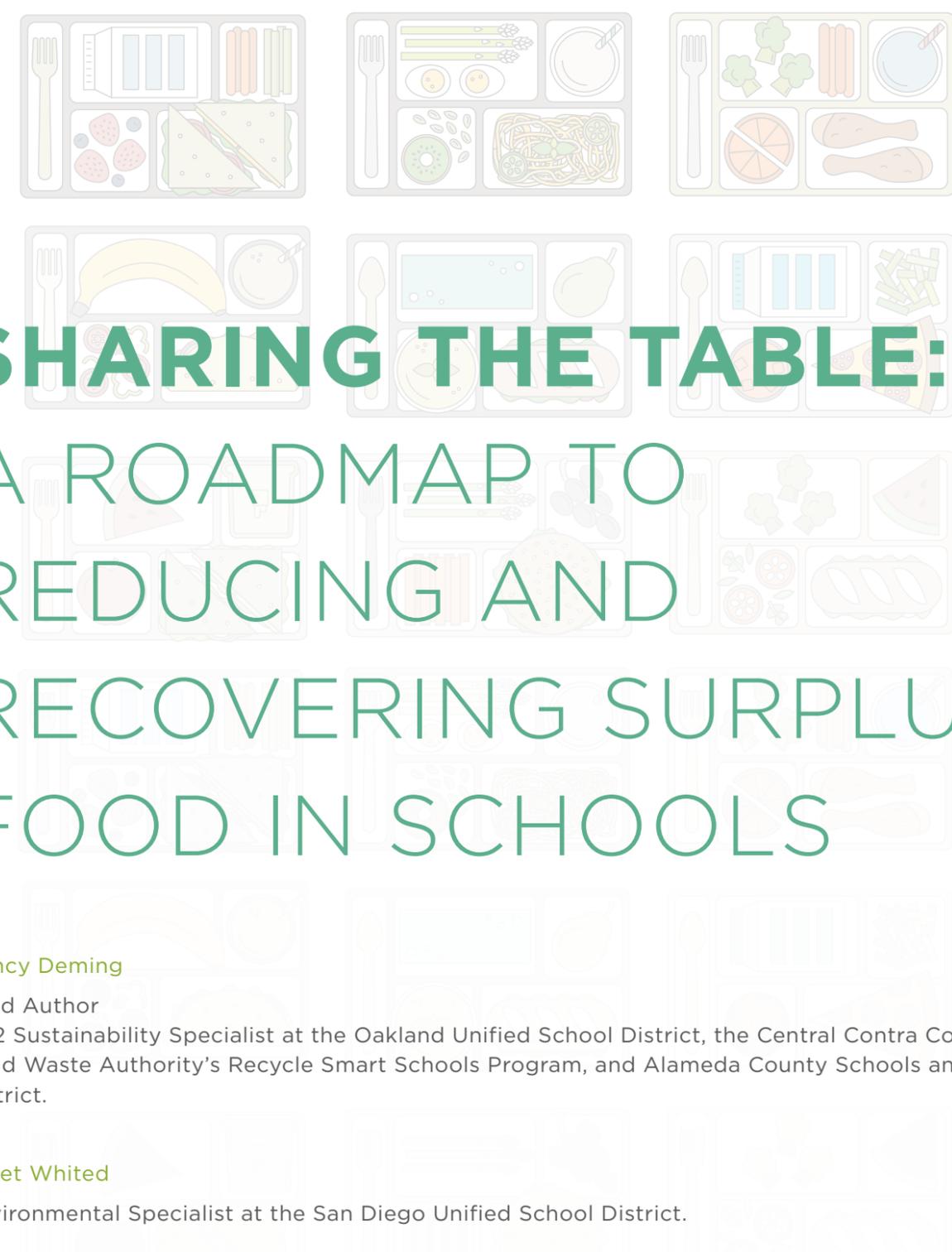


SHARING THE TABLE:

A ROADMAP TO
REDUCING AND
RECOVERING
SURPLUS FOOD IN
SCHOOLS



SHARING THE TABLE: A ROADMAP TO REDUCING AND RECOVERING SURPLUS FOOD IN SCHOOLS

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This resource is meant to be viewed on an internet-connected device. Resources within the document are hyperlinked.

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INTRODUCTION

Food waste is a largely ignored and unspoken cause of climate change and may be an important avenue in the effort to reduce global greenhouse gas emissions. The Food and Agriculture Organization of the United Nations estimates that [nearly one third of all food](#) in the world is left uneaten, representing a striking 1.3 gigatonnes of wasted edible food. When food decays, it produces CO₂ and methane, a gas 25 times more potent than CO₂ in trapping heat in the atmosphere. It's been estimated that if food waste were a country, it would hold third place in a list of top emitters after the U.S. and China. In the U.S. alone, an estimated [\\$1.24 billion](#) in food is wasted annually in schools.

