



**Town of Northfield, NH**  
**Board of Selectmen**  
**21 Summer Street, Northfield NH 03276**

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**SUBJECT:** Plastics 1-7

**DATE ISSUED:** 12/5/2023

**PURPOSE:** To accept plastics 1-7 at the Recycling Center

**OVERVIEW:** Accepting plastics 1-7 at the Recycling Center will reduce curbside tonnage. Additionally, allowing it to be mixed will create sturdier and more bales and increase the number of plastics to recycle to ship out faster. DES rules only allow us to hold onto plastics for a year and it must be covered. By not having as much to ship out, ends up costing more in hauling fees.

**OBJECTIVE:** To allow the Recycling Center to accept plastics 1-7, unsorted.

\_\_\_\_\_  
(Date)

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*Jason Durgin, Chair*

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*Mark Hubbell*

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*Ross L. Cunningham*

# Memorandum

To: The Board of Selectman, Town Administrator, Town of Northfield  
From: Mark Marr, Town of Northfield Transfer Station Manager  
Date: December 1, 2023  
  
Re: Disposal of Plastics

## Summary:

I would like to address the process that we have with the disposal of plastics at the Northfield Recycling Center. Currently we are separating the number 1 and the number 2 plastics into two separate bales. I have suggestions to stream line the operations and make available more storage areas for use in collecting other items.

I spoke with Bonnie, a representative from NRRA regarding the cost-effective process of baling the plastics. We should be baling all mixed plastics together for a better bale. If we increase the amount of plastic the Recycling Center takes in, we should be able to make more bales and ship faster. DES rules state we are only allowing to hold material for a year *and* it must be covered.

We need to bale all number 1 thru number 7 plastics together. When this is done the bales will be stronger and heavier than the bales we are making now.

- If we take in more plastic material, it could reduce the amount of plastic from Roadside pickup. This will effectively lower the tonnage we ship to Waste Innovations to burn.
- More bales from plastics will be made, offsetting the loss of income from switching to this system.
- The Recycling Center will be able to run the baler continuously instead of separating and storing plastic until there is enough to make a bale.
- The Highway crew will not have to take time to go to the Recycling Center to make bales during the week when the Transfer Station is closed.
- 1/3 of all NRRA customer are baling plastics 1-7 and finding this to cost effective and more productive.
- With this new proposed system, the baler can run plastics until we need to make some other type of bale.

I have attached some information from Bonnie at NRRA. These numbers show what we made shipping plastic last year (See Attachment).

# NRRA Customer Activity Report: 2022

As of 2023-06-22 14:19:05 Eastern Standard Time/EST • Generated by Bonnie Bethune • Sorted by Pickup Date (Ascending)

Northfield, NH, Town of	Product:	Pickup Date	Release Number	Net Lbs	Net Tons	Quantity	Customer Price	Report on	Customer Revenue
	Plastic-HDPE MC Baled	7/7/2022	695003	3700	1.85	5	\$0.1600	\$500.0000	\$592.0000
	Plastic-PET Baled	7/7/2022	695003	8100	4.05	16	\$0.1250	\$500.0000	\$1,012.5000
<b>Total</b>				<b>11800</b>	<b>5.9</b>	<b>21</b>		<b>\$500.0000</b>	<b>\$1,604.5000</b>

In 2022, Northfield marketed the following plastics:

# of Pounds 11,800  
 # of Bales 21  
 Pounds per Bale 562

Net Revenue \$1,104.50  
 Net Revenue per Pound \$0.09

In 2022, average Trigon paid per pound for #1-7 plastics \$0.06

Difference between separated and #1-7 plastics pricing to Northfield In 2022 \$0.04 \$455.50

**Conclusion:** \$649.00

In 2022, Northfield would have made \$.04/lb. less for 11,800 lbs. of plastic. Instead of revenue of \$1,104.50, revenue would have been \$649 for #1-7 plastics mix.

NRRA can market 22- 24 bales of #1-7 with another town or can pick up a full load of 44-48 bales at your site. Revenue is net (no additional haul fees).

**NRRA's #1-#7 Baled Plastics  
Recycling Program  
2020**

**NRRA's Vendor, Trigon Plastics in Newmanstown, PA**, processes 90% of the # 1-7 plastics on the East Coast making Trigon the largest buyer of #1-7 plastics in US! (65,000 pounds processed per day).

In 2019, NRRA Members supplied Trigon with 567,000 lbs. which kept the plant busy for just 8.7 days! #1-7 plastics is 25% of all plastics marketed for NRRA Members in 2019.

Although, this is termed #1-7 – #1, 2, 5 and 7 only are processed to be made into other materials; the small % of #3, 4 and 6, as well as #1 “clamshells” are landfilled at this time. Trigon, in an effort to keep it simple, accepts #1-7 plastics.

