



The Whole Works 2018

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



Food-scrap composting reaches million-pound milestone, sets stage for “Zero Waste” events and businesses!



The Grain Train's new Market Café strives for Zero Waste status (see page 10). The station shown above accommodates reusable dishes (right), plus compostables (green bin), container recycling (blue), paper recycling (grey), and garbage to be landfilled (black).



RECYCLING

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DPW Team Changes



Thank you for
38 years of service, Don!



Don Mapes (left), the Department of Public Works' Superintendent, retired in November 2018 after 38 years of service. We are forever grateful to Don, who was key in the development of the DPW from merely a solid waste transfer station (inset image below shows the whole facility in 1980) to an cutting-edge materials management system (2016 aerial below).



Our Goose took off in 2018! After 16 years of service as a driver and gatehouse attendant, Gary "Goose" Hickman retired from the DPW. In addition to his congeniality with customers, Goose is also known for having come to the rescue in the early days of our curbside recycling program. When routes developed by a contractor proved inefficient, Goose—who had previously worked for the Emmet County Road Commission—straightened out the curbside routes. Thanks again, Goose!



Nate Hopkins joined our team of recycling drivers/gatehouse attendants this year. When not welcoming our customers in the gatehouse, he has been training on various equipment. Outside work, Nate volunteers with the Harbor Springs Area Fire Authority and is training to be an Emergency Medical Technician.



Three contract employees in Recycle Processing became county staff members in 2018: (left to right) Zach Elya, Jamie Pethers, and Michael Williams. Zach has taken an interest in our Household Chemical Drop-off program. Michael stands out for his focus on improving our sort line systems and training, and Jamie is always up for taking on new things, for example battery-recycling issues and a future reuse center.



On the driving side, our two Jims—also formerly contract employees—became county staff members in 2018. Jim Gregware (left) almost single-handedly serves Otsego County's six recycling drop sites and still finds time to help with the northern Emmet-County drop sites. We have Jim Shivley (right), aka "Big Jim," driving every which way, including curbside, commercial foods scraps collection, and servicing drop sites.



We were very fortunate to have two of our favorite long-time collaborators on board as interns for the summer of 2018. Both **Vicki Kelley** (left) and **Lindsay Hall** (right) worked extensively on event recycling and our Give All Food A Future program. Vicki set a new standard for excellence in recycling drop-site cleanup and designed an efficient and ergonomic system for filling and sealing (sewing) our new compost bags. But probably her greatest claim to fame at the DPW is the warm and lively spirit she seems to bring to everything! Lindsay completed numerous important research projects for us, including around price comparison, grants opportunities, and alternative end markets. She also managed receiving and distribution of sample food-scrap carts in preparation for our next cart purchase. We really hated to see them both go! Thank you Vicki and Lindsay!



DPW Team, continued



Thank You Outgoing Board Members!

Three Public-Works-Board members wrapped up their service in, or at the end of, 2018. **Jonathan Scheel** (right) served on the board for two years in the role of Emmet County Commissioner for District 5 and **Leroy Sumner** (middle) served 17 years as the County Road Commission's representative. We greatly appreciate the perspectives they shared and their many contributions! And then there is **Jack Jones** (left). Jack has served on the board since the days when the DPW was just the Solid Waste Transfer Station and through his time as a County Commissioner. Thank you for being there every step of the way, Jack!

Public Works Board 2018

Denny Keiser
Bear Creek Township Supervisor, Chairperson

William Dohm
Little Traverse Township Supervisor, Vice Chair

Jack Jones
Member at Large, Secretary

Arden Bawkey
Emmet County Drain Commissioner

Charlie MacInnis
Emmet County Commissioner

Jonathan Scheel
Emmet County Commissioner

Leroy Sumner
Emmet County Road Commission



Recycler of the Year



The Grain Train won our 2018 Recycler of the Year Award. The cooperative, which operates two natural foods markets, is owned by roughly 2,800 area individuals and families. Founded in 1971, they were reducing, reusing and recycling long before Emmet County Recycling got started. And they really do it up! Just a few of the Grain Train's many initiatives are pictured above, including (upper right) collecting waste for recycling and composting from their customers front-of-house, (lower right) collecting food scraps to be fed to local farm animals, and (lower left) selling post-consumer-recycled-content products and reusables to replace items that are typically disposable in the United States today.

