**Emmet County Department of Public Works** 

# The Whole Works 2020

Annual Report to the Emmet County Board of Commissioners from the Emmet County DPW Board



#### HIGHLIGHTS

Recyclers Resilient in Face of Virus

Drop-off Center Deluged by Decluttering

Food-Scraps Collection Forges Ahead

**HAZMAT Hangs On** 

Grant Makes for Great Year in Communications





2020 New container sort line adds robots with Al.

2019 Second great management team takes the reins.

2015 Excellence in Recycling Award received from the Governor's Recycling Initiative.

2010 Second major recycling center expansion opens offering the convenience of a dual-stream system.

2007 Cheboygan County becomes a MRF partner.

2006 Bulky Recycling Area and Composting Site open bringing recyclables accepted to over 50.

2004 Curbside recycling launches in five communities.

2002 Straits Area Services sort crew join our team.

2000 "Recycler of the Year" Award for Outstanding Public Program from Michigan Recycling Coalition.

1998 Presque Isle County becomes our first MRF (processing and marketing) partner.

1997 Major recycling center expansion adds two buildings and a modern sort line.

1992 Eight recycling drop-off sites added; materials accepted at the sites expanded from one to eight!

1991 County adopts resource-recovery-oriented policy package including Pay-As-You-Throw & Flow Control.

1990 Coming out of the gate: Recycle North transfers their two drop sites to the County, keeps education role; DPW hires first dedicated director; voters approve 2-year millage for bins and trucks.

# **415,600,500 Pounds Recycled**









# COVID Highlights Our Essential Work

We accomplished great things in 2020 here at the Emmet County Department of Public Works, but there is no denying that the COVID-19 pandemic dominated. As COVID reached northern Michigan in late winter, we did all that we could to keep operations as normal as possible while evaluating the safety of our employees and customers on a daily basis. One major topic of discussion early on in the pandemic was the question "who is essential?" This brought to light the important work that waste and recycling operations do for the community.

community.

In 2007, the United States Supreme Court stated that an integrated package of waste disposal services are an essential

Thank You Recycling & Waste Workers

Curbside Driver Nick Guymer holds a sign that customer Brian Wagner placed in his yard.

public service protecting the health, safety and welfare of the public. Here at the DPW, we provide a comprehensive system, including recycling, composting and waste disposal, which together provide an essential service to protect the health, safety and wellbeing of our communities.

As long as our jobs can be done safely, we will continue to function within the limitations we are all facing, with safety of staff and the public being our foremost concern. In order to continue operating, we implemented a wide array of personal protective equipment requirements, along with administrative controls. Some examples included

- daily symptom/exposure screening and temperature checks,
- encouraging staff to eat lunch outside or in vehicles,
- assigning radios to individual users and labelling them to prevent use by multiple people,
- installing a Plexiglas shield in the gatehouse customerservice window,
  - providing spray bottles of disinfectant in each truck, and
  - placing floor-to ceiling-barriers to separate workers on the old containers sort line.

Manufacturers truly rely on recycled materials to make many everyday products. The pandemic's dramatic effects on supply and demand for various raw materials highlighted this, for example:

- When recycling of beverage bottles and cans via deposit return was paused, an aluminum can shortage developed. It hit small breweries especially hard as the big beverage brands bought all available cans.
- Customers minimizing trips to stores accelerated the trend toward online shopping and, in turn, inflated demand for mailing boxes.
   Box manufacturers use a high proportion of recycled pulp and they struggled to get all the supply they needed. The value of our cardboard reflected this, starting from a very low \$40/ton and ranging up to \$150/ton.

One of the biggest hurdles during the pandemic was where staff get information: conflicting information has been everywhere. As a county entity, we listen to the direction of the County Administrator and Human Resources Department, along with guidelines from the Health Department of Northwest Michigan and the Centers for Disease Control. While not all of the staff have agreed with the protocols that have been put in place, communication and consistency was key to continuing operations.

