



# National & Local Recycling Markets & Market Specifications

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Northeast Resource Recovery Association

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# RAW MATERIALS LOOKING FOR BUYERS





# THE IMPORTANCE OF PAPER





# CHANGES IN PAPER USE 2000 - 2021

Overall use down 20 million tons

- Printed paper in decline
- Packaging paper now more than half of U.S. production
- Other grades steady with population growth





# E-COMMERCE





# GREEN BAY PACKAGING UP & RUNNING





# NEW NORTH AMERICAN MARKET CAPACITY: RECYCLED CONTENT PAPER

30 North American recycling capacity conversions, expansions or new mills announced since 2017

- Most use OCC
- At least 7 use RMP as major input
- 5 will make recycled paper pulp
- 1 for aseptic cartons & 1 for food contaminated paper

5-7 million tons new capacity (eventually)

- Not all will be built

NERC Summary of Announced Increased Capacity to Use Recycled Paper May, 2021



# STATUS NEW NORTH AMERICAN MARKET CAPACITY: RECYCLED CONTENT PAPER

14 completed

OCC:

- 12 OCC conversions or expansions completed

RMP

- 2 new facilities open

Recycled fiber pulp

- 3 completed

Food contaminated paper

- Opening

3 million new tons of capacity now?





# THE RISE OF PLASTIC





# NORTH AMERICAN MARKETS CAPACITY: RECYCLED CONTENT PLASTIC

30+ new processing facilities announced

- 10+ open
- Most make resin
- Some make end products such as plastic lumber
- No guarantees all will be built

Supply?



# EXPORTS





# EXPORTS: PAPER

2020: 15.9 million tons

- Down 2.4 million tons from 2019
- Down 5.1 million tons from 2018
- China ban & increased domestic demand

BUT

2021: January & February: 2.4 million tons

India, Mexico & Vietnam get half of the exports





# EXPORTS: PLASTIC

2020: 1.37 billion pounds

- Down 0.09 billion pounds from 2019
- Down 1.0 billion pounds from 2018
- Down 2.31 billion pounds from 2017