The award was presented at the organization's annual General Membership Meeting where DPW Communications Coordinator Kate Melby noted, "You can see their recycling ethic right here: at a casual, off-site event, many organizations would use disposable paper plates, Styrofoam cups, and plastic flatware. The Grain Train went with THE best zero-waste option: real linens and dishes. Love it!"



FINANCIAL SUMMARY

Revenue, Solid Waste Transfer

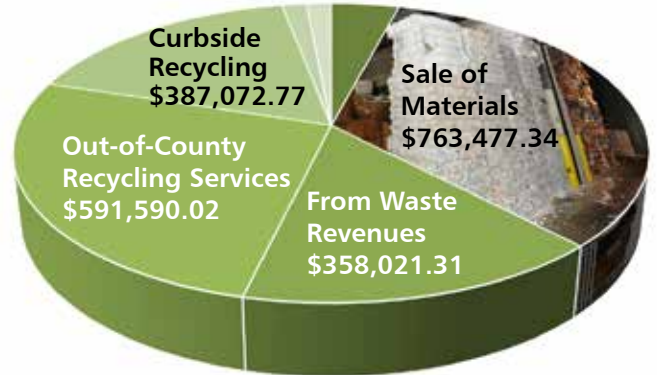


Smaller categories

Interest Income	\$30,037.79
Clean-Sweep Grant Funds	\$6,022.50
Other Income	\$6,133.72

Subtotal \$2,413,539.86

Revenue, Recycling



Smaller categories

For-Fee recyclables.....	\$93,282.30
Compost, mulch, and bin sales	\$33,549.50
Other Income	\$34,079.64

Subtotal \$2,261,072.88

Expenses, Solid Waste Transfer



Smaller categories

Depreciation.....	\$270,180.00
Operations	\$144,427.04
Principal and Interest Payments	\$33,625.45

Subtotal \$2,395,473.56

Expenses, Recycling



Smaller categories

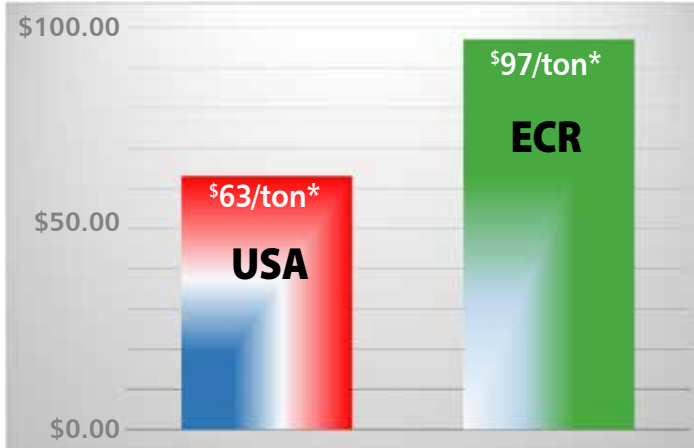
Depreciation.....	\$263,808.00
Revenue Sharing	\$23,820.87

Subtotal \$2,242,259.47

Total DPW Revenue \$4,674,612.74 **Total DPW Expenses \$4,637,733.03**



Market-basket Price of Recyclables 2018



**Average price per ton of all MRF recyclables, weighted by proportion of the total each material constitutes. USA number from Resource Recycling, December 2018*

Chinese Ban A Blow to Recycling Nationally; Not So Much for ECR

THE big news in recycling nationally was major programs scrambling for markets for their materials and funding for their programs as China followed through on its 2017 announcement that it would no longer import highly contaminated recyclables.