Through surplus food reduction and recovery programs, food waste can be dramatically reduced and surplus food can be provided to feed the community. School surplus food reduction and recovery programs function with two main goals: (1) to reduce the amount of food waste created by school meals and (2) to recover the inevitable surplus food to feed those in need in the community. Using various strategies, schools have a unique and important opportunity to reduce their food waste and recover surplus food created from school-provided meals.

ABOUT THIS GUIDE

Starting food reduction and recovery programs can seem daunting at first due to the number of steps to consider before beginning. However, with the right support and guidance, these programs can be successfully developed and implemented in schools with relatively low cost. This *Roadmap to Reducing and Recovering Surplus Food in Schools* serves as a guide for school stakeholders, using examples from efforts by the school districts in Oakland and San Diego, California to reduce and recover their surplus food from school meals. It focuses on best practices to save surplus food at school, as well as resources for school food waste reduction.

The Oakland Unified School District (Oakland USD) and San Diego Unified School District (San Diego USD) recognized the high value of the surplus food resources inherent in school meal programs and recognized a school's responsibility to reduce food waste by recovering surplus food to benefit the community. In taking steps to address this responsibility, a variety of surplus food reduction and recovery initiatives have been implemented in both Oakland and San Diego schools, including food share tables and food donation programs.

Two main goals: (1) to reduce the amount of food waste created by school meals and (2) to recover the inevitable surplus food to feed those in need in the community.

Since 2016, San Diego USD diverted 381,000 pounds of food waste from the landfill. This waste diversion kept more than 193,000 pounds of CO₂ from being released into the atmosphere.

San Diego USD began its district-wide [Love Food Not Waste](#) program in 2016, after the state of California released legislation requiring schools to divert organic waste from landfills by 2020. The Love Food Not Waste program addresses four priorities: feeding students, reducing the district's budget, donating surplus food to the community, and converting unusable food waste to compost for gardens. Since 2016, San Diego USD [diverted 381,000 pounds](#) of food waste from the landfill. This waste diversion kept more than 193,000 pounds of CO₂ from being released into the atmosphere.

[Green Gloves](#), Oakland USD's waste reduction and sorting program, was created out of the community's concern about the district's environmental impact. The program has grown to include district-wide trainings to educate staff on waste sorting and diverting procedures. The district has also implemented food share and donation programs, switched to compostable food trays as well as utensil and napkin dispensers and a new central cooking kitchen that will reduce pre-packaged foods in the schools, and incorporate training and education. Oakland USD programs have led to [more than 50% of waste](#) being diverted from the landfill, and they've become a [model for other school districts](#) on implementing food share tables successfully.

Oakland USD programs have led to more than 50% of waste being diverted from the landfill, and they've become a model for other school districts on implementing food share tables successfully.



Oakland USD students and families gather for the [Food for Families](#) program.

SUSTAINABLE SCHOOL FOOD RESOURCES

Check out these resources to make your school lunches sustainable, healthy, and enjoyable.

[National Farm to School Network](#) — These programs increase access to local food and nutrition education to improve children's health, strengthen family farms, and cultivate vibrant communities.

[The Edible Schoolyard Project](#) — This group develops school food education programs grounded in shared standards of practice and justice, responsive to the school's cultural, institutional, and funding realities.

[FoodCorps](#) — FoodCorps places a leader in a school to teach healthy eating and create a healthy eating culture.

[Climate Friendly School Food](#) — From Friends of the Earth, this program provides many resources to guide the creation of a climate-friendly school menu.

[The Good Food Purchasing Program](#) — Though not specific to school food, this program uses a framework that supports healthy and sustainable food purchasing.

[Beyond Green Sustainable Food Partners](#) — This group provides strategies and solutions for groups interested in switching to more sustainable foodservice platforms.

ROADMAP TO REDUCING AND RECOVERING SURPLUS FOOD IN SCHOOLS

ROADMAP TO REDUCING AND RECOVERING SURPLUS FOOD IN SCHOOLS

	FEDERAL	STATE	LOCAL	SCHOOL DISTRICT
ENABLING LEGISLATION	Good Samaritan Law; National School Lunch Act	State legislation will vary per state	Look to local county & cities' recycling & composting legislation	Board policy and/or Board resolution to approve program
APPROVAL & COMPLIANCE	USDA Child Nutrition Program Guidance	Approvals & compliance will vary per state	Health Department inspection	School Board; Nutrition Services Dept.
IMPLEMENTATION	Implementation occurs at local & district level	Implementation occurs at local & district level	Local funding opportunities; Logistics in place with recipients of recovered food	Nutrition Services Dept.; administration; faculty; students
GUIDANCE & RESOURCES	USDA EPA audits & tips	State guidance & resources will vary per state	County Waste Authority; County Health Dept.	District food share policies & procedures

The *Roadmap to Reducing and Recovering Surplus Food in Schools* flow chart—developed by Oakland USD and San Diego USD with support from [BioCycle](#)—can be referenced and customized for any state, local region, and school district. There are three primary steps in creating surplus food reduction and recovery programs in schools: ensuring that there is enabling legislation at the state and national level, gaining approvals and ensuring compliance with regulations, and beginning implementation. All of the steps are supported and assisted by written guidance and resources, provided in the fourth level of the Roadmap.