### **FINANCIAL SUMMARY**

#### **REVENUE 2020**

Waste Transfer Station	
Charges for Services	\$2,738,651.69
Interest Income	
Clean Sweep Grant Funds	\$3,283.75
Other Income*	
County General Fund	\$0.00
SUBTOTAL	
Recycling Program	
Sale of Materials	\$572,051.05
From Waste Revenues**	
Out-of-County and Other Services	\$391,272.58
Curbside Recycling	
Compost, Mulch & Bin Sales	
Other Income	
Grants	
Sale of County Property	
SUBTOTAL	
Total DPW Revenue	\$4,686,503.36
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EXPENSES	
Waste Transfer Station	ΦΕΩΩ Ε 44 Ω4
Personnel	\$500,541.31

Contractual Services	\$330,431.13
Landfill Fees	\$1,416,817.26
Operations	\$146,823.60
Depreciation	\$266,268.00
Principal & Interest Payment	
SUBTOTAL	
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Recycling Program	
Personnel	\$844,199.93
Contractual Services	\$645,330.00
Revenue Sharing	\$8,978.92
Operations**	
Depreciation	259,560.00
SUBTOTAL	\$2,223,044.32

<sup>\*</sup>Transfer Station "Other Income" includes monies from business and out-of-county users of the Household Chemical Drop-off (HCD) program and donations to the HCD program. \*\*Includes recyclables for which we charge a fee, i.e. electronics, rubble, mattresses, tires and latex paint.

Total DPW Expenses ...... \$4,923,404.32

### DPW PEOPLE



# **Longtime Team Member Dennis Themm Is Missed**

For over 20 years, Dennis Themm was a valued member of the Emmet County DPW team. It shocked us all when he passed away unexpectedly on Wednesday July 29, 2020.

Dennis' first role at Emmet County Recycling was working on the sort line. Over the years, he went on to manage a number of our systems including operating our original steel-aluminum sort line and bricker; processing clothing, bedding and shoes for reuse; and cleaning up our thirteen recycling drop sites. Dennis also serviced our battery recycling program, collecting batteries from our buckets at local hardware stores and township halls.

Dennis was a warm, engaging presence everywhere he went. He is missed.



<sup>\*\*\*</sup>Operations includes Straits Area Services sort crew.



#### **Marshall Returns to DPW**

Earl Marshall rejoined us in May of 2020 as a Transfer Station Attendant serving primarily in driving roles. He is assigned to the position of recycling-site roll-off driver servicing our northern drop site locations. Earl's ability to pull a trailer behind his truck allows him to pull two bins at a time from our most northern site, Mackinaw City. This type of efficiency and his hard work have been appreciated by all as the sites are serviced quickly preventing full bins from discouraging customers and reducing messy sites.



We met the Reynolds crew when they walked their recyclables to the Harbor Springs IGA drop site one lovely September day. Thanks, Dad, for showing the next generation how it's done!

#### **Public Works Board 2020**

Denny Keiser Bear Creek Township Supervisor, Chairperson

William Dohm
Little Traverse Township Supervisor, Vice Chairperson

Doug Fuller Member at Large, Secretary

Arden Bawkey
Emmet County Drain Commissioner

James Kargol Emmet County Commissioner

Charlie MacInnis Emmet County Commissioner

Bert Notestine Emmet County Road Commission



#### Jackman Jams on Junk

We are so grateful Tracie Jackman joined our team in September of 2020! Her passion for recycling started in 2005 when she first volunteered at Blissfest under the mentorship of DPW staffer Lindsey Walker. Her passion is now put to use as an employee. If you have noticed how clean the drop sites have been, know that reflects Tracie's hard work. She travels the sites all week long to bring in illegal dumping on a mission to "leave no trace."

Tracie is also an excellent detective and reports incriminating evidence to our enforcement officer, Jayna Steffel, who then contacts the violators or the police. Tracie has proven so versatile that she also works as a processor on the sort lines. Tracie said, "Lindsey recognized my strength in the tedious job of sorting and connected me with a great way to sustain a better living and help our beautiful community."

# "Pillars of the Program" Receive Special Emmet County Recycler of the Year Award



As we celebrate the 30th anniversary of Emmet County's renowned recycling program, our 2020 Recycler of the Year Award is honoring nine pillars of the program. All of the honorees contributed to developing the program in its early days and have served Emmet County Recycling (ECR) for at least 20 years.

**Bill Dohm** (second from right in photo above), supervisor of Little Traverse Township, laid the foundation for Emmet County Recycling when, in the 1970s, he took the bold political step of volunteering his township to host a county waste transfer station. The Transfer Station property on Pleasant-view Road later became the home of the county's recycling collection and sorting operations. When the county Department of Public Works (DPW)—of which ECR is a program—was established in 1979, Dohm became one of its first board members and continues to serve on the board 30 years later. Dohm is known for always being solid and fair, for reading every line of every budget report, for reviewing every construction document, and for always asking the tough questions.

