



Welcome to
Northeast Resource
Recovery Association's
Summer Webinar Series

Need Professional Credits?



- Receive 1 hour of professional development credit from NRRRA for viewing this webinar.
- Webinars are recorded and made available for those who registered.
- Complete the survey at the end and connect with NRRRA.
- Continue your learning with webinars all summer long!
- Visit our new website at: nrrarecycles.org



For Registration:
nrrarecycles.org

Operator Track - Wednesdays 9:00 am - 10:00 am

Date	Webinar	Presenters
July 29, 2020	Using Processed Glass Aggregate in Road and Infrastructure Projects	Reagan Bissonnette and Maddie Dilonno, NRRRA
August 5, 2020	Legislative Updates	Josh Kelly, VTDEC; Ariela Lovett, MA Mun. Assoc.
August 12, 2020	Educate, Don't Contaminate! A Toolkit to Clean up Recycling	Lucy Perkins and Matt Grondin, ecomaine
	Break	
August 26, 2020	Extended Producer Responsibility	Terri Goldberg, NEWMOA; Megan Pryor, MEDEP
September 2, 2020	Tricks of the Trade	Joan Cudworth, Hollis; Ed Walsh, Rollinsford; Brian Patnoe, Littleton, NH
September 9, 2020	MA Mattress Recycling Incentive Grant Program	Rachel Smith, MADEP



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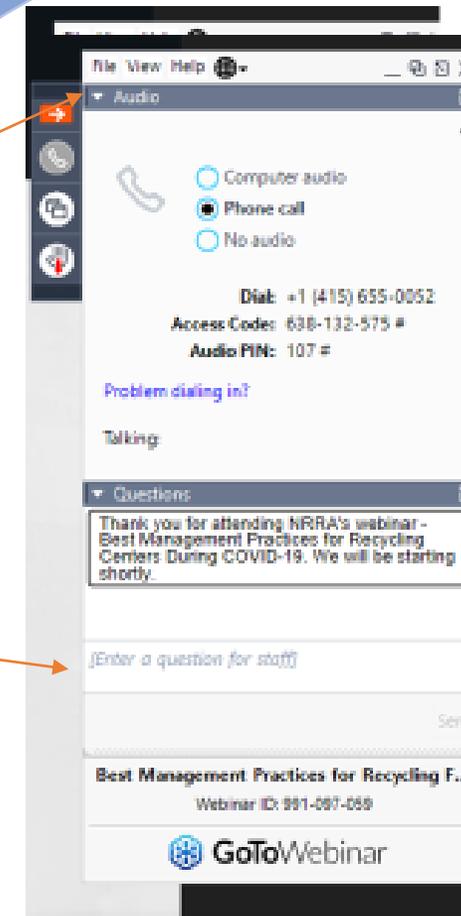
Educator/Community Track - Fridays 12:00 - 1:00 pm

Date	Webinar	Presenters
July 31, 2020	The Messy Truth about Garbage	Cindy Sterling, NRRRA
August 7, 2020	The 6th R: Cultivating a Culture of Repair	Ollie Cultrara and Cassandra Hemenway, ACSWMD
August 14, 2020	Medical Waste: Needles, Pharmaceuticals, Vaping and More	Cindy Sterling, NRRRA
August 21, 2020	Event Waste Reduction: Thinking Outside the Bin for Your Event Part I	Cindy Sterling, NRRRA
August 28, 2020	We Need to Think About Clothing Differently	Joe Whitten, Apparel Impact
September 4, 2020	Cafeteria Sorting Stations	John Jose, CVSWMD
September 11, 2020	Event Waste Reduction: Styling Your Event Recycling Plan Part 2	Cindy Sterling, NRRRA



GoToWebinar Setting the Table

- You will not be able to be heard by the presenters or other participants on GTW.
- If you cannot hear the presenters, click on audio and computer audio. If that does not work, try clicking on phone call.
- We hope you ask questions and the presenters will answer them if time allows. Click on Questions and keep it short!