There are four primary agents in creating and implementing a surplus food reduction and recovery program: federal government, state government, local governments, and the school district. These agents each play a vital role during different steps of the process. For example, local government and the school district generally issue the approvals or provide oversight for programs at the individual school level.

The level of involvement of district staff in developing and implementing a food waste and recovery program may differ for each school district. Approval of any surplus food reduction and recovery program will generally need to come from the nutrition services department within the school district. Once a food recovery program is implemented in a school, the primary interface between the program and the faculty and students becomes the cafeteria. The food service staff play a vital role in correctly implementing the identified strategies, so proper training and education is essential.

With the brief introduction into the Roadmap outlined above, what follows is more detailed guidance, leading you step by step from enabling legislation to implementation. Each step is followed by a list of resources that guide and support schools. The last pages of this guide include a glossary of terms for the reader to reference in case the program names or terminology used are unfamiliar.

There are three primary steps in creating surplus food reduction and recovery programs in schools: enabling legislation at the state and national level; gaining approvals and ensuring compliance with regulations; and beginning implementation.

ENABLING LEGISLATION



Enabling legislation refers to legislation that grants a person or organization the power to take certain actions. Making sure that enabling legislation exists to support surplus food reduction and recovery programs requires educating and influencing state, local, and school district decision makers on the multiple levels of legislation and policies regarding serving requirements, food share, re-serving potential, and food donation in school meal programs. While some regulations are supportive of these initiatives, others are restrictive by providing stringent parameters and guidance on acceptable practices for food donation and recovery.

Where enabling legislation exists at the state level, advocates will need to educate school district decision makers about the laws and regulations behind these policies be it food donation, share tables, or landfill diversion to ensure a more efficient and successful policy implementation at the local level. This background knowledge will allow school district food service departments clear allowances, direction, and support to implement these vital programs.

LEGISLATION RESOURCES

The title of each resource is hyperlinked to the appropriate website for convenience.

FEDERAL

GOOD SAMARITAN LAW

Signed into law on October 1, 1996, this legislation provides legal protection for those who donate and receive donated food from civil and criminal liability if it causes harm to the recipient. The law opened up opportunities for food to be donated that is not readily marketable due to expiration, freshness, size, surplus, or other conditions.

NATIONAL SCHOOL LUNCH ACT

Signed into law in 1946, the National School Lunch Act provides low-cost or free school lunch meals to qualified students through subsidies. The majority of the subsidies provided come in the form of a cash reimbursement for each meal served.

USDA LUNCH ACT

In 2012, the United States Department of Agriculture released a clarifying statement to the National School Lunch Act that any non-consumed food is eligible to be donated to local food banks or charitable organizations.

STATE

Oakland and San Diego Unified School Districts use the following existing legislation to guide the formation and continuation of their own programs. Both districts were involved and advocated for specific language in the State of California's food share legislation. Oakland USD even worked with their state on programs for school food donation to students and their families that incorporate the state legislation on food donation to end recipients. These policies, though specific to their location (California State, Alameda County, and San Diego County), might exist already or be developed in other states and counties to guide school surplus food reduction and recovery programs.

CALIFORNIA GOOD SAMARITAN FOOD DONATION ACT

While this law would allow school districts to consider offering surplus food to students and families by extending the definition of an end recipient of donated food to include individuals, current USDA regulations do not allow this provision. School districts can only legally donate food to a 501(c)3 non-profit organization. This requirement is currently under review by the California Department of Education and the USDA Food and Nutrition Service department. AB 1219 does allow a school to donate items that are past their expiration date but still edible.

CALIFORNIA AB 1826

Setting requirements on commercial businesses and public agencies, including schools and school districts, to divert the organic waste that they generate, this bill will be in full effect January 1, 2020. On January 1, 2019 schools and businesses that generate more than 4 cubic yards of solid waste per week must arrange for organic waste recycling services. If statewide disposal of organic waste has not been reduced by 50 percent on or after January 1, 2020, the organic diversion requirement will expand to cover businesses and schools that generate 2 cubic yards of solid waste per week.

CALIFORNIA SB 557—SCHOOL FOOD DONATION

This California act, signed in 2017, reinforces and lists food items possible for schools to donate. The law covers items specifically left on cafeteria food share tables that can be donated and called for the California Department of Education to update its guidelines to match.

CALIFORNIA SB 1383—SHORT-LIVED CLIMATE POLLUTANTS: ORGANIC WASTE METHANE EMISSIONS

In 2016, the California State Senate set targets to achieve 50% reduction in levels of statewide disposal of organic waste by 2020 and a 75% reduction by 2025 (reduction rates are based off of the 2014 level). This legislation is used as a target to improve food waste and recovery programs in the San Diego and Oakland Unified School Districts.

LOCAL AND REGIONAL

ALAMEDA COUNTY MANDATORY RECYCLING AND COMPOSTING ORDINANCES

These Alameda County ordinances require recycling and composting service for businesses, institutions and multi-family buildings capable of handling the waste they produce.



