

2019-2020 Green Team Final Report

The Center for EcoTechnology (CET) continued to administer the MassDEP Green Team program in the 2019-2020 school year. CET worked on several special projects this fiscal year, including developing a video on home recycling that highlighted Recycle Smart MA guidance and executing a Green Team informational webinar. Participation in the 2019-2020 school year was higher than the previous five years, driven by fostering strong partnerships with organizations with overlapping interests, developing new resources and videos, and regular outreach to previously registered teachers. Many of the typical Green Team operations shifted beginning in late March, as schools across Massachusetts moved to remote teaching due to the impacts of COVID-19. CET adjusted deliverables to better support teachers, administrators, and parents during remote learning, and observed many schools maintaining a culture of environmental protection in their lessons and programs.

Participation Summary

The following table details participation in the Green Team program this school year compared to the last several years:

	2019-2020 School Year	Percentage Change	2018-2019 School Year	2017-2018 School Year	2016-2017 School Year	2015-2016 School Year
Participating Green Teams	411	8% Increase	382	317	332	363
Participating Schools	348	0.6% Increase	346	287	300	314
Participating Students	113,921	29% Increase	88,166	56,538	60,325	64,716
TRFs Submitted	44	39% Decrease	72	59	62	66

As usual, many teachers registered early in the school year and into the fall, with 298 teachers registered by late October. The number of registrations decreased as the school year continued, with a small spike in registrations in January and March. This period corresponds with CET doing additional outreach to encourage registration, including extra email outreach to previously registered teachers, tabling at a conference, and a webinar.

The only area where participation decreased was in the number of teachers submitting a Teacher Response Form (TRF). The drop in TRF submissions is almost certainly a result of the

disruption to the school year by COVID-19, as TRFs were due after schools transitioned to remote learning.

Outreach

CET conducted a variety of outreach activities this fiscal year, including a mix of in-person and virtual presentations, electronic communications, and calls and emails with partner organizations. Just before the start of the school year, CET emailed principals and superintendents from across the state to encourage teachers in their schools and districts to register; these emails resulted in registrations from at least 16 new teachers. CET also shared information about the Green Team with several nonprofit organizations and state government departments that work with K-12 schools. Some of these entities, such as MassDESE, Mass in Motion, and MassDOT, promoted The Green Team through their newsletter and/or website. CET also reached out directly to teachers that had registered their Green Teams in past years and had not registered in the 2019-2020 school year.

CET included information about the Green Team in numerous presentations throughout the year, including the Massachusetts Facilities Administrators Association Fall Conference (October 16, 2019) and the Massachusetts Farm to Schools Institute (October 19, 2019). The Green Team was also invited to present and table at MassDESE's annual training event in the spring, which was cancelled due to COVID-19. In addition, CET staff promoted the Green Team while attending other events and conferences. Some examples from the 2019-2020 school year include the School Nutrition Association of Massachusetts Fall Conference & Food Show and the Northeast Recycling Council conference.

CET fellows helped promote the Green Team in several ways. Fellows staffed a Green Team table at the annual Massachusetts Environmental Education Society Conference in March, which resulted in 19 registrations at the table or immediately after the conference. CET fellows also included Green Team information at general organizational tabling opportunities throughout the year, and discussed the program in a "Back to School" segment on Channel WWLP-22's Mass Appeal show in September. In FY20, CET also used its own media channels to promote the Green Team, including the CET Go Green Blog and the EcoBuilding Bargains e-blast newsletter.