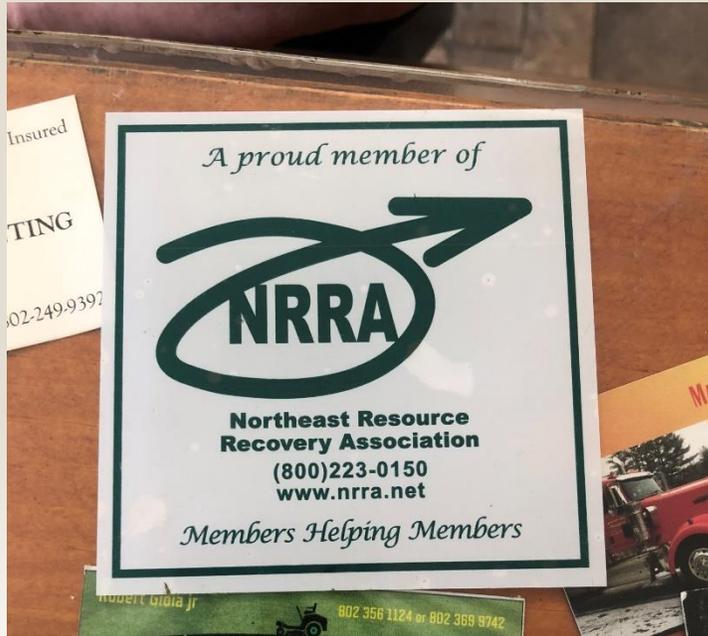
About NRRA

- Recycling nonprofit
- 400+ members, primarily municipalities
- Founded nearly 40 years ago



Cooperative Marketing & Purchasing

- Enable communities to manage their own recycling programs
- 40 programs, including single stream and municipal solid waste
- Connect sellers of recyclables to purchasers



Education & Technical Assistance

- Workshops
- Facility tours
- Annual conference
- Technical assistance
- School Club programs