We were indirectly impacted as the glut of recycled materials for sale on U.S. markets pushed material values down, but generally fared well. Our dual-stream recycling system deserved much of the credit as demand for the cleaner materials it produces remained strong. The situation also spurred national discussion of a potential return to more dual-stream recycling systems.



State of Michigan Supports Recycling!

For three years, recycling leaders in Michigan have been working hard to secure statewide funding to increase programming and meet infrastructure needs. Late in December, funding was finally passed in the lame-duck session. Originally, there were discussions of funding coming from a landfill tip-fee surcharge, but that changed at the last minute. Instead, Governor Rick Snyder's Renew Michigan initiative secured money from online sales tax.

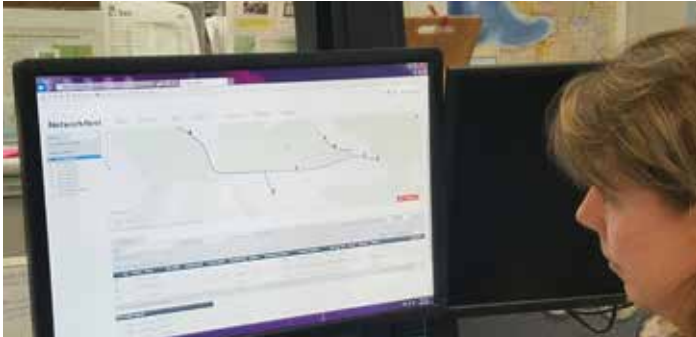
This is not the end of recycling-advocacy efforts in Lansing, as parallel work to pass a revision of "Part 115," the Solid Waste Management section of the Natural Resources and Environmental Protection Act, will continue into 2019.

Renew Michigan Initiative		
Funding Source: Sales Tax On Online Purchases		
Brownfield Cleanup	65%	@ \$45 million annually
Recycling	22%	@ \$15 million annually
Industry Oversight	13%	@ \$9 million annually
Total	100%	@ \$69 million annually



Recycling Statistics

2018 Total Volume (tons)	11,952
Curbside Pick Ups	165,543
Revenue from Sales of Recyclables	\$855,478



A grant for safety-related projects from the Michigan Municipal Risk Management Authority helped the DPW fund some great new tools. Network Fleet—which Jayna Steffel is using above—allows us to see where our curbside trucks have been and when. It is a favorite because it frequently allows our office staff to answer customer questions without interrupting the drivers. The grant also provided for several security and back-up cameras and a fenced cage so we can hold documents for shredding.



Commodity of the Year: Mixed #1-#7 Plastics

Mixed #1-#7 plastics is a huge category encompassing any plastic container that is not a #1 pet bottle or #2 hdpe milk jug or #2 hdpe colored bottle: think yogurt tubs, carry-out clamshells, berry containers, plastic cups. These and hundreds of other kinds of plastic containers comprise this “catch-all” category.

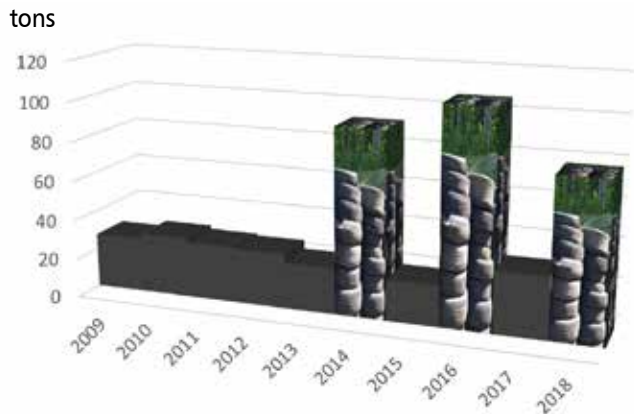
In 2018 we shipped 254 tons of mixed #1-#7 plastics to market, up 33 percent from 2017. The price remained steady in 2018 at \$0.015/pound. #1-#7 plastics is our only material that supplies an international market: Revital Polymers, right across the border in Sarnia, Ontario, Canada. Revital sorts the different plastics by resin then pelletizes them. They report that much of the plastic is then sold to auto parts manufacturers in Michigan!



