

## LITTER SURVEY IN VIRGINIA

by

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(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

Virginia Highway & Transportation Research Council  
(A Cooperative Organization Sponsored Jointly by the Virginia  
Department of Highways & Transportation and  
the University of Virginia)  
Charlottesville, Virginia  
September 1976  
VHTRC 77-R8



## ABSTRACT

This report summarizes the findings of the litter survey for highways, urban areas, and recreational areas as specified in the "Virginia Litter Control Act". Litter samples from 61 highway sites, 11 urban sites, and 10 recreational sites geographically distributed throughout the state were obtained and sorted into categories as indicated in Table 1 of the report. Item count, volume, and weight were determined for each category for each litter sample.

For analysis purposes, data were summarized into product group categories for highways, urban areas, and recreational areas. These summarized data are shown in Tables 9, 10 and 11. While the percentage contributions vary somewhat between the types of areas mentioned, the same ten product groups account for approximately 80% or more of the litter for each type of area.

Statewide litter proportions by product groups were estimated for all types of areas combined, assuming various proportional contributions from each area type. These combined data, as shown in Tables 12-15, indicate that beer products (bottles, cans, cartons) constitute the largest proportion of litter, being about 29% by item count, 41% by weight, and 27% by volume. The next four major contributions by product group are soft drink products, grocery wrappers and containers, prepared food wrappers and containers, and snack food wrappers and containers, with the order of importance being different by item count, weight, and volume.



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## INTRODUCTION

During its last session, the General Assembly of Virginia passed the "Virginia Litter Control Act" (see Appendix), which in part assigned to the Department of Highways and Transportation the responsibility for conducting a survey of the types and kinds of litter being discarded in violation of the laws of the state. Important aspects of Section 10-201 of the Act considered relevant to the litter survey are indicated below.

1. The survey was to be completed by November 30, 1976.
2. The survey should include litter found throughout the state, including standard metropolitan statistical areas, and rural and recreational areas.
3. Results of the survey should indicate the amount of litter collected, and an analysis by item, weight, and volume, and, where practicable, the biodegradability of the types of products, packages, wrappings, and other containers composing the principal amounts of the litter collected.
4. The products whose packages, wrappings, and containers constitute the litter should include, but not be limited to, the following categories:
  1. Food for human or pet consumption
  2. Groceries
  3. Cigarettes and tobacco products
  4. Soft drinks and carbonated waters
  5. Beer and other malt beverages
  6. Wine
  7. Newspapers and magazines
  8. Paper products and household paper
  9. Glass containers
  10. Metal containers
  11. Plastic or fiber containers made of synthetic material
  12. Cleaning agents and toiletries
  13. Nondrug drugstore sundry products
  14. Distilled spirits
  15. Motor vehicle parts

In addition to stipulating the survey, the Litter Control Act also required that the Department of Conservation and Economic Development formulate a litter control program, and that the Department of Taxation develop a tax plan to fund the program that would place the burden on those industries that manufacture or handle products that contribute to the litter problem. Since the completion date for these last two requirements was also November 30, 1976, and since the tax plan developed must be dependent on the results of the litter survey, it was decided that the litter survey should be completed by August 15, 1976, with a report indicating the results to be available September 15, 1976.

#### PURPOSE AND SCOPE

The primary purpose of this survey was to determine proportions of various types of litter as specified by the Litter Control Act.

The required completion date of August 15, 1976, imposed some limitations on the project. Litter collections necessarily took place during the spring and summer months, and thus the results likely reflect a seasonal bias whose magnitude is not known. In addition, any effects due to the bicentennial observance are not accounted for. Finally, because of the time constraint imposed, all litter sampled was collected in the normal collection procedures for the agency involved. For instance, samples from urban, incorporated areas were obtained from automated street sweepings or hand pickups normally performed.

It was not considered within the scope of this project to select samples in a manner and quantity required to predict litter item type proportions within prescribed confidence limits, although confidence levels are indicated in the discussion of the results. Instead, the selection of sampling locations was influenced basically by the desire to consider various highway types, as well as recreational and urban areas. To the extent possible, a randomization of locations was utilized for the highway samples. Also, representation of the various geographical areas within the state was desired.

The method of litter classification, the sampling procedures, and the survey results are discussed in the following three sections.

## LITTER CLASSIFICATION

As stated above in the Introduction, the Virginia Litter Control Act indicated that litter be classified in at least 15 categories of items. An obvious reason for the classification is to enable equitable taxation of various industry groups for the funding of future litter control programs as indicated in Section 10-212 of the Act. On the basis of these factors, a detailed classification system was used. The general and sub-classifications of the system used are shown in Table 1 (page 13). Notice that a subclassification may appear in more than one general classification as, for instance, grocery container, which may be paper, plastic, glass, or metal. The subclassifications were considered to be mutually exclusive so that an item was counted in only one. The system used allows for the summarization of the data in various ways-- as, for example, by material types or product groups-- depending on one's interest. The general classifications were chosen only to facilitate sorting, and as the study progressed some items were placed in subclassifications not entirely consistent with the material type. For instance, it was most convenient to classify oil cans with motor vehicle parts and not separately on the basis of the material the can was made from.