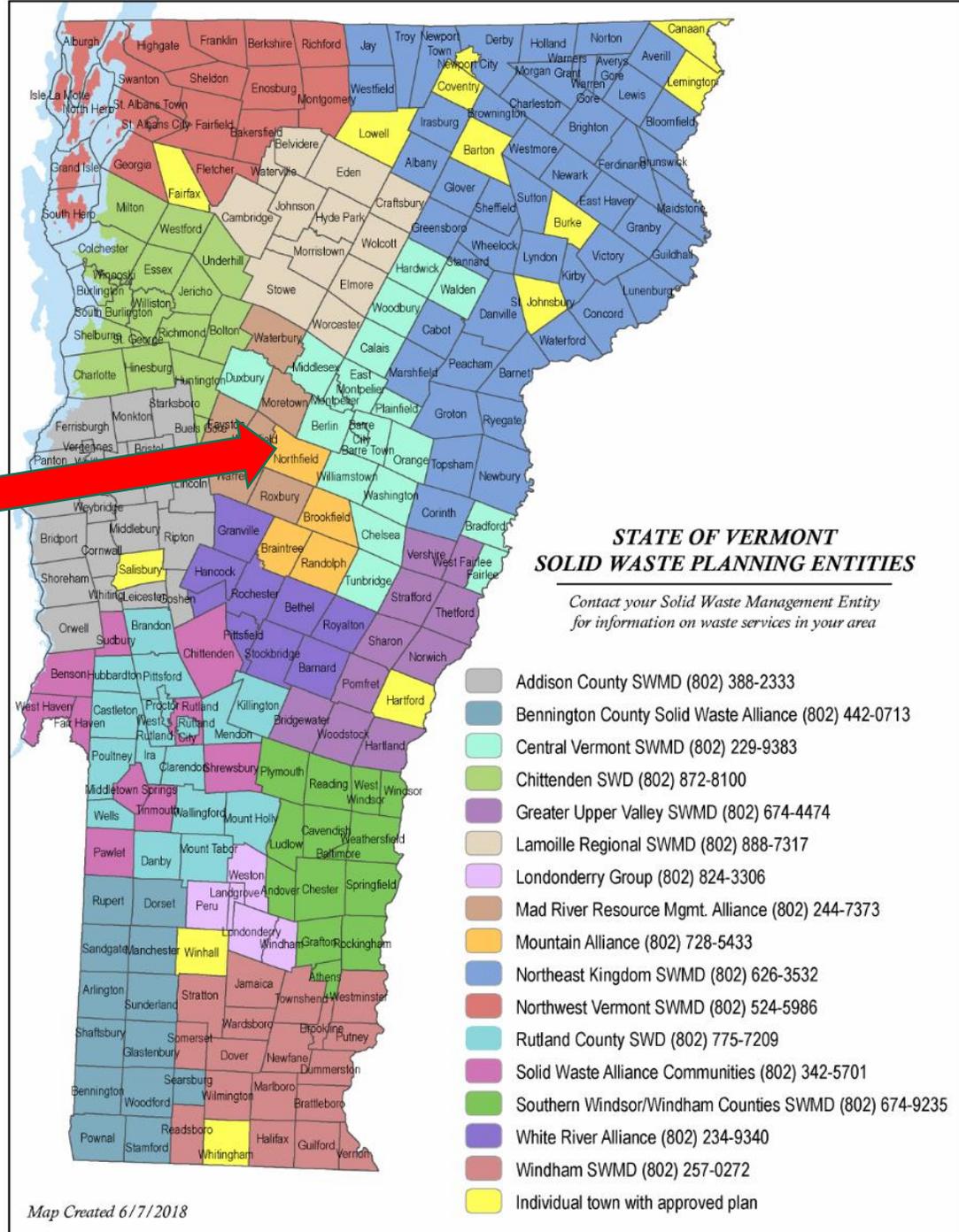
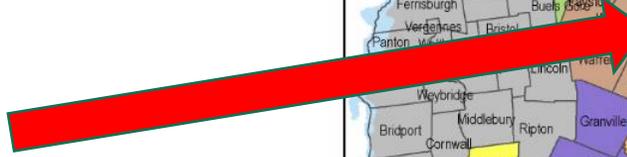
The webinar will begin soon!





Too Good to Waste





**STATE OF VERMONT
SOLID WASTE PLANNING ENTITIES**

*Contact your Solid Waste Management Entity
for information on waste services in your area*

- Addison County SWMD (802) 388-2333
- Bennington County Solid Waste Alliance (802) 442-0713
- Central Vermont SWMD (802) 229-9383
- Chittenden SWD (802) 872-8100
- Greater Upper Valley SWMD (802) 674-4474
- Lamoille Regional SWMD (802) 888-7317
- Londonderry Group (802) 824-3306
- Mad River Resource Mgmt. Alliance (802) 244-7373
- Mountain Alliance (802) 728-5433
- Northeast Kingdom SWMD (802) 626-3532
- Northwest Vermont SWMD (802) 524-5986
- Rutland County SWD (802) 775-7209
- Solid Waste Alliance Communities (802) 342-5701
- Southern Windsor/Windham Counties SWMD (802) 674-9235
- White River Alliance (802) 234-9340
- Windham SWMD (802) 257-0272
- Individual town with approved plan





A red and yellow apple is positioned on the right side of the image, resting on a stack of several books. The books have various colored covers, including blue, purple, and white. The background is a blurred, dark greyish-blue. Three horizontal bars with semi-transparent colors (teal, light green, and purple) are overlaid on the left side of the image, each containing white text.

The Food Waste Problem

Measuring Wasted Food

Source Reduction at Your School

The Food Waste Problem

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Measuring Wasted Food

Source Reduction at Your School



How important is all this stuff??



