

Who Brought Single-Sort Recycling to Maine?

ecomaine did! Ours was the first single-sort recycling facility in Maine. The 20 communities that own ecomaine invested \$3.7 million in a single-sort recycling system in 2006 and, since then, our recycling tonnage has grown every year. We now process more than 35,000 tons of recyclables each year.

ecomaine is certified by the International Organization for Standardization for excellence in environmental management (ISO 14001) and by the Occupational Health & Safety Assessment Series (OHSAS 18001) for safety.

See It in Action

Set up an educational tour of ecomaine's recycling facility, waste-to-energy plant, or landfill by calling 207-773-1738 or emailing info@ecomaine.org.



Please pass this pamphlet on to a friend or recycle when finished!



Recycle Wisely with Our RECYCLOPEDIA App

More than 1,300 waste items are now searchable in the ecomaine RECYCLOPEDIA app, a waste encyclopedia which is free to download onto Apple and Android devices, or visit: ecomaine.org/RECYCLOPEDIA.

Printed on 100% post-consumer recycled paper.

ecomaine

Single-Sort Recycling

How Does It Work?



ecomaine.org



Single-Sort Recycling

What Is Single-Sort?

Single-sort recycling means consumers place all household recyclables into one bin, separate from trash. This allows for recyclable paper, glass, metals cardboard, and rigid plastic containers labeled #1-7 to be thrown together in just one container.

Before ecomaine brought single-sort to Maine in 2007, each type of recyclable material needed to be sorted, stored and delivered in separate containers, which was time-consuming, costly and had a negative effect on the carbon footprint.

Because single-sort recycling is convenient, participation in recycling increases, and that's not just good for the environment — it has financial benefits for our member communities too! Municipalities typically pay less for ecomaine's recycling services compared to solid waste (trash) disposal. More importantly, diverting recyclable materials out of the waste stream prevents them from being stored in landfills forever.



Where Does It All Go?

Our recyclables all get turned into new products, but first, these mixed recyclables all need to be separated from each other and baled by type.

Using a mix of mechanical, magnetic, high-tech optical sorting, and hand-sorting techniques, ecomaine is able to separate and bale mixed recyclables into nine different categories:

- Cardboard
- #1 PET Plastic
- Mixed Paper
- #2 Natural Plastic
- Aluminum
- #2 Colored Plastic
- Steel & Tin Cans
- #3-7 Plastic
- Glass

Once the paper, cardboard, metal, aluminum and rigid plastics have been baled by material type, ecomaine sells them on the open commodities market to be used in the manufacturing of new items. We keep the majority of our recyclables domestic to help limit our carbon footprint and support our own market.

Like the stock market, the market prices for recyclables fluctuate based on supply and demand for the material. Prices are also affected by the amount of contamination (non-recyclable material) found in each shipment.

Therefore, it is important to the success of recycling that you recycle properly and buy products made from post-consumer recyclables. This creates demand for post-consumer recyclables and a circular economy.

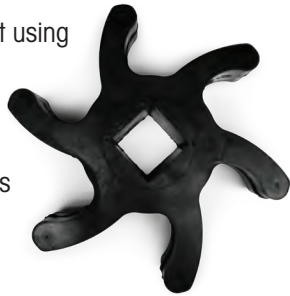




Let the Sorting Begin!

After being weighed at our scale house, trucks from all over Maine deliver mixed recyclables to ecomaine's "tipping floor." A front-end loader then pushes the material onto a conveyor belt to begin the separation process. See diagram, right.