Most of the subclassifications are self-explanatory, but some discussion may clarify how certain items were classified.

Prepared food wrappers and containers - These items are usually associated with carryout restaurants such as chain hamburger operations and other fast food establishments.

Grocery wrappers and containers, and paper bags - Generally, an item in this classification would be a food container or wrapper of some sort, with the exception of the snack food items discussed below. Paper bags that could be identified as coming from a grocery store were included in the grocery classification.

Snack food wrappers and containers - Items in this category were normally paper or plastic bags or wrappers for products such as potato chips, nabs, or cookies. Obviously, the point of purchase of these items could be several sources, including vending machines.

Household paper or plastic - Items in these subclassifications would normally be paper towels, tissues, plastic food wrappers or bags, or plastic garbage can liners. To a lesser extent, items such as stationery and envelopes were included.

Other paper products - As indicated above, paper bags not identified as having come from a grocery store were counted under other paper products. The other subclassification with numerous items in this category was cardboard, much of which appeared to be utilized for packaging and shipping purposes.

Beer and soft drink can holders - These items are the plastic six-pack holders for soft drink and beer cans. No attempt was made to determine if the holder was utilized for beer or soft drink cans.

To achieve consistency from sample to sample, a crew of six people located at the Research Council sorted all samples obtained in the study. Normally the procedure was to sort major items such as bottles and cans near the sample location and to transport the remainder of the sample to Charlottesville for final sorting and weighing.

### SAMPLING

As discussed previously, all litter samples were collected by normal collection procedures utilizing personnel normally responsible for litter collection. Detailed sorting, as just indicated above, was performed by a crew from the Research Council.

In order to achieve the geographic balance desired, and to include recreational and urban areas, the sampling plan shown in Table 2 was developed at the beginning of the project. For various reasons some deviations from the proposed plan occurred as the study progressed. The actual sampling completed is shown in Table 3.

As shown, 82 samples were obtained in time to be included in the analysis presented in this report. Seventeen samples were unusable because of questionable collection procedures, improper identification, or disturbance of the samples in the storage area by animals. The greatest difference between the planned and actual sampling was for secondary roads and urban areas particularly shopping centers. It is felt that additional secondary road samples have been of only marginal value since 30 usable samples were obtained, but additional urban samples would have been desirable had time permitted. For the usable samples obtained, there was reasonably good geographic distribution throughout the state, particularly for the highway samples.

### SURVEY RESULTS

Locational information, the total number of items of litter, the total weight of the litter, the total volume of the litter, and the number of days the sample represents, i.e., the number of days since the last previous litter collection, were determined for each litter sample obtained and are included in a supplemental report entitled "Litter Survey in Virginia - Detailed Results".



For each usable sample obtained, the litter was sorted as indicated in Table 1; and for each subclassification, the number of items of litter, the weight, and volume were determined. The item count was determined by simply counting the number of items in each subclassification after the sorting was completed. Weights for many of the subclassifications were determined by actual weighings; for the other subclassifications they were determined by conversion factors developed in the study. Volume was also determined by conversion factors developed in the study and, in order to represent the volume of litter as collected, it is intended to be defined as the volume of items of a given type as placed in a container without any compactive effort. The conversion factors determined are shown in Table 4.

Data for each sample were summarized into detailed product group classifications by the various facility classifications for analysis purposes. An example of one of these summaries is shown in Figure 1, and the complete set is available for distribution in the supplemental report mentioned above. For inclusion in the present report, the data were further summarized into the general product group classifications as shown in Tables 5-7, 10, and 11. The summary procedure shown was agreed upon during a July 1976 meeting between the author and representatives from the Department of Taxation and the Department of Conservation and Economic Development. It should be mentioned that rounding errors at times cause total percentages, as shown in various tables, to be different from 100% by 0.2% or less.

### Highway Sample Results

Tables 5-7 show the survey results for the five highway classifications. Several things are evident from the results. First, the data are highly variable for product groups within each highway system as indicated by the standard deviations ( $\sigma$ ). Normally one could expect about 95% of the population to fall within  $\pm 2\sigma$  limits. Thus, because the standard error of the mean is related to the standard deviation by  $\sigma_{\bar{x}} = \sigma / \sqrt{n}$ , larger sample sizes would be desirable in order to better predict the mean proportions for product groups, i.e., to reduce the standard error ( $\sigma_{\bar{x}}$ ). As an example, the 95% confidence limits for the estimated mean proportion for the beer product by item count for the secondary system (41.5%) is  $\pm 2\sigma_{\bar{x}}$ , or 3.8%, where the sample size is 30, and is  $\pm 7.6\%$  for the same product group for the urban interstate where the sample size is 7. In both cases the standard deviation ( $\sigma$ ) is about 10.0%. It is worth noting that the variabilities do appear to be approximately equivalent by product group among the several highway classifications; thus in future surveys it may be desirable to have more balance in the sample sizes among the highway classifications.

Even though the data are variable, it is evident that proportions by product group change between highway classifications. For instance, beer products are clearly a higher proportion for the secondary system than for the interstate system. Thus, as will be discussed later, in order to combine the results for a single highway summary, it is necessary to consider the quantities of litter discarded annually on each highway system. It does appear, however, that the distinctions within the interstate and primary systems (urban-rural, arterial-nonarterial) were not necessary since the results within these two systems were fairly close.

