusing, and recycling should be part of everyone's daily routine and that bauxite (source of aluminum) mining represents 3% of the global GHG emissions.

Professionally, I have spent the last 15 years focused on distributed energy resources including solar, energy efficiency, electric vehicle charges, fuel cells, energy storage and the distribution grid. While I was at PG&E, my team was accountable for running the largest solar program in north America, collaborating with other utilities and the California Public Utilities Commission promoting the solar program and establishing rules on how to use biogas/methane from landfills as an alternative fuel to be converted into hydrogen and used in fuel cells. Also, in this role and others I am very family in the California Assembly process. I am also now semi-retired, so making the meeting times would not be a challenge.

As part of California commissions for over 10 years, I am familiar with the Brown Act and its requirements. Locally in Tiburon as a member of the Parks Open Space and Trails Commission, my sub-committee edited the town's Integrated Pest Management (IPM) policy leveraging best practices in Marin and Sonoma counties and reaching out to Marin County IPM Commission members for feedback. This updated IPM policy was presented to the town council and passed. I am also engaged with the community and the community's largest employer, the Reed Union School District (RUSD), with their Capital and Safety Committees as well as their Safe Routes to School task force. I also communicate often with the Head of the Tiburon Chamber of Commerce and residents in the community as a member of the Golden Gate Ferry Passenger Advisory Committee as its sole Tiburon member.

As a member of the Commissions and past professional work, I have been in similar roles of synthesizing information and providing summaries and recommendations to executives, town councils, and board members. I would appreciate the opportunity to be considered as a member of the Zero Waste Marin Local Task Force providing this public service in waste minimization, recycling, and the circular economy.

I have attached a public engagement resume highlighting my volunteer work first and my professional work as well. Thank you in advance.

Chuck Hornbrook



CHUCK HORN BROOK

Community Leadership/Engagement Experiences

TIBURON PARKS, OPEN SPACE, AND TRAILS COMMISSION

MARCH 2019 –PRESENT

Former Chairperson/Currently Vice Chair

Appointed to 5-person Commission by Tiburon Town Council to provide policy guidance regarding the town's parks, open spaces, and trails. Policy focus has included use of herbicides and wrote town's Integrated Pest Management (IPM) policy, park use policies, trail connection points and improved public access/feedback on Town policies.

SLIDE RANCH

MARCH 2022 –PRESENT

Board member/Finance committee

Selected to join Slide Ranch Board to advise executive director on financial planning and strategic direction of Slide Ranch. Advised executive director on energy use and direction on how to become more sustainable.

GOLDEN GATE FERRY PASSENGER ADVISORY COMMITTEE

FEBRUARY 2020 –PRESENT

Tiburon representative/Currently Vice Chair

Selected to be on Golden Gate Transit Authority committee on usage, policy and infrastructure planning. Includes community outreach and attending committee meetings every 2 months.

REED UNION SCHOOL DISTRICT CAPITAL PLANNING AND SAFETY COMMITTEES

2021 –2023

Member

Asked by RUSD superintendent to join committees looking at future capital needs across RUSD properties and safety issues at the same properties. Committee meetings included collaborating with RUSD staff, other parents, Tiburon Police and Fire and other stakeholders on recommendations to RUSD school board.

“YES ON M” FOR COMMUNITY ACQUISITION OF MARTHA PROPERTY

FALL ELECTION CYCLE 2022

Volunteer coordinator and campaign sign logistics

Working with the Trust for Public Lands representative and head of Tiburon Open Space organized volunteering and campaign sign distribution throughout assessment district. Led to a very successful outcome.

FOUNDATION FOR REED SCHOOLS

SEPT 2022-MAY 2023

Sponsorship team

Part of 3-person sponsorship team reaching out to commercial community members in Tiburon and North Bay for interest in sponsorship opportunities to support the Foundation for Reed Schools financial goals.

TIBURON CLIMATE ACTION COMMITTEE

SPRING 2022 –PRESENT

Member

Became a member and advocate for the town of Tiburon to adopt community leading climate action targets in the town's Climate Action Plan and advocating other climate action initiatives.