Max Putters (not pictured), the former director of the Emmet County Office of Planning and Zoning, was instrumental in the establishment of the DPW and led it for roughly a decade before the first dedicated DPW director was hired. In this role, he went above and beyond the call of duty in working with residents advocating for excellent resource recovery services. Also, as designated county planner, Putters led the public process of drafting the first County Solid Waste Plan in which Emmet County committed to implementing recycling.

Ann Smith (front row, middle) was another pillar who was in place even before Emmet County Recycling was established. First as a County Commissioner and then as a DPW Board member, Smith served for over 30 years, including a long run as DPW Board chairperson. In a 2004 interview, Smith reported that she developed a real interest in recycling and was once described by a friend as, "getting lyrical about garbage." She said, "It's been interesting to see it grow...and to keep asking what else we can do, like electronics recycling."

Elisa Seltzer (front, right) was the Department of Public Works's (DPW) executive director for 30 years, right up to 2019. She spearheaded the development of Emmet County Recycling (ECR) into the locally popular, regionally key, nationally prominent program it is today. Seltzer often framed her approach as making recycling "convenient, comprehensive and cost effective," and stuck to that formula through over a dozen major expansions of facilities and services. As Emmet County showed what is possible in a rural area, Seltzer came to be looked-to as an expert nationally and the program was recognized in the National Recycling Coalition's Outstanding Government Program award category in 2017.

**Denny Keiser** (rear, left), Bear Creek Township Supervisor, has served over 20 years on the DPW Board and eight years as its chairperson. He and Dohm were the first local leaders to advocate for curbside recycling for their townships. Keiser has been a member of the DPW Board's Building Committee through several key construction and expansion cycles. Another widely respected community leader, his reputation has helped ECR through many tough spots over the years.

**Don Mapes** (far right) worked for the DPW for 38 years, including 28 as its operations superintendent. He played key roles in nearly every development in Emmet County Recycling's history, including the hiring of dozens of employees, purchases of trucks and equipment, six building expansions, and the additions of composting and curbside recycling services. In a 2018 interview, Mapes observed, "We really got more response from the community than we thought we would. Everything that we built, we have outgrown it sooner than we thought. I was the one who had to make it work. But we always get by and get things done."

Jack Jones, (rear, second from left) a longtime County Commissioner and DPW Board member, contributed to making the board a solid base of support and guidance. In 1990 and 1991, he served on the Recycling Funding Committee that put in place the innovative approach that supports ECR without reliance on tax dollars. Until retiring from the DPW post in 2018, Jones brought his love of the woods and waters of Michigan, his stories, and even his maple syrup to the DPW Board.

**Arden Bawkey** (front, left), the Emmet County Drain Commissioner, has served on the DPW Board for over 20 years. When the Board was constituted in 1979, Little Traverse Township, the Emmet County Road Commission Board, and the Drain Commissioner were all given standing positions. A mandated board member might be excused for being lukewarm, but Bawkey is known for being the board's most enthusiastic recycling supporter and is a positive voice, even when the going gets tough.

Last but not least, **Recycle North** was a major force in establishing and growing ECR. The non-profit operated early household recycling efforts in Emmet County and then advocated

for the county taking over and expanding recycling. Serving the area for over 20 years, they prepared a highly detailed plan for a county recycling program in 1985, obtained the grant that funded the county's first recycling building at the Pleasantview Road facility, and contracted with the county to educate about recycling for nearly a decade.



Emmet County's first recycling building, the green one indicated by the arrow here, was built with funding obtained by Recycle North in the late 1980s. It is still a central part of the facility today.



Recycle North operated two newspaper recycling drop sites like this one. After demonstrating public interest in recycling and providing the building shown above, they advocated for the county to take over and expand recycling.

Today's director of the Emmet County DPW, Andi Shepherd-Tolzdorf said of the nine award winners, "These leaders have played crucial roles in moving Emmet County Recycling forward through thick and thin, incredible growth and many challenges. They have recognized the value of maintaining waste management, recycling, and composting as publicly run services. And they have supported employing innovative best practices in both policy and operations while steadfastly maintaining cost-effectiveness. We can't thank them enough."