Generally, more than 80% of the litter is accounted for by the first 10 product groups shown (down through household paper and plastic products), whether evaluated by item count, weight, or volume. This fact, it would seem, would be an obvious consideration in the development of a tax plan. Obviously, the proportions by product group change somewhat, depending on whether the quantification method is item count, weight, or volume. Regardless, the beer product group accounts for the greatest proportion in each case, with the exception of the urban and rural interstate breakdown by weight, where the automotive parts or products group accounts for slightly more than the beer product category.

Because the beer and soft drink product groups account for a large share of the total litter deposited along highways, it was considered worthwhile to show the proportions for subclassifications within these general categories. As can be seen, cans account for the largest proportions, except by weight, when bottles account for the largest proportions. With regard to the actual numbers, i.e., item count, the number of cans far exceeds the number of bottles.

The proportions of returnable versus nonreturnable bottles were determined for both beer and soft drink bottles. It was found that essentially 100% of the beer bottles were nonreturnable (only two returnable beer bottles were found in all samples), and 85% of the soft drink bottles were nonreturnable.

For approximately the last 40% of the samples collected, it was decided to determine the proportions of aluminum versus non-aluminum cans. For beer cans, 41% were aluminum and for soft drink cans, 10% were found to be aluminum.

#### Estimates of Annual Highway Litter and Combined Highway Sample

In order to combine the highway results, the most appropriate method of estimating litter quantities by highway system was evaluated. Since for the data collected in the study there

was no clear relationship between vehicle mileage driven and litter quantities, it was decided the best approach would be to assume that the samples for each system were representative in general for that system, and to estimate the annual quantity of litter by highway system on the basis of the mileage in that system.

Thus, for each of the highway samples, annual estimates for item count, weight, and volume were computed by determining the ratio of one year (365 days) to the number of days represented by the sample and multiplying by the total item count, weight, and volume for the sample. These values were then averaged and multiplied by two (since each sample was from a 0.5-mile section) to obtain average quantities per mile of road for each highway system. These values are shown in Table 8. Also shown in Table 8 are the system mileage, the total annual quantity of litter per system (mileage x quantity per mile), and the percentage of the total annual quantity for all highways represented by the system quantity.

Utilizing the percentage figures shown in Table 8, the various highway samples can be combined by multiplying the percentage values by the product group percentages in Tables 5-7. The resulting figures are shown in Table 9. Obviously, the figures are fairly close to the secondary system figures because of the very high quantities of litter attributed to that system. It should be noted that the estimates per mile for the urban interstate appear very high because of extremely large amounts of litter at three sites. While these estimates may or may not be accurate, they have little influence on the combined highway litter proportions because of the low mileage in the urban interstate system.

Before concluding the discussion of the highway samples, the annual estimates of cubic yards per mile of roadway as shown in Table 8 can be compared to estimates from other studies. In the "National Study of the Composition of Roadside Litter" it was estimated that on Virginia's primary and interstate system approximately 25 ft.<sup>3</sup> of litter per mile is generated monthly.<sup>(1)</sup> This figure equates to about 11.1 yd.<sup>3</sup> per mile annually, which is not too different from the 8.8 yd.<sup>3</sup>, 14.4 yd.<sup>3</sup>, and 10.1 yd.<sup>3</sup> shown in this study for rural, interstate, arterial, primary, and nonarterial primary, respectively. In a recent study by the Maintenance Division of the Virginia Department of Highways and Transportation, the estimates were 7.7 yd.<sup>3</sup>, 9.85 yd.<sup>3</sup>, and 5.74 yd.<sup>3</sup> per mile for the interstate, primary, and secondary systems, which figures also are in full agreement with the present results, with the exception of that for the secondary system.<sup>(2)</sup> The lower estimates in the Maintenance Division

study may be attributable to the fact that the litter was collected in the winter months, while in the current study it was collected in the spring and summer, when litter is likely to be higher. In the Maintenance Division study, the annual estimate of total litter was 329,685 yd.<sup>3</sup>, and in this study it was 947,049 yd.<sup>3</sup>. No doubt, the best estimate could be somewhere between these two values, or about 640,000 yd.<sup>3</sup>

### Urban Sample Results

Initially, consideration was given to evaluating urban samples on the basis of the method of collection and location, i.e., by automated street sweepers, hand pickup, and shopping centers. However, because a preliminary review of the data indicated that the proportions by product group were fairly close, the results were summarized together as shown in Table 10. As shown, even after combining sample types, the standard deviations for product groups are generally less than for the highway samples.

As with the highway samples, the first 10 product groups account for about 80% of the total litter. However, as one might expect, the proportions by product group are different than for the highway samples, with beer and soft drink products being less important and some other product groups having a larger proportional contribution. As expected, a very small proportion was attributed to automotive parts or products.