This event recycling/frost-laws curbside service trailer went into service in 2018. The purchase was paid for by Local Revenue Sharing funds from the Little Traverse Bay Bands of Odawa Indians’ Odawa Casino. The trailer is a big help at larger events and during the “cart-spring-break” period when we can’t use our regular curbside recycling trucks on most rural roads.

Tire Recycling Grants Clean Up Communities

2018 brought the first evidence that our free tire recycling opportunities—offered in 2014, 2016, and 2018 under grants from the MDEQ—are making serious progress. In cooperation with townships, we have targeted the worst non-business tire dumps in the county and, in 2018, we saw decreased demand. We plan to pursue a tire grant again in 2020.





Our food scraps recovery programs reached the one-million-pounds-collected milestone in 2018—just their third year! Congratulations to all of the households and businesses that have participated and especially to ECR staffer Lindsey Walker who headed up this new program!

Home-Composting Workshop a Smash Hit

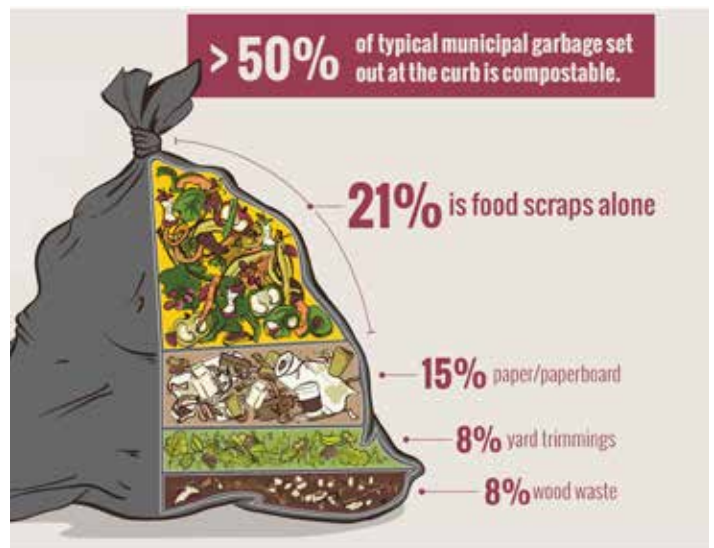


Amy Freeman, IRIS Waste Diversion Specialists' "Compost Maven," presented to a sell-out crowd (crowded into the Drop-off Center lunch room) on the ins and outs of composting at home. We plan to offer more home-composting workshops and, so, also used this as a "train the trainer" opportunity.



Piggy-Approved Food Waste Recovery Program

What do you do with 7,000 pounds of unusable peach puree? American Spoon turned to us with this question and we were able to connect them up with a farmer raising pigs. The pigs enjoyed not only peaches, but a variety of fruit and veggie scraps and rejects totalling over 19,000 pounds. Likewise, we helped redirect unusable food from the Manna Food Project to farmers. Feeding farm animals is one of the most environmentally-friendly options for managing food scraps.



Source of infographic: Institute for Local Self-Reliance. Note: these proportions are typical in the USA; yard trimmings are banned from Michigan landfills.





"ZERO WASTE"

2018 will be remembered as the year that the concept of "Zero Waste" (ZW) took off in Emmet County. The Rotary Club of Petoskey raised the bar at their annual Spaghetti Dinner when they added composting alongside their recycling. The club chose to use certified compostable plates and cutlery at the event—which serves approximately 900 meals—so that all of the food scraps and serviceware could be recovered.

The Grain Train sponsored the event, covering the cost of the compostable ware. The Club met their goal with roughly eight 30-gallon bags of compostables, one-and-a-half bags of recyclables, and just one bag of garbage. The effort was widely publicized and our phones began ringing!



