



Using Processed Glass Aggregate in Road and Infrastructure Projects



The Northeast Resource Recovery Association (NRRA)

- Nonprofit organization in Epsom, NH that provides cooperative marketing and purchasing programs, education, and technical assistance in the areas of **solid waste and recycling**.
- Over 400 members including municipalities, businesses and individuals throughout New Hampshire, Vermont, Massachusetts, Connecticut and Southern Maine.



Glass Recycling Challenges in the Northeast

- Transporting and disposing of glass is expensive.
- Markets for recycled glass are limited.
- Recycling glass back in to bottles and jars has become increasingly cumbersome.
- NRRA offers two programs for managing glass.



Glass Recycling into Fiberglass Insulation



- Glass bottles and jars only
- Canadian vendor cleans and crushes
- Made into fiberglass insulation back in US
- 40 communities participating in NH, VT & MA

Processed Glass Aggregate (PGA)

- Recycled, crushed glass that can be used as subbase in road and infrastructure projects in place of sand or gravel.
- Can include glass-like material (ceramics, porcelain etc. depending on the state)
- 65 participating communities in NH, VT & MA





Creating PGA



Collecting Glass for PGA

Processed Glass Aggregate Host Sites

(# communities served)

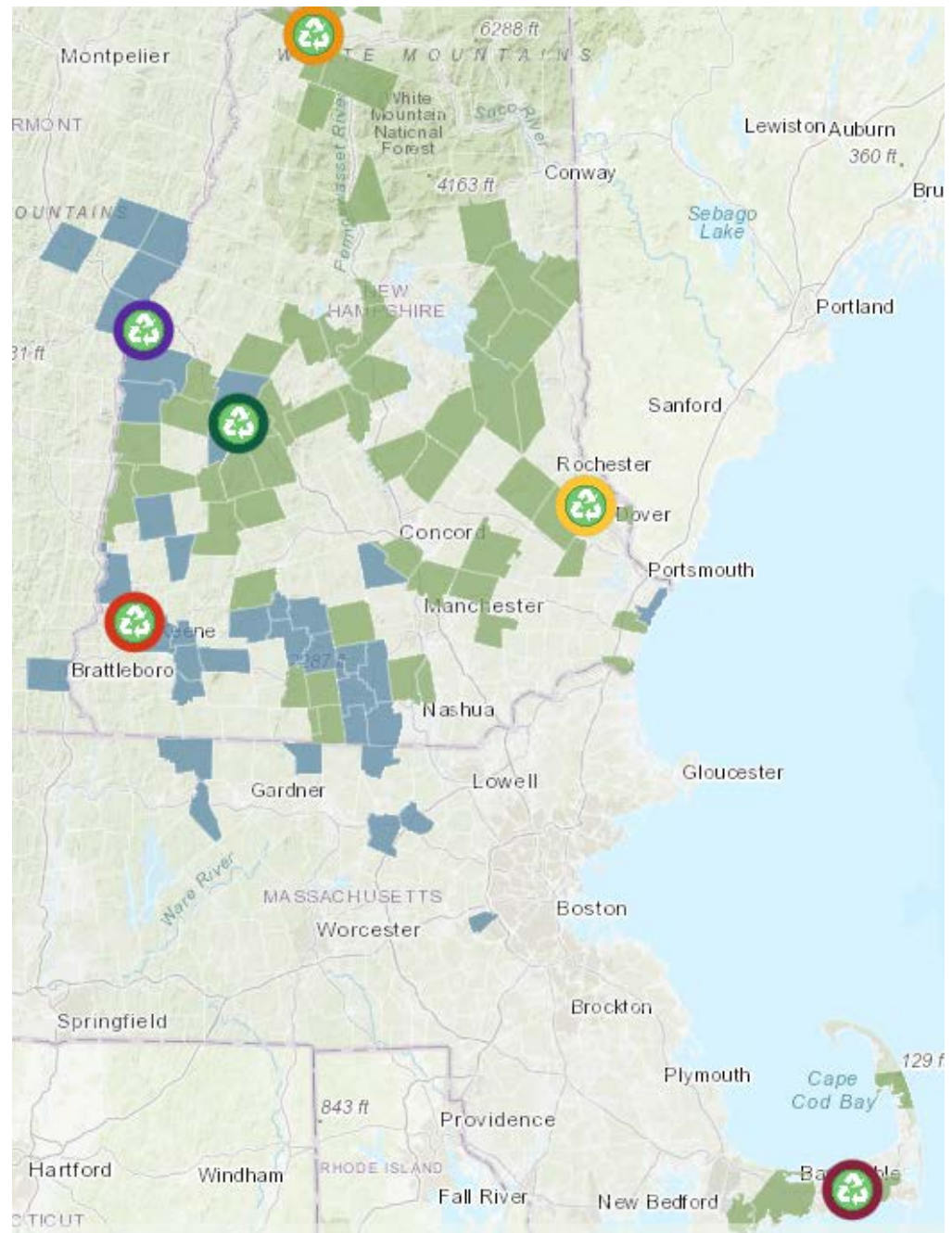
Littleton, NH (7)