A San Diego Unified School District cafeteria staff person counting the leftovers that will be donated and marking them on a log. These leftovers will get boxed up for the hunger relief agency to pick up.



An offer vs. serve poster example from San Diego Unified School District reminding students to only take the milk they will drink.

APPROVAL & COMPLIANCE



Before forming a surplus food reduction and recovery program, identify the priorities of the school, food service department, and district. Specific initiatives within the program can then be selected to meet those priorities. Example initiatives can include [offer vs. serve](#), [food share tables](#), and [Smarter Lunchrooms](#). See the [Implementation](#) section for more information and resources about possibilities for your program.

Identifying key stakeholders on each level of the review and approval process is important to gaining buy-in for implementation and maintenance of successful programs. On the district level, participation from stakeholders such as the nutrition services director, sustainability office, custodial team, principals, and student green teams is vital. Other groups such as the county waste authority, local health department, and hunger relief organizations and food banks may also take part in the approval process and/or program formation and support.

A majority of the actions involved in implementing a program will be approved by the nutrition services department, making it one of the most important stakeholders in program creation.

A majority of the actions involved in implementing a program will be approved by the nutrition services department, making it one of the most important stakeholders in program creation. The initiatives will need to be vetted by the nutrition services department to address areas of concern, including capacity to accomplish the program's goals and priorities. Continue conversations by reviewing and discussing plans with the nutrition services department and the school's kitchen managers in order to maximize momentum.

Once priorities and initiatives are selected, identify the procedures, implementation, and collection strategies. For example, will an agency pick up the donated food at each school or at a collection hub? In these very early stages, the district will have time to consider procedures and staff time that will be needed. Note that issues with conflicting labor union contracts may need to be resolved during this step.



Oakland USD kitchen staff sorting surplus food for donation.

Developing clear, distinct policies and standard operating procedures (SOPs) will be important for the approval, implementation, and maintenance of surplus food reduction and recovery programs. While creating written policies and SOPs, reference any legislation applicable to the school district and review relevant areas with the local health department for successful compliance. For example, the [Nutrition Services Hazard Analysis Critical Control Point](#) (HACCP) procedures will need to be developed or updated for program approval from the local health department. HACCP is a required food safety plan to reduce foodborne illnesses in schools. Specific food reuse and inspection procedures will need to be developed and included in the department's

plan. As a best practice, review and discuss plans and documents with key nutrition services department staff and school site kitchen managers for feedback. Once all approvals and program procedures are complete, the program will need to be finalized and implemented by nutrition services staff.

APPROVAL & COMPLIANCE RESOURCES

The title of each resource is hyperlinked to the appropriate website for convenience.

FEDERAL

[USDA CHILD NUTRITION PROGRAM \(CNP\) GUIDANCE](#)

This guidance and resources page, offered by the U.S. Department of Agriculture, can be used to ensure a surplus food reduction and recovery program is in compliance with the National Child Nutrition Program.

[USDA SCHOOL FOOD WASTE INFOGRAPHIC](#)

[USDA FOOD WASTE REDUCTION GOAL](#)

This 50% food waste reduction by 2030 goal, set by the U.S. Department of Agriculture and the U.S. Environmental Protection Agency, can be used to accelerate the creation of a surplus food reduction and recovery program within a school district.

[USDA SHARE TABLES & RE-SERVING ITEMS](#)

The USDA reinforces the benefits of share tables in schools, extends the ability to use share tables to at-risk after school components of Child and Adult Care Food Programs, and reviews the safety requirements when implementing share tables.

STATE

Below is a list of California Department of Education (CDE) food share and donation requirements for compliance with USDA Child Nutrition Program. Each state will vary, and schools will need to determine the state's individual requirements.

[CALRECYCLE](#)

Traditional recyclables and organic waste diversion programs are required in California. This guidance page by CalRecycle (California's Department of Resources Recycling and Recovery) provides information on the California recycling laws and resources for schools to meet requirements.

[FOOD CONSUMPTION OUTSIDE THE FOOD SERVICE AREA](#)

This Management Bulletin, issued by the CDE, provides guidance on food consumption outside of the food service area. It specifies that targeted unconsumed food (fruit, vegetable and grain) that does not require cooling or heating can be consumed outside of the food service area after the allotted meal service period.

[GUIDANCE ON DONATION OF LEFTOVER FOOD IN CNPS](#)

The CDE provides clarification on surplus food reduction and recovery strategies protected by California State. This guidance serves as a checklist for the compliance of a school's program.

USE OF SHARE TABLES

The CDE promotes the use of share tables and clarifies the state's health and safety codes for compliance in this Management Bulletin.

LOCAL AND REGIONAL

SHARE TABLES AT SCHOOLS

[San Diego County](#) and [Oakland/Alameda County](#) offer specific guidelines to follow when implementing share tables at schools. Although issued by their respective county health departments, these guidance documents can be used by any school to follow safe share table practices.

