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Guidance on Estimating Minimum Recycling System Capacity

The minimum capacity requirements for recycling systems that are specified in Article 2 of Chapter 109.1 of the Fairfax County Code are intended to ensure that all residents and workers in Fairfax County have the opportunity to recycle. The purpose of this Solid Waste Advisory is to provide guidance on how to estimate an adequate amount of recycling container volume and capacity.

Refuse containers with a capacity of two cubic yards or greater must be accompanied by one or more recycling containers with a combined volume equal to or greater than 25 percent that being provided for refuse. To illustrate this minimum required volume using common waste container sizes:

- A 6-yard refuse container will require 1.5 cubic yards of recycling container volume.
- An 8-yard refuse container will require 2 cubic yards of recycling container volume.
- A 40-yard refuse container will require 10 cubic yards of recycling container volume.

The required recycling volume can be provided via multiple containers if necessary. For example, two cubic yards of recycling capacity can be provided as a single 2-yard container, or two 1-yard containers, or even as four 96-gallon totes (there are approx. 200 gallons in a cubic yard). Enforcement discretion will be used with respect to container volume, thus (for example) a 96-gallon tote will be considered adequate for providing one-half a cubic yard (100 gallons) of required capacity.

However, estimating adequate recycling system capacity must also consider *frequency of collection*. To illustrate the impact of collection frequency on minimum required recycling container volumes:

- A 6-yard refuse container collected bi-weekly will require 3 cubic yards of recycling volume.
- A 40-yard refuse container collected bi-weekly will require 20 cubic yards of recycling volume.

Of course, additional recycling system capacity can be also be provided by increasing recyclables collection frequency (rather than increasing the number of containers). Using one of the examples above, three yards of required recycling capacity can be achieved by collecting a 1-yard container three times per week.

Another common factor that will impact the minimum recycling system capacity is the use of a compactor for refuse. As a general guideline when calculating required recycling capacity, a compaction ratio of 2.5 is recommended for estimating purposes. For example:

- A 30-yard refuse compactor collected bi-weekly will likely require 37.5 cubic yards of weekly recycling capacity (30 yards X twice/week X 2.5 compaction X 25 percent).
- A 40-yard refuse compactor collected weekly may require 25 cubic yards of weekly recycling capacity. (40 yards X once/week X 2.5 compaction X 25 percent).

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Regardless of the approach and considerations used to estimate the minimum required capacity for recycling systems, it is important for property owners, waste collectors, and other industry stakeholders to note that the final configuration of any recycling system will also be driven by various related requirements of Chapter 109.1, including (but not limited to) the following:

- The size of any collection containers and the frequency with which they are collected must combine to create a recycling system of sufficient capacity that there is no need for residents to deposit material on the ground or put their recyclables in a refuse container
- Access to the recycling containers must be as obvious and convenient to residents, tenants, customers, employees, or other system users as that provided for storage of refuse, in order to promote recycling wherever it is being made available;
- Recycling containers should be clearly marked, with diagrams and photos as necessary to encourage use by non-English speakers; and
- Recyclables must be collected on a frequency adequate to prevent overfilling or spilling from storage containers, and in no case less than weekly, unless otherwise authorized by the Director.

It is also important for system managers to note that the recycling system must be actively managed such that loose recyclables, litter, and spillage from collection vehicles is minimized, and that any spillage is removed from the ground around the storage containers within 24 hours. Outside storage containers should be checked for proper closure daily, to prevent litter from blowing winds, and to discourage access by vermin and wildlife.