Also in the picture above left, Leroy Sumner (rear, center) who served on the DPW Board for 17 years.





# Container Line Upgrade Adds Robots! 3 3 3

Our MRF Container Line Upgrade project was one of our greatest accomplishments of 2020. Our dual stream processing facility includes two sort lines, one for Paper, Boxes and Bags and the other for Containers. As it happens, after years of research and planning, we were all set to replace the containers line in spring of 2020. Installation was delayed until fall due to COVID complications, but against all odds the project was completed!

The new container sort line brings Emmet County Recycling up to the state of the art: glass is sorted out first and crushed mechanically, a magnetic system separates out the steel cans and jar lids, and three AI robots sort plastic containers, aluminum, and cartons.

Even with all that, our people continue to be the most critical element of the sorting process. Of course, they maintain and run the system, robots and all. What's more, they remove non-recyclable items and sort materials that are beyond the abilities of the machines. By hand that is. The photo above is of the sort crew—spaced more than six feet apart—at work on the shiny new line. The windowed, gray boxes behind them in the picture contain the robots.

This project was made possible by our savings through depreciation of the old equipment, grants from EGLE, the Food Service Packaging Institute, The Petoskey Harbor Springs Area Community Foundation and the Carton Council and a nointerest loan from Closed Loop Infrastructure Fund.



Vicki Kelley (right front) and Tracie Jackman (right rear) sort materials collected in specific drop-site Mixed-Containers bins while Ashley Bur (left) weighs sorted materials and records the data. Materials were sorted into 32 categories to measure the good, the bad, and the UGH-ly.

### Quality Improvement Project Contributes to National Research

With the support of a \$125,000 grant from the Michigan Department of Environment, Great Lakes and Energy (EGLE) and technical assistance from The Recycling Partnership (TRP), ECR undertook a major project to improve the quality of the Mixed Containers stream incoming from Emmet, Cheboygan and Presque Isle county drop-off sites. The grant program addresses contamination using measurement, infrastructure improvements, and education.

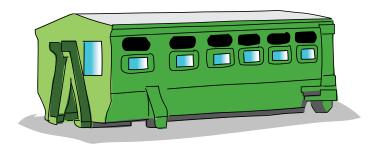
Going into the project, our estimate was that *one in every* five items received in the Mixed Containers stream was not a recyclable material. (Sadly, this is on the better end of the range nationally.) Our data will be used as part of a national project to learn what works to reduce contamination from drop-off sites.

To set an accurate baseline rate of contamination inbound from the drop-sites, a team led by staffers Kate Melby and Ashley Bur conducted a sort. The TRP provided the methodology so that the data obtained would be random and statistically significant. We sorted 45 samples drawn from specific drop sites. Each sample was 125 pounds and we sorted into 32 categories of recyclables and contaminants. To determine if the educational techniques and infrastructure improvements were effective in reducing contamination, a second such sort will be conducted in May 2021, after the campaign and improvements are completed.

In addition to setting the baseline against which to measure improvement, the information from the sort also allowed us to prioritize a top issue to address in our quality improvement

educational campaign. And because samples were identified by the specific site of origin as much as possible, this also allowed us to target infrastructure improvements to the drop sites with the most severe contamination.

For more on the educational outreach see the Education section of this report: the project made 2020 a banner year for communications! Site improvements to reduce contamination included painting drop-site bins from Emmet and Cheboygan counties, installation of surveillance cameras+notification signs at some of the most problematic sites, and updates to existing signs at sites in Presque Isle County.



## Recycling Statistics 2020

Total Volume	13,378 tons
Revenue from Sales of Recyclables	\$572,051
Curbside Pick Ups	165.644

#### **Event Recycling Hard-hit**

The local recycling program hardest hit by the pandemic was event recycling. After serving 57 events in 2019, in 2020 virtually every event was cancelled or went online: we supported three. We missed and felt for our devoted event partners and their events were sorely missed all around.







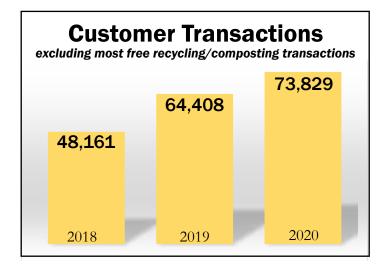
## **Great Year All @ the Loop**

In the resource recovery industry, we often speak of "closing the loop:" not only collecting the discards but also creating a valued product that is then consumed in the economy. Both ends of Emmet County's organics-management loop had an excellent year in 2020.

