

# Washtenaw County School Recycling

## 2019-2020 Year-End Report

*prepared by*

*Katy Adams, Ecology Center*

*Mackenzie Munro, Ecology Center*

*Lisa Perschke, Recycle Ann Arbor*



# Table of Contents

---

<b>Summary</b>	<b>2</b>
<b>Recycling Services</b>	<b>3</b>
<b>Recycling Education</b>	<b>3</b>
<b>Recycling Challenge</b>	<b>5</b>
<b>Assessment Tools</b>	<b>5</b>
<b>2019-2020 Outcomes</b>	<b>6</b>
<b>Program Accomplishments</b>	<b>6</b>
<b>Suggestions - Moving Forward</b>	<b>7</b>
<b>APPENDIX</b>	<b>9</b>

# Washtenaw County School Recycling

---

## 2019-2020 Year-End Report

### EXECUTIVE SUMMARY

In this report, we provide a detailed account of the activities of the 2019-2020 school year.

During the 2019-2020 school year, 27 Washtenaw public schools from 8 districts either continued or started recycling service in their buildings. Schools were serviced with a paired collection system; one 8 cubic yard recycle dumpster for “bulky OCC cardboard” alongside 5-12 single-stream 96-gallon recycle carts for the remaining office/construction paper, plastic bottles and tubs, aseptic containers, aluminum and metal cans. Although the indoor bin collection systems varied by school, all schools implemented efforts to collect recyclables from classrooms and offices. Some schools worked to divert recyclable materials from kitchen preparation areas and cafeterias as well.

Ecology Center educators offered educational support to all schools, and 88% of the schools participated in one or more educational programs for students and/or staff. Representatives from Ecology Center, Recycle Ann Arbor, Advanced Disposal, and the County met frequently during the year for facilitation updates. Members of the planning team also met with each school’s administration and facilities coordinator prior to the start of the school year to coordinate service and education.

Recycle Ann Arbor conducted onsite pre-assessments at each school at the beginning of the year to check in regarding staff goals, current recycling collection systems and any other recycling supply needs the school required to start recycling (such as recycle and trash signage posters and indoor collection boxes the school needed.) For the remainder of the school year, Recycle Ann Arbor conducted weekly audits of the recycling and trash containers to provide timely reports on the quantity and quality of recyclable materials at each school in the program.

All schools were offered county-funded educational support throughout the year to ensure that each school’s community was well informed about the recycling program and its needs. Education was provided in the form of Ecology Center-led teacher and administrator staff training, custodial & kitchen staff training, student assemblies, classroom programs, green-team training, after-school family education events, recycling checklists, signage posters, lesson plans, and slide-presentations. Recycle Ann Arbor and Ecology Center staff continuously welcomed school leaders to reach out with informal communication as needed, to quickly address their specific questions.

The Ecology Center prepared assessment tools to collect written and verbal feedback on educational services, as well as to identify changes in attitudes and knowledge about recycling. However, school closings due to COVID-19 health concerns precluded the Ecology Center from collecting end of year data through interviews or surveys. The experience that our educators had within the schools this year is summarized within this report and, in conjunction with the weekly audit of school recycling, serves as the basis for recommendations that we propose as next steps.

### *Recycling Services*

Recycle Ann Arbor (RAA) provided weekly single stream recycling cart service to all 27 schools in the program. All contamination issues were directed to the Ecology Center's educational coordinator, who then worked directly with participating schools to help improve the situation onsite. RAA provided, to Washtenaw County, the weekly volume and contamination assessment of the trash and recycling dumpsters, as well as a report of the actual weight of the recyclable cart materials serviced. RAA used a "digital scale system" to weigh materials in each cart, subtracting the net weight of each empty cart from the total. Also the material type percentage rates for each cart's make up of paper, plastic, cans or 33 % mix of all materials was noted for each cart emptied. RAA drivers recorded all such information on a paper Field Survey sheet, which was then compiled for monthly reports shared with the planning team.

Through end of 2019 Advanced Disposal provided service for the dumpsters designated "cardboard only" at each school, as dictated by the school district and Washtenaw County. Stevens Disposal and Recycling Services, Inc. fulfilled the Advanced Disposal contract for remainder of school year, beginning at the start of 2020.