BUT

2021 January & February: 2.06 million pounds

Canada, Malaysia & Mexico get 5/8 of the exports

# EXPORT BARRIERS





# PRICES: PAPER

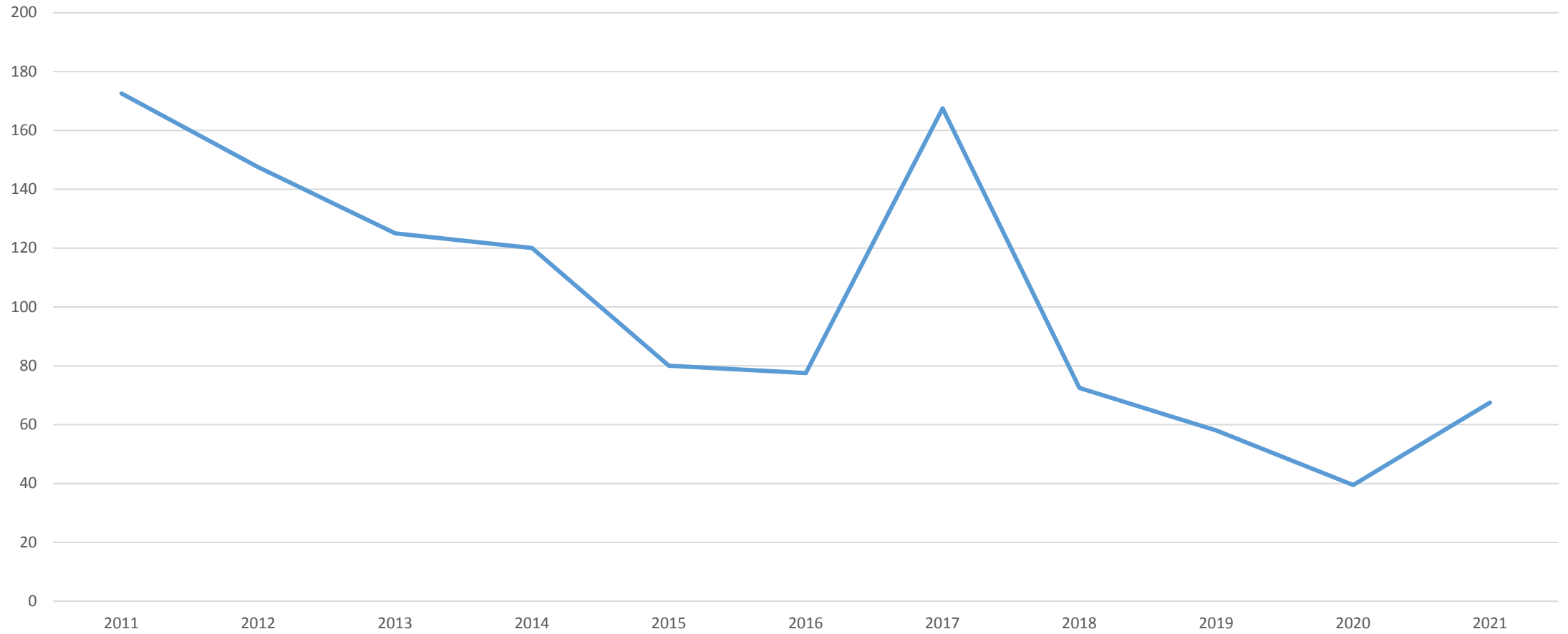
April 30, 2021 – Recycling Markets.Net

National average

	4-30-21	2 years ago	High - Low
OCC:	\$90.00	\$41.56	\$180 - \$17.50
RMP:	\$34.06	- \$2.19	\$97.50 - -\$10.00
(dollars/ton)			