SAFE ROUTES TO SCHOOL, DEL MAR MIDDLE SCHOOL PTA

SEPTEMBER 2020 –PRESENT

Parent lead and Parks and trails delegate

Collaborating with County of Marin team and parent community as part of Reed Union School district developing safe routes for biking and walking to schools as an alternative to driving. Standing member as part of Tiburon POST.

HILL HAVEN HOMEOWNERS ASSOCIATION

SEPTEMBER 2019 –PRESENT

Vice President

Attend Association meeting and collaborate with other homeowners on issues critical to neighborhood.

CLEAN ENERGY FOR BIDEN

JULY 2020 –JANUARY 2021

Phone banking lead

Worked with national Clean Energy for Biden team, structured process for phone banking, technical requirements and national outreach for Presidential Election and Georgia Senate Runoff.

TIBURON/BELVEDERE RESIDENTS UNITED TO SUPPORT THE TRAILS (TRUST) **JUNE 2018 –JUNE 2019**
Board member and Treasurer
Managed donations, expenses, and relationship with local fiscal sponsor for efforts to keep trail access accessible to public for last undeveloped private lands on Tiburon Peninsula.

MARIN PREPARATORY SCHOOL PAC **JUNE 2016 –AUG. 2017**
Board member and Treasurer
Managed donations, expenses and reporting to school and community for small private school located in SF.

SF PUBLIC EDUCATION ENRICHMENT FUND COMMUNITY ADVISORY COMMITTEE **SEP. 2013 –AUG. 2015**
Board member and Secretary
Appointed by SF Unified School Board member as community/parent member to board charged with reviewing and advising school board on multi-million-dollar student education and enrichment funds. Activities included reviewing programs and three-year budgets, presenting to School Board, and documenting and communicating decisions.

SUNSET NEIGHBORHOOD BEACON CENTER **SEP. 2008 -MARCH 2011**
Board member
Advised executive director and raised funds for San Francisco community based organizing providing before and after school enrichment opportunities for elementary and middle school students in San Francisco.

Professional/Paid Experiences

TRANSILIENCY – An Impact Consultancy, Tiburon, CA **JULY 2020 –PRESENT**
Managing Director

- Advisory focused on sales, operations, and execution for non-profits and small to medium sized businesses.
- Projects have included micro-business loans program for private companies impacted by COVID-19, business plan development, go to market strategy and actionable sales analytics.

ENEL X WAY – EV Charging Infrastructure, San Carlos, CA **MARCH 2023-JULY 2023**
Director of Business Operations – Contract

- Advisor to head of North America and interim Director for sales operations, analytics and proposals.
- Established sales pipeline call metrics and process and developed sales onboarding & enablement to grow top line.
- Ran monthly metric review with Italian parent company and new CRM roll-out with Italy team.

KEVALA – An Electrical Grid Analytics SaaS Company, San Francisco, CA **OCT. 2018 –JUNE 2020**
Senior Vice President

- Led strategy and execution for sales, marketing, and customer success efforts for Company's B2B solution targeting solar developers, utilities and energy stakeholders.
- Increased size of pipeline by 200% in first 6 months, increased booked SaaS revenue 400% from FY2018 to FY2019, and grew booked SaaS revenue more than 200% 1H 2019 to 1H 2020 with team of 1 sales associate.
- Established strategy, processes, and systems to execute at scale customer success/support and feature development.
- Reported to Board on results and collaborated with CEO on priorities.

STEM – An AI Energy Optimization Company, Bay Area, CA **JAN. 2016 – SEPT. 2018**
Director of Sales Operations

- Lead team of 9 providing sales support, contracts, business operations, commission development and execution, deal review, Salesforce management, referral program management, BI and sales forecasting.
- Delivered over 1000% increase in sales bookings over two years with only 60% increase in head count through increasing sales velocity, automation, and improved communication and execution.
- Developed new commission structure to motivate sales team, decrease CAC, reduce risk, and improve post sale execution. Result was 30% reduction in CAC YoY.
- Lead cross functional teams to improve hand offs between sales, installation and customer success to increase cash flow from installation of distributed storage services.