Estimates of total annual litter quantities for urban areas were extremely difficult to make because of limited information and varied practices from area to area. Furthermore, any data obtained referred only to normal city pickup methods, and thus did not consider quantities collected privately in shopping centers and other areas. Despite the difficulties involved, an annual estimate of 140,000 yd.<sup>3</sup> of litter was determined for public cleanup efforts based on data from three cities expanded to a statewide total on the basis of proportional population of the three cities to total population in incorporated areas. It is estimated that this figure may be as high as 230,000 yd.<sup>3</sup>, if private pickup in shopping centers and other areas is included.

### Recreational Area Results

As with the urban samples, the results of the recreational areas were all summarized together. The results are shown in Table 11. Again, the first ten product groups account for more

than 80% of the total litter. As would be expected, the larger proportions are associated with beer, soft drink, and food related product groups.

No annual estimates of litter quantities were made based directly on the study results, since no basis was established for making such estimates. However, in a previous study for the state of Washington, it was estimated that park and recreational areas accounted for about 5% of the litter.<sup>(3)</sup> Thus, using the cubic yard estimates previously determined for highway and urban samples of 640,000 yd.<sup>3</sup> and 230,000 yd.<sup>3</sup>, the estimated annual total for recreational area facilities would be about 46,000 yd.<sup>3</sup> Obviously, then, the percentage attributed to highways would be 70%, and that to urban areas would be 25%.

#### Combined Litter Proportion Estimates by Product Group

One of the primary reasons for making annual estimates of litter by highways, urban areas, and recreational areas was to combine these three groups of data to statewide proportions by product group. This approach was necessary since the proportions by product group differed somewhat among the three groups of data just as they differed among the highway systems. Obviously, a great deal of judgement was used in determining the total quantity estimates and the resulting percentages of litter attributed to highways, urban areas, and recreational areas. Nevertheless, it is felt the combined figures as shown in Table 12 based on 70%, 25%, and 5% proportions for highways, urban areas, and recreational areas, respectively, are the best estimates of litter proportions by product group presently available in Virginia.

Because of the judgement involved in determining the combined estimate, the proportions of total litter attributed to highways and urban areas were varied in order to indicate the change in the combined proportions. Data assuming proportions of

- (1) 65% highways, 30% urban areas, and 5% recreational areas;
- (2) 60% highways, 35% urban areas, and 5% recreational areas; and
- (3) 75% highways, 20% urban areas, and 5% recreational areas,

are shown in Tables 13, 14, and 15. As shown, the effect on the combined proportions is generally no more than 1% or 2%, with the greatest change being 4%.

## BIODEGRADABILITY

Of the items making up the major proportions of litter in Virginia, paper items are the only ones for which biodegradability may be a possibility. The biodegradability of the various paper items is dependent on the item itself as well as the environmental conditions prevailing where the item is located. Thus, it is most difficult to establish rates of biodegradability for various paper items. (No information of this type was found in available literature.) The product group classifications in which biodegradability may have the greatest effect are household paper, newspapers or magazines, and, to a lesser degree, prepared food and grocery. However, it is felt that, within the normal time cycles for litter pickup (daily up to a year or less), very few litter items biodegrade fully.

## REFERENCES

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2. Results of Litter Survey Conducted in January 1976, supplied by R. L. Fink, Virginia Department of Highways and Transportation, April 4, 1976.
3. "A Report on Litter in the State of Washington", submitted to the Washington State Department of Ecology, Olympia, Washington, by the URS Company, Seattle, Washington. June 1975.





TABLE 1  
Litter Classifications

General Classification	Subclassification
Paper	Newspaper and Magazines Prepared Food Wrappers and Containers Grocery: Wrappers and Containers Paper Bags Snack Food Wrappers and Containers Cleaning Agents and Toiletries Containers Other Paper Products: Paper bags Cardboard Miscellaneous Beer and Soft Drink Cartons
Plastic	Prepared Food Wrappers and Containers Beer and Soft Drink Can Holders Grocery Wrappers and Containers Tobacco: Product Wrappers and Containers Cleaning Agents and Toiletries Containers Household Products Other Plastic Products
Glass	Soft Drink Bottles: Returnable Nonreturnable Beer Bottles: Returnable Nonreturnable Wine Bottles Liquor Bottles Grocery Wrappers and Containers Tobacco Product Wrappers and Containers Cleaning Agents and Toiletries Containers Other Glass Products
Metal	Soft Drink Cans: Aluminum Non-aluminum Beer Cans: Aluminum Non-aluminum Tab Can Tops Grocery Wrappers and Containers Tobacco Product Wrappers and Containers Cleaning Agents and Toiletries Containers Other Containers Other Metal Containers
Motor Vehicle Parts	Glass Plastic Metal Tires or Tire Pieces Other Motor Vehicle Parts Oil Cans
Unwrapped Food Products	
Miscellaneous	

TABLE 2  
PLANNED DISTRIBUTION OF LITTER SAMPLES

General Classification	Subclassification	No.	Size	Distribution
Highways (rural)	Interstate - Urban	8	0.5 mile	Evenly distributed throughout 8 highway districts
	Interstate - Rural	8	0.5 mile	" " " " " " " "
	Primary - Arterial	8	0.5 mile	" " " " " " " "
	Primary - Nonarterial Secondary	45	0.5 mile	" " " " " " " "
Urban	Automated Street Sweepers	11	Variable - several miles	One sample from each of 11 cities*
	Areas cleaned by hand Shopping Centers	11	Variable	" " " " " " " "
		11	Variable	" " " " " " " "
Recreational	State Parks	2	Variable	Fairystone and Pocahontas State Parks
	City Parks	2	Variable	One sample from each of 2 cities.
	County Parks	2	Variable	One sample from each of 2 counties
	Beaches and Marinas	2	Variable	
Total Number of Samples		118		

\* Cities included were Norfolk, Virginia Beach, Alexandria, Charlottesville, Richmond, Roanoke, Danville, Winchester, Bristol, Waynesboro, and Norton.

