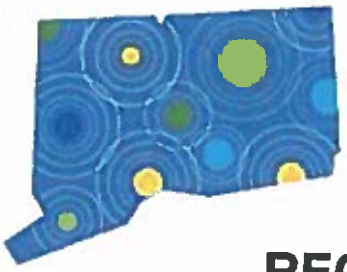
Sustainable CT

Local Actions. Statewide Impact.



Sustainable CT Equity Toolkit

To satisfy the "Optimize for Equity" action:

1. Apply the Sustainable CT Equity Toolkit to each new Sustainable CT action that you are including in your Optimize for Equity action submission

2. **Start using the Toolkit before you begin your Sustainable CT action.** The Toolkit may not be applied retroactively to an action. There are a series of questions to consider at three points of your action process: before (action planning), during (action implementation), and after (action evaluation).

3. Complete the questions in the Toolkit for each new Sustainable CT action you have completed under the "Optimize for Equity" action and have the Toolkit signed and dated by your elected official. Or you may use one Toolkit to document multiple actions that you have included under the "Optimized for Equity" action.

4. Upload each completed and signed Toolkit through your community's Sustainable CT online Municipal Dashboard under the "Optimize for Equity" action. Please note you must also submit for the new action(s) to which the Toolkit was applied in the corresponding action submission page(s).

Sustainable CT Equity Toolkit Overview

	Step	Question
Planning	1) Set Goals	What does your Sustainability Team define as the three most important equitable community outcomes related to the action (include possible community indicators that measure these outcomes)?
	2) Analyze Data	A. Define diversity within your community: what are the demographics of the target groups for the action or those living, working, or socializing in the area(s) impacted by the action? (for example, race, ethnicity, age, gender, physical disability, retired/working, vehicle/commuting needs, shift worker, dependents/not, homeowner/renter, income level, other)
		B. Which geographic areas (including neighborhoods) in your municipality may be impacted by the action?
		C. What additional data would be helpful in analyzing the action and its impacts on equity and how can you obtain it?
	3) Determine the Benefit/Burden(s)	A. How are your residents and businesses obtaining services related to this action now? What are the root causes or factors of current inequities or barriers related to this action?
		B. How will you engage those most impacted? Who is collecting and contributing feedback? Have you created accessible opportunities for these groups to engage? Public engagement should prioritize opportunities to collaborate and co-create.
		C. What did those engaged tell you about the potential benefits, burdens, and/or community priorities related to this action? What results and outcomes would they like to see? Did they identify ways to lessen any potential unintended consequences and/or to broaden any potential positive impacts?
Implementatio	4) Engage, Advance Opportunity, & Minimize Harm	A. Given what you have learned, what steps will you take to address any remaining barriers, impacts, or unintended consequences of this action on equity (include immediate and long-term impacts)?
		B. How will you include and benefit from diverse representation in implementing the action?
Evaluation	5) Evaluate and Educate	A. How will you document, evaluate, and report progress to increase equity and access to services as you implement this action?
		B. How will you continue to partner and deepen relationships with impacted segments of your community to make sure your action works for all in the long-term?
		C. What challenges did you encounter while completing the "Optimize for Equity" action, and how might you learn from them for future applications?

Equity Toolkit

Title(s) of Sustainable CT Action(s): Foam-free school lunch and waste reduction pilot

Municipality: Town of Greenwich

Action Planning

Complete this portion of the toolkit *before you begin your action.*

Step 1. Set Goals

1. What does your Sustainability Team define as the three most important equitable community outcomes related to the action (include possible community indicators that measure these outcomes)?

1. Safeguarding the health of Greenwich Public School students particularly those participating in the free and reduced lunch program.

2. Reduction of waste and negative environmental impact of hazardous materials like polystyrene, which disproportionately affect the underprivileged

3. Education of students regarding product safety and environmental stewardship

Step 2. Analyze Data

2a. Define diversity within your community: what are the demographics of the target groups for the action or those living, working, or socializing in the area(s) impacted by the action?

☒ Race	☐ Vehicle/Commuting Needs
☒ Ethnicity	☐ Shift Worker
☒ Age	☐ Dependents/Not
☒ Gender	☐ Homeowner/Renter
☒ Physical Disability	☒ Income Level
☐ Retired/Working	☐ Other

2b. Which geographic areas (including neighborhoods) in your municipality may be impacted by the action?