### *Recycling Education*

All schools were offered training for administrative, teaching, custodial, and kitchen staff as well as ongoing support for student education throughout the school year. All schools received new color "recycling signage" posters. Table 1 lists Ecology Center-led programs and resources delivered to schools during the 2019-2020 year. All educational services that were scheduled March-June 2020 were cancelled when the schools closed in response to the COVID-19 outbreak.

#### Staff Education

The timing of staff training ranged from 15-25 minutes depending on the amount of time that school administrators were willing to designate. Staff training generally had full teaching staff and administrators in attendance for a presentation during the school's regular staff meeting time. The Dexter schools and ACCE in Ypsilanti's school district had at least one kitchen or custodial team member at this training to discuss the recycling program with Ecology Center educators. The custodial staff from each school had Recycle Ann Arbor's contact information to allow them to confirm service details, review recycling rules, and request extra pickup EPU services, as needed.

The Ecology Center printed color recycling posters and made them available at staff training. During staff training, teachers asked about whether specific items were recyclable, what roles they and their students were expected to be accountable for at their school, and requested suggestions to engage their students to recycle properly. When time allowed, training included an activity where staff worked with a partner to identify items that were "recyclable" and "not-recyclable" from a list. After teachers completed the activity, the facilitator provided the correct answers, which then prompted further questions and engagement from these teachers.

When the RAA program coordinator noticed large contamination issues on driver service reports at a specific school, she emailed the Ecology Center educators so they could reach out to schools. EC educators reached out to the school staff, making them aware of the issue, offering additional education as needed. At times, brief videos or information pages were sent to help rectify these situations, and at times follow-up education programs were scheduled. Most of the time, this process helped correct contamination and recycle system issues. Conversations with the schools also revealed a few contamination situations that could not be resolved through in-school education, such as contamination from neighborhood residents rather than school members.

### Student Education

All of the participating schools were offered free student recycling workshops. School administrators or teacher-leaders coordinated with the Ecology Center educators to schedule in-class education, green team workshops, cafeteria or whole-school assemblies, or after-school education events. Schools either elected to have all students participate in workshops or identified a subset of students to be trained to take responsibility for student leadership on recycling (green team, leadership class, grade-level). Student in-classroom workshops lasted 55 minutes and involved a brief introduction followed by a series of small-group activities. (1) The student programs all introduced students to features of the recycling system, and (2) explored recycling rules through hands-on sorting practice with real items, pictures, and words. Students at all grade levels were also (3) introduced to the concept of a *product life cycle* using age appropriate examples and physical manipulatives to sequence steps in the process. Students compared the linear system of a product that ends up in the trash with the circular model of a recycling system. Recycling benefits both in terms of pollution prevention and resource and energy conservation were identified by students during this activity. (4) Program ended with a brief written survey of recycling knowledge and attitudes.

Assemblies and after-school events at elementary schools were scripted to feature Ecology Center's recycling mascot, ReEco the Raccoon. Presentations used song, story, a slideshow, and props to review recycling process steps, describe the recycling rules, and highlight common sources of contamination.

This year the Ecology Center was invited to assist with the planning and implementation of peer teaching projects, including a series of elementary student videos at Woodland Meadows Elementary, and a student-led assembly at Saline Middle School.

Learning goals of all student programs were to raise student awareness about recycling within school buildings, train students to understand what materials can be recycled, motivate students to value recycling, and empower students to be actively involved in making school recycling a success.

### *Recycling Challenge*

The Ecology Center took the lead in coordinating the 2019-2020 Art Recycling Challenge. Similar to previous years, this challenge was developed to provide an opportunity for students to share their vision for a zero-waste world. The theme for elementary students this year was Zero Waste, an invitation to create art to encourage, emphasize the importance of, or inform its audience about waste prevention that encourages the redesign of products so that they are all reusable or recyclable. The challenge invited all elementary schools to submit 2D student art. The theme for secondary schools was “What would the world look like without recycling?” All middle and high school students were welcome to participate in a contest asking for students to submit original 2D artwork featuring a visual image and slogan to encourage, emphasize the importance of, or inform its audience about recycling.