TABLE 3  
ACTUAL DISTRIBUTION OF LITTER SAMPLES

General Classification	Subclassification	Number of Samples Obtained	Number of Usable Samples	Distribution of Usable Samples											
				Bristol* Salem	Lynchburg	Staunton	Culpeper	Richmond	Fredericksburg	Suffolk	Charlottesville	Danville	Bristol	Alexandria	Norfolk
Highways (rural)	Interstate - Urban	7	7	1	0	0	1	2	0						
	Interstate - Rural	9	9	1	0	2	2	1	1						
	Primary - Arterial	8	8	1	1	1	1	1	1						
	Primary - Nonarterial Secondary	38	30	1	4	1	1	1	1	3	6	5	2		
Urban	Automated Street Sweepers	9	5	1	1	0	0	2	0						
	Areas Cleaned by Hand	7	5	0	0	2	2	2	1						
	Shopping Centers	1	1	1	0	0	0	0	0						
Recreational	State Parks	2	1	Pocahontas State Park											
	City Parks, Playgrounds	8	7	Charlottesville (3), Danville (1), Norfolk (2), Winchester (1)											
	Zoo	1	1	Norfolk											
	Botanical Gardens Beach	1 1	0	Norfolk											
Totals	100	82													

\* Eight Highway Construction Districts

TABLE 4  
Conversion Factors for Weight and Volume

ITEM		Lb./Item	Lb./Ft. <sup>3</sup>	No./Ft. <sup>3</sup>
Paper:	Newspaper	-	0.84	-
	Prepared Food Wrappers or Containers	-	1.04	-
	Paper Bags -- Grocery	-	0.66	-
	Snack Food Wrappers or Containers	-	1.14	-
	Grocery Wrappers or Containers	-	1.18	-
	Beer and Soft Drink Cartons	-	2.22	-
	Tabacco Items	-	2.54	-
	Household Paper	-	1.27	-
	Paper Bags -- Other than Grocery	-	1.74	-
	Other Paper	-	2.06	-
	Cardboard	-	2.14	-
Plastic:	Prepared Food Wrappers or Containers	-	0.62	-
	Grocery Wrappers or Containers	-	0.99	-
	Cleaning Agents or Toiletries	-	2.42	-
	Six-Pack Holders	-	0.60	-
	Other Plastic	-	1.28	-
	Household Plastic	-	1.26	-
Glass:	Returnable Beer and Soft Drink Bottles	0.99	-	30.00
	Nonreturnable Soft Drink Bottles	0.45	-	34.00
	Nonreturnable Beer Bottles	0.47	-	36.40
	Wine Bottles	1.03	-	16.00
	Liquor Bottles	0.86	-	24.40
	Grocery Containers	0.46	-	30.40
	Other Glass	-	62.50	-
Metal:	Beer and Soft Drink Cans - Aluminum	0.05	-	39.60
	Beer and Soft Drink Cans - Non-Aluminum	0.12	-	39.60
	Grocery Containers	0.12	-	59.20
	Other Metal	-	5.77	-
	Aluminum Foil	-	2.34	-
	Oil Cans, Etc.	0.19	-	18.40
Auto:	Plastic	-	4.54	-
	Metal	-	14.78	-
	Tire (Whole)	-	-	0.45
	Tire Parts	-	23.20	-
Other:	Building Materials, Etc.	-	6.89	-
	Cloth	-	5.58	-