Petoskey Public Schools gave ZW a try in the Ottawa Elementary School lunchroom from May 9 through the end of school. During the pilot their daily trash dropped from roughly 91 pounds to approximately just seven pounds!



Bill Collins of the Petoskey Noon Rotary Club and ECR's Lindsey Walker show off ZW gear at the Club's annual Spaghetti Dinner fund raiser in February #RotariansRecycle



A new restaurant in Petoskey, The Back Lot is a ZW establishment. To make it work with all the take-out from the food trucks, The Back Lot requires the trucks to use serviceware compostable in our system.

Zero Waste?

The Zero Waste International Alliance deems an event, household, or business "Zero Waste" if they divert more than 90% of the solid waste they generate away from landfilling or incineration. Visit their website to learn more!

You can do ZW too!

Interested in making your event Zero Waste? Start at our webpage on the subject at EmmetRecycling.org. We have lots of insights to help your ZW project run smoothly and achieve success!



Recycling Superhero Vicki Kelley was on the job back-of-house at Crooked Tree Art Center's D'art for Art. This event gets special Zero Waste recognition for using all **reusable** serviceware.



Blissfest debuted user-friendly ZW stations like the above and the slogan, "Leave no trace: think zero waste!" Their goal is ZW in 2020.



Madeline Walstrom shows off the tiny amount of garbage that resulted from the Walstrom Marine Summer Preview party which served nearly 200 guests. #CleanGreenMarine



Irish Boat Shop's Ugotta Regatta Party in July served 1,000 sailors and produced just this one partial bag of garbage! But then, they had the help of Kate Manthei and Abandinus, a "lesser-known Celtic deity, Defender of the Waters."

ZW: Good, Better, Best

When comparing options to replace disposable serviceware, keep this environmental hierarchy in mind:

- Reducing is best: consider serving food that doesn't require a lot of serviceware (sandwiches, finger-food, etc.)
- Reuse is next best: renting or borrowing durable dishes and flatware is an excellent choice!
- Recyclable beats compostable: Aluminum is great; plastics #1 and #5 are preferable to #6. Plastic cutlery is not recyclable regardless of resin.
- Compostable is good, too, but make sure you check with us regarding the certifications/standards.

Or combine across these categories, for example using recyclable plates and cups and renting or borrowing reusable flatware and cloth napkins. Informal event? Go old school and ask guests to bring their own reusable place settings!





Drop-off Center Statistics

Customer Count (paid transactions only)	63,130
Waste Transfer Station Volume.....	105,352 cubic yards
Waste Transfer Station Volume Change.....	-4%
Waste Transfer Revenue	\$2,371,345.85
For-fee Recyclables Revenue	\$59,454.15
Compost, Mulch & Bin Sales Revenue	\$17,502.76

Dogs at “the Dump”



This canine customer is one handsome hound!



We Now Accept Credit/Debit Cards



Always seeking ways to make our services more convenient for our customers and more cost-effective for our community, the DPW began accepting credit and debit cards payments in May. This came to fruition thanks to extensive collaboration between the staffs of the County Treasurer, the County Finance Department, and the DPW. Their work paid off in a smooth start up and credit/debit cards rapidly became one of our most popular methods of payment.

Customer Comments

The staff are kind, giving, knowledgeable, and fun to connect with. The services and opportunities to recycle are great!

—Emily Proctor, review on Facebook 8/8/18

Incredible what they do for our community and our earth!

—Amanda Gray, review on Facebook 12/23/18



WASTE DISPOSAL

GFL Acquires Republic’s N. Michigan Business



An illustration from the GFL website. ©2019 GFL ENVIRONMENTAL USA INC

GFL, a Canadian waste hauler established in 2007, bought out Republic Services’ northern Michigan business, including the contract to haul and landfill waste collected at our Solid Waste Transfer Station. GFL has been aggressively acquiring waste-related businesses in Canada and the United States and has attracted hundreds of millions of dollars in private equity investments. By the end of 2018, GFL was the largest privately owned waste hauler in North America.

