7. Strategic and Inclusive Public Services

7.8 Develop a Food Waste Reduction Campaign

Objective

Reduce or eliminate food waste.

What to Do

- 1. Choose one or more target sectors and implement or maintain an ongoing food waste reduction campaign in those sectors. Consider any measurable impacts observed as a result of the program. If you collaborate with one or more neighboring municipalities, each municipality will earn points. Examples of campaigns eligible for points under this Action are listed below. (10 POINTS)
 - o An educational campaign to raise awareness about food waste in schools. Schools may then implement a campaign to proactively decrease and divert food waste.
 - A campaign to reduce residential food waste. Strategies include educating community members on backyard composting, distributing compost bins to members of the community, which may be obtained with government grants, and educating residents on the difference between "sell-by", "use-by," "best-by," and expiration dates.
 - An educational campaign to promote the benefits of reducing food waste in local businesses and disseminating resources to help businesses conduct and analyze a food waste assessment.

Submit: An overview of outreach (5 sentences maximum), including target populations (if any); at least one example from among materials disseminated, which could include flyers, articles, letters, newsletter, powerpoint presentations, website links, or other digital communications materials. Include a list of any campaign-sponsored events or public meetings where the campaign was highlighted and discussed.

Several years ago, the Conservation Commission had noticed the problem of steady increase of waste generation in Greenwich. The majority of them were produced during the fall months when piles of leaves were collected from the curb sites. The collected material needed to be tracked away. Leaves went to the compost facilities in Easton while garbage was transported to trash-to-energy plant in Bridgeport. In early 2013, *Leaves Nature's Treasures* program was created to address the cost of leaf pickup in town. A message for the property owners to keep their leaves on site by mulching mowing was first introduced through a walking display at the Greenwich 257th anniversary parade in September 2015.

 $\frac{https://greenwichfreepress.com/around-town/jackpot-black-gold-discovered-ingreenwich-49359/}{}$

The newly created *Leaves Nature's Treasures* program was put in place also to address organic wastes and their environmental impacts. https://www.greenwichct.gov/337/Leaves. Keeping leaves on the streets is almost an equivalent of turning a natural resource into organic waste soaked with street runoff and mixed with trash. A simple solution to this problem is to recycle leaves via shredding them to the lawn together with grass clippings. An excess shredded leaves can be used as a mulch around planted beds and/or compost.

Leaves Nature's Treasures program met with huge community support. There has been a significant public outcry regarding the noise and air pollution caused by the use of leaf blowers and the safety issues created by leaves blown to the curbs. The Conservation Commission, held several meetings with representatives from DPW, Parks & Recreation, the Tree Conservancy, Greenwich Green and Clean, Greenwich Recycling Advisory Board, Community Gardens, Garden Education, and PTA Green Schools to discuss solutions to these problems.

The Board of Selectman endorsed the program on June 30, 2015 and encouraged property owners to recycle and reuse the leaves in their yards. https://www.greenwichct.gov/AgendaCenter/ViewFile/Minutes/_07302015-1094
The program which was initially meant for the property owners residing within the leaf pick-up areas had quickly expanded to other neighborhoods including Town owned properties, especially schools. It was important for the Town to lead by example.

A close evaluation of school grounds and their challenges caused the program expansion from leaf mulching-mowing to include on-site composting. It was noted, some of the large trees yield excessive amount of leaves. Shredding them all to the lawn can be overwhelming for the grass so the excess was directed to the newly constructed compost bins or used as a mulch placed over planted beds. https://www.greenwichschools.org/uploaded/eastern_ms/pta/green_schools/Leaf_com-posting_programGPS.pdf

Leaves provides an excellent source of carbon while cafeteria scraps supply the nitrogen. Mixing scraps of fruits and vegetables together with leaves is perfect for making compost and enhancing school sustainability. Two schools agreed to participate in a pilot program. A comprehensive educational plan was put together and presented to the school principals and both Riverside School and Eastern Middle School adopted the program. https://greenwichfreepress.com/around-town/organic-waste-management-program-in-greenwich-71599/