WAYPOINT BUILDING GROUP-A CRE SaaS Company, San Francisco, CA

NOV. 2014 – DEC. 2015

Vice President, Operations

- Led utility business development and managing team delivering energy efficiency consulting solutions.
- Grew booked revenue by 60% year over year (YoY) and established national partnerships.
- Establishing processes and procedures using cloud based applications to meet customer requirements.

ICF INTERNATIONAL, A CONSULTING FIRM, San Francisco, CA

SEPT. 2013 – OCT. 2014

Principal and Director of Distributed Energy Resources

- Established ICF's national Distributed Energy Resource (DER) practice, chartered to develop consulting and analytical service to commercial clients, US electric utilities, DER commercial developers.
- Led business development and projects targeting commercial, utilities and government clients.
- Presented at conferences/webinars highlighting opportunities in the US energy market and ICF services.

ITRON, Oakland, CA

NOV. 2009-SEPT. 2013

Senior Product Manager – Smart Grid New Product Development and Consulting Services

- Business and product development for the Company's smart grid products for distributed energy resources, street lights and other product solutions for the electric utility markets.
- Led Company's solar meter product development partnerships, marketing, support strategy, distribution and sales execution for the utility and non-utility markets.
- Developed and evangelized Itron's business case financial model used in customer sales and consulting engagements. Model monetized operational, energy reduction, and reliability benefits from grid modernization efforts. Led engagements using model with utilities located in the US, Mexico and Asia.
- Led consulting team efforts on providing analysis and impact of distributed generating resources on electrical grid for utility and regulatory customers.

PACIFIC GAS & ELECTRIC, San Francisco, CA

JUN. 2007-NOV. 2009

Senior Manager, Solar and Customer Energy Efficiency

Oct. 2007 – Nov. 2009

- Led PG&E's customer distributed generation programs. Organization consisted of 36 people accountable for customer success, implementation and management of PG&E's \$176M per year delivery of financial incentives.
- Established process workflows, metrics and cross functional teams for improved execution.
- Supported and presented to senior vice presidents and C-level executives on fuel cell and solar technologies and customer adoption of distributed solar PV generation.

Supervisor, Sustainable Communities

Jun. 2007 – Oct. 2007

- Developed strategic plan and built internal consensus with team on new product concept integrating energy efficiency, renewable resources, demand response and related utility services.

EFI, Bay Area, CA

AUG. 1998-OCT. 2006

World Wide Director, Customer Success and Business Development

Feb. 2005 – Oct. 2006

- Developed strategic direction and led global team of 40 consultants and support engineers located in 6 offices in Europe, Japan, and North America
- Accountable for delivering services and customer support using Salesforce across different sites.
- Created and negotiated multi-year service agreements generating over \$13 million in revenue.
- Created and led customer quarterly review of post launch products addressing customer success items.

Senior Manager, Services and Operations Development

Feb. 2002 – Feb. 2005

- Collaborated with stakeholders and established Company's first global service levels, product life-cycle support policies, and operational processes for customer support and services for offices in US and Amsterdam.
- Led the development and use of Company's first "Product Dashboard" across engineering and services.
- Over 2-year period reduced customer response times by 66% and resolution performance by 75%.

Senior Manager, Product Marketing

Sept. 2000 – Feb. 2002

- Collaborated with executive management to develop and define product strategy and marketing plans for solutions targeted for corporate segment, representing approximately 40% of company revenue.
- Managed product and feature development and user interface design for EFI's document management, print driver, scanning and office productivity software applications.

Manager, Finance and Manufacturing Operations

Aug. 1998 – Sept. 2000

- Led merger and acquisition valuation team for \$146 million successful acquisition of Splash Tech.
- Identified and implemented reduction of royalty expenditures (over \$2 million in avoided costs) in FY 1999 and FY 2000 by reviewing product configurations and contractual obligations.

Education

UNIVERSITY OF MICHIGAN, Ann Arbor, MI

Ross School of Business

School of Environment and Sustainability (SEAS)

- Joint Masters in Business Administration (MBA) and Environmental Science (MS), 1998
- Master's Thesis: "Tools and Implementation Framework for Environmental Cost Accounting". Thesis focused on Life Cycle Assessment (LCA) and Cost Accounting principles.