STOPWASTE

The waste authority in Alameda County, StopWaste, offers resources that help students, teachers and school district staff across the county become leaders in waste prevention and recycling at school. The agency's website offers curriculum and videos to teach in the classroom to connect student learning and action.

WASTE REDUCTION RESOURCE OPTIONS FOR SCHOOLS IN SAN DIEGO: A REGIONAL GUIDE

San Diego County lists requirements for various aspects of waste reduction in schools (recycling, surplus food reduction and recovery, etc.), proposes school activities, offers staff education and training, and provides key contacts in the district.

SCHOOL DISTRICT

OAKLAND UNIFIED SCHOOL DISTRICT RESOURCES

A variety of waste reduction and sorting resources that are created with the whole school community in mind; includes a food donation implementation guide and kitchen saving food poster.

SAN DIEGO UNIFIED SCHOOL DISTRICT RESOURCES

Includes program information, Standard Operating Procedures (SOPs), and other resources relating to the Love Food Not Waste program.

IMPLEMENTATION

CREATE A PILOT PROGRAM

For successful program implementation on a district-wide scale, it is helpful to pilot the program at a few schools. Choose schools that fit into the type of collection system identified for the program.

For example, if the program includes agency pickup at more than one collection hub, then pick several schools associated within one of the hubs so the food consolidation and transportation system can be evaluated. Piloting the program at each school

Create measures of success for the pilot, and implement ways to track progress along the way.

grade level (elementary, intermediate, high, etc.) in the district can be instructive, as each level may have unique requirements and strategies.

The principal and staff at the chosen school(s) should be informed about the program and its benefits, roles and responsibilities for school staff and students (provide training as needed), how long the pilot will last, and expected program outcomes. Kitchen staff should be trained and provided with reference materials developed for the program, including SOPs, hunger relief agency labeling requirements, pertinent Health Department documents and tracking and reporting requirements.

Create measures of success for the pilot, and implement ways to track progress along the way. Measurements can be quantitative (pounds of organic waste produced, pounds of food redirected to food banks and hunger relief organizations, etc.) and qualitative (staff feedback, observed behavior changes, etc.). Online tools can be helpful in tracking and measuring progress. For example, the [Arc](#) sustainability benchmarking platform can benchmark, track, and communicate the success of programs. After completion of the pilot, use recorded measurements to communicate the importance of the program and to adjust the program's strategies and procedures.

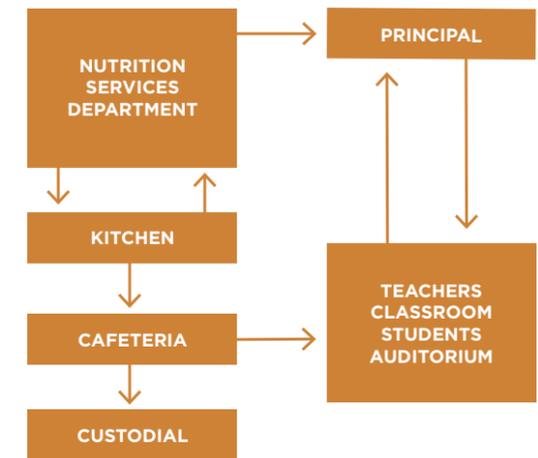


Illustration of the interdepartmental interactions needed for a successful program

ANALYZE PILOT RESULTS, MAKE ADJUSTMENTS, AND BEGIN DISTRICT-WIDE IMPLEMENTATION

Once the pilot has been analyzed and any necessary adjustments to the program have been made, create a timeline for district-wide expansion. The rollout for the remaining schools may take longer for large districts because staff training, in particular kitchen and custodial staff, is vital for the success of the program.

Develop resources for schools to use to increase success of the programs. Host assemblies to teach students about food waste, healthy eating, and school meal requirements. Create and display posters for the classroom and cafeteria. Teach students how to read and understand the posters for best results.

FUNDING THE PROGRAM

Though surplus food reduction and recovery programs can be developed and implemented with little cost, funding might be needed if the program includes infrastructure changes like cafeteria and kitchen renovations, additional refrigeration, or if it includes staffing or procedural changes that could increase overall budgets.

Investigate local, regional, and national funding that may be available. Local funding may be the most successful, specifically funding from waste authorities and county or municipal departments.

In California, for example, [CalRecycle](#) recently funded a grant program specifically for surplus food reduction and recovery implementation. A local waste authority may have suggestions or support. Alameda County's waste authority, [StopWaste](#), provides support to reduce school food waste with its student action projects and grant funding. Oakland USD was able to use StopWaste's resources and received a \$25,000 grant toward its surplus food reduction and recovery program. StopWaste's funding to Oakland USD even promoted and supported additional outside funding from the county's board of supervisors toward refrigeration for the program. The U.S. Department of Agriculture also offers [federal grants](#) to school districts for school nutrition equipment and programming.

Publicize the program and conduct outreach to the wider community to attract additional financial support. Waste hauling companies, local food banks, and hunger relief organizations may show interest in offering support for school surplus food reduction and recovery programs.