The efforts were implemented jointly by the Conservation Commission and the Parks and Recreation staff with strong support and assistance from the teachers, PTA Green School Committee members, cafeteria workers and custodians. Parent volunteers assisted with initial monitoring at both schools. Outdoor compost bins were built by the Marine Division of Parks and Recreation. The lumber was supplied by *Ring's End* and the *Interstate Lumber and Mill Corporation*. Both companies made a donation of

materials contributing to the overall program success. On December 2, 2015, the initiation of composting program in public schools was celebrated via the ribbon cutting ceremony at Riverside School. The opening speech was given by the First Selectman, Peter Tesei.



On the picture from the left Christopher Weiss, Principle of Riverside School, Aleksandra Moch, Conservation Commission, Peter Tesei, First Selectman

Year 2015 was busy in Town with introduction of the new program. A composting display and informational material was presented at the Earth Day event hosted by the Conservation Commission with partners on April 26, 2015. The topic continued through the Community Gardens "Ask an Expert" program on May 16, 2015 and Greenwich Audubon "Sustainable Food and Farm Expo" on May 31, 2015. At each event, a group of Master Composters from the Conservation Commission, Garden Education Center, and Community Gardens, held an information booth and conducted an educational program about leaf shredding and composting. One of the goals of these events was to collect feedback from the attendees regarding their preferred ways of leaf management.

In 2015, CT DEEP offered the Waste Reduction Initiative Grant Program which the Town of Greenwich applied for and was awarded the maximum grant amount of \$20,000 at the beginning of year 2016. This fund was predominantly allocated to the composting program at schools which included the construction of the outdoor compost bins, design of educational programs, purchasing of compost tools and buckets for collecting cafeteria scraps. In addition, compost education was expanded to include property owners and landscape professionals. Educational brochures were designed and printed and 150 composters were purchased for the property owners to

give them the tool for organic waste reduction.

https://www.youtube.com/watch?v=lObjKkLfKVs (bins purchased for the property owner from James McIntire, Covered Bridge Organic LLC features in the movie.



A new website dedicated to *Leaves Nature's Treasures* was launched. The first items posted at the website were surveys: one for the property owners and one for the landscape contractors. In addition, hard copies of these surveys were mailed to 100 property owners and 50 landscape professionals to target a good representation of the sampled population. https://www.greenwichct.gov/337/Leaves Obtained responses showed that most of the involved are either familiar with the program principles or are actively applying them at home and/or in their business.

Spring is usually the most active part of each year. This period in Greenwich is initiated by lots of preparations for the Earth Day month celebrations. Enhanced with the new compost program at schools, the events carried through the waste reduction theme. More than 700 students at Riverside School were educated on worm biology and vermicomposting. In addition, recycling and reusing was emphasized through arts and crafts expressed in created "march of penguins" display using water bottles turned into penguins. Each student made a pledge through selecting his/hers most important way of protecting the environment during the upcoming year. Activities with worms were carried to other schools such as Old Greenwich, Parkway, and North Street Schools.



Riverside School worms and penguins event

The \$20,000 grant awarded to Greenwich by CT DEEP provided a real boost to the program and made it move at a much faster pace. *Leaves Nature's Treasures* at schools took off and kept adding on more schools every year. In year 2016 Central Middle School, Hamilton Avenue, and Greenwich Country Day School joined the program. The efforts did not discriminate between public or private schools reaching out to as many students as possible. Early childhood education was recognized as the best way of inducing good habits and understanding the need for more sustainable behavior. This investment in young generation will benefit the future of Greenwich.



Standard composter installed in 11 schools in Greenwich. The one above is proudly presented by Chris Weiss, Principle of Riverside School.