HOBART COLLEGE, Geneva, NY

Bachelor of Arts with Honors in Economics, 1990

Specialized Operational/Business Tools

Salesforce, Insightly, Insight Squared, AirTable, Asana, SalesHood, Atlassian Confluence and JIRA

Additional Community Activities

- Grocery Delivery, SF Main Food Bank, September 2023-ongoing
- Docent Tiburon-Belvedere Landmarks, May 2023-ongoing
- Broom Busters, Broom pulling on Old Saint Hilary Open Space 2018-ongoing.
- San Francisco State University Romberg Tiburon Campus Development Council, 2022-23
- Baseball Commissioner Tiburon Little League for 7th-9th graders 2021-23
- Coach Tiburon Recreational Boys Soccer and CYO Basketball, 2018-23

From: [Marti Andrews](#)
To: [Casey Fritz](#)
Subject: Zero Waste task force
Date: Thursday, November 23, 2023 1:26:58 PM

You don't often get email from [REDACTED] [Learn why this is important](#)

Hello Mr. Fritz:

I am very interested in being on the Zero Waste task force, and since it has always been a passion of mine, I offer my experience and qualifications below:

1. Attempted 0 waste in the 70's and was able to accomplish this except for styrofoam, but it involved hauling some things and burning some others.
2. Set up and guided 0 waste efforts at past paid and present volunteer employers.
3. Set up (labeling and advising) 0 waste efforts at events in Southern Marin for 10 years.
4. Toured Marin Sanitary, dump and compost facilities in Novato, and Ecology in SF to continue my education on what is possible in the 0 Waste field.
5. In our 2 person household, have reduced landfill waste to <1 cubic foot per week, and still working on it.
6. Have used reusable grocery bags and produce bags for more than 7 years.
7. Contacted suppliers about reducing/eliminating their plastic and styrofoam packaging.

Thank you for the opportunity to apply for this task force.

Best,

Marti Andrews
[REDACTED]

From: [Deirdre Fennessy](#)
To: [Casey Fritz](#)
Subject: Volunteer Zero Waste Marin
Date: Saturday, December 9, 2023 8:10:41 PM

[You don't often get email from [REDACTED]. Learn why this is important at <https://aka.ms/LearnAboutSenderIdentification>]

Hello Casey,

I received your letter to all Marin residents today and I was thrilled. I had to pull teeth to get my landlords to install a green bin for recycling last January at our apartment complex. Under pressure from the Wastemgmt group, the landlords did give us an old grungey green bin that was used for yard waste and who knows what else in the past. I wrote up what is acceptable for the composting bin and what was not and secured it to the bin. Otherwise, there were no instructions. There are 70 units here and we have ONE Green bin. Thankfully, it is used and chock full by pick-up day. Why only one bin is required is an understatement.

Anyway, I would like to volunteer for the Local Task Force to advise Zero Waste Marin. I have been a resident of Mill Valley for 6 years, having moved from Hayward. I am a graduate of and an ambassador for Resilient Neighborhoods and so knowing about SB 1383 is what prompted me to get my landlord on board with Composting at our complex. As an ambassador for Resilient Neighborhoods, I am deeply involved in what it takes to cut one's carbon footprint and to educate other people about that. The organization has motivated me to do everything I can to be part of making this earth a healthier place for all nature's critters, including us.

Presently, I am retired, though I do substitute teach when needed at Marin Montessori School. I have been a Montessori teacher all my adult life and a Head of Montessori schools, three times. Once in Hawaii, once in White Plains, NY and my last position as the founding Head of a public charter Montessori school in Hayward, CA. I have an M.Ed. and all the certifications needed to currently be a substitute teacher in Marin.

I am a member of the Sierra Club, and the Nature Conservancy and a weekly meandering club led by Wendy Dreskin, who knows every tree, flower and bush, butterfly, insect, mushroom, lichen, bird and bird call, and local history of the places where we meander in Marin.

Please feel free to ask for any further information about why I would like to be part of the LTF.

Take care,

Deirdre Fennessy
[REDACTED]

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Poldino, Program Manager

County of Marin

Re: Clarification of Subcommittees

Fairfax

As approved by your board during the Zero Waste Marin JPA Board meeting on September 21, 2023, the two Ad Hoc Subcommittees, Budget and Programmatic, were merged to create one subcommittee.