Everything went smoothly as the contract was transitioned and services continued without a hitch. GFL plans to paint all of the semitrailers used to transport our waste to Elk Run landfill their signature bright green.



HAZARDOUS WASTE MANAGEMENT



Steffel Receives Hazardous Waste Round Table Award

The name and trophy are comical, but the honor is real: ECR staffer Jayna Steffel (right), won the 2018 Golden Plunger Award on April 19. Presenter Tom Dewhirst of Hazmat Strategies (left) described the award this way: "Every year, the Household Hazardous Waste Roundtable recognizes a professional who exemplifies dedication, innovation, and expertise in the field. The award acknowledges a skill set that includes thinking on your feet, being prepared to take action in emergencies, and dealing with a wide variety of customers and chemicals. And above all, someone who puts safety first." Congratulations Jayna!

Hazardous Waste Volume

Oil Paint Recycled (pounds)	15,460
Latex Paint Recycled (pounds)	38,800
Hazardous Materials Collected on Drop-off Days (pounds)	37,880
Haz Mat Collected Year-Round (pounds) (Hazardous Recyclables Collection Area)	368,160
Total (pounds)	460,300



Elya Earns Hazardous Materials Tech Certification

Recycling Processor, Zach Elya has been an integral part of our household hazardous waste (HHW) events for the past two years, utilizing his forklift skills. When he wasn't operating the forklift, his interest in HHW operations was evident as he helped unload customers' vehicles and sorted hazardous materials in preparation for shipping.

In December 2018, Zach attended a 24-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) class in Kalamazoo, and got certified as a Hazardous Materials Technician. We look forward to Zach being an official part of our HAZWOPER team and working with him during the 2019 HHW Events.





EDUCATION

Chinese Ban Offers Teachable Moment

When the Chinese began enforcing their ban (see page 7), the media nationally pounced on the mess, covering communities burying and burning recyclables and even closing down their recycling programs. Here in Emmet County we were fortunate to have merely the task of reassuring our customers that their recyclables were doing what they have always done: supply businesses in Michigan. With customers asking what they could do to help, we used the hype to reemphasize three of our key messages:

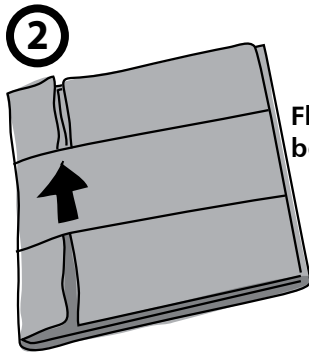
Please

NO non-container* PLASTIC items

NO non-container METAL items

No non-container

GLASS items



Flatten your boxes, please.



**Yes, we know double negatives offend grammarians, but testing showed this phrasing best conveyed our point.*



This local gal grew her carrot with Emmet County's homegrown compost. Said her dad, Jonathan Luckbarardt, "Your compost is amazing... We have no weeds and grow healthy, lush produce. ...the only things we do are plant and harvest!"

"How To Use Compost" New Marketing Theme

Emmet County's compost looks like the finest top soil and gardeners seem to intuitively know it is good for plants, but where should it be used? When? How much? Recognizing that most gardeners aren't confident about how to use compost, we have started a marketing campaign offering examples and details provided by extension experts, #PlantsLoveCompost! Visit EmmetRecycling.org and search for "application rates" to check it out. The campaign also includes handouts and social media conversations. Here's a sample:

Mulching Beds/Gardens

Prep: Remove weeds, making sure to remove the roots of perennial weeds.

Use Compost: Cover the garden or bed with 1 to 2 inches of compost.

Emmet County Department of Public Works
200 Division St, Ste G-76, Petoskey MI 49770
231-348-0640
www.EmmetRecycling.org
recycle@emmetcounty.org
[Facebook.com/EmmetCountyRecycling](https://www.facebook.com/EmmetCountyRecycling)
[Instagram EmmetRecycling](https://www.instagram.com/EmmetRecycling)

