



Successful Glass Recycling in Rural Communities

NERC Webinar, June 6, 2022

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Resource Recovery Association
(NRRRA)*

Agenda

I. About NRRRA

II. Current Member Glass Programs:

- What are my glass program options and where will my glass go?
- How do I collect glass?
- How do I store glass?
- How do I transport glass?
- How will my glass loads be weighed?
- What if my glass has contaminants?
- What will it cost to recycle my glass?

III. 2 Case studies

- Recycling non-profit
- Founded 40+ years ago
 - Over 450 members



Cooperative Marketing and Purchasing

- Connect municipalities recyclables to companies that acquire recyclables
- Returned \$1.8 million to members in 2020



Education & Technical Assistance

- Meetings, facility tours, annual conference
- Hands on technical assistance
- School recycling program



“Clean” Glass Recycling



Glass jars and bottles only



Canadian vendor cleans and crushes



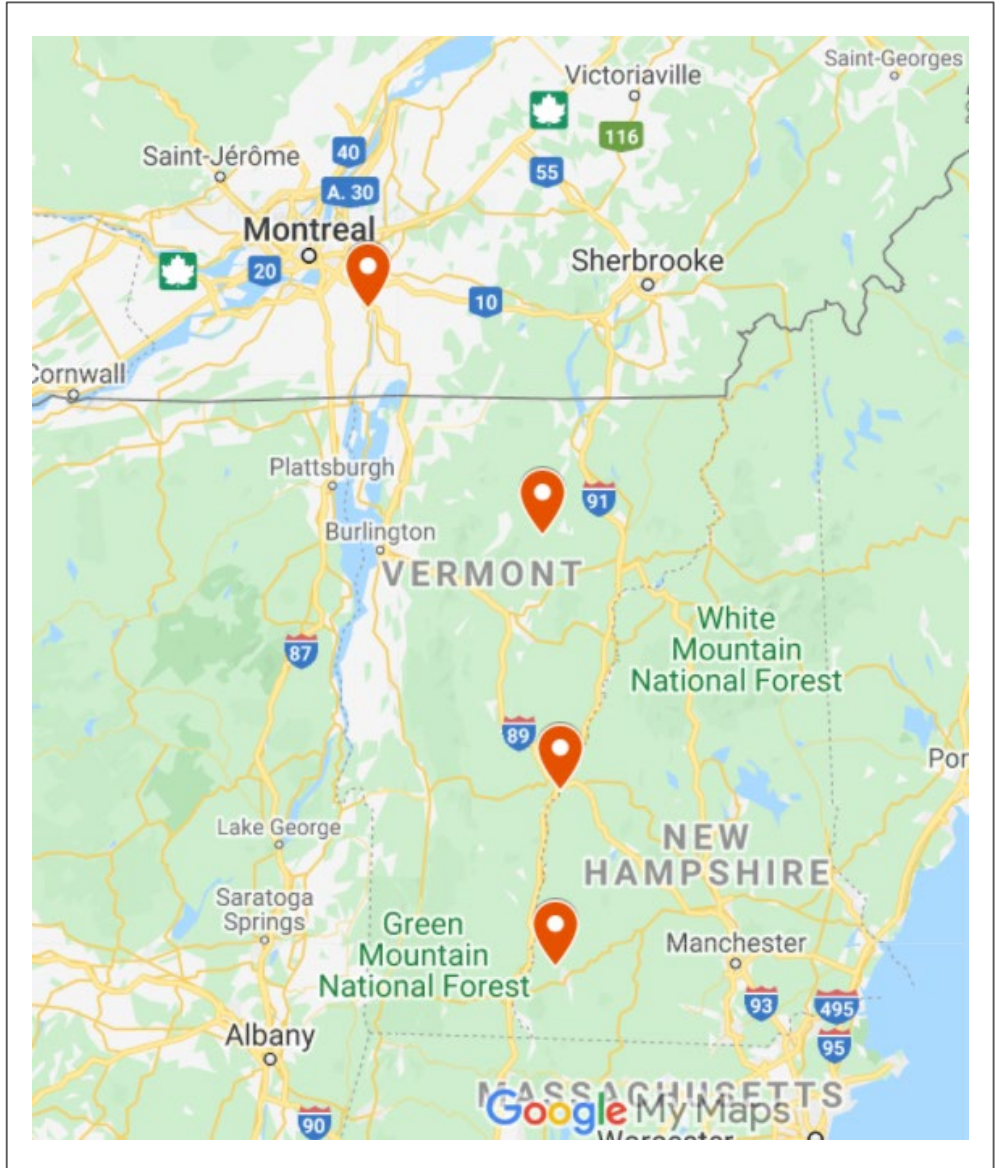
Made into new glass bottles and fiberglass insulation in US