On the collection-of-compostables end, in addition to the fabulous food-and-floral scraps program milestone celebrated above, incoming yard waste jumped 75% over 2019. We have accepted yard waste for composting since 2006. Emmet County's food and floral scraps collection program, launched in 2015, collects under contract from a variety of businesses. In 2017, we began our Give All Food A Future (GAFAF) project to reduce food waste, redirect surplus food, and compost food scraps. It was funded by the Petoskey-Harbor Springs Area Community Foundation. One facet of GAFAF piggy-backed on the business collection program by providing food scraps drop-off carts for residential use at the Pleasant-view Road Drop-off Center and local farmers markets.

On the other end of the organics loop, local households and businesses use our compost on gardens, landscapes, and farms. In 2020, our revenue from sale of compost was up 50% to \$36,373. We attribute the jumps to the increase in gardening as COVID disrupted other activities and food supply chains. A circular silver lining!





### **Service Record Set**

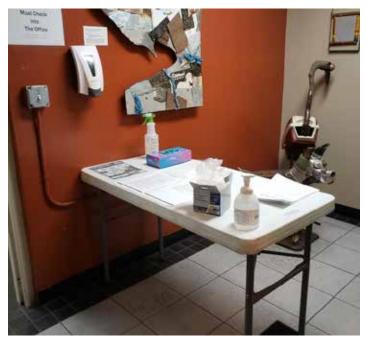
The Drop-off Center saw 15% more paying customers in 2020, setting a new record on top of a decade of steady increases. This was in spite of the pandemic quashing our usual construction-industry traffic in March-June.

The countervailing force was households decluttering, remodeling, and doing yard-work while following stay-at-home guidance. Residents rightly figured that dropping off waste and recyclables was a very low-contact, low-risk activity.

In addition to the high customer count, the COVID-induced home improvements were reflected in a 41% increase in revenues from for-fee recyclables, which reflect recycling of things like mattresses and electronics.

The opportunity for residents, contractors, and waste haulers to recycle and dispose of materials continues to prove more and more popular as our community shares in our mission to preserve the natural beauty of northern Michigan.





A sign or the times. On top of all her other safety initiatives, Drop-off Center Manager Wendy Fought had this station set up to greet incoming staff. Screening forms, masks and hand sanitizer were common sights everywhere in 2020.

## Safety Looms Large

Both in-light-of *and* despite COVID, in 2020 our Drop-off Center Manager, Wendy Fought, kept up her outstanding momentum around safety-initiatives.

Fought was in the process of implementing new personal protective equipment (PPE) requirements before COVID hit. In March, she implemented required COVID screening procedures (see photo above) and added additional engineering controls, PPE, and cleaning measures across all areas, including for both curbside and drop-site hook-lift truck drivers.

As COVID demands allowed, she then continued working her more general safety priorities. Fought instituted monthly walk-through inspections to check for OSHA violations such as slip, trip and fall hazards, depleted first aid stations, and obstructed stairs and exits.

She also added safety training huddles on top of the safety trainings at our quarterly all-staff meetings. Topics in 2020 included personal protection equipment, blood borne pathogens, portable ladder use and storage, fire safety, slip/trip/ and fall hazards. Looking toward 2021, she is organizing a Safety Command Team with representatives from the different areas of our operations.

## PDOC Highlights 2020



COVID didn't slow the garbage down.



In 2020, the Emmet County Transfer Station saw a 12-year high in garbage incoming. And that was even after construction and demolition (C&D) contractors—our highest volume customers after the waste haulers—were shut down for over six weeks in the spring due to COVID. We attribute the surge in incoming garbage to area residents decluttering and remodeling while the COVID pandemic limited gatherings, dining out, events and most travel.

Ordinarily, as advocates of waste reduction, reuse and recycling, we would be dismayed by this kind of increase, but this time—with an accompanying trend toward valuing people and experiences over things—it may ultimately be associated with progress toward more sustainable materials management.

2020 also saw a coordinated effort to address the outdated solid waste management laws known as Part 115. For 25 years, Michigan law has prioritized the development of new and expanded landfills as the primary way to manage waste.