The pilot program will be introduced at Cos Cob Elementary School and if successful, will be rolled out district wide to the other 10 elementary schools, 3 middle schools and the high school throughout Greenwich.

2c. What additional data would be helpful in analyzing the action and its impacts on equity and how can you obtain it?

Data describing the number of students participating in the free and reduced lunch program and the number of students purchasing school lunch at Cos Cob School and other district schools. Data regarding volume and weight of waste generated during lunch before the pilot period, which can be deduced through a waste audit and discussion with custodial staff.

Step 3. Determine the Benefit/Burden(s)

3a. How are your residents and businesses obtaining services related to this action now? What are the root causes or factors of current inequities or barriers related to this action?

For at least two decades in Greenwich Public Schools (GPS), lunch has been served on polystyrene, or Styrofoam, trays, which contain styrene, a possible human carcinogen that can migrate into food from these products. Styrene may leach into hot and acidic foods ingested by students and be consumed directly when children scrape the trays with forks or other sharp implements. The International Agency of for Research on Cancer (IARC) classified styrene as a "possible human carcinogen" (class 2-B carcinogen). A report from the U.S. Department of Health and Human Services states, "Styrene is reasonably anticipated to be a human carcinogen." Further, the EPA notes, "Chronic (long-term) exposure to styrene in humans results in effects on the central nervous system (CNS), such as headache, fatigue, weakness, and depression, CSN dysfunction, hearing loss, and peripheral neuropathy." The EPA summary also cites the possible increased risk of leukemia and lymphoma, as suggested by epidemiological studies.

Currently, students are exposed to styrene on a daily basis in our school cafeterias. Most at risk are the 15.4% of GPS students eligible for free and reduced lunch, who may eat meals on polystyrene trays every day for breakfast and lunch more than 13 years. In 2015-16, out of a total of 8,970 students in district, 1,381 qualified for free or reduced price meals. A single parent with one child must have an annual gross income of $20,826 or less for the child to be eligible for free meals. With each additional family member — employed or unemployed — the maximum annual income increases by about $5,400, meaning two parents with three children must have an annual income of about $37,000 or less to qualify. More families can qualify for reduced-price meals. A single parent with one child making $29,637 or less annually will qualify. The maximum annual income increases by about $7,700 with each additional family

member. These students are dependent on the school lunch program for their daily nutrition needs, but are exposed daily to styrene in the Styrofoam trays on which their food is served.

Not only are polystyrene trays a threat of our children's health, they pollute our environment and contribute significantly to our waste stream. The manufacture of polystyrene requires fossil fuels and carcinogenic chemicals, such as benzene and styrene, as well as considerable water and energy resources. Its production creates a trail of pollutants for only minutes of use. The health of workers is endangered during its production. Further, polystyrene manufacture is the fifth largest producer of hazardous waste in the U.S., according to the EPA. The Clean Production Action's Plastic Scorecard cites polystyrene as one of the most hazardous plastics, as every step of manufacturing involves the use of chemicals of high concern to human health and the environment.

In addition to its health and environmental dangers, polystyrene trays are wasteful and hazardous to dispose. As of July 1, 2018, the Town of Greenwich no longer accepts polystyrene products for recycling, mandating the material for trash disposal. There is not a reliable economic market or environmentally effective means for recycling them. Greenwich Public Schools will throw away almost half a million Styrofoam trays each year. These trays are incinerated at the Wheelabrator waste-to-energy plants in Peekskill, NY and Bridgeport, CT with the ash buried at its Putnam, CT monofill at a cost to taxpayers and the detriment of our air and soil quality. The waste-to-energy plant in Bridgeport is sited in a low-income urban area alongside other toxin-producing facilities, contributing to a great number of cases of environmental injustice. Just as polystyrene is hazardous to produce, its disposal also has deleterious effects. The incineration of polystyrene releases harmful chemicals into our air, such as sulfur dioxide, dioxins, particulates, carbon dioxide and nitrogen dioxide. The National Bureau of Standards, Center for Fire Research has found 57 chemical byproducts released during the combustion of this material.

3b. How will you engage those most impacted? Who is collecting and contributing feedback? Have you created accessible opportunities for these groups to engage? Public engagement should prioritize opportunities to collaborate and co-create.

Feedback will be collected by the Department of Food Services and the PTA Council Green Schools committee from cafeteria employees, lunch monitors, custodians, the school principal and students. During the pilot period students will receive training from Green Schools representatives and lunch monitors on reasons for the transition from polystyrene disposables to reusable polypropylene baskets and proper recycling, composting and other waste reduction measures.

