



## Recycling Works!

By Dean Amel

It's not uncommon these days to find claims in social media and elsewhere that recycling is a hoax, and that the material we separate out ends up in the same landfill or incinerator as our trash.

While I don't have direct knowledge of the rest of the country, I can say that those claims definitely are not true in Arlington. In fact, recycling continues to save Arlington substantial amounts of money while diverting materials to beneficial uses.

A few years ago, China decided to stop accepting recyclable material from the U.S. China had been the major source of demand for most recycled materials, so this sudden decision tanked markets for recycled commodities. However, one good thing about markets is that they respond to price signals. One year ago, in February of 2020, Arlington was paying \$33.18 per ton to drop its recyclables off at a recycling facility. This was still cheaper than the alternative, which is to take the material to the Covanta incinerator in Alexandria, which has a contract to handle all trash from Alexandria and Arlington. However, markets have recovered, and Arlington is now (in February 2021) paying only \$1.10 per ton to have its recyclables processed. This compares very favorably to the \$43.67 it costs to dump a ton of trash at the incinerator.

So a private company – the recycling facility – is being paid \$1.10 per ton to take material that would cost it \$43.67 per ton if that company were to turn around and dump that material at an incinerator. That's not a sustainable business model and is very good evidence that Arlington's recyclables are not being burned or buried, but rather are being put to better uses.

Why has the price for recyclables changed so much? One reason is that new facilities have opened to process the used cardboard, mixed paper and plastics that used to go to China. This increase in demand has boosted the value of what Arlingtonians throw in their blue carts. A second reason is that the mix of materials that Arlington brings to the recycling facility has changed.

Arlington conducts an occasional audit to determine the composition of its recyclables. A random recycling truck is selected to dump its load on a floor or parking lot. The load is separated by hand and each type of recyclable (and the contaminants that shouldn't have been put in the recycling cart) is weighed. The percentage of each type of commodity is multiplied by its price (high for metal cans, moderate for paper products, zero or less for glass) to compute the average value of Arlington's recyclables. The higher this value, the less Arlington has to pay. The percentages of different recyclables are assumed to be the same in each truckload until the next audit is conducted.

### **Glass Recycling**

A few years ago, Arlington stopped collecting glass in its curbside recycling carts. This was done because the glass could not be recycled in the single-stream recycling system Arlington and almost every other locality in the US now use. By the time glass got from your house to your cart to the truck to the recycling facility, it was broken into small bits. These small bits tend to fall through the conveyor belts and other sorting machines used at recycling facilities, and the glass ends up mixed with small pieces of plastic and paper in a salad that cannot be separated out cheaply. As a result, the recycling facility would just send all the glass to an incinerator. By taking glass (which is heavy) out of the recycling stream, valuable materials make up more the recycling mix and Arlington pays less to get rid of the material.

After residents were asked to stop including glass in their commingled recycling, Arlington set up separate glass recycling drop-off sites – the purple bins you can find at five locations throughout the county. At these locations, the problem of contamination of glass with plastic and other materials is largely eliminated, and the recycled glass is more useful and valuable. These drop-off locations have proved to be very popular, generating a large volume of recycled glass. This glass is now being sold for \$15 per ton to a facility that uses it to make cullet that in turn is used to make new glass, insulation, or other products. The glass is not going to a landfill or incinerator.

### **Food Scrap Recycling**

On September 6, Arlington plans to begin collecting food scraps in the green carts that residents currently use to recycle yard waste. Food waste is the largest component of the waste stream that is not currently being recycled by Northern Virginia localities. While many homeowners compost their food scraps, this isn't an option for residents of multifamily housing and others without space to compost. Also, most backyard composters do not compost meat scraps, because of the likelihood that it would create vermin problems.

Arlington has contracted with a relatively new composting facility that has opened in Prince William County. This facility composts in large, underground spaces that can handle meat and dairy products without causing odor or vermin problems. At first, only single-family households will be asked to recycle food scraps by placing the scraps in small compostable bags and then in the green cart. Residents will be offered a small plastic container to collect the scraps and a limited supply of compostable bags as they begin this new recycling opportunity.

This process should result in no more odor or vermin problems than arise from the current practice of putting such material in residents' black trash carts.

The cost of this new service will be about \$10 or \$12 per household, but Arlington's solid waste rate will decrease this year because the county has finished paying for its large initial purchase of green carts and because of other savings.

### **Plastic Bag Tax**

In its 2020 session, Virginia's General Assembly passed a law that allows localities to impose a 5-cent tax on single-use plastic bags. While no locality in Virginia has yet implemented this tax, Arlington's County Board has repeatedly expressed interest in moving forward. A snag has come up in that the state has not set out regulations governing the tax, because no locality has adopted an ordinance imposing the tax, and Arlington has been waiting to see the state regulations so it knows how to write its ordinance. This chicken-and-egg problem is now being addressed by discussions between the state, Arlington and some other localities in northern Virginia. Arlington hopes to implement this tax later in 2021.

### **State Legislation**

In this year's session, the General Assembly passed one important law related to solid waste. State lawmakers voted for final passage of a bill that will ban the use of polystyrene (styrofoam) food containers from large businesses as of 2023 and from all businesses in 2025. At the time I'm writing this, Governor Northam is expected to sign the bill.

Polystyrene is almost never recycled and anyone who has ever helped on a stream clean-up knows how damaging crumbling remnants of styrofoam packaging are to the environment. It's very encouraging that this bill made it through the legislature in a short and crowded session.

If you have questions about any of these topics, please contact Dean Amel, the Potomac River Group's solid waste lead, at [dean.amel@verizon.net](mailto:dean.amel@verizon.net).

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