20 communities in NH, VT & MA

“Clean” Glass Recycling Host Sites

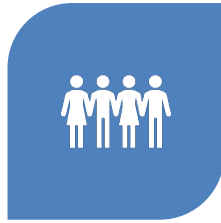
- (# communities served)
- Keene, NH (15)
- Lebanon, NH (Paused)
- Hardwick, VT (3)
- Individual communities (2) –
Wellesley MA, Rye NH
- Vendor south of Montreal
and in Hopedale MA



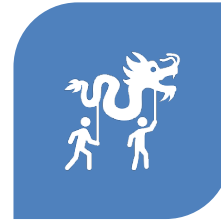
Processed Glass Aggregate - PGA



GLASS JARS
AND BOTTLES



PLUS
PORCELAIN,
PYREX,
CERAMICS
(SOME STATES)



CRUSHED INTO
AGGREGATE FOR
INFRASTRUCTURE
PROJECTS



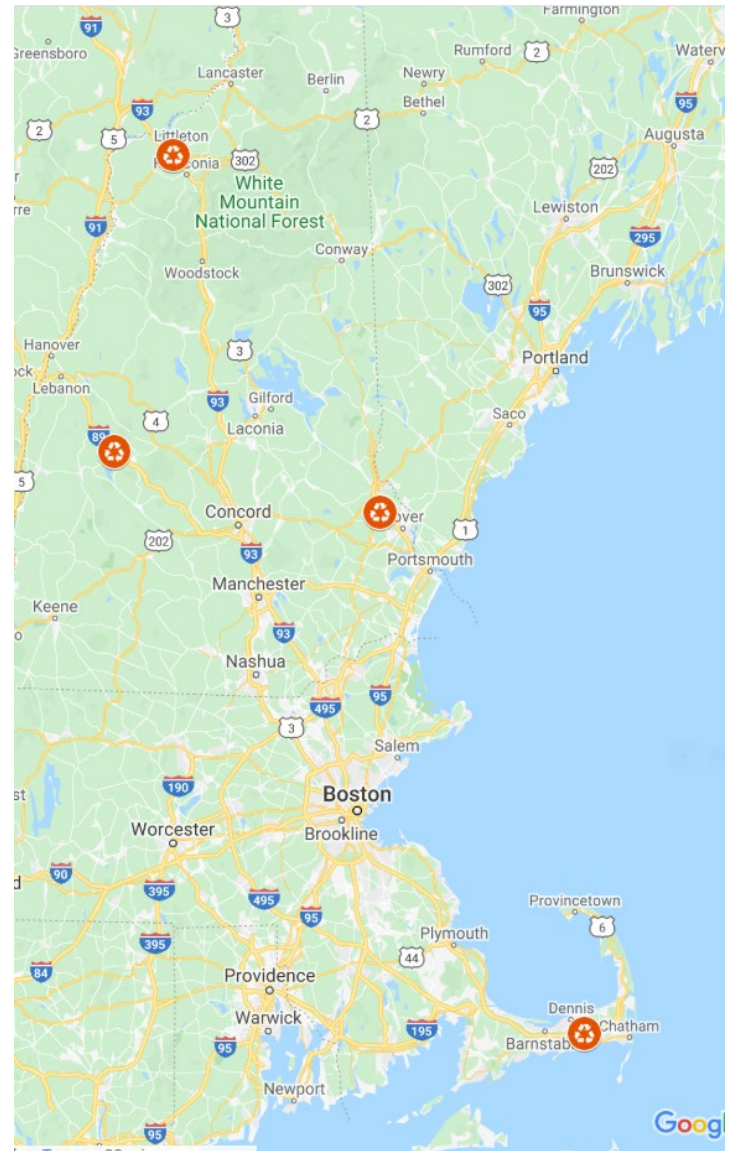
60
COMMUNITIES
IN NH, VT & MA

Processed Glass Aggregate (PGA) Host Sites

(# communities served)

- Littleton, NH (6)
- New London, NH (34)
- WM - Rochester, NH (14)
- Dennis, MA (6)

Total – 60 communities



PGA: Glass Crusher



- Vendor with mobile crushing unit hired by NRRA
- Crush when have 1,000+ tons



End Product

- Crushed aggregate of 1" or 3/8" minus
- Size depends on state regulations
- More expensive to crush smaller

NRRA
members
also recycle
glass via
these
programs:

- Dual stream – containers w/glass
- Single stream
- Collect at own facility, crush on site and use in own community