Rank	Solution	Sector	TOTAL ATMOSPHERIC CO2-EQ REDUCTION (GT)	NET COST (BILLIONS US \$)	SAVINGS (BILLIONS US \$)
1	Refrigerant Management	Materials	89.74	N/A	\$-902.77
2	Wind Turbines (Onshore)	Electricity Generation	84.60	\$1,225.37	\$7,425.00
3	Reduced Food Waste	Food	70.53	N/A	N/A
4	Plant-Rich Diet	Food	66.11	N/A	N/A
5	Tropical Forests	Land Use	61.23	N/A	N/A
6	Educating Girls	Women and Girls	51.48	N/A	N/A
7	Family Planning	Women and Girls	51.48	N/A	N/A
8	Solar Farms	Electricity Generation	36.90	\$-80.60	\$5,023.84
9	Silvopasture	Food	31.19	\$41.59	\$699.37
10	Rooftop Solar	Electricity Generation	24.60	\$453.14	\$3,457.63
11	Regenerative Agriculture	Food	23.15	\$57.22	\$1,928.10
12	Temperate Forests	Land Use	22.61	N/A	N/A
13	Peatlands	Land Use	21.57	N/A	N/A
14	Tropical Staple Trees	Food	20.19	\$120.07	\$626.97
15	Afforestation	Land Use	18.06	\$29.44	\$392.33
16	Conservation Agriculture	Food	17.35	\$37.53	\$2,119.07

Why the Focus on Wasted Food?