CONNECT ACTION WITH STUDENT LEARNING

The most effective school programs include connections to curriculum. In order to foster the strongest connection between surplus food reduction and recovery programs and curricula, teachers should be trained in strategies that can be taught in the classroom and connected to actions being taken at the school. Such strategies can be as simple as having students complete food waste calculations in math homework or as complex as conducting a cafeteria and kitchen food waste audit. Students benefit by rooting their learning to the real world and issues they have a direct relationship to and can have a positive impact on.

Many resources exist that can help teachers incorporate waste reduction and healthy eating themes in their curriculum. The World Wildlife Fund (WWF) provides a [Food Waste Warrior Toolkit](#) that includes lessons, activities, and resources specifically for reducing food waste in schools. The lessons are aligned to national curriculum standards and designed to get students involved in school surplus food reduction and recovery programs. U.S. Green Building Council's [Learning Lab](#), an online platform that collects high-quality curriculum from over a dozen partners in one place, provides teachers more than 500 sustainability lessons that are created to be implemented in the classroom alongside typical curriculum. Learning Lab has over 100 food and waste lessons, all aligned to national curriculum standards, which contain all the resources and information needed to be executed in the classroom.



One of the racks for food rescue in a San Diego Unified School District refrigerator. Rescued food from several school production kitchen clusters is consolidated for pick up by a larger hunger relief agency.



A truck from San Diego Rescue Mission, a hunger relief agency, backed up to a San Diego Unified School District loading dock to collect rescued food.

SCHOOL DISTRICT RESPONSIBILITIES

The following checklist can be used by the nutrition services departments and supporting stakeholders. It includes a breakdown of typical responsibilities and roles for each department for successful implementation of a surplus food reduction and recovery program.

NUTRITION SERVICES DEPARTMENT

Program coordinator checklist:

- Ensure that the director is informed and committed
- Develop an action plan with a timeline that is customized for the department and district
- Review and adjust procedures as needed based on director feedback

Nutrition services staff responsibilities:

- Develop written policies and standard operating procedures for each category listed, as applicable:
 - Food share tables
 - Food waste and food recovery tracking and measurement
 - Food Share and Take it to Go advertising (see glossary for program types)
 - Breakfast after the Bell monitoring and adjustment (see glossary for program types)
- Develop and implement staff trainings (back to school, monthly meetings, etc.)
- Menu planning

PRINCIPAL'S OFFICE

Program coordinator checklist:

- Inform principal and office staff of the program and procedures, including food donation logistics and implementation
- Ensure meal poster is created and reviewed with teachers/faculty
- Ensure letter to inform and engage parents/guardians is created and distributed for principal's office staff
- Create and implement a food donation program for the school's families and students, when possible

Principal's office staff responsibilities:

- Send home flyer informing and engaging parents/guardians of program and initiatives
- Review food donation logistics and implementation
- Ensure teachers review meal poster periodically with students
- Encourage teachers to review daily menus with students prior to meals and implement curriculum to support program outcomes
- Implement program elements, such as recess before lunch and food saving backpack program

KITCHEN

Program coordinator checklist:

- Inform and train kitchen staff
- Create and distribute [Menu Production Worksheets](#) that include food waste measurement tracking
- Ensure kitchen staff understands meal components and serving requirements
- Create food waste measurement and tracking procedures
- Inform and train kitchen staff on measurement and tracking procedures

Kitchen staff responsibilities:

- Prepare food correctly and in quantities close to the estimated amount needed
- Monitor meals and snacks served in the classroom, and adjust the food that is served compared to what comes back
- Complete Menu Production Worksheets (see link above)
- Track and measure food waste
- Adjust meal quantity based on what is ordered to reduce left over food items
- Implement food donation procedures

CAFETERIA

Program coordinator checklist:

- Ensure meal poster is created and displayed at entrance of cafeteria and that teachers review meal poster regularly with students
- Inform and train kitchen staff on proper procedures
- Review and train kitchen staff on Smarter Lunchroom initiatives to create and promote a calm eating environment

Kitchen staff responsibilities:

- Implement program elements, such as food share tables, “Take it to go,” and Smarter Lunchroom initiatives (see glossary for program types)
- Implement procedures for food waste reduction

CUSTODIAL DEPARTMENT

Program coordinator checklist:

- Establish procedures for custodial staff to assist program
- Inform and train custodial staff on procedures
- Create waste measurement and tracking procedures that include food waste

Custodial staff responsibilities:

- Support and assist food share tables, tracking procedures, and waste reduction efforts

IMPLEMENTATION GUIDANCE & RESOURCES

The title of each resource is hyperlinked to the appropriate website for convenience.

[BACKPACK PROGRAM](#)

Backpack Programs are common food bank programs to provide a backpack full of uneaten food from school lunches to students for the weekend. The linked page explains Backpack programs, how communities can help, and locator tool to find out if a local food bank participates in a similar program..

[EPA FOOD TIPS FOR K-12 SCHOOLS: GET KIDS TO EAT MORE AND WASTE LESS](#)

Use the tips listed in this EPA resource to frame your food waste reduction strategies. Each strategy is linked to research and further guidance.