New London, NH (25)

Rochester, NH (25)

Springfield, VT (3)

Dennis, MA (5)





Crusher in Action

Uses for PGA (varies by state)

- Construction projects, including under roads, sidewalks, foundations, pipe bedding, landfill cover
- Can be mixed with gravel
- Can use up to 100% in some private and municipal applications
- Must be covered and not left on surface



PGA Specifications

- Varies by state and state agency
- Certain materials (pyrex, ceramics) allowed up to a certain percentage
- Different contamination requirements
- Different gradation requirements (crushed to 1" or less or 3/8" or less)
- Various subgrade construction applications

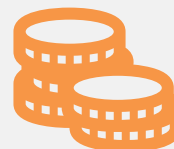
Benefits of PGA



Environmental Benefits –
Alternative to landfilling,
glass is inert



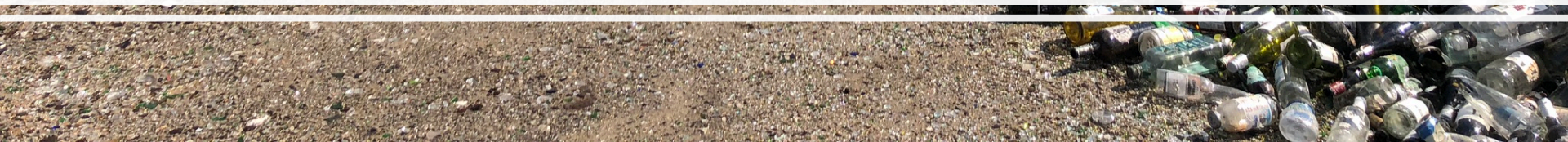
Physical Benefits - Not
frost susceptible,
compactable, can store
uncovered outdoors and
won't freeze



Financial Benefits – saving
in transportation and
disposal costs



Examples of PGA Use



New London, NH – Subbase when laying Bog Road



New London, NH – Public Works Department Garage Floor Base

Laying PGA



Compacting PGA



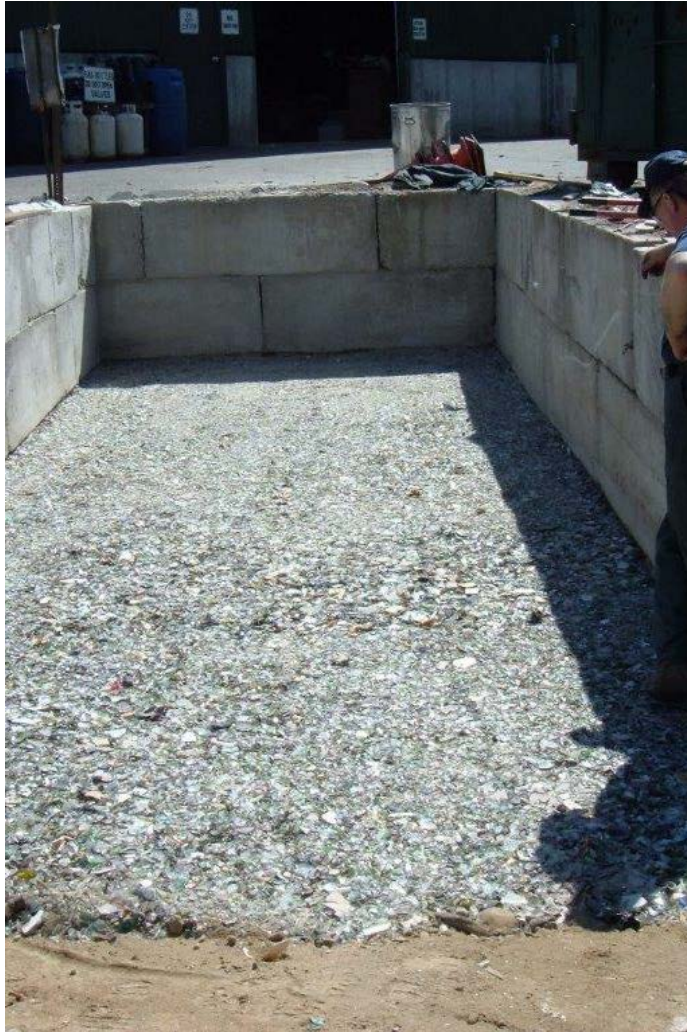
Parking Lot Base – New London



Lee, NH – Foundation under Bulky Waste Building



Lee, NH – Foundation Under Open Top Dumpsters



Parsons Marsh Trail, Lenox MA

Subbase for kiosk, bench and fully accessible picnic table



Questions?