Water

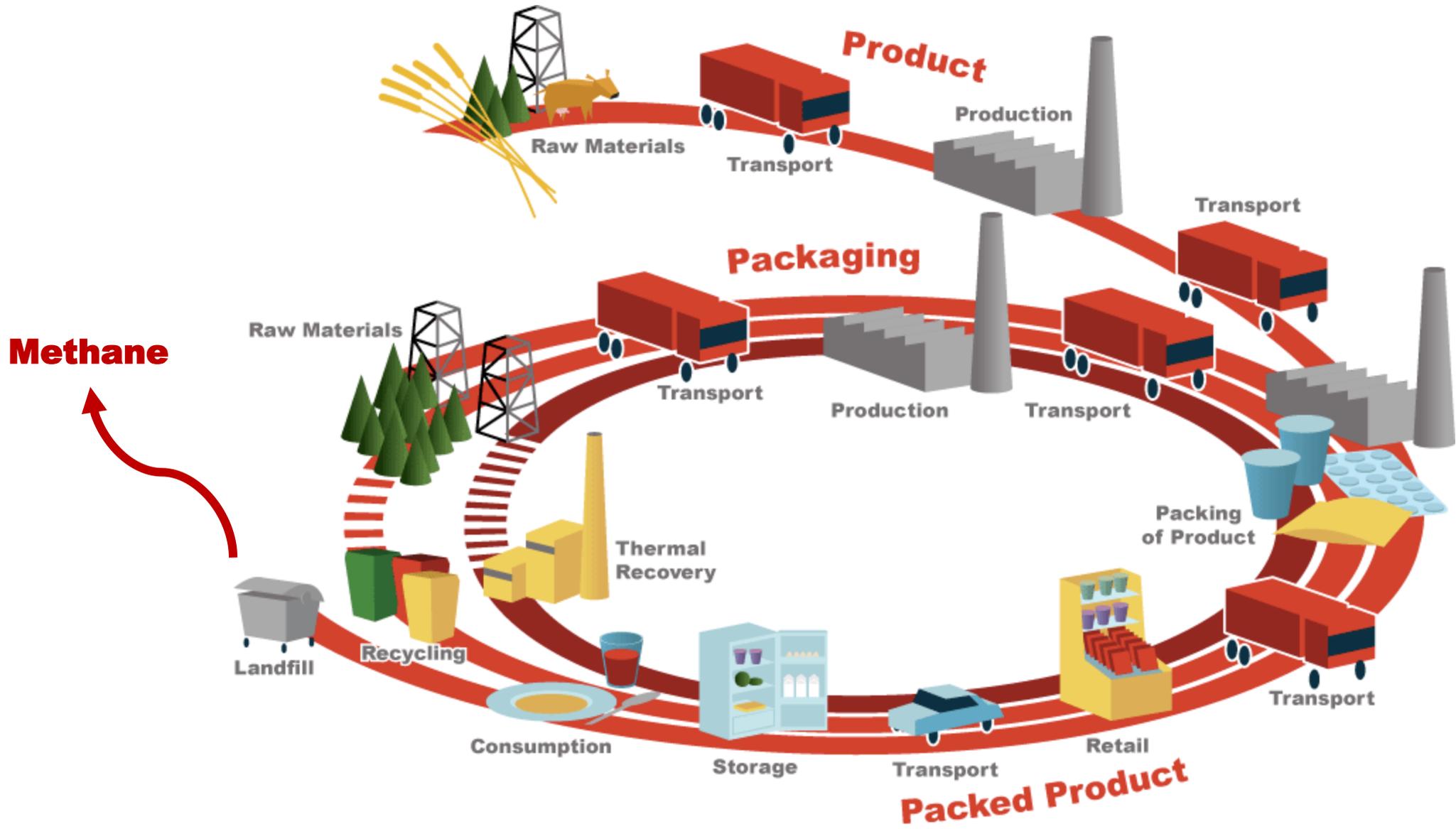
Nutrition

Land

Air

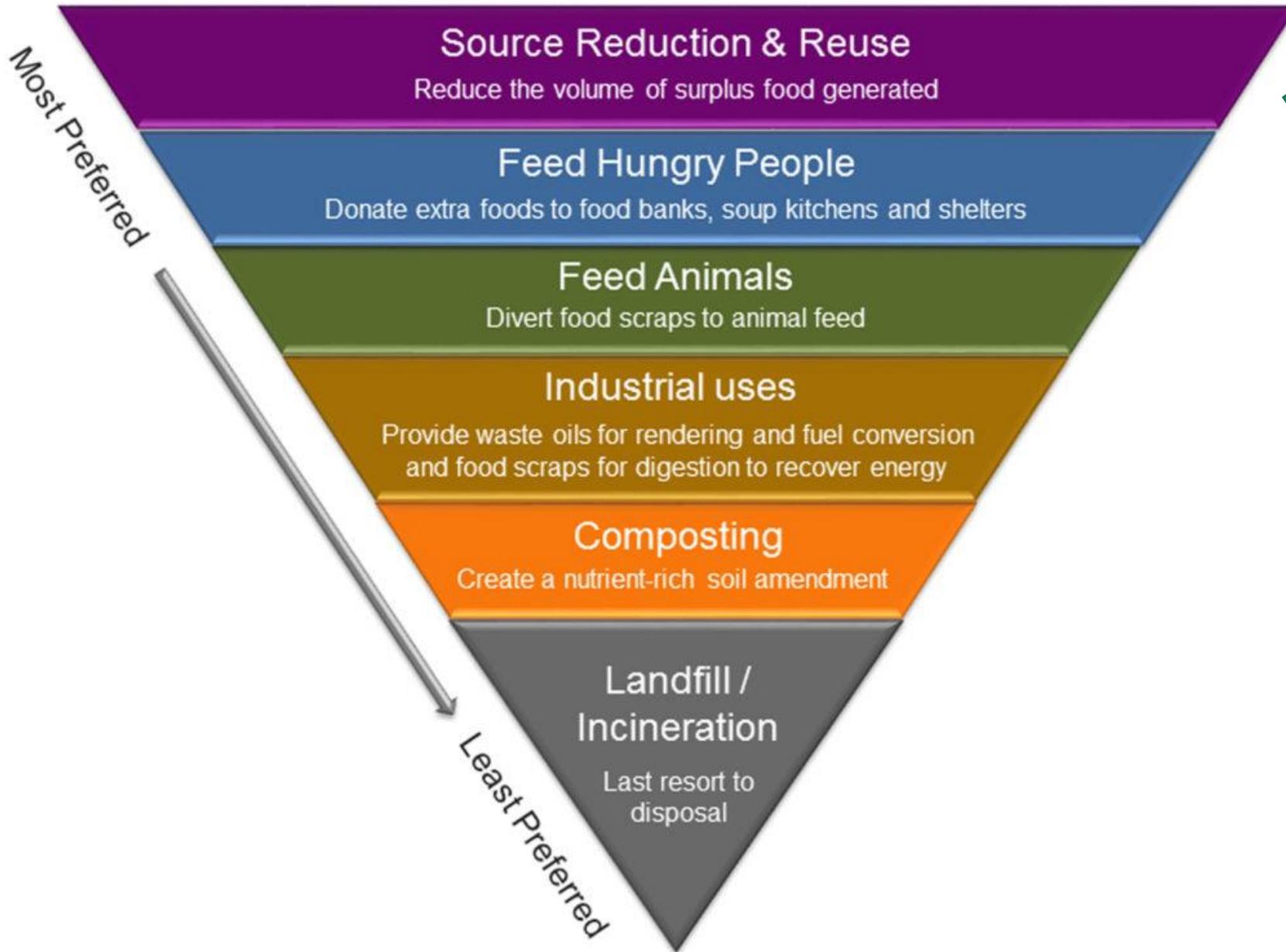
Money







Food Recovery Hierarchy



A red and yellow apple is positioned on the right side of the image, resting on a stack of several books. The books have various colored covers, including blue, purple, and white. The background is a blurred, dark greyish-blue. Three