TABLE 5  
LITTER SURVEY RESULTS FOR HIGHWAYS BY ITEM COUNT  
PERCENTAGE BY PRODUCT GROUPS

Product Group Classification	Urban Interstate Sample Size = 7 *			Rural Interstate N = 9			Arterial Primary N = 8			Nonarterial Primary N = 7			Secondary N = 30		
	Avg. % Standard Deviation	Standard Error	Summation	$\bar{X}$	$\sigma$	$\epsilon\bar{X}$	$\bar{X}$	$\sigma$	$\epsilon\bar{X}$	$\bar{X}$	$\sigma$	$\epsilon\bar{X}$	$\bar{X}$	$\sigma$	$\epsilon\bar{X}$
Beer: Cans	12.6	7.9	3.0	16.5	8.9	3.0	21.1	7.2	2.5	22.9	8.2	3.1	31.7	9.5	1.7
Bottles	3.6	2.2	0.8	3.2	1.7	0.6	6.8	2.8	1.0	5.5	3.0	1.1	8.2	4.1	0.7
Cartons	0.4	0.3	0.1	0.4	0.3	0.1	0.9	0.4	0.1	1.1	0.7	0.3	1.9	1.3	0.2
Total Beer:	16.7	10.0	3.8	20.1	9.9	3.3	28.8	7.2	2.6	29.6	9.8	3.7	41.5	10.5	1.9
Soft Drink: Cans	4.8	2.8	1.1	7.5	3.1	1.0	10.3	7.6	2.7	6.1	2.9	1.1	7.1	4.7	0.9
Bottles	1.7	1.2	0.4	1.6	1.1	0.4	3.2	1.4	0.5	2.5	2.1	0.8	3.0	2.1	0.4
Cartons	0.0	—	—	0.0	—	—	0.1	0.1	0.4	0.1	0.3	0.1	0.2	1.0	0.2
Total Soft Drink:	6.5	3.1	1.2	9.2	3.7	1.2	13.6	7.4	2.6	8.8	3.0	1.1	10.4	4.9	0.9
Other Beer or Soft Drink Items	0.8	0.8	0.3	0.9	1.1	0.4	3.6	7.8	2.7	46.0	1.3	1.0	39.7	1.8	0.3
Grocery	6.7	2.0	0.8	5.9	2.0	0.7	8.1	1.6	0.6	34.1	9.6	4.1	49.3	3.3	0.6
Prepared Food	13.4	3.0	1.1	11.5	5.2	1.7	11.3	4.8	1.7	65.4	12.6	4.6	61.9	12.0	1.3
Snack Food	5.0	2.3	0.9	7.2	3.4	1.1	5.4	2.2	0.8	70.8	9.5	4.3	71.4	6.0	0.9
Tobacco	12.1	5.4	2.0	15.5	4.9	1.6	7.5	3.0	1.1	78.3	8.6	2.6	80.0	5.1	0.5
Automobile Parts or Products	9.2	6.5	2.5	10.6	10.0	3.3	4.0	4.1	1.5	82.3	2.0	1.4	82.0	0.4	0.3
Newspapers or Magazines	4.1	6.1	2.3	78.5	0.6	0.5	81.5	0.9	0.3	83.2	1.2	1.5	83.2	1.2	0.9
Household	11.8	6.7	2.5	85.3	8.2	2.5	89.7	6.2	3.6	89.4	6.6	4.2	89.8	4.5	0.6
Liquor	0.2	—	—	0.2	0.2	0.1	0.6	0.3	0.1	90.0	0.3	0.3	90.1	0.7	0.5
Wine	0.1	—	—	0.1	0.1	—	0.2	0.3	0.1	90.2	0.1	0.2	90.2	0.3	0.5
Misc. Paper	8.7	6.2	2.4	4.7	3.7	1.2	94.7	5.0	2.3	95.2	5.4	3.4	95.6	3.2	2.9
Misc. Glass	0.0	—	—	0.0	—	—	94.7	0.8	1.2	96.0	—	—	95.6	0.3	0.7
Misc. Plastic	3.1	3.0	1.3	2.0	1.4	0.5	96.7	2.4	1.7	98.4	1.9	0.9	97.5	1.2	1.2
Misc. Metal	0.8	—	—	0.6	1.0	0.3	97.3	0.4	0.6	98.8	0.1	0.2	97.6	0.4	1.0
All Other	2.0	1.1	—	2.9	3.9	1.3	100.2	1.3	1.9	100.1	2.5	3.7	100.1	0.6	0.7

\*Symbols used in boxheads for columns to the right.