# OCC APRIL 2011-2021







# PRICES: PLASTIC

May 5, 2021 – RecyclingMarkets.net

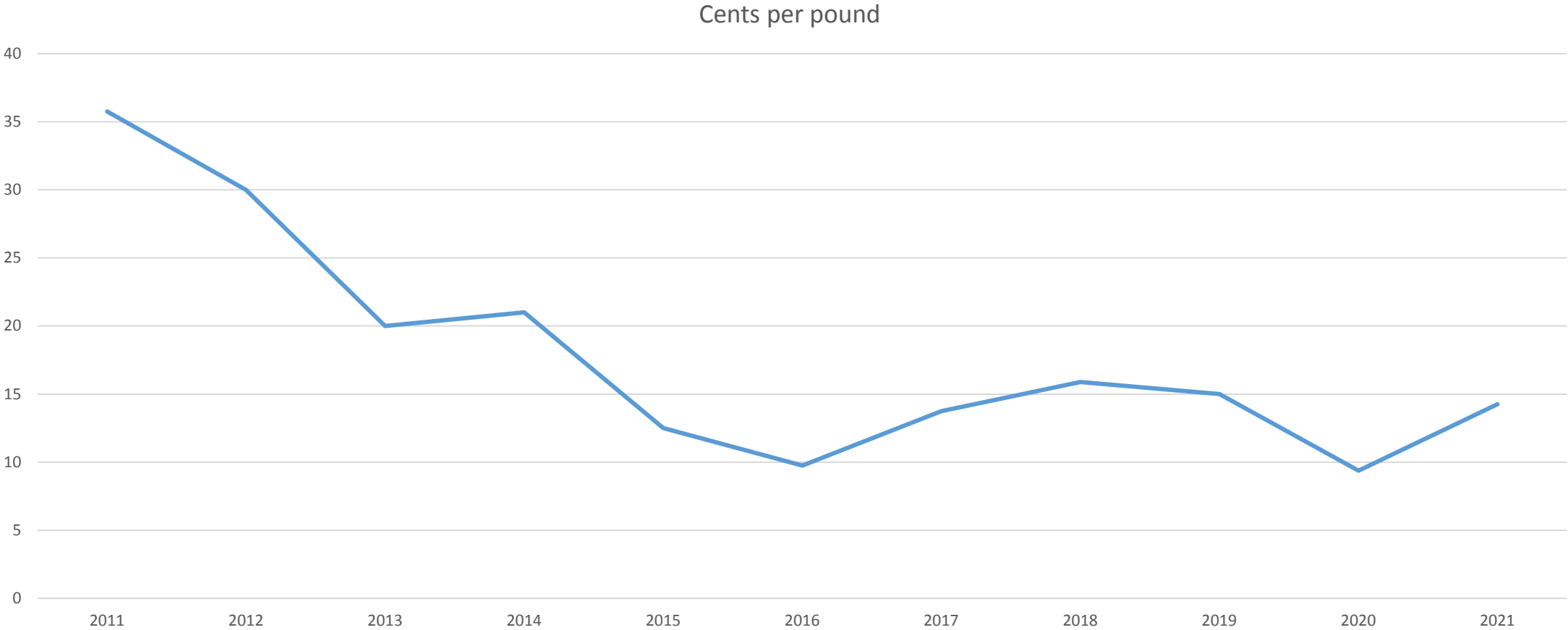
National Average

	5-4-2021	2 years ago	High - Low
PET bev:	15.05	15.56	37.25 - 4.00
Nat HDPE:	88.06	20.75	88.06 - 12.00
Col HDPE:	36.19	13.75	36.19 - 3.50
PP:	33.25	11.19	33.25 - 3.50

(cents per pound)

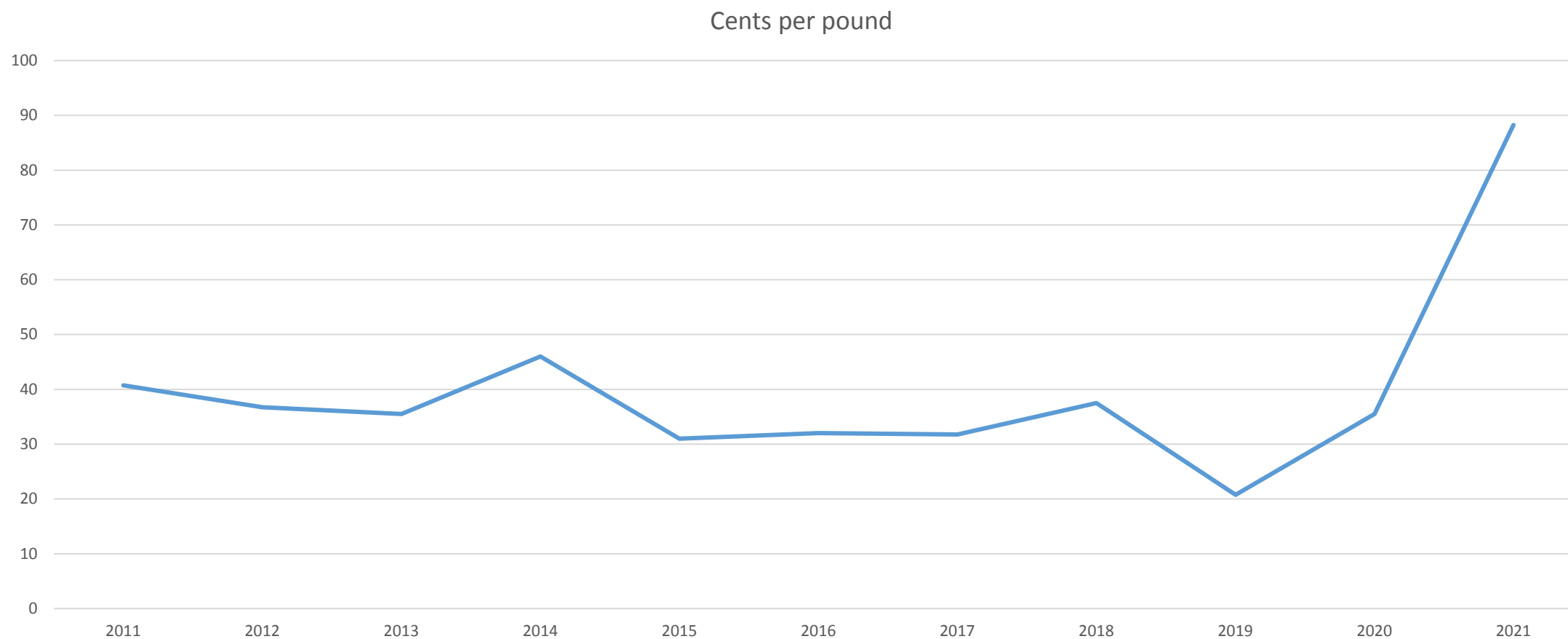


# PET APRIL 2011-2021





# HDPE NATURAL 2011 - 2021





# PRICES: METALS

April 30, 2021– RecyclingMarkets.net

Southeast Region

	4-30-21	2 years ago	High - Low
Aluminum:	64.13	56.19	101.50-39.00
Steel Cans:	\$233.44	\$169.06	\$260-\$22.50

(Aluminum cent per pound, steel dollars per ton)





# PREDICTIONS





# MARKETS 2021: PAPER

Stable to rising

- Price of virgin pulp is rising
- Linerboard companies complaining about rising raw material prices
- Linerboard companies increasing prices – a good sign!
- Retail stores vs e-commerce?