horizontal bands of color (teal, light green, and purple) are overlaid on the image, each containing text.

The Food Waste Problem

Measuring Wasted Food

Source Reduction at Your School

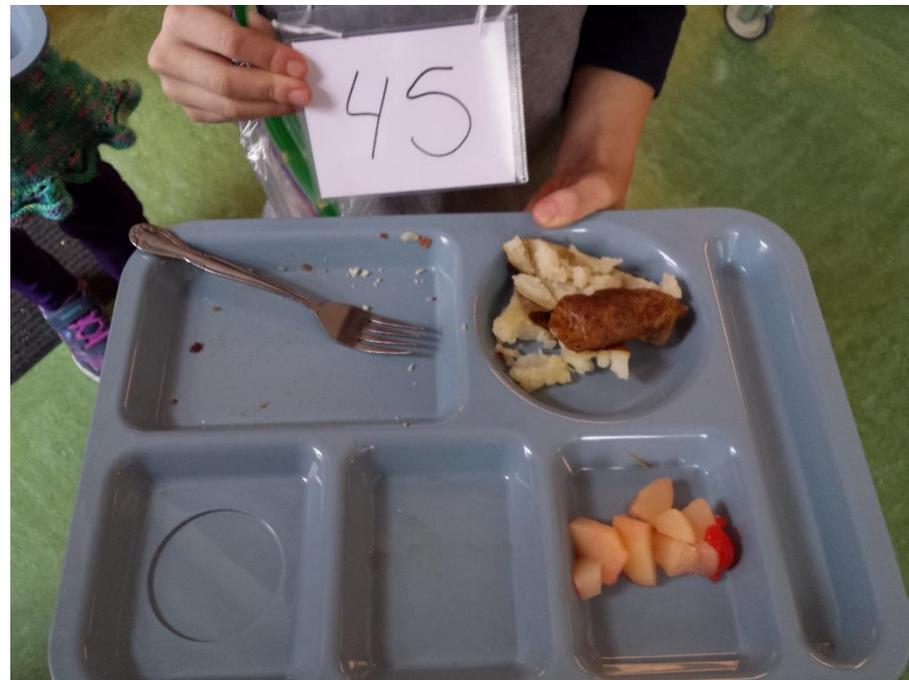
Step 1: Tray Waste Audits



Digital Method

Materials

- Scale
- Data sheet (weights)
- At least 2 cameras/phones
- ID tags
- Buckets for milk