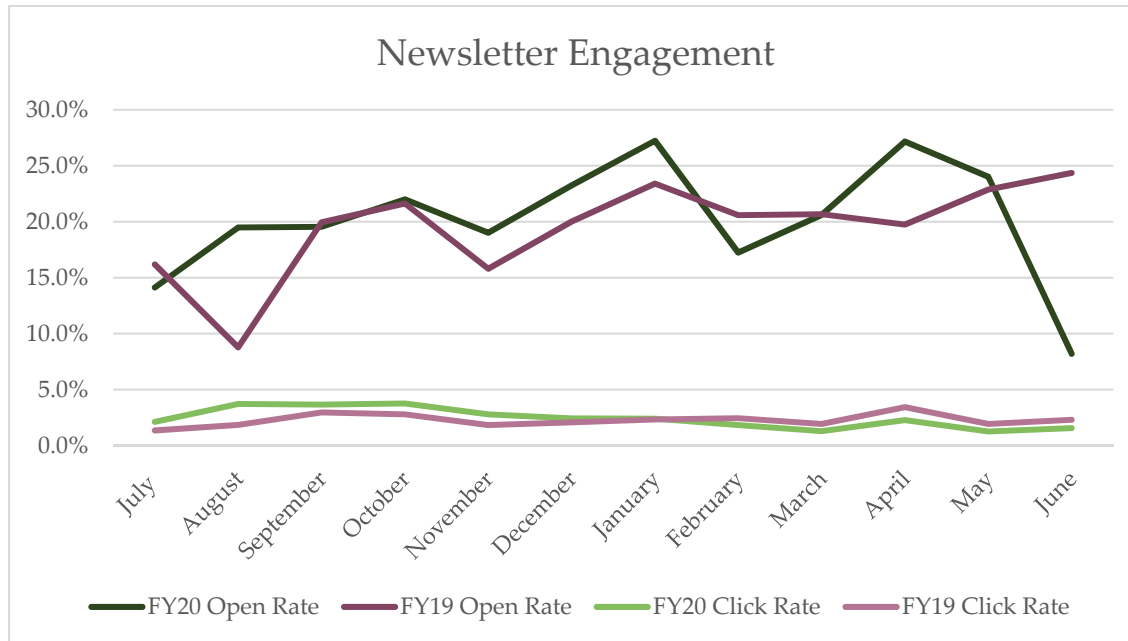
After schools closed in mid-March, CET identified an opportunity to share Green Team resources with teachers and parents engaged in remote learning. The Green Team hosted a webinar on May 6, 2020 to showcase different ways to incorporate waste reduction activities into remote learning, including instructions for using the Slash Trash lesson plan and other resources for recycling and food waste reduction. Attendees participated in an interactive recycling quiz using Recycle Smart MA guidance, and then separated into breakout rooms to discuss challenges, resources, and tips. Twenty-eight people attended this virtual event, which was recorded and published on the Green Team website.

Communication

The primary communication vehicle with Green Team teachers is the monthly electronic newsletter. Current and previously registered Green Teams receive monthly emails containing relevant news stories, event listings, grant opportunities, competitions, and other inspirations to “green” their classrooms and schools. Monthly newsletters were sent out from July through June, and the newsletter contact list had 2,688 subscribers at the end of the school year. Due to school closures resulting from the COVID-19 pandemic, CET sent weekly e-blasts in April and May. Each e-blast focused on an environmental theme and highlighted a few virtual environmental education lesson plans and resources for teachers to share with their students.

The open rate and click rate for newsletters in FY20 was higher than the previous school year. On average, about 545 people opened the newsletter each month. In October through March, slightly different versions of the newsletter were sent to teachers who were registered for the current school year than to contacts that were not currently registered. Those newsletters sent only to registered teachers had an average open rate of 48.6%. During the 2019-2020 school year, registered teachers were about three times more likely to open the newsletter than contacts that were not registered for the current school year. The weekly eblasts sent in April and May had a similar engagement to the regular monthly newsletter, with a 21.1% open rate, a 1.7% click rate, and an average of 575 people opening each week.