The program in schools was built based on great cooperation between the Department of Parks and Recreation crew collecting the excess leaves from the school grounds and students recycling fruit and vegetable scraps in their cafeteria. Both organic wastes combined in outdoor composters turned relatively quickly into a beneficial soil amendment significantly reducing generation of organic wastes. At Riverside School and Central Middle School, students used the compost for their vegetable gardens. Collection of cafeteria scraps not only kept the students engaged in the compost-making process, but also allowed them to see and understand the entire process starting from plant growth all the way to its decomposition and uptake of the nutrients by the new growth.

The efforts at schools were concluded that year by a program at Putnam Indian Field School, which is a private day-care in Greenwich. It was proven that even the youngest children (3-5 years old) have the ability to recycle their food scraps and feed worms. An educational presentation and a couple of composters were given to this school to support their efforts.

Year 2016 was not only busy at schools, but also with reaching out to the communities in the areas designated for leaf pick up. The public outreach was tackled via educational workshops and individual and/or group coaching. Eight workshops were offered in the month of September. Four of them were dedicated to the property owners and other four to the local landscapers. One workshop was taught in Spanish. https://patch.com/connecticut/greenwich/new-organic-waste-management-program-started-greenwich These educational programs designed for professionals offered credits towards Pesticide Applicator certification from CT DEEP and Organic Land Care from CT NOFA. Participants were listed on the newly created website as trained in the new organic waste management program Leaves Nature's Treasures.

The requests for individual and group coaching were obtained via website and phone registration. Each session explained how to compost, helped setting a free of charge composter at the property, and demonstrated how to shred leaves. Over 60 coaching sessions were performed at times fitting the individual schedules and customized the waste management program to their specific needs. Coaching was the most popular and successful way of reaching out to property owners in town.



The efforts in organic waste management through *Leaves Nature's Treasures* were reinforced through the theme of compost and water conservation during the Earth Day events of 2016. Several of them were held at schools. Soil tent borrowed from Natural Resources Conservation Service, U.S. Department of Agriculture was one of the major components at each events. A compost display prepared by the Conservation Commission staff accompanied the tent. This educational program reached out to Riverside, North Street, Cos Cob, Hamilton Avenue Schools and Cos Cob Library. In addition to school, both displays were set up at other events such as the one at the Bruce Museum, Light Bulb Swap, and more.

Similar to previous years, the outdoor composters at schools were managed over the summer by the Conservation Commission Staff. Sort time of summer break required intensive management of organic wastes to ensure compost development before the new school year. In several cases, buckets of free coffee grounds were received from local Starbucks to boost the decomposition. By the end of August, all composters were cleaned by the Parks and Recreation staff. Harvested compost was used for vegetable gardens at Central Middle School. At Hamilton Avenue School a new vegetable garden inspired by the composting was installed with some help from a local contractor.

The compost program at schools gave a unique opportunity for the Eagle Scout project. Luke Keiser, one of the boy scouts, constructed an outdoor composter for Hamilton Avenue School and later on built another one for his own Greenwich High School. Nicolas Matejak followed his footsteps by putting together and installing a composter at the International School of Dundee. Last, but not least joining the list of high school volunteers was Sophie Lindh, who promoted composting via selling containers for collecting kitchen scraps and actively managed compost bins in several public schools.

With help of Parks and Recreation and two high school volunteers, more and more schools had embraced the compost program. New composters were installed at Old Greenwich School, Greenwich High School https://www.greenwichtime.com/local/article/Film-at-Greenwich-High-to-begin-composting-12627958.php, Cos Cob School and International School of Dundee. It was interesting to see that each school is unique and had different approach to the program. The best results were achieved at Greenwich Country Day. Here is how Laura di Bonaventure, Director of Sustainability at GCD describes the operations in her own words:

Our composter is being used for the dining hall food waste - the 'front of the house.' It took a lot of pushing and asking to get our Facilities Dept to provide the leaves - of all things this was the barrier. It is extra work for them to cut the leaves before putting them in the bins. Their practice is to mulch in place where they can or blow and haul where they can't (beds etc.) and when they blow into a pile, then they run it over a few times to chop, bag it, haul it to the bins. They are not thrilled with the new work - I keep working on that. However now we have the 'brown' to use with the food waste and are using the bins. This year's food waste/composting curriculum work is a 6th grade teacher's project to weigh the food waste in the dining hall every day and chart the weight across the dining hall walls. Plus a few assemblies for 4th -6th grade on food waste. So it is happening and part of our ongoing efforts.