\$30/ton increase for OCC predicted



# MARKETS 2021: PLASTIC

?????

- Lingering impact of Texas freeze
- How high will oil prices go?
- Brand demand: real or p.r.?
- Are high prices sustainable?



# GOLDBLOCKS PRICES



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# SOURCES

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- NERC Recycled Plastic Capacity Increases: [nerc.org/news-and-updates/press-releases/](https://nerc.org/news-and-updates/press-releases/)
- Paper: Moore & Associates: Bill Moore: [www.marecycle.com](http://www.marecycle.com)
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- Plastic: Stina: Nina Belluci Butler: [www.stinainc.com](http://www.stinainc.com)
- Paper Stock Report: Ken McEntee [www.paperstockreport.com](http://www.paperstockreport.com)
- Recycling Markets.net: Christina Boulanger-Bosley: [www.recyclingmarket.net](http://www.recyclingmarket.net)
- Resource Recycling Magazine & weekly Resource Recycling & Plastic Recycling Update e-news: [resource-recycling.com/recycling/magazine/](http://resource-recycling.com/recycling/magazine/)





# Local Recycling Markets and Market Specifications

**NRRA Annual Conference**  
**May 11<sup>th</sup>, 2021**

*Bonnie Bethune, NRRA Member Services Manager*



# “What a difference a year makes...”

In March 2020, we were all knee deep in COVID 19 concerns.

From a local recycling perspective, two major concerns were:

- 1) how to safely operate essential recycling facilities in a pandemic
- 2) uncertain recycling markets and pricing during a pandemic

# Baled Cardboard (OCC – Old Corrugated Containers)

	March 2020	March 2021
NRRA Members Marketed	<b>550 tons</b>	<b>775 tons (UP 225 tons)</b>
Average Revenue	<b>\$57/ton</b>	<b>\$96/ton (UP \$39/ton)</b>
Average Net Revenue for a Tractor Trailer Load	<b>\$1,300</b>	<b>\$2,112 (UP \$812/load)</b>
Net Revenue to Members	<b>\$28,904</b>	<b>\$71,666 (UP \$42,762 to Members)</b>

# Current Cardboard Revenue

- Loose \$37.50 - \$60/ton  
Baled \$105 - \$125/ton
- Majority of NRRA's baled cardboard goes "mill-direct"
- Mills are located in NH, MA, VT and NY (future ME)
- Current value of a 1,000 lb. cardboard bale - \$62.50  
(compared to \$28.00/bale in March 2020)



# Tuftonboro, NH's OCC Bales





# Next Material to focus on - Baled Plastics – Multiple Categories

- #1 PET (water and soda bottles, etc.)
- #2 HDPE Natural (milk jugs, translucent water bottles, etc.)
- #2 HDPE Mixed Colored (tide bottles, etc.)
- #2 HDPE "Z" (Natural and Mixed Colored combined)
- #1-7
- #3-7 (newest market)
- Rigid Plastics (underutilized market)



# Plastics

	March 2020	March 2021
NRRA Members Marketed	<b>90,000 lbs.</b>	<b>168,000 lbs. (UP 78,000 lbs.)</b>
Average Revenue	<b>\$.065/lb. (\$130/ton)</b>	<b>\$.09/lb. (\$180/ton - UP \$.025/lb.)</b>
Average Net Revenue for a Tractor Trailer Load	<b>\$1,926</b>	<b>\$2,529 (UP \$603/load)</b>
Net Revenue to Members	<b>\$5,842</b>	<b>\$14,000 (UP \$8,159 to Members)</b>