Green Team Email Newsletter Metrics		
Fiscal Year	Average Open Rate	Average Click Rate
FY20	20.2%	2.4%
FY19	19.5%	2.3%



Participation and Results

In the 2019-2020 school year, the 381 Green Team registrations represented:

- 401 Teachers
- 348 Schools
- 113,921 Students

In FY20, the Green Team received registrations from 254 new teachers, representing approximately 63% of registrations. The majority of participants received a mailed Green Team Kit containing a classroom poster, lesson plans, press release, and suggested activities; teachers who registered after March 12 were not able to receive a mailed kit due to school and office closures, and instead received information about where to find kit materials on the Green Team website. A total of 44 teachers submitted response forms indicating the Green Team activities they conducted with their students, and over 4,600 students pledged to recycle and prevent pollution at home, at school, and in their communities. Green Team teachers reported a wide variety of achievements and actions their students took over the past year. Teacher shared how students are taking leadership roles for school-wide recycling programs, teaching their classmates how to properly compost, and more. Students took their interest and passion for environmental activities and shared them with their families and communities, and have learned how individual behavior can make a collective impact.

Equipment & Materials

Recycling

The MassDEP provided recycling equipment to 38 participating schools across the state to help support school waste reduction efforts. Equipment distributed included recycling set out bins, desk-side bins, wheeled totes, compost bins, and worms for vermicomposting. The following chart details the equipment distribution:

	2019-2020 School Year	2018-2019 School Year	2017-2018 School Year	2016-2017 School Year	2015-2016 School Year
Schools Receiving Equipment	38 (49 requests)	56 (60 requests)	62 (62 requests)	59 (59 requests)	80 (82 requests)
New Programs*	24	24	32	17	23
Set Out Container	254	885	582	787	625
Recycling Desk-Side Bin	218	482	374	345	467
Recycling Cart	91	137	121	73	177
Compost Bin	21	27	52	43	57
Worm Vouchers	16	17	26	16	18

*Quantity represents all new composting and/or recycling programs.

Due to COVID-19, there were no equipment pickups from late March until the end of the school year. The remaining schools will be able to pick up equipment when it is safe to do so and operations resume.

Idling Reduction

In FY20, twenty schools requested Idling Reduction (IR) materials from the Green Team. Two schools requested their materials after facilities shut down due to COVID-19, and will receive their materials at the beginning of FY21.

	2019-2020 School Year	2018-2019 School Year	2017-2018 School Year	2016-2017 School Year	2015-2016 School Year
Schools Receiving IR Materials	18 (20 requests)	17	12	11	14
New Programs	13	13	11	6	10
Idle-Free Zone Signs	42	29	34	25	50
5 Minute Idling Limit Signs	66	67	35	12	23
Idle Reduction Pledge Cards	1650	1350	800	1350	1450
Static Sticker Windshield Decals	1800	1450	1050	250	1600
Bumper Stickers	550	900	550	400	1050
School Bus Dashboard Stickers	200	500	200	100	300
Palm Cards	3300	2500	2100	1100	2000

During FY20, demand for Idling Reduction materials increased over FY19, with more requests than in any of the previous five years. There was a significant increase in the number of requests that included idle-free zone or 5-minute idling signs. Many schools requested idling reduction materials through collaboration with the MassDOT's Safe Routes to School Program, as their Outreach Coordinators often recommend participating in the Green Team. In FY20, 13 out of 20 requests for signs and/or materials came from schools interested in starting new idling reduction programs.

Awards

Green Team members were asked to submit a list of climate change, waste reduction, and clean air activities they had completed by March 31, 2020. This deadline was extended to April 30 to encourage more responses. Because of office and school closures due to COVID-19, MassDEP did not distribute physical prizes and Certificates of Recognition this year. Instead, CET sent all 44 classes that submitted Teacher Response Forms with digital award letters and digital Certificates of Recognition. Prizes included garden center gift cards and virtual performances.