GCDS is also still contracting with NE Composting to haul our 'back of the house'/kitchen food waste and will probably have to keep doing so for 2 reasons: 1) we generate so much volume, we make nearly all of our food (except bread) from scratch and serve 1200 lunches a day, plus snack is being composted now (banana peels, apples). The compost bin we have couldn't handle all the kitchen waste, it

would be full in a month or more. Also, the composters are great as teaching tools not least because the dining hall waste that the kids sort has plastic and other 'mistakes' in it which we can tolerate in our bins, and they can see why that should change.

Hamilton Avenue School had conducted waste assessment study in 2016 and 2017. https://www.greenwichtime.com/local/article/Greenwich-students-take-final-look-atthe-11214509.php The students weighted the total of wastes generated in cafeteria and then compared the amount of waste left after recycling and composting. More than 50% of waste reduction was achieved in both cases. Central Middle School had a special way of welcoming the program. They have been running a well-established vegetable garden for years and have one teacher, who was very dedicated to this cause. A PowerPoint presentation was given by teachers to each class in preparation for a short introduction in cafeteria, which focused mostly on "how to" approach. A student club was formed to take care of delivering of cafeteria scraps to the outdoor composter. Other schools relied on cafeteria presentations given by the Conservation Commission staff when introducing composting to students. The presentations were followed by several days of monitoring using the PTA volunteers. Cos Cob School requested, all teachers and students to be educated. In addition to compost program in cafeteria, Riverside School incorporated vermicomposting to the second grade curriculum. Vermicomposting caught attention of Temple Sholom day care, which decided to form a compost club consisting of 2-5 years old participants.

The first vermicomposting training for the entire families was offered in September of 2017 and sponsored by the Bruce Museum

https://www.greenwichtime.com/local/article/Greenwich-environmental-analyst-says-it-s-time-12266797.php. Attendees received free worm farms and worms. It was a fun day for the children and their parents. In October a seminar, Healthy Yards Workshop, was offered as a whole day educational experience. The idea behind this workshop was not only to talk about *Leaves Nature's Treasures* initiatives, but also teach the property owner how to better manage their landscape.

https://www.greenwichtime.com/local/article/Town-officials-to-offer-Healthy-Yards-12250028.php

Two more schools would be joining the compost program this school: North Street and North Mianus School. The composters had been constructed for them already and an educational program will be implemented at the beginning of the new school year. There is still more work to be done at Greenwich High School which remains as a challenge due to the large student population and complex cafeteria culture. A compost club was formed consisting of students, teachers, Conservation Commission Staff and cafeteria workers. Recently, the school applied and was awarded with a new grant which would help with better management of wastes in school cafeteria and reinforcement of recycling and composting. A movie "Wasted – The Story of Food Waste" was shown at the Greenwich High School Auditorium to initiate the discussion on food waste.

https://www.greenwichtime.com/local/article/Documentary-to-show-how-to-transform-food-and-end-12794925.php A panel discussion was held at the event and

table displays were provided at the entrance. This event initiated the new compost program at this school.

There is a need for continuing maintenance and monitoring of the program in established schools. The outdoor composter will be maintained with help of volunteers and Park & Recreation will provide an annual compost removal and fall leaf supply. In addition, a refreshment training will be offered each year in cafeterias. The work within the community needs more engagement. After the school program is up and running in all 11 schools, more time would be devoted to community education. As mentioned above 150 composters were distributed through the coaching program. The Conservation Commission purchased additional 100. Fifty of them are left for more coaching opportunities this fall. Landscape contractors is a group which needs to be more actively engaged in this program. An educational workshop was scheduled at the end of January, 2017 to talk about mulching mowing, grass cycling, composting and organic approach to landscaping. The program also targeted the soil health and proper plant watering and fertilization.