TABLE 6  
LITTER SURVEY RESULTS FOR HIGHWAYS BY WEIGHT  
PERCENTAGES BY PRODUCT GROUPS

Product Group Classification	Urban Interstate Sample Size = 7*			Rural Interstate N = 9			Arterial Primary N = 8			Nonarterial Primary N = 7			Secondary N = 30			
	Avg. %	Standard Deviation	Standard Error	Summation	$\bar{X}$	$\sigma$	$\sigma \bar{X}$	$\epsilon \bar{X}$	$\bar{X}$	$\sigma$	$\sigma \bar{X}$	$\epsilon \bar{X}$	$\bar{X}$	$\sigma$	$\sigma \bar{X}$	$\epsilon \bar{X}$
Beer: Cans	11.9	7.2	2.7		13.0	6.6	2.2		14.4	5.1	1.8		18.0	3.6	1.4	
Bottles	13.1	9.2	3.5		11.4	7.2	2.4		21.4	8.4	3.0		19.9	10.7	4.0	
Cartons	0.5	0.5	0.2		0.6	0.6	0.2		1.4	0.6	2.1		2.0	1.8	0.7	
Total Beer:	25.5	14.6	5.5	25.5	25.0	11.2	3.8	25.0	37.2	10.0	3.5	37.2	40.0	10.5	4.0	40.0
Soft Drink: Cans	5.2	2.5	0.9		8.0	5.4	1.8		7.5	4.9	1.7		5.9	3.9	1.5	
Bottles	6.6	5.6	2.1		8.7	7.0	2.3		13.8	7.6	2.7		9.9	7.4	2.8	
Cartons	0.0	—	—		0.0	—	—		0.0	—	—		0.4	1.2	0.5	
Total Soft Drink:	11.9	6.5	2.5	37.4	16.7	11.4	3.8	41.7	21.3	6.9	2.4	58.5	16.3	6.2	2.3	56.3
Other Beer or Soft Drink Items	0.1	0.1	—	37.5	0.1	0.1	—	41.8	0.1	0.2	0.1	58.6	0.1	0.1	—	56.4
Grocery	3.3	1.5	0.6	40.8	3.3	1.6	0.5	45.1	3.6	1.0	0.4	62.2	4.4	3.5	1.3	60.8
Prepared Food	2.0	1.0	0.4	42.8	2.1	1.2	0.4	47.2	1.7	0.8	0.3	63.9	1.7	1.1	0.4	62.5
Snack Food	0.4	0.2	0.1	43.2	0.5	0.1	—	47.7	0.4	0.2	0.1	64.3	0.7	0.5	0.2	63.2
Tobacco	1.1	0.5	0.2	44.3	1.8	1.1	0.4	49.5	0.6	0.2	0.1	64.9	1.0	0.6	0.2	64.2
Automotive Parts or Products	29.4	9.6	3.6	73.7	35.5	21.9	7.3	85.0	20.1	12.8	4.5	85.0	15.3	12.2	4.6	79.5
Newspapers and Magazines	1.0	1.3	0.5	74.7	0.4	0.4	0.1	85.4	0.3	0.4	0.1	85.3	1.0	1.3	0.5	80.5
Household	3.0	2.8	1.0	77.7	1.5	0.8	0.3	86.9	1.4	1.4	0.5	86.7	1.1	1.0	0.4	81.6
Liquor	1.3	0.7	0.2	79.0	1.6	1.5	0.5	88.5	3.9	2.3	0.8	90.6	2.0	1.5	0.6	83.6
Wine	1.6	1.9	0.7	80.6	0.5	0.5	0.2	89.0	1.6	2.1	0.8	92.2	1.0	1.1	0.4	84.6
Misc. Paper	7.7	5.1	1.9	88.3	3.2	3.3	1.1	92.2	2.9	2.5	0.9	95.1	6.7	8.3	3.1	91.3
Misc. Glass	0.0	—	—	88.3	0.0	—	—	92.2	0.6	0.8	0.3	95.7	0.0	—	—	91.3
Misc. Plastic	1.0	1.2	0.5	89.3	1.3	1.2	0.4	93.5	0.5	0.5	0.2	96.2	0.5	0.3	0.1	91.8
Misc. Metal	4.9	8.8	3.3	94.2	1.5	1.8	0.6	95.0	1.0	1.6	0.6	97.2	3.2	8.1	3.1	95.0
All Other	5.9	4.3	1.6	100.1	5.1	5.4	1.8	100.1	2.7	5.9	2.1	99.9	4.8	4.8	1.8	99.8

\*Symbols used in boxheads for columns to the right.

TABLE 7  
LITTER SURVEY RESULTS FOR HIGHWAYS BY VOLUME  
PERCENTAGES BY PRODUCT GROUPS

Product Group Classification	Urban Interstate Sample Size = 7*			Rural Interstate N = 9			Arterial Primary N = 8			Nonarterial Primary N = 7			Secondary N = 30		
	Avg. %	Standard Deviation	Standard Error	Σ	σ	εΣ	Σ	σ	εΣ	Σ	σ	εΣ	Σ	σ	εΣ
Beer: Cans	14.6	10.3	3.9	17.7	7.5	2.5	20.6	8.5	3.0	21.5	9.7	3.7	25.7	8.5	1.6
Bottles	5.0	3.4	1.3	3.7	1.6	0.5	7.0	3.2	1.1	5.3	3.7	1.4	3.9	3.1	0.6
Cartons	0.8	0.8	0.3	1.3	1.3	0.4	3.3	1.4	0.5	3.4	2.1	0.8	5.7	3.9	0.7
Total Beer:	20.3	13.1	5.0	22.6	8.3	2.8	31.0	9.3	3.3	30.3	10.3	3.9	35.3	11.9	2.2
Soft Drink: Cans	5.8	3.9	1.5	8.8	4.4	1.5	9.2	5.5	1.9	5.5	2.4	0.9	5.7	3.7	0.7
Bottles	2.8	2.6	1.0	2.6	1.7	0.6	3.9	2.4	0.8	3.0	2.7	1.0	3.4	3.5	0.6
Cartons	0.0	—	—	0.0	—	—	0.1	0.1	—	0.5	1.3	0.5	0.2	0.6	0.1
Total Soft Drink:	8.5	5.1	1.9	11.5	5.7	1.9	13.1	4.7	1.7	9.0	3.7	1.4	9.3	4.5	0.8
Other Beer or Soft Drink Items	0.6	0.6	0.2	0.5	0.3	0.1	1.1	1.3	0.5	0.7	0.5	0.2	0.7	0.6	0.1
Grocery	13.0	5.1	1.9	13.6	6.4	2.1	18.1	5.4	1.9	17.2	9.2	3.5	57.2	18.1	4.8
Prepared Food	8.7	2.5	1.0	10.1	2.7	0.9	8.7	3.4	1.2	7.1	2.7	1.0	64.3	8.7	5.4
Snack Food	1.4	0.5	0.2	2.1	0.8	0.3	1.8	1.0	0.4	2.4	1.0	0.4	66.7	2.2	1.8
Tobacco	2.1	1.3	0.5	4.3	2.9	1.0	1.1	0.4	0.2	1.6	0.7	0.3	68.3	0.9	0.6
Automotive Parts or Products	6.8	4.3	1.6	11.2	10.4	3.5	7.7	5.0	2.1	4.3	3.1	1.2	72.6	1.3	2.6
Newspapers and Magazines	3.8	3.8	1.4	1.9	1.7	0.6	77.8	1.8	0.6	3.8	5.5	2.1	76.4	4.1	3.9
Household	8.6	6.4	2.4	5.8	2.1	0.7	83.6	4.7	1.7	3.5	2.3	0.9	79.9	4.3	9.2
Liquor	0.3	0.3	0.1	0.4	0.4	0.1	84.0	1.0	0.6	0.4	0.4	0.2	80.3	1.0	1.0
Wine	0.3	0.4	0.1	0.1	0.2	0.1	84.1	0.6	0.3	0.3	0.4	0.2	80.6	0.7	1.1
Misc. Paper	13.3	9.0	3.4	5.7	3.5	1.2	89.8	4.6	1.6	11.3	10.0	3.8	91.9	7.8	8.2
Misc. Glass	0.0	—	—	0.0	—	—	89.8	0.0	—	0.0	—	—	91.9	0.0	—
Misc. Plastic	2.9	2.8	1.0	4.5	4.1	1.4	94.3	2.1	0.7	1.5	1.4	0.5	93.4	2.5	3.1
Misc. Metal	6.0	10.9	4.1	1.7	1.6	0.5	96.0	0.7	0.4	3.3	7.8	2.9	96.7	2.1	4.6
All Other	3.6	2.7	1.0	4.1	4.2	1.4	100.1	1.6	1.2	3.3	4.0	1.5	100.0	1.2	2.6