Of the 44 classes that submitted their Green Team activities, 13 were selected as grand prize recipients. The grand prizes awarded included gift cards to nearby garden centers for plants or school gardening supplies, and school-wide invitations to virtual performances. The remaining 34 classes were awarded invitations to the virtual performances just for students who

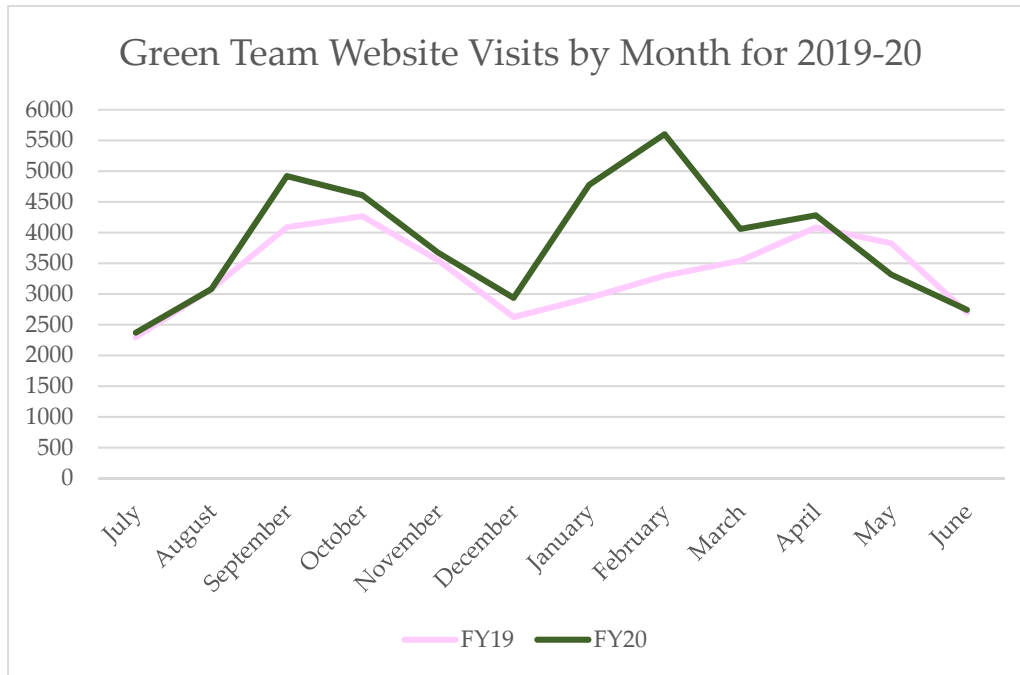
participated in the Green Team. CET worked with MassDEP and Jack Golden, an environmental “edu-tainer”, to develop three original shows for prizewinners as an alternative to in-person assemblies. The performances included a pre-recorded video of Jack’s “Garbage is my Bag” show, an interactive quiz on recycling and other environmental topics, teaching a rap song about recycling, and an opportunity to ask questions or share examples of what students and schools had done throughout the year to protect the environment. Each performance was tailored to specific grade levels: Elementary School, Middle School, and High School/All Ages. A total of 114 students and teachers attended the shows, and recordings of each performance were distributed to all show prizewinners. CET will follow up with a survey about the performances later in the summer.

Website Metrics

Total sessions and users to the Green Team website increased by 29% and 32% respectively in FY20.

Green Team Website Traffic FY18-FY20:

	Total Sessions	Users	Page Views	Pages/Visit	Avg. Visit Duration	% New Visits
Total FY20	27,077	22,119	46,374	1.71	1:20	90.80%
Total FY19	20,943	16,730	40,294	1.93	1:39	90.70%
Total FY18	18,570	15,020	33,430	1.8	1:30	91.00%
Change (FY19 to FY20)	29%	32%	15%	-11%	-14%	.11%



There was a 29% increase in the total number of visits in FY20 over FY19, with traffic patterns remaining fairly similar throughout the year. Web traffic was particularly high relative to the previous year in January and February, which corresponds with the part of the year in which there were an increased number of outreach events and collaborations, including the Green Team webinar.

Program Administration

CET staff input registrations, assembled and mailed Green Team kits to teachers, forwarded equipment requests to MassDEP for distribution, corresponded with program participants, maintained the database of participating schools, solicited and entered Teacher Response Forms, and prepared and emailed Certificates of Recognition, mailed garden center gifts cards, and coordinated virtual Edutainer performances. CET regularly updated the Green Team website, including additions to the Green Team in the Media, Green Team Spotlight, and Green Team Photo Gallery pages. In addition, CET regularly updated links throughout the website as new resources were shared through the monthly newsletter. CET also created an updated participating schools map for the 2019-2020 school year and posted it to the Participating Schools page.