Step 2: Data Processing

6/10/2019	190	192	196	198	199	208	209	219	220	% selected	% wasted
Chicken Nuggets	0	0	0	1	1	0	0	0	1	94.6	5.7
Meatballs										9.5	14.3
Pasta salad		0			1				0	51.4	17.1
Oranges		0				1	4	0		51.4	19.7
Applesauce	0	0		0	0	0			1	32.4	7.3
Pineapple			0							23.0	20.6
Peas/Corn						0			4	13.5	30.0
Lettuce			0	3						24.3	38.9
Peppers										18.9	21.4
Carrots			0						4	17.6	30.8
Broccoli			0					2		10.8	25.0
Slaw				0						2.7	12.5
Tomatos			0				4			9.5	17.9
White Milk			1							24.3	25.2
Chocolate Milk	1			1	1		1	1		44.6	13.6

A red and yellow apple is positioned on top of a stack of several books. The books have various colored covers, including blue, purple, and white. The background is a blurred, dark grey color. The text is overlaid on the image in three horizontal bands of different colors: teal, light green, and purple.

The Food Waste Problem

Measuring Wasted Food

Source Reduction at Your School

Step 3: Inform & Make a Plan

- Find your champions (some of them teachers/administrators)
- Meet with cafeteria staff
- Identify strategies & funding
- Appoint specific people to tasks
- Advertise!

Food Waste Reduction for Greener Schools in Central VT

Consumed vs. Wasted Food: Report of Findings for Williamstown Middle High School Williamstown, VT

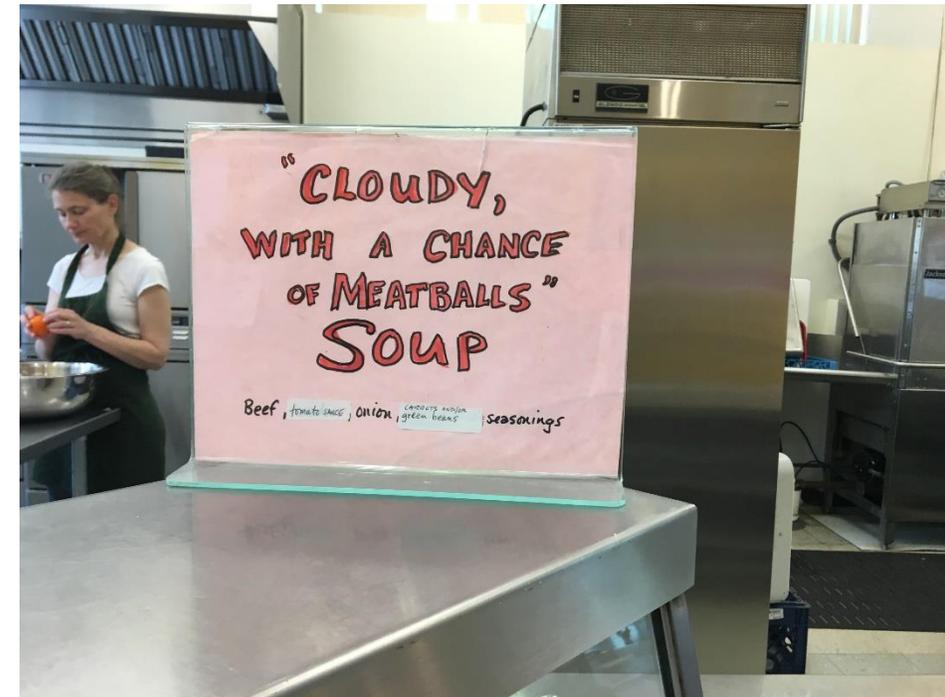


Sponsored by the US EPA
Healthy Communities Grant Program

Compiled by: Brenna Toman, School Zero Waste Coordinator
Central VT Solid Waste Management District

