

Asphalt, Brick, and Concrete Recycling in the NH North Country

An NRRA Feasibility Study

In 2023 and 2024, the recycling nonprofit Northeast Resource Recovery Association (NRRA) engaged local solid waste management stakeholders, including transfer station operators and town leaders, to better understand the construction and demolition debris (C&D) diversion and reuse landscape in the North Country, New Hampshire (NH). The goal was to identify cost-effective and environmentally sound recycling and reprocessing options for C&D for the North Country.

I. Project Description:

The goal of this study is to identify cost-effective and environmentally responsible options for the crushing and reuse of asphalt, brick, and concrete (ABC) for NH North Country towns. For this study, the North Country is defined as the communities in Coös County plus ten communities in northern Grafton County for a total of 30 communities with a total population of 46,478. ABC is one component of C&D that is brought to solid waste transfer stations by residents and businesses for disposal.

North Country transfer stations handle ABC in a variety of ways:

- Do not accept.
- Landfill along with other C&D.
- Store in a pile until the Public Works or Highway Department can crush for reuse, oftentimes along with their own department's crushing project.
- Store in a pile in hopes of a future solution.

II. Potential Solutions:

NRRA and North Country communities identified three possible solutions to handling ABC:

- 1) **ABC Pick Up:** Hire a company that can pick up on site and process into a reusable aggregate.
- 2) **ABC Delivery:** Find a location where towns can deliver to be processed into an aggregate.
- 3) **On-Site ABC Crushing:** Hire a company to go from town to town to crush into a reusable aggregate or to grind at one centralized location.

NRRA contacted three processing companies or haulers in NH and VT to discuss options for ABC in the North Country:

- ReSource Waste Services, LLC in Epping, NH
- CPRC – Commercial Paving and Recycling Co., LLC in Scarborough, ME
- AB Logging/Excavating, LLC in Lancaster, NH

III. Criteria to Evaluate Solutions:

To assess the three possible solutions, the identified companies were asked the following questions:

- Do you accept delivered ABC? If so, what happens to the ABC once crushed?
- Would you pick up ABC from town transfer stations, either individually, at a consolidation point, or in a "milk-run" (defined as moving from one transfer station to another to get a full load of ABC.)
- What would be the costs involved with picking up and hauling ABC?

- What size are the trucks or trailers that would be used to pick up ABC and what are the average load weights for the various size trucks and trailers?

The ability and willingness of a local company to provide ABC services, combined with the cost-effectiveness of such services for North Country municipalities, were key criteria for evaluating the feasibility of handling ABC.

IV. Solutions:

- 1) **ABC Picked Up:** There are two companies that are interested in picking up ABC from North Country transfer stations.

Commercial Paving & Recycling Co., LLC (CPRC), a hauler and processor in Scarborough, ME, can pick up ABC at individual transfer stations or at a consolidated site. Material will be transported back to the company's facility for processing and reuse. Items to be converted into a usable aggregate are ABC, stone tailings, rock, ledge, and miscellaneous aggregate-base material.

CONTAINER SIZE	TIPPING FEE	HAULING FEE	AVG. TONS
40 Cubic Yard	\$50 / Ton	\$140 / Hour	8 to 10 Tons
100 Cubic Yard	\$50 / Ton	\$140 / Hour	20 to 25 Tons

AB Logging/Excavating, LLC in Lancaster, NH, is interested in exploring picking up ABC at individual transfer stations or a consolidation point via a 100-cubic yard triaxle trailer (an estimated 20 to 25 tons). Hauling fees would be dependent on location. Material must consist of clean concrete (no rebar, etc.) and clean asphalt and brick (no rocks). They would also be willing to consider a “milk-run”, but they would want logistics handled by others such as NRRRA.

- 2) **ABC Delivery:** Three companies can accept delivered ABC. Towns could haul their own material to these locations or hire a hauling company to deliver loads. AB Logging is only able to accept deliveries in 6- or 10-wheel dump trucks.

COMPANY	LOCATION	TIPPING FEE
ReSource Waste Services	Epping, NH	\$72.74 / Ton
CPRC	Scarborough, ME	\$50.00 / Ton
AB Logging	Lancaster, NH	\$65.00 / Dump Truck

- 3) **On-Site ABC Crushing:** Hiring a company to go from town to town or to one consolidation site to crush ABC into a reusable aggregate is not a viable option. The mobilization and demobilization of equipment that can crush ABC is cost prohibitive for the tonnage produced by North Country transfer stations individually or collectively.

V. Conclusion:

There are options for crushing and processing ABC in the North Country of NH, both by having ABC picked up or having towns deliver ABC to locations for processing. The viability of these options will be determined by the availability of transfer station funds, available staff to load ABC on-site or to transport ABC to a consolidation point in the North Country to processors in NH or ME, and commitment to produce a reusable product as an alternative to landfilling this material.

Littleton, NH ABC Management Options Example

- 1) CPRC picks up ABC on site – either Littleton’s own ABC or a consolidation of ABC from Littleton and surrounding North Country towns.

CONTAINER SIZE (WEIGHT)	TIPPING FEE	HAULING FEE	NET COST
40 Cubic Yard (8 to 10 tons)	\$50/ton x 9 tons = \$450	\$140/Hour x 6.5 hrs. = \$910	\$1,360 (\$151/ton)
100 Cubic Yard (20 to 25 tons)	\$50/ton x 22.5 tons = \$1,125	\$140/Hour x 7 hrs. = \$980	\$2,105 (\$94/ton)

- 2) Littleton delivers own ABC (50 roundtrip miles and 1.5 hours)

Hauled via the town (6- or 10-wheeler) to AB Logging for \$65.00 disposal cost. Town incurs wear and tear on trucks and labor fees for driver. Town could also backhaul gravel or material.