[EPA GUIDE TO CONDUCTING STUDENT FOOD WASTE AUDITS: A RESOURCE FOR SCHOOLS](#)

Use this resource to guide a student-led food waste audit as a way to connect the school’s actions with student learning.

[FOOD WASTE WARRIOR TOOLKIT](#)

World Wildlife Fund (WWF) offers lessons, student activities, and resources to get students involved in school food waste reduction in this toolkit. All of the lessons are aligned to Next Generation Science Standards and are ready to be implemented in the classroom.

[FURTHER WITH FOOD](#)

Furtherwithfood.org is a site created through public-private partnership with a wide variety of associations and government agencies and provides resources to inform the public about food waste.

[OAKLAND UNIFIED GREEN GLOVES](#)

Green Gloves is a sustainability focused program in Oakland Unified School District. The program works to reduce the district’s environmental impact while also teaching and empowering students. The Green Gloves website provides resources to develop and implement sustainable practices and programs. School district staff update new resources periodically, as they become available.

[K-12 SCHOOL FOOD WASTE REDUCTION STRATEGIES](#)

The Environmental Research and Education Foundation (EREF) and the School Nutrition Association (SNA) created the School Cafeteria Discards Assessment Project to build awareness and implement food waste reduction programs in schools. Participating schools monitor and measure their food waste and make efforts to redirect it away from landfill. This resource, created with lessons learned through this program, provides steps and guidance to conducting successful school waste audit.

[LEARNING LAB](#)

Learning Lab is USGBC’s online education platform for K-12 teachers and school leaders to find high-quality, standards-aligned lessons that encourage student leadership, sustainability literacy and real-world action. Search for over 100 standard aligned lessons on food and waste that are ready to be taught in the classroom.

PLATE WASTE PREVENTION IN CHILD NUTRITION PROGRAMS

The CDE identifies three main solutions for reducing food waste: accommodating student taste preferences, helping students deal with early meal schedules and insufficient time to eat, and redistributing uneaten, intact items.

SAVE THE FOOD

NRDC's food waste initiative, Save the Food, provides guidance and resources on food waste reducing recipes, food storage tips, and planning guides.

SMARTER LUNCHROOM STRATEGIES

The Smarter Lunchrooms Movement, created through research at the Cornell Food and Brand Lab, offers inventive and creative strategies to promote healthy eating and reduce food waste from school lunches.

STOPWASTE

A public agency in California's Alameda County to reduce waste created by businesses, residents, and schools. The agency provides tailored resources and guidance for schools, businesses, and residents. Below are two StopWaste resources specific for reducing food waste in schools.

STOPFOODWASTE.ORG

Created by the public agency in California's Alameda County, StopWaste, stopfoodwaste.org provides resources, tips, and videos for preventing the food waste at school and beyond.

STOPWASTE AT SCHOOL

StopWaste at school works with students and school staff in California's Alameda County to reduce waste production and promote recycling. Their site provides curriculum and videos, local success stories, and other helpful resources.

TOO GOOD TO WASTE: A FOOD DONATION GUIDE FOR ORGANIZATIONS IN THE SAN DIEGO REGION

San Diego County issued this guidance packet for food donation, which includes a step-by-step guide, checklists, and record keeping documents for food donation.

USDA FOOD AND NUTRITION SERVICE: OFFER VS SERVE

This resource provides helpful guidance to help school districts understand the "offer vs. serve" strategy in school lunches.

WASTED FOOD SOLUTIONS

The Center for EcoTechnology provides tailored solutions for states in the Northeast for reducing food waste.

WE FUTURE RECYCLE

A New York State based organization, We Future Cycle sets up robust recycling programs in schools and teaches students and staff that nearly 95% of all waste can either be recycled or composted if it was just sorted. Through classroom presentations, extended hands-on training, adjustment in food

service packaging and additional environmental education, We Future Cycle jump starts students to become change agents for the environment.

ABOUT THE AUTHORS

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Nora Goldstein and BioCycle (BioCycle.net) assisted with guidance and support for the creation of this Roadmap and suggested additional resources to include.

GLOSSARY

Backpack Program — School food recovery strategy where surplus food can be [donated to students' families](#) for meals during the weekend. These programs are protected by the [Good Samaritan Law](#).

Breakfast after the Bell (or Breakfast in the Classroom) — An alternate approach to school breakfast programs, where breakfast is served after school has begun as opposed to 15 to 30 minutes prior to the first period. This approach allows more students receive breakfast and reduce waste. There are [multiple models](#) for this approach and they can be tailored for each school.

Child and Adult Care Food Program (CACFP) — A [federally-funded program](#) administered to provide aid to child and adult care institutions and family or group day care homes for nutritious foods.

Composting — Gathering of organic matter to use for fertilizer. Unused school food that cannot be consumed (such as unpackaged or expired food) can be added to a [composting bin](#) and repurposed for garden fertilizer.