Solutions- Back End

- Food tracking software, like LeanPath
- Soup from leftovers (taco day → tortilla soup)
- Serve leftovers from the previous day at the salad bar
- Expanded freezer space to store close-to-expiration milk for future food use
- Increase popular items, decrease unpopular items
- Incorporate and advertise local, interesting, or school-grown ingredients
- Taste tests and food naming contests



Solutions-Administrative



- Extend lunch periods to 30+ minutes
- Place recess before lunch
- Make menus widely available and attractive
- Incorporate food literacy into curriculums and coordinate this with today's lunch

Solutions- Student Facing

- Share tables
- Flavor stations
- Student input on menus
- Improved sorting stations
- Bulk milk



Step 4: Measure Results and Continue On

- Post- action tray audits
- Continued communication with staff
- Plan a new strategy to implement for following cycle

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Healthy Communities Grant Program

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Case Study- Union Elementary

Strategies:

- Upgraded share table
- Passed out resealable bags for students to take leftover home/to class
- Upgraded flavor station

Results:

- 477% increase in share table use
- 17.1% decrease in food waste
- 47.7% decrease in milk waste



Case Study- Barre Town Middle/Elementary School

Strategies:

- Upgraded share table
- Empowered 7th graders to educate about food waste reduction

Results:

- 633% increase in share table use
- 1.1% decrease in food waste
- 28.4% decrease milk waste



Case Study- Montpelier High School

Strategies:

- Revamped sorting station
- Added recyclables rinse station

Results:

- 12% decrease in recycling contamination
- 5% decrease of thrown out food



Questions?

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Planning Analyst
Central Vermont Solid Waste Management District
brennat@cvswwmd.org





INTERSTATE REFRIGERANT RECOVERY, INC.

"Protecting the Environment and Ozone Layer for the Future of Our Children"



Thank You to our Sponsors



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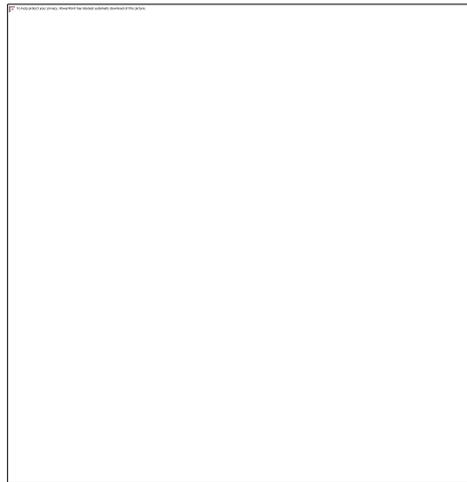
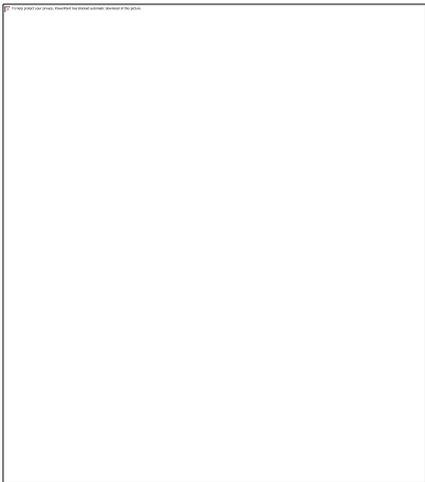
SUMMER WEBINAR SERIES- COMING NEXT



Using Processed Glass Aggregate in Road and Infrastructure Projects

Presenters: Reagan Bissonnette, Executive Director, NRRA; Madeleine Dillonno, Graduate Student, University of NH, Carsey School of Public Policy, NRRA Volunteer

Wednesday, July 29
9:00-10:00 am



The Messy Truth about Garbage

**Presenter: Cindy Sterling, Grant Manager
Senior Educator, NRRA**

Friday, July 31
12:00-1:00 pm