For both elementary and secondary schools, principals Advanced Disposal offered the elementary school with the student winner a “touch-a-truck” visit, where a recycle truck is brought to your school and allow students to sit in the seat, honk the horn, and learn more about recycling. Secondary schools were offered with the student winner a zero-waste pizza party for their classroom where pizza will be brought to the school and would feature zero-waste tableware, as well as information on how the students could achieve a zero-waste lunch. Additionally, the winners at both the elementary and secondary schools would have their art work displayed on a digital billboard along the I-94 highway in Washtenaw County.

Due to COVID-19, we were unable to carry out the contest this year. The Ecology Center reached out to the county to attempt to continue the contest virtually because some schools had already submitted artwork, however, EC coordinators were told to suspend the contest.

### *Assessment Tools*

At the start of the 2019-2020 School Year, RAA used a transportable heavy-duty digital vehicle scale to weigh each recycling cart before it was emptied into the truck. RAA drivers recorded these gross weights on Paper Field Survey Sheets tracking the number of carts emptied. RAA drivers provided volume estimation assessments of each cardboard recycling and trash dumpster onsite at each school. The drivers provided the percent volume filled of each recycle cart, along with the quantity and quality of recycling contents. RAA drivers recorded any significant sources of contamination.

Once the drivers returned to the office, paper field survey sheets were given to the RAA program coordinator to be entered into Excel spreadsheets, and when gross contamination issues were noted, she would send an email to the Ecology Center educators for assistance, as noted above.

Starting mid-March 2020, Michigan Governor Whitmer signed Executive Orders 2020-4 (State of Emergency in Michigan) and 2020-36 (Protecting Workers Staying Home, Stay Safe). Governor Whitmer requested that all schools, even colleges, suspend all onsite educational classes at school buildings, and requested that all students, teachers, school administrators and custodial staff stay home to lower the number of COVID cases that were beginning to exponentially rise. Governor Whitmer signed Executive

Order 2020-33 and 2020-21 on April 1, 2020, asking that all non-essential workers stay home, avoiding to work outside the home. All individuals with sick family members or with signs of illness, were asked to stay home to suppress the spread of COVID-19.

With the populations of Washtenaw County students and staff absent from school buildings, Washtenaw County asked RAA to halt with providing weekly recycling services. RAA was asked to provide service based on direct, individual requests. For the remainder of the school year, service to Washtenaw County Schools was sporadic and based on whether the school's returning custodial and teaching staff continued to recycle at the building and they needed their carts emptied.

Fourteen schools participated in the "End of Year Emailed Survey" that Washtenaw County collectively crafted and sent to all school administrators. Education data for the 2019-2020 school year was limited to these surveys and observations of EC educators conducting programs in the schools.

### **2019-2020 WASTE AUDIT & EDUCATION OUTCOMES**

**Waste audit results and survey data are detailed in Appendix.**

### **PROGRAM ACCOMPLISHMENTS**

- 1) *County program continues to grow in number of schools participating each year.* Washtenaw County School Recycle Program grew from 8 schools in 2015-2016 to 27 schools by the end of the 2019-2020 year.
- 2) *Schools sought much more education than previous years.* Data from 2018-2019 year revealed that contamination was greater in schools that did not pursue education. As a result, in 2019-2020, the County encouraged each school to, at minimum, host an Ecology Center-led review of recycling for teaching staff. 54% of schools followed through with the County's request and scheduled education with their staff. 62% of schools scheduled student programs or family events. Those schools that were not able to follow through with planned programs did not because of COVID-19 school closures. 88% of schools scheduled at least one educational event during the year. Nearly a quarter of the schools (23%) invited Ecology Center educators back many times to reinforce recycling knowledge among all members of school community by hosting student workshops or an assembly, staff training, and at least one family event.
- 3) *New formats to support ongoing education were developed during 2019-2020 school year.* The Ecology Center (1) developed new elementary presentation materials featuring recycling mascot, ReEco the Raccoon and (2) offered consultation services to assist with planning student-led education and editing student-developed content for accuracy.
- 4) *Cafeteria container service and associated education were added in some schools.* Dexter School District received additional state funding to support their recycling efforts and initiated milk-carton recycling in all of the district's school cafeterias. Ecology Center presented a new cafeteria-specific assembly at all Dexter elementary and intermediate schools and discussed cafeteria rules in all green team and staff programs in this district .