Special Projects

The FY20 budget included three special projects:

- **Slash Trash Lesson Plan Update:** CET created the School Slash Trash Report Extension, which provides expanded content appropriate for middle and high school students. The extension includes suggestions for locations and ways to track waste data at school and asks students to implement an action plan and share their results with the school community. CET also created a separate School Slash Trash Analysis Addendum that provides additional analysis options connected to Massachusetts mathematics curriculum standards. The documents were posted to the Green Team website and will be included in Green Team kits for registered teachers.
- **Case Study Video of a School Recycling Program:** CET planned a case study video highlighting the comprehensive waste diversion program at Robert Frost Middle School in Lawrence. Due to the COVID-19 pandemic, the filming day and video production were postponed. In April, CET coordinated with MassDEP to develop a substitute video concept focusing on home recycling and ways that families can use Recycle Smart MA resources to recycle the correct items. The video was created using footage and voiceover from CET employees, their families, and friends. CET posted the case study video to the General Recycling page on the Green Team website, and on CET's Facebook page. The video was also included in the July Green Team newsletter.
- **Present a Webinar about the Green Team Program:** CET organized and executed an informational webinar about the Green Team program on January 29, 2020. The presentation included a program overview, key resources and website navigation, spotlights of what Green Team schools have implemented over the years, and a Q&A section. There were 69 total attendees. The webinar recording was posted to the Green Team website and highlighted in the February Green Team newsletter.

Green Team in the Media

The following schools were highlighted in local media. CET requests links such as these from Green Team teachers and support contacts across the state. These links are also posted to the following page: <http://www.thegreenteam.org/testimonial/gt-in-the-media/>.

Arlington: Thompson Elementary School, Gibbs School, and Ottoson Middle School

Wicked Local Arlington shared that **Thompson Elementary School, Gibbs School, and Ottoson Middle School** all received awards from THE GREEN TEAM this year. The schools were invited to attend a virtual environmental performance, and Thompson Elementary was also awarded equipment for their school garden. This school year, Thompson Elementary's Green Team expanded beyond the school's students to include a larger network of people of all ages in their community. The Gibbs School Green Team held an invasive plant removal and water testing day at their local pond. They also created educational videos to share ways to make an environmental impact. The Ottoson Middle School Green Team participated in climate change rallies and created podcasts and videos for Arlington's EcoWeek. All of the Arlington

Green Teams are excited for continued environmental action and learning in the coming school years.

<https://arlington.wickedlocal.com/news/20200623/arlington-green-teams-receive-state-awards>

Arlington: Thompson Elementary School

The Arlington Wicked Local online publication shared that before schools closed, **Thompson Elementary School** hosted a Science EXPLO interactive community event on February 29. As part of the event, **Ottoson Middle School** Green Team students educated fellow students and the school community about whales and protecting marine wildlife. Students gave a tour of a 45-foot inflated North Atlantic humpback whale replica that visited the EXPLO, thanks to folks at the Stellwagen Bank National Marine Sanctuary. The Green Team also led a station where students and families could write postcards to legislators urging them to preserve ocean habitats and to take the steps necessary to curb pollution.

<https://arlington.wickedlocal.com/news/20200416/giant-whale-visits-thompsons-science-explo>

Cheshire: Hoosac Valley High School

iBerkshires.com featured an article about a new garden and composting program happening at **Hoosac Valley High School** in Cheshire. Last year, the school was awarded a \$25,000 grant from the [Henry P. Kendall Foundation](#). The grant will help fund infrastructure for an outdoor classroom and garden that all students will have access to. The Green Team and other school clubs and programs will manage the compost and school garden, and the food they grow will be used in the school's cafeteria and sold at local farmers markets. Lindsay McGinnis, a teacher and the program's organizer, hopes that students will benefit by having access to healthy and fresh food as well as a strong understanding of where food comes from.