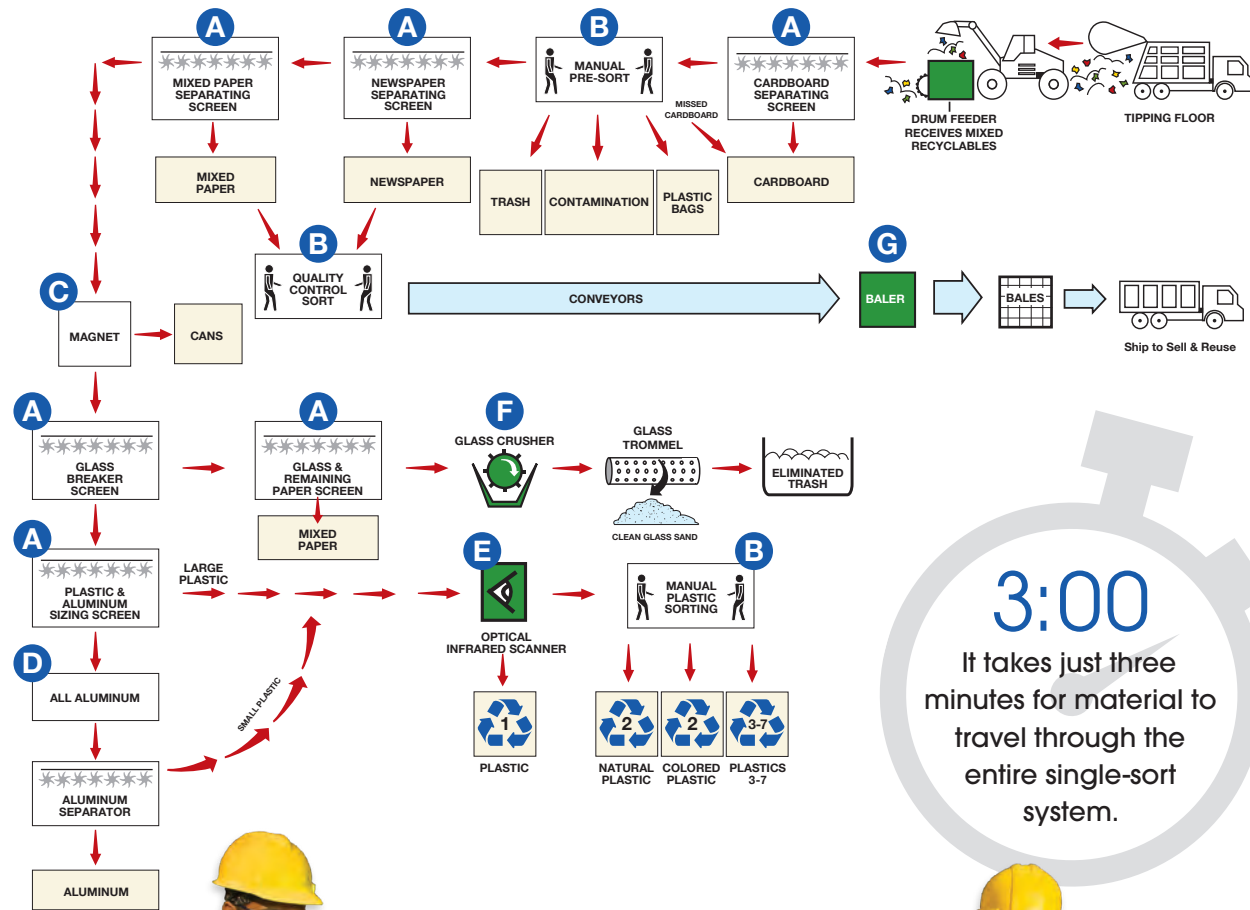
Some materials are separated out using "screens" which consist of hard-rubber spinning stars arranged on rows of spinning axes, as pictured here. The size of the stars and distance between each one determines which materials will be separated out.



! Plastic Bags

A lot of plastic is recyclable, but plastic bags are not recyclable in ecomaine's single-sort recyclable program. Reduce your use of plastic bags by bringing reusable shopping bags with you to the store and packing snacks in reusable containers. If you do generate plastic bags, consider reusing them as liners for smaller waste baskets or to collect pet waste before throwing them away. You can also recycle plastic bags at local grocery stores or other retail shops listed at plasticfilmrecycling.org. *Note: if thrown away these bags will be combusted at ecomaine and turned into electricity*

What Happens to Your Recyclables at ecomaine?



A Star Screens

Star screens are used in several locations to separate out cardboard, various paper types and glass.

B Manual Sorting

At three different points in the process, humans manually sort material that the machinery didn't catch, and remove trash and other non-recyclable contamination.

C Magnet

Some materials are separated out using other methods; for example, magnets pick out the ferrous metals such as soup cans.

D Eddy Current

Aluminum is repelled into its own bin with a separator called an eddy current.

E Optical Scanner

#1 plastics are separated using an optical scanner, which reads the chemical composition of all plastics and only chooses #1 to sort out using a puff of air. This is why it's important to empty all containers.

F Grinding

Glass is ground into tiny pieces which is later used as an aggregate to fix pot holes and roads by member communities and ecomaine and occasionally to make glass-speckled counter tops. Even local artisans reuse it!

G Baling

At the end of the process, all other material is baled, sold, picked up by trucks and brought to various locations to make new objects.