## SUGGESTIONS -MOVING FORWARD

- *COVID-19 requires a new approach to school recycling education.* Virtual recycling educational lessons for students at both, the lower elementary and upper elementary will provide a means of outreach to schools and their staff when Ecology Center Educators can't visit onsite. Creating virtual learning opportunities for staff and student green/recycling teams (if schools are still in session) will help to ensure this program is supported. The Ecology Center would use an interactive video program called Mindstamp to make the virtual lessons interactive and collect assessment data. The Ecology Center used Mindstamp for their virtual lessons in Ann Arbor schools at the end of the 2019-20 school year with great success. The Ecology Center will also be offering a virtual version of the Master Recycler workshop to teachers and staff.
- *Use milk carton experience of 2019-2020 as basis for further school engagement and education.* The cafeteria milk carton recycling was so successful in generating recyclables that the Western Washtenaw Materials Recovery Facility reported difficulty in processing it all. Within months of starting the cafeteria recycling, the MRF informed the County that they would not be able to continue accepting the school's milk cartons. The County then suspended that aspect of the program without prior notice to schools or other planning team members, which precipitated a series of follow-up meetings to brainstorm solutions, research into alternatives, and opened up new educational opportunities that could be explored in the upcoming year. We recommend developing an authentic project-based learning task for middle or high school students that engages them to think through the "milk carton problem" and propose solutions. This could be offered to secondary teachers as a virtual recycling education project for their students.
- *Create virtual education for custodial staff.* Toward the end of the school year when students were no longer in the building to coordinate recycling and custodial staff took charge, RAA observed an increase in contamination. A greater focus on ensuring that custodial staff are trained is recommended for the 2020-2021 school year, especially given the likelihood that student time at school buildings will be reduced. The independent nature of custodial work requires that all members of custodial staff are trained, however turnover among custodial staff poses an ongoing challenge in each school year. We suggest making a recorded video introduction to the school recycling program and its service rules that could be used as a part of new custodial training.
- *More robust communication between planning team members.* In light of COVID-19 and with school districts having to change plans for this school year, a planning team must work together virtually. We make the following specific recommendations:
  - Setting timely, biweekly or monthly virtual meetings at regularly scheduled dates/times to keep planning team members abreast of one another's interactions with schools and any issues that may arise.
  - Establish an excel file log to keep an up to date record of interactions that planning team members have with schools. All planning team members would have access to view the log and add to it as needed. The planning team for 2020-2021 school year can design an appropriate layout and establish consensus on expectations for when and how the log will be kept up to date.

- Establish protocol for communicating internally about issues prior to public responses that include general school population. Doing so ensures that the different planning members are able to contribute to problem solving, take actions that support one another, present well-coordinated and consistent messaging to schools, and strengthen the program overall.
- *Offer virtual version of Master Recycling Educator Training.* Invite all schools to identify adult leaders from their schools to attend Master Recycler Training during 2020-2021 school year. Virtual professional development opportunities have been well attended by teachers during the COVID-19 period, as educators take advantage of the opportunity to further their own learning and skills.
- *Continuing the recycling art contest virtually by having students submit pictures of artwork or reusing items they found at home.* Suggestions for future contest themes could include students rethink, repurpose and reuse unneeded items at home, creating 3-D artwork and then submitting a picture of such a creation in their home. Another idea would be to have students think of new needs we have because of COVID-19, and creative new ways that zero-waste practices can help meet those needs. Planning the contest for spring 2021 would give schools time to adjust to their new education environment and communicate well with students about the opportunity.