<https://www.iberkshires.com/story/61963/Hoosac-Valley-Students-Learn-Composting-for-Gardening-Program-.html>

Lexington: William Diamond Middle School

Patch.com reported on **William Diamond Middle School's** new food rescue program in Lexington, which was launched on January 2, 2020. The new program is a collaboration between the school staff, their food service provider, parent volunteers, the Lexington Office of Public Health, and Food Link, a food rescue organization based in Arlington. Students are taught how to preserve extra food for donation, and Food Link picks up the food and distributes it to local food pantries, soup kitchens, and shelters. The program has been vetted by The Lexington Office of Public health. As part of the program, students also learn about the importance of food waste reduction.

<https://patch.com/massachusetts/lexington/lexingtons-diamond-middle-school-launches-food-rescue-program>

Adams: Youth Center Inc.

iBerkshires.com published an article about **Youth Center Inc.'s** Green Team Members who made ornaments in the shape of recycling bins to promote recycling in their homes and community. The ornaments were then presented to their town's solid waste management district members, commissioners, and vendors.

<https://www.iberkshires.com/story/61425/Youth-Center-Green-Team-Make-Recycling-Ornaments-.html>

Arlington Public Schools

yourArlington.com featured a story on the series of climate change rallies being held by **Arlington Public Schools**. On December 13, Green Team students met with Rep. Sean Garballey at the Massachusetts State House to advocate for climate legislation.

<https://www.yourarlington.com/search/news-archive/371-schools/16460-green-121019.html>

Westwood: Westwood Elementary Schools

Wicked Local reported on **Westwood Elementary Schools'** lunchroom composting program, which was launched this fall. At present, three schools in the district have fully implemented the composting system. Rather than simply having one large trash can into which all waste goes, students are now taught how to separate everything at the end of their lunch period. Liquids are emptied into a bucket and eventually poured down the drain. Leftover food and any organic material is put into a compost bucket, plastic or paper that can be recycled is put into a recycle bin, and any remaining trash is put in the trash barrel. The compostable material is picked up by a local hauler for composting off-site, and finished compost will be returned to the school.

<https://westwood.wickedlocal.com/news/20191204/westwood-elementary-schools-launch-lunchroom-composting>

Amesbury: Amesbury Middle School

The Daily News reported on **Amesbury Middle School's** [participation in Massachusetts STEM week](#). Students have learned about the benefits of recycling, and how they can help their school work towards zero waste.

https://www.newburyportnews.com/news/local_news/amesbury-students-explore-science-of-recycling/article_2a03928e-c1d9-5697-9c0d-722cc3e2dee7.html

Cheshire: Hoosac Valley High School

iBerkshires.com featured a story on **Hoosac Valley High School**, which received a [Henry P. Kendall Foundation grant](#) that will allow the school to convert its abandoned tennis courts into a school garden and outdoor classroom.

<https://www.iberkshires.com/story/60792/Hoosac-Valley-Gets-Grant-for-Farm-to-School-Program.html>

Belchertown Public Schools

Next Avenue featured an article on **Belchertown Public School District's** gardening program. Some 880 students from three contingent schools work on the project and learn how to care for crops throughout the year. For their efforts, the district won a 2019 Gro More Good Grassroots Grant through an organization called Kids Gardening.

<https://www.nextavenue.org/how-does-your-school-garden-grow/>

Acton-Boxborough Regional School District

The Boston Globe reported on the success of the **Acton-Boxborough Regional School District's** composting and recycling programs. The district committed to a sustainability policy in 2017, and all schools now compost and recycle in their lunchrooms. In addition, the district switched from Styrofoam to compostable plates.

<https://www.bostonglobe.com/metro/globalocal/2019/07/04/composting-becomes-commonplace-acton-boxborough-schools/uGrVwkVxZcWtELzKeEQp1I/story.html>

Attached:

- FY20 Green Team Summary Report