Larkspur

This combined subcommittee consists of the following individuals:

Mill Valley

- Heather Abrams, Fairfax
- Dan Eilerman, County of Marin
- Gretchen Schubeck, Novato
- Cory Bytof, San Rafael
- Dan Schwarz, Larkspur
- Greg Chanis, Tiburon

Novato

Ross

San Anselmo

Recommendation

Receive oral report. Information only.

San Rafael

Sausalito

Tiburon

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Poldino, Program Manager

County of Marin

Re: Confirm 2024 Executive Committee Meeting Schedule

Fairfax

Staff recommends reconvening the Executive Committee to review and advise the full JPA Board on planning, financing, developing, implementing, and evaluating programs and projects.

Larkspur

The Executive Committee is comprised of the Chair and Vice Chair, City of Novato, City of San Rafael, County of Marin, and a representative from Southern Marin and Ross Valley cities.

Mill Valley

The current Executive Committee is represented by the following individuals:

Novato

- Heather Abrams, Chair, Town of Fairfax
- Todd Cusimano, Vice Chair, City of Mill Valley
- Dan Eilerman, County of Marin
- Cristine Alilovich, City of San Rafael
- Jessica Deakyne, City of Novato

Ross

San Anselmo

The recommended schedule is as follows:

San Rafael

Table 1

Sausalito

February 2024	August 2024
April 2024	October 2024

Tiburon

Recommendation

Adoption of a Motion approving the Executive Committee of JPA Board meeting calendar for the 2024 calendar year.

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**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Board Chair: Please confirm the vote on this item by reading the following items out loud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Poldino, Program Manager

County of Marin

Re: Confirm 2024 JPA Board Meeting Schedule

Fairfax

To ensure advance notice of future meetings is provided to JPA Board members; Staff proposes to set the JPA Board meeting schedule for the 2024 calendar year.

Larkspur

Please refer to Table 1 below for a current list of recommended dates. Additional meetings may be added if it is determined they are required at a future date.

Mill Valley

Table 1

Novato

Date	Time
March 21, 2024	1:45 p.m. – 2:45 p.m.
May 16, 2024	1:45 p.m. – 2:45 p.m.
September 19, 2024	1:45 p.m. – 2:45 p.m.

Ross

San Anselmo

We recommend having these meeting prior to the Marin Manager’s Meetings and at the same location.

San Rafael

Recommendation

Sausalito

Adoption of a Motion approving the JPA Board meeting calendar for the 2024 calendar year.

Tiburon

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**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Board Chair: Please confirm the vote on this item by reading the following items out loud after the vote.

Motion: _____ Second: _____

Ayes: _____

Noes: _____

Abstentions: _____

**MARIN COUNTY HAZARDOUS AND SOLID WASTE
MANAGEMENT JOINT POWERS AUTHORITY**

Belvedere

Date: January 18, 2024

Corte Madera

To: JPA Board of Directors

From: Casey Poldino, Program Manager

County of Marin

Re: Suggested Agenda Items

Fairfax

On August 17, 2023 the Board adopted the recommendation to allocate time to allow board members to provide suggested topics for upcoming Zero Waste Marin JPA board meetings.

Larkspur

This standing item provides members of the board the opportunity to make suggestions regarding future agenda topics for the consideration of Staff, ensuring that the needs of the Board are being addressed.

Mill Valley

Novato

Your Board included the suggested agenda topic as indicated in the October 19, 2023 meeting:

Ross

Board Member: Cory Bytof (Alternate)
Suggested topic: Provide a legislative update on 1383 and who is doing what – breakdown in a digestible form.

San Anselmo

Board Member: Gretchen Schubeck (Alternate)
Suggested topic: Workshop on SB 1383 and Reusable Foodware Ordinance.

San Rafael

Per the request of the Board Chair, Heather Abrams, Staff was asked to provide their suggested topics. They were as follows:

Sausalito

Staff Member: Kimberly Scheibly
Suggested topic: Set 2024 agenda schedule

Tiburon

Staff Member: Casey Poldino
Suggested topic: Provide updates on SB 1383 Work Plan

Recommendation

Information only. Receive future suggested agenda items for Staff consideration.