Food Donation Programs — School food recovery strategy where surplus food can be donated to food banks or charitable organizations. These programs are protected by the [Good Samaritan Law](#).

Hazard Analysis and Critical Control Points (HACCP) — A required [management plan](#) in which food safety is addressed to reduce foodborne illnesses in schools.

Meal Poster — [Poster](#) that displays the healthy portions and options of each food group to students in a fun and exciting way.

Menu Production Worksheets — [Planning documents](#) that can be used to guide menu production to meet the requirements for the various age groups within K-12 schools.

Offer versus Serve — School waste reduction strategy where students can decline some of the food offered in a [reimbursable lunch or breakfast](#).

Reimbursable Meal — Meals served by schools must meet certain requirements in order for the school to receive reimbursement (under the [National School Lunch Act](#)). Review each meal requirement from the [U.S. Department of Agriculture](#).

School Food Waste Reduction Program — School program to reduce the amount of waste produced through various strategies (offer versus serve, food service staff trainings, reducing amount of food ordered by the school etc.). For best results, these programs should contain additional waste recovery plans and strategies.

School Food Recovery Programs — School program to recover surplus food inevitably created through various strategies (food donation, share tables, etc.). For best results, these programs should contain additional food waste reduction plans and strategies.

Share Tables — School food waste recovery strategy where students can place unwanted and unopened food and drinks they do not intend to consume onto a table outside of the serving line. Students can take items from the share table at no additional cost.

Smarter Lunchrooms — From the [Smarter Lunchroom Movement](#), these strategies are intended to increase consumption of healthy food and reduce food waste.

Take it to Go — School food waste reduction strategy where students are allowed to take uneaten food from the cafeteria, with the intent to eat the food later.



Example of a Food Share Table and Sorting Station from Oakland USD



**REDESIGN. RETHINK. REDUCE. REUSE.
GO BEYOND RECYCLING.**

WHAT IS ZERO WASTE?

Zero waste is a philosophy that encourages the redesign of resource life cycles so that all products are reused; a process that is very similar to the way that resources are reused in nature. Although recycling is the first step in the journey, achieving zero waste goes far beyond. By focusing on the larger picture, facilities and organizations can reap financial benefits while becoming more resource efficient.

According to the EPA, the average American generates 4.4 pounds of trash each day, and according to the World Bank, global solid waste generation is on pace to increase 70 percent by 2025. For every can of garbage at the curb, for instance, there are 87 cans worth of materials that come from extraction industries that manufacture natural resources into finished products—like timber, agricultural, mining and petroleum. This means that while recycling is important, it doesn't address the real problem.

THE TRUE ZERO WASTE RATING SYSTEM

The TRUE (Total Resource Use and Efficiency) Zero Waste Rating System enables facilities to define, pursue and achieve their zero waste goals, cutting their carbon footprint and supporting public health. It helps facilities quantify their performance and find additional ways to improve their progress towards zero waste.

WHY EARN TRUE ZERO WASTE CERTIFICATION?

TRUE certified spaces are environmentally responsible, more resource efficient and help turn waste into savings and additional income streams. TRUE certified projects are saving on operational costs, reducing greenhouse gas emissions, managing risk, reducing litter and pollution, reinvesting resources locally, creating jobs and adding more value for their company and community.

TRUE IS A WHOLE SYSTEMS APPROACH

TRUE profoundly changes our approach to resources, production and facility operations, changing how materials flow through society and resulting in no waste. TRUE is about restructuring product and distribution systems to prevent waste from being manufactured in the first place. TRUE encourages the redesign of resource life cycles so that all products are reused and promotes

processes that consider the entire lifecycle of products used within a facility. With TRUE, your facility can demonstrate to the world what you're doing to minimize your waste output.

HOW DOES CERTIFICATION WORK?

The TRUE Zero Waste certification program is an Assessor-based program that rates how well facilities perform in minimizing their non-hazardous, solid wastes and maximizing their efficiency in the use of resources. A TRUE project's goal is to divert 90 percent or greater of materials from the landfill, incineration (waste-to-energy) and the environment for solid, non-hazardous wastes for the most recent 12 months.

Certification is available for any physical facility and their operations, including facilities owned by: companies, property managers, schools, government agencies and nonprofits. Facilities achieve TRUE certification by meeting 7 minimum program requirements and attaining at least 31 out of 81 credit points from the TRUE Zero Waste Rating System. The number of credit points that a project earns determines the certification level it receives (Certified, Silver, Gold or Platinum).

BENEFITS OF TRUE ZERO WASTE CERTIFICATION:

SAVE MONEY: Waste is a sign of inefficiency and the reduction of waste reduces costs.

FASTER PROGRESS: A zero waste strategy improves upon product processes and environmental prevention strategies, which can lead to larger, more innovative steps.

SUPPORT SUSTAINABILITY: A zero waste strategy improves your triple bottom line and supports the three Ps—people, planet and profit.

IMPROVE MATERIAL FLOWS: A zero waste strategy uses fewer new raw materials and sends no waste materials to landfills, incineration (waste-to-energy) and the environment.

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