**APPENDIX**  
**2019-2020 ASSESSMENT TOOL TEMPLATES**

Paper Field Survey Sheet page 1

WISD and OCC School Recycling Service Sheets				Driver's Name																			
Today's Date: / /		Time Arrived:																					
CHECK— School Location Served:		Time Left:																					
ACCE Virtual Academy-1076 Eoorse Rd., Ypsilanti, MI 48198				Milan Middle School- 920 North Street, Milan, MI 48160																			
Adaptive Energy-5500 S State St, Ann Arbor, MI 48108				Mill Creek MS-7305 Dexter-Ann Arbor Rd., Dexter, MI 48130																			
Anchor and Beacon-7480 Dan Hoey, Dexter, MI 48130 (AKA Cornerstone)				Prohibit-1159 E. Michigan Ave., Ypsilanti, MI 48198																			
Bates Elementary- 2704 Baker Rd., Dexter, MI 48130				Paddock Elementary-707 Marlin St., Milan, MI 48160																			
Bishop Elementary-8888 Whitaker Rd., Ypsilanti, MI 48197				Pleasant Ridge Elementary- 229 Pleasant Ridge Dr., Saline, MI 48176																			
Brick Elementary-8970 Whitaker Rd., Ypsilanti, MI 48197				Saline Middle-7190 N. Maple Rd., Saline, MI 48176																			
Creekside MS-2615 Baker Rd., Dexter, MI 48130				Saline High- 1300 Campus Pkwy, Saline, MI 48176																			
Dexter High-2200 N. Parker Rd., Dexter, MI 48130				Spiritus Sanctus-4101 Joy Rd., Ann Arbor, MI 48105																			
Father Gabriel Richards- 4333 Whitaker Dr., Ann Arbor, MI 48105				Symons Elementary-432 South Platt Rd., Milan, MI 48160																			
Faareoa- 7700 E. Michigan Ave., Saline, MI 48176				TLC (WISD Administration Bldg) <b>High Point moved to Ypsi</b> - 1819 S. Wagner Rd., Ann Arbor, MI 48104																			
Go Like the Wind Montessori - 8845 Main St., Whitmore Lake, MI 48189				Washtenaw International High-105 N. Mansfield St., Ypsilanti, MI 48197																			
Honleholder Products- 4403 Concourse Dr., Suite D Ann Arbor, MI 48108				Whitmore Lake Elementary-1077 Barker Rd., Whitmore Lake, MI 48189																			
Harvest Elementary- 1155 Campus Pkwy, Saline, MI 48176				Whitmore Lake High-7430 Whitmore Lake Rd., Whitmore Lake MI 48189																			
Heritage School-290 E. Woodland Dr., Saline, MI 48176				Woodland Meadows Elementary - 350 Woodland Dr E., Saline, MI 48176																			
High Point School-235 Spencer Ln, Ypsilanti, MI 48198				Wylie Elementary-3060 Kensington St., Dexter, MI 48130																			
Jenkins Early Childhood, 2801 Baker Rd., Dexter, MI 48130				Ypsilanti Community High- 2090 Packard Rd., Ypsilanti, MI 48197																			
Lincoln Middle School-8144 Whitaker Rd, Ypsilanti, MI 48197				Ypsilanti Community Middle-510 Emerick St., Ypsilanti, MI 48198																			
<b>CROSS OUT DUMPSTERS THAT DONT APPLY:</b>																							
Cardboard Only Recycle Dumpster – Advanced Disposal (if two, please total % rates and add together)				Trash Only Dumpster – Dumpster #1																			
CIRCLE Percentage Filled:	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	CIRCLE Percentage Filled:	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
RECORD CONTAMINANTS:				RECORD RECYCLABLES SEEN IN TRASH:																			
Trash Only Dumpster – Dumpster #2				Trash Only Dumpster – Dumpster #3																			
CIRCLE Percentage Filled:	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	CIRCLE Percentage Filled:	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
RECORD RECYCLABLES SEEN IN TRASH:				RECORD RECYCLABLES SEEN IN TRASH:																			

Paper Field Survey page 2

RECYCLE CART DATA											
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
CIRCLE % CART FILLED	WEIGHT OF MATERIAL	CIRCLE % OF EACH RECYCLE MATERIAL IN CART (Total equal to 100%)									
25%		Paper	25% 20% 50% 66% 75% 100%								
50%		Plastic	25% 20% 50% 66% 75% 100%								
75%		Card	25% 20% 50% 66% 75% 100%								
100%		Cardboard	25% 20% 50% 66% 75% 100%								
<table border="1"> <tr> <td>Only Containers Requested</td> <td>Plastic Bags</td> <td>Styrofoam</td> <td>Food</td> <td>Shredded Paper</td> <td>Paper Towels</td> <td>Card Wrappers, Chip Bags, etc.</td> <td>Other</td> </tr> </table>				Only Containers Requested	Plastic Bags	Styrofoam	Food	Shredded Paper	Paper Towels	Card Wrappers, Chip Bags, etc.	Other
Only Containers Requested	Plastic Bags	Styrofoam	Food	Shredded Paper	Paper Towels	Card Wrappers, Chip Bags, etc.	Other				