**What happens to the plastics once sorted at plant?**

- #1 PET is sold to manufacturers of carpet & clothing
- #2 HDPE Natural is pelletized and made into plastic lumber at Trigon and sold to Casual Living to be made into high end plastic furniture



- #2 HDPE Mixed Color is made into black drainage pipes, cart wheels, etc.
- #3-7 (which are mainly #5's and 7's) go to Canada where they capture the #5 polypropylene and some of the 7's

**Contaminants of #1-7 Mix?**

- black plastic trays

- containers that held hazardous products
- flowerpots
- buckets/pails
- bags/film of any kind
- Styrofoam

**Helpful guideline from Trigon:** If it takes a lid (ex. butter container) or a cap (ex. shampoo bottle) then it is recyclable through Trigon

### Speaking of Caps:

- Trigon has a 2" inch screen and anything that falls through that screen goes to landfill – so most caps are not being recycled
- Bales tend to be heavier if caps are removed doing away with the air space left over with cap still on therefore cutting down on shipping costs; and keeping caps off encourages residents to rinse items and not leave residual liquid or product in container
- **INCLUDE CUSTOMIZABLE SPEC SHEET INFO HERE**  
Take a tour of the **Terms and Tools** resource on [RecycleYourPlastics.org](http://RecycleYourPlastics.org), an interactive tool created to walk you through the new terms, provide royalty-free images, and help you create free educational flyers;



# Recycle More Plastic

## PLEASE RECYCLE:

### Plastic Bottles & Containers

- Plastic Soda, Water & Other Drink Bottles
- Plastic Food & Household Bottles/Jars
- Plastic Tubs & Lids
- Plastic Produce, Deli & Bakery Containers, Cups, Trays

- Plastic Non-food Containers & Packaging

### Plastic PET (1) Containers & Lids

### Plastic HDPE (2) Containers & Lids

### Plastic PP (5) Bottles

### Plastic Tubs & Lids

## OH AND BY THE WAY...

\* Rinse or wipe clean all food or other residue from bottles & containers

\* Separate non plastic (e.g. paper or metal) attachments from plastic products

## EXCLUSIONS:

No Containers that held Hazardous Products

No Flower Pots

No Black Plastic

No Buckets

No Bags, Wrap or Film Plastic

No Foam





**BRIAN PATNOE**

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Mark,

There are both positive and negative things about combining your plastics into a #1-#7 and I wanted to share my personal experience as I swapped Littleton over to the #1-#7 program in 2020.

- Combining the plastics will create less Revenue but you will spend less time sorting the plastics and will be able to recycle more material, saving disposal fees. Is it an even swap, no, but at that time I was looking to recycle more and to save some labor costs.
  - Current pricing:
    - #1-#7 – Cost of half a cent per pound
    - #1 PET - Cost of a cent to a revenue of 3 cents per pound
    - #2 HDPE – 4 cents to 24 cents per pound revenue depending on type
- Less storage space needed. Instead of multiple bays needed to separate your plastics, you can combine them into 1 bay if you want. You can keep the other as an overflow or use it for something else. Same goes for the storage of the baled plastics.
- There are less recycling companies that will take the material if you combine the plastics
  - We have less vendors that take #1-#7 plastics.
  - We are working on getting more vendors.
- Easier for residents
  - Not only can they recycle more, once they are used to it, it is less frustrating on their end. BUT you will still need to educate constantly.

When I switched Littleton, it was well received but there was a lot of explaining to why we were doing it.

Hope this helps



Good afternoon, Mark!

We are processing your plastic pickup final weights. This is what the vendor received from Northfield in the end:

DATE	LOAD NO.	PICKUP NO.	CARRIER	EQUIPMENT NO/TRUCK NO.
11/03/2023	123427	705086nfield d 63307	(OTHER)	/ 01
QUANTITY	UNITS	DESCRIPTION		
6,372 LBS	13	Pet Dlvd Northfield		
2,565 LBS	4	HDPE MC Northfield Dlvd		
555 LBS	1 BALE	Comigled Bale		
<b>9,492 LBS</b>	<b>18</b>			

Based on what you originally told me you had for pickup (Mostly #2 HDPE Color Bales and a few #1 PET), there should have been more weight on this load from Northfield's end:

- 15-19 bales #2 HDPE (740 ea) = estimated weight min. 11,100lbs.
- Then fit any remaining (unlikely) bales #1 PET (500lbs ea)

So since Northfield loaded mostly PET bales, which weigh less than the HDPE bales that were anticipated to be in this load, the final pricing on this load is a total of **\$11.51 (cost)** after they accounted for one comingled bale they found in the load (1-7 plastics that come to a charge of \$0.025/lb.) and transportation included.

Please let me know if you have any questions, I just wanted to explain before you received the invoice for this load. \$11.51 cost is NOT bad considering the cost being diverted if it were thrown away as MSW.

**SAMANTHA FORESTA**

Logistics Coordinator

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