Collection

Two Stage Separation of Glass - Trays



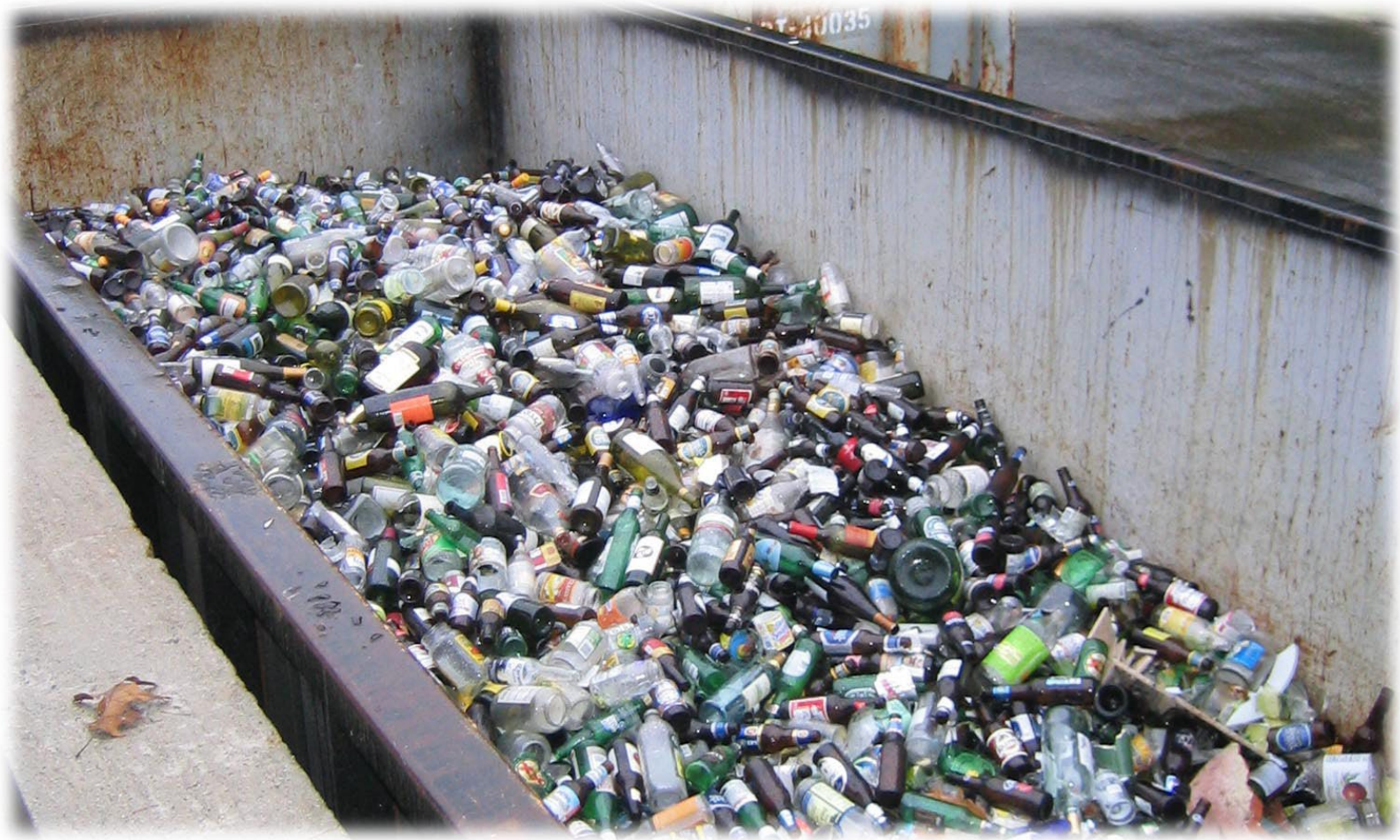
Collection

Two Stage Separation of Glass-

Dumping carts



Storage – Open-top Containers



Storage - Bunkers



Storage -Stockpiled



Transport to End-sites

- Rural communities haul their own glass or hire a local hauler
- Via 6 or 10 wheeled trucks or in 30, 40, 50 or 70 cubic yard open-top containers



Transport/Weights – Scales or Average



If NRRRA host site has a scale, cost per ton based on scale weights



If NRRRA host site does not have a scale, 3 loads are weighed, and average weight is used going forward



If container used to haul glass changes, new average weights are established

Glass Contamination - Sample



Three Strike Policy at NRRRA Glass Sites



1st contaminated load – warning



2nd load – fee



3rd load – fee and leave program



But if hazardous waste, fee charged for first offense

Current Costs to Recycle Glass

Clean Glass Program: (delivered pricing; communities arrange own transport of glass)

- Keene, NH \$45/ton
- All Metals/Hardwick, VT \$51/ton

PGA Program:

- Dennis, MA \$75/ton
- Littleton, NH \$40/ton
- New London, NH \$40/ton
- Waste Management T.R.E.E. (Rochester, NH) \$40/ton

Case Study #1: Washington, NH

- PGA to New London, NH
- Pop. 1,143
- Overall average recycling rate for glass is 44 lbs./person (per NRRA stats)
- 2021 - 37 tons (74,000 lbs.)
- In 2021, Washington residents recycled 65 lbs. each!

Case Study #2: Hancock, NH

- “Clean” Glass to Keene, NH
- Pop. 1,665
- Overall average recycling rate for glass is 44 lbs./person (per NRRA stats)
- 2021 – 36.05 tons (72,100 lbs.)
- In 2021, Hancock residents recycled 43 lbs. each!

Learn more at www.nrrarecycles.org

NRRA NORTHEAST RESOURCE RECOVERY ASSOCIATION

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About NRRA Recycling Services Education Resource Library News & Events

Recycling is Thriving, in Part Due to the Pandemic

You have likely heard about the supposed death of recycling in recent years. But have you heard that recycling is actually thriving again? If this comes as a surprise to you, you're not alone. I recently read a local article with outdated and inaccurate information about recycling markets. So I thought I'd set the record straight. As a bonus, I'll...

[Read More](#)

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Municipal Members

Recycling Vendors

Member Price Lists

Load Request Form



Through the Looking Glass

A transparent look at glass recycling in New England

Northeast Resource Recovery Association

Glass StoryMap & |
PGA Video

Questions & Thank You!



Northeast Resource Recovery Association

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