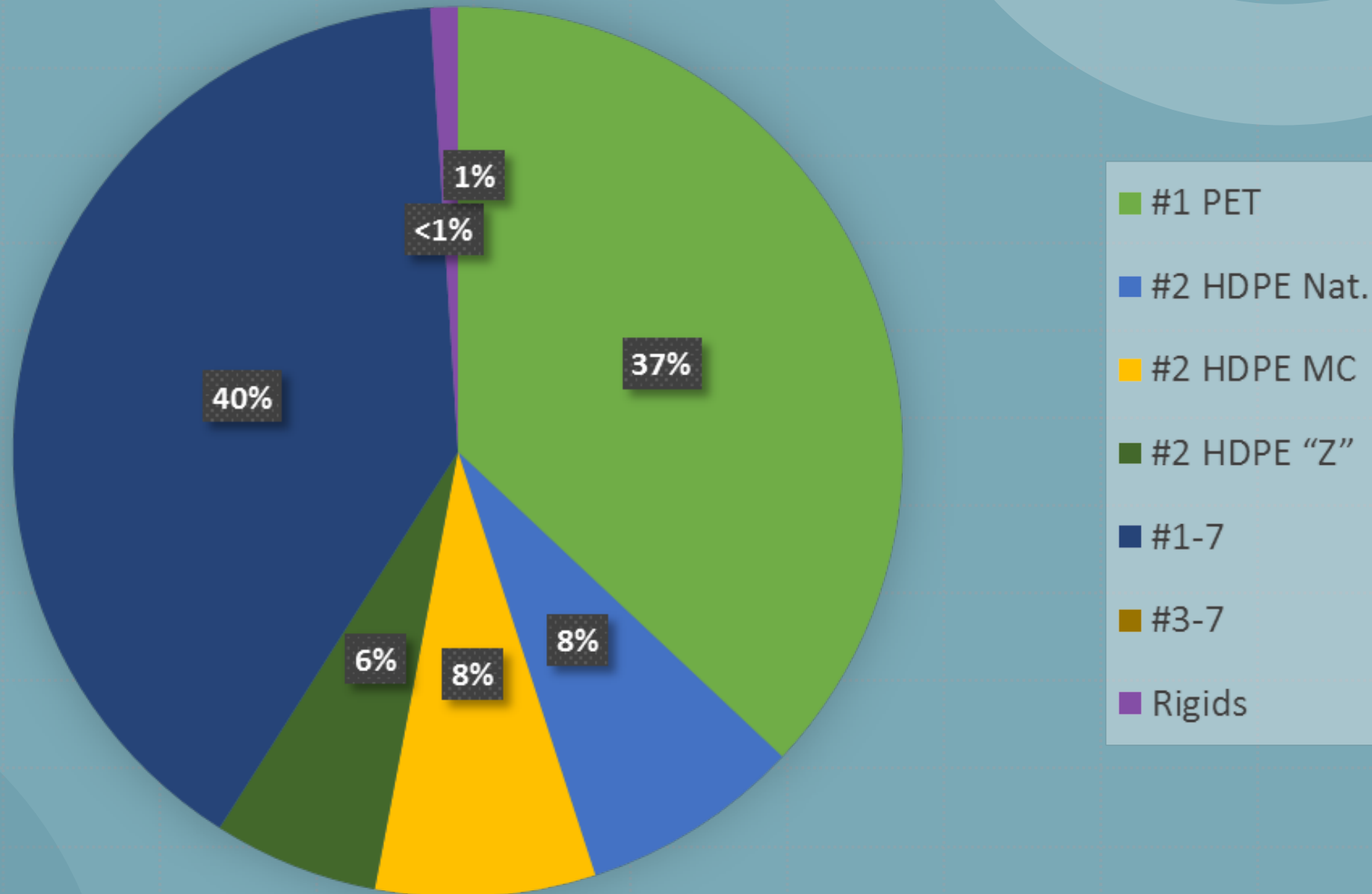


# Baled Plastics - NRRRA 2020

	# Tons	Revenue to Members
#1 PET	293	\$22,796
#2 HDPE Nat.	67	<b>\$62,245</b>
#2 HDPE MC	61	\$7,351
#2 HDPE "Z"	44	\$2,691
#1-7	<b>318</b>	\$8,020
#3-7	2	(\$30)
Rigids	11	\$114
<b>Totals</b>	<b>796</b>	<b>\$103,187</b>



# Baled Plastic Percentage by Weight (NRRA - 2020)



# Tuftonboro, NH's Loose Plastics





# North Hampton, NH's #2 HDPE Natural Bales





# Springfield VT's #1-7 Plastic Bales





# Specs, Specs, Specs.....

Key words for *all* materials (loose or baled) are:

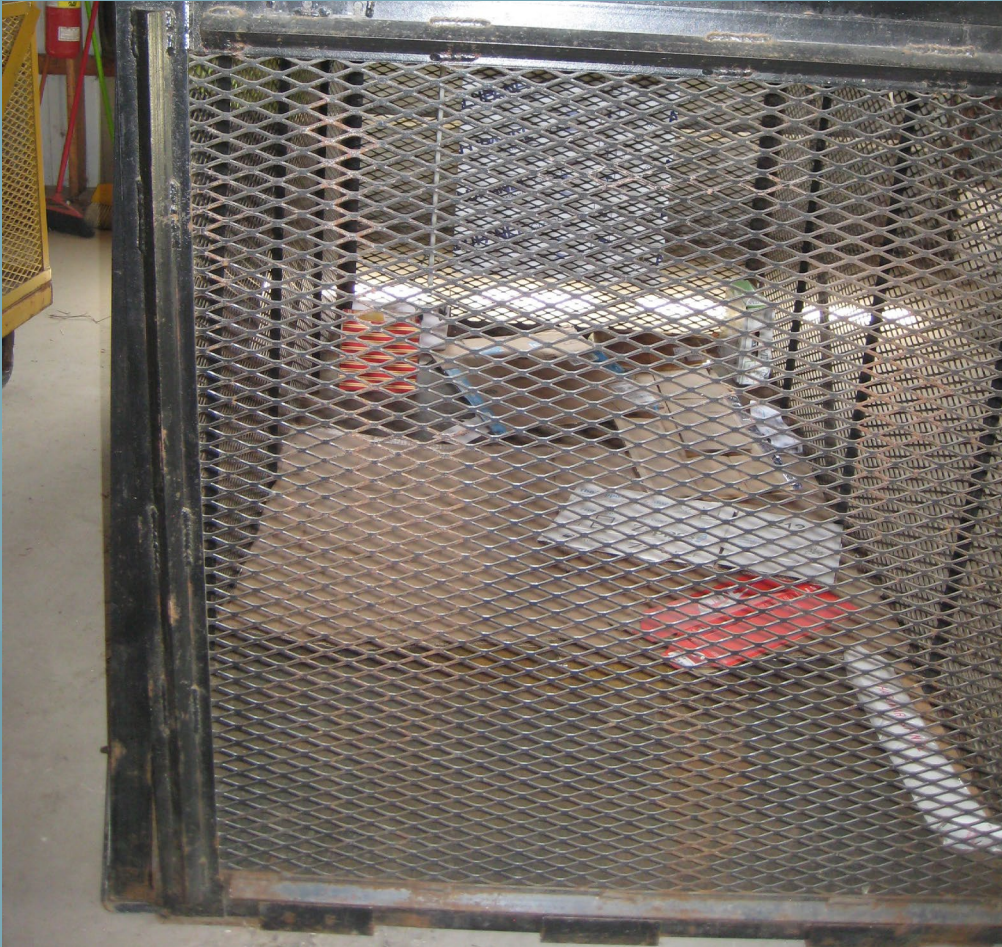
- Clean
- Dry /Under Cover Storage
- 2 Stage Separation

# Cardboard Specs....

- CORRUGATED CARDBOARD ONLY
- NO waxed cardboard (will not break down in the mill pulper)
- NO chipboard (as in cereal boxes)
- NO wet-strength (as in soda/beer cartons – have plastic coating)



# Lempster NH's Loose OCC in 40 cubic yard container





# North Hampton NH's OCC Bales

Clean, dry, under cover & use of separators for ease in loading trailers



# Bartlett, NH's Under Cover Storage Solution







# Mixed Paper

Current pricing:

Loose - \$10/ton cost to \$55/ton revenue

Baled - \$30 to \$100/ton revenue

Less wet-strength (soda/beer cartons, frozen food boxes) the lower the cost /higher the value



## SAMPLE Spec Question from Lisbon NH

Q: Can pizza boxes be baled with mixed paper?