3c. What did those engaged tell you about the potential benefits, burdens, and/or community priorities related to this action? What results and outcomes would they like to see? Did they identify ways to lessen any potential unintended consequences and/or to broaden any potential positive impacts?

By replacing polystyrene trays with a reusable, durable alternative, such as polypropylene baskets with a waxed paper liner, student exposure to the deleterious effects of styrene will be eliminated, potentially reducing risk of serious future health conditions. Waste reduction is another goal of this pilot. Greenwich Public Schools will dispose of approximately 500,000 polystyrene trays per year to be incinerated, as there is no longer a means to recycle them. Other waste reduction measures will be undertaken, such as liquid collection, recycling of acceptable materials such as beverage containers, and collection of certain uneaten foods. Staff and student training are a critical component of the pilot. Success depends on cooperation of food services employees, lunch monitors and custodians in particular.

Action Implementation

Complete this portion of the toolkit *while you are performing your action.*

Step 4. Engage, Advance Opportunity, & Minimize Harm

4a. Given what you have learned, what steps will you take to address any remaining barriers, impacts, or unintended consequences of this action on equity (include immediate and long-term impacts)?

The greatest barrier encountered during the pilot is the labor and cost of cleaning the reusable baskets. It is estimated that cleaning the baskets requires an additional 30 minutes and about $3000 to cover labor per school. Funding will need to be found to cover these expenses, and solutions for time management be studied. Moving forward, the possibility of dishwashers and reusable stainless steel compartment trays and utensils will be researched and piloted. Further, in subsequent actions to build on the pilot, the program will focus on Title 1 schools in the district with large numbers of low-income students – Hamilton Avenue, New Lebanon, Julian Curtiss and Western Middle School. New construction is currently underway at New Lebanon School and a dishwasher and durable service ware will be requested in the cafeteria. In addition, these measures will be inserted into the master plan for the school district currently being drafted.

4b. How will you include and benefit from diverse representation in implementing the action?

The Cos Cob pilot will demonstrate the feasibility of the program for the entire district. When the pilot is rolled out to other schools, priority will be given to Title 1 schools, which are more deeply affected by the use of polystyrene trays in the school cafeterias.

Action Evaluation

Complete this portion of the toolkit *after your action is complete.*

Step 5. Evaluate and Educate

5a. How will you document, evaluate, and report progress to increase equity and access to services as you implement this action?

Food service employees, lunch monitors, custodians and students were regularly interviewed throughout the pilot period, so any challenges could be immediately addressed and documented. A waste audit was conducted before and after the pilot program to quantify the reduction in municipal solid waste achieved by measures undertaken. A follow up meeting was held with the principal, food service director, custodians, food service employees, lunch monitors and PTAC Green Schools representatives to discuss the benefits and challenges of the pilot program and plans to proceed. Feedback is incorporated into a report to be distributed to the Superintendent, Board of Education and PTA Council. Based on their recommendations, the next phases of the pilot will be implemented, focusing on Title 1 schools.

5b. How will you continue to partner and deepen relationships with impacted segments of your community to make sure your action works for all in the long-term?

An educational campaign will be undertaken for outreach to families regarding actions undertaken to eliminate exposure to polystyrene in the school cafeterias, as well as reduce waste. We will continue to build upon the partnership between Food Services, PTAC Green Schools and school administration to find an economical long-term solution to benefit our students, particularly those eligible for the free and reduced lunch program and at Title 1 schools.

5c. What challenges did you encounter while completing the "Optimize for Equity" action, and how might you learn from them for future applications?

Our greatest challenge was the increased labor and cost required to clean the reusable baskets by hand. We will be exploring the possibility of investing in dishwashers and reusable stainless steel trays and utensils in the next phase of the pilot, by researching other school districts that have transitioned from disposable polystyrene trays to reusable wares and dishwashing systems. Another challenge was effective student training in the new recycling guidelines and waste reduction measures. During the pilot program, training was only undertaken in the cafeteria, but moving forward, educational program will also be conducted in the classroom to support these lessons and create a more effective implementation.

Peter J. Tesei

Signature of Municipal Elected Official

PETER J. TESEI

Printed Name

FIRST SELECTMAN, TOWN of GREENWICH

Title

August 16, 2018

Date