The six-bill package that was introduced would have amended Part 115 to modernize Michigan solid waste laws and reduce Michiganders' spending of \$1 billion each year to manage that waste. The bills addressed regulations for solid waste disposal areas and waste diversion centers by separating the different kinds of facilities and reorganizing current provisions.

These bills made it through the State House, but didn't get through the Senate before the year's end. They will be reintroduced in 2021.

### Waste Statistics 2020

Waste for Landfilling (yards inbound)	124,628
Transfer Station Revenue	\$2 797 527



## HAZARDOUS WASTE MANAGEMENT



Standard Household Chemical Drop-off happenings despite COVID: staffer Jayna Steffel pours off gasoline so a customer can have their gas can back for reuse. Note the also-ordinary proper PPE: goggles, Tyvek, and hi-vis vest.

# Household Chemical Drop-off Events...Happen

What an odd year: the most remarkable thing about our popular household chemical drop-off events was that we held them at all! Based on reports from other communities participating in the (virtual) Hazardous Waste Operation and Emergency Response our staff attends annually, most communities canceled their chemical collections in 2020.

We assessed the risks and felt that, since the events are entirely outdoors, at our "well ventilated" (windy) facility, and customers typically stay in their vehicles, those risks were very low. We increased our communications emphasizing that customers should stay in their vehicles, wore our PPE, and had ordinary, unremarkable collection events. Our customers are always very appreciative of this program, and never more so than in 2020.

#### Hazardous Waste 2020

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Oil Paint Recycled (pounds)	14,820
Latex Paint Recycled (pounds)	. 51,600
Hazardous Materials Collected on Drop-off Days (pounds)	. 36,148
Haz Mat Collected Year-Round (pounds) (Hazardous Recyclables Collection Area)	<u>137,120</u>
Total (pounds)	173,268





## Quality Improvement Grant Makes for an Outstanding Year

Our quality improvement grant project—with funding from the state department of Energy, Great Lakes, and Environment (EGLE) and management by The Recycling Partnership (TRP)—turned what might have been a disappointing year for our education efforts into a banner year!

Once we had confirmed our hypothesis—that non-recyclable plastics were the biggest offenders in our recycling bins—in the pre-measurement phase of the project, we dove right into spreading our message. First, every single-unit home in the counties served by our processing facility received a miniguide postcard emphasizing our main message: other plastics don't belong (OPDB) in the recycling bins! Then Ashley Bur and Kate Melby began staffing select drop sites to talk with customers and spread the word. Meanwhile, we began a social media campaign featuring the OPDB message.

We installed surveillance cameras at four sites, along with notification signs featuring a stern recycling worker "keepin' an eye on" the site. Those were accompanied by social media posts encouraging residents to call us if they witness dumping at these drop sites so we can pull images from the cameras and fine the perpetrators. These messages were some of our best received to date with thousands in organic reach and lots of impassioned comments expressing frustration with site abusers. Repainted bins are making the sites look more upstanding and were relabelled with colorful new labels.

We will be continuing this campaign through the winter then doing an "after" measurement in May. We look forward to sharing the results.



Our educational efforts had a colorful year all around, even at our 12 remote drop sites. Inspired by our update of the above Mixed Containers decals for the drop-site bins—under the Quality Improvement grant—we formalized a trend toward using more color to our documents and illustrations. Our illustrations were initially designed back when printing in color was much more expensive than black-and-white or two-color. It is wonderful to see our messages pop in this era of affordable full-color printing and online display!



#### Raccoons to Resume

The Michigan Department of Energy, Great Lakes and Environment's (EGLE) Know It Before You Throw It educational campaign featuring live raccoons roared into 2020 with the addition of hyperlocal sub campaigns. Emmet County was thrilled to be one of those singled out for a specific-to-our-program campaign. Assets with Emmet County messages—like the billboard shown above—launched in late February 2020.

Then came COVID. Due to the state's budgetary concerns, all of the campaigns were put on an indefinite pause in early May, 2020. Typical 2020. When, in December, we were notified that funding had been approved and the campaigns would resume, it was like a fantastic holiday gift! We look forward to sharing the wonderfully catchy raccoon-themed messages in 2021. Our thanks go out—again—to EGLE and GÜD Marketing for this opportunity!

#### **Emmet County Department of Public Works**

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