- A. Corrugated pizza boxes (the non-greasy part) ok with corrugated cardboard
- A. Paper pizza boxes (the non-greasy part) ok with mixed paper
- A. Frozen food pizza boxes (wet-strength) are not recyclable due to plastic coating (please treat as trash just like soda and beer cartons)

# Newspaper /#8 News

Current revenue:

Loose in gaylords \$90 - \$100/ton

Baled \$140-\$150/ton

Newspapers ONLY  
(ok to include inserts)

End-use: Insulation







# Sorted Office Paper - SOP

Current Revenue:

Loose in gaylords \$75 – 80/ton

Baled \$100 -\$105/ton

White & Colored Office Paper Only







# Plastics Specs....

- Stored under cover (not only for weather but to limit ultraviolet degradation from sunlight)
- Some markets accept cardboard headers; some do not
- Some markets accept 5 gallon water jugs; some do not

# Plastics separation leads to higher revenue

- #1-7 bales \$.045 - \$.05/lb. revenue
- #1 PET \$.09 - \$.14/ lb. revenue; pricing & demand finally improving after months and months of over supply
- #2 HDPE Mixed Colored and "Z" bales \$.29 - \$.39/lb. revenue

# Hancock, NH's #1 PET Bales

Clean, no cardboard headers, under cover



# Plastics....

- #2 HDPE Natural bales \$.80- \$.90/lb. revenue and still climbing  
(Highest price in NRRA history as far back to 2006)  
(HDPE Natural is the “purest” plastic; it can be reprocessed into any color unlike #2 HDPE Mixed Colored which can only be reprocessed into dark green/black products)

Current value of one 800 lb. bale is \$720 (\$387 in March 2020)

# Plastic Recycling Highlights

- Loose Plastics are shipped to local recycling vendors in NH, MA or VT or to the Keene NH consolidation site
- Baled Plastics are shipped to processors in Michigan, New York, Ohio, North Carolina or Canada
- Strong overall plastic pricing is counteracting current high transportation costs (haul fees between \$1,300 - \$2,200/load)



- Warner NH achieved an NRRA Member first!
- their baled #5 PP (Polypropylene) was shipped to market in March 2021  
(mainly tubs & lids)





# Aluminum Cans

Current Revenue:

\$.36/lb. for loose  
\$.59/lb. for baled

- UBC's (used beverage containers) ONLY
- NO pet food cans (even if aluminum), steel cans, foil or foil plates







# Gilford NH's UBC Bales





# Steel Cans

## Current Revenue:

Baled - Full tractor loads up to  
\$264/gross ton (Canadian market)

Loose -\$80 to \$90 gross ton (Local  
markets)

- Steel cans, pet food cans, empty paint cans, empty aerosol cans and foil/foil plates
- Measured in gross tons (2,240 lbs.) British standard; not net tons (2,000 lbs.) US standard





# Scrap Metal / Light Iron

- Current Revenue \$155 - \$160 gross ton
- Many communities are putting steel cans in with scrap metal until loose steel can pricing improves
- Also measured in gross tons





# Glass Recycling – 3 NRRA Options

## Material

## NRRA Host Sites

## End Use

Mixed Glass  
(w/ceramics, porcelain...)

New London, NH  
Waste Management/ TREE  
Littleton, NH

PGA  
(Processed Glass Aggregate)

Glass Jars & Bottles ONLY

Lebanon, NH  
Keene, NH

Fiberglass Insulation;  
Glass to Glass

Glass Jars & Bottles ONLY

Dennis, MA – Cape Cod

PGA



# Glass Pricing to NRRA Members

- Cost per ton varies depending on delivery site – tipping fee less than  $\frac{1}{2}$  the cost per ton of MSW
- Why recycle? Glass will not burn in an incinerator, will not break down in the landfill, and has high costs in MSW due to weight
- Crushed glass available to NH transfer stations/highway departments for road base/drainage projects
- Great potential to capture more glass for processing

# Glass -before and after crushing into PGA





# Keene, NH NRRA Host Site





# Dennis MA – NRRRA Host Site on Cape Cod







# Single Stream NRRA Member Costs per Ton

**March 2020**

\$149 - \$165/ton

**March 2021**

\$91 - \$118/ton

57% of NH's Population and 29% of NH Communities are Single Stream.

Although some communities have returned to source separation over the last few years.

# Wrap Up:

- As we have seen, markets have improved for most commodities over the last year and demand remains steady for high quality “New England Hand-sorted” material.
- Meeting the highest spec gives NRRA the ability to market Member material to all mills and brokers to obtain the most revenue (or least cost) for your recyclables.



I have focused today on one facet of the services available to  
NRRRA Members – access to the ever-changing, ever-exciting  
commodities market.

Please reach out to me with your specific questions regarding  
specs and market pricing.

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Keep on Recycling and Stay Safe!



Bradford, NH