\*Symbols used in boxheads for columns to the right.

TABLE 8  
TOTAL HIGHWAY ANNUAL ITEM COUNT, WEIGHT, AND VOLUME  
ESTIMATES AND PROPORTIONS BY HIGHWAY SYSTEMS

System	Item Count				Weight				Volume			
	Items/ Mile/ Year	Mileage	Items	% of Total	Lb./ Mile/ Year	Mileage	Lb.	% of Total	Cu. Yd./ Year	Mileage	Cu. Yd.	% of Total
Interstate Urban (1)	234,112	100	23,411,200	2.9	23,446	100	2,344,600	2.0	199.5	100	19,950	2.1
Interstate Rural	12,563	743	9,334,309	1.2	1,496	743	1,111,528	0.9	8.8	743	6,538	0.7
Arterial Primary	14,173	1,593	22,577,589	2.8	2,177	1,593	3,467,961	2.9	14.4	1,593	22,939	2.4
Nonarterial Primary	10,070	6,126	61,688,820	7.7	1,401	6,126	8,582,526	7.2	10.1	6,126	61,872	6.5
Secondary	15,938	42,859	683,086,742	85.4	2,428	42,859	104,061,652	87.0	19.5	42,859	835,750	88.3
Totals			800,098,660				119,568,267				947,049	



TABLE 9

## COMBINED LITTER PROPORTIONS BY PRODUCT GROUPS FOR HIGHWAYS

Product Group Classification	Item Count		Weight		Volume	
	Avg. %	Summation	Avg. %	Summation	Avg. %	Summation
Beer: Cans	29.8		23.2		25.0	
Bottles	7.8		24.2		4.1	
Cartons	1.7		2.7		5.4	
Total Beer:	39.3	39.3	50.0	50.0	34.5	34.5
Soft Drink: Cans	7.0		6.0		5.7	
Bottles	3.0		11.8		3.4	
Cartons	0.2		0.1		0.2	
Total Soft Drink:	10.2	49.5	17.8	67.8	9.4	43.9
Other Beer or Soft Drink Items	1.8	51.3	0.1	67.9	0.7	44.6
Grocery	10.2	61.5	5.0	72.9	17.9	62.5
Prepared Food	12.1	73.6	1.9	74.8	8.6	71.1
Snack Food	6.2	79.8	0.6	75.4	2.2	73.3
Tobacco	5.8	85.6	0.6	76.0	1.0	74.3
Automotive Parts or Products	1.0	86.6	5.6	81.6	1.7	76.0
Newspapers or Magazines	1.3	87.9	0.9	82.5	4.0	80.0
Household	5.0	92.9	1.3	83.8	4.4	84.4
Liquor	0.7	93.6	4.2	88.0	0.9	85.3
Wine	0.3	93.9	2.1	90.1	0.7	86.0
Misc. Paper	3.5	97.4	4.6	94.7	8.1	94.1
Misc. Glass	0.3	97.7	0.2	94.9	0.0	94.1
Misc. Plastic	1.3	99.0	0.8	95.7	2.5	96.6
Misc. Metal	0.8	99.8	2.1	97.8	2.2	98.8
All Other	0.4	100.2	2.3	100.1	1.4	100.2

TABLE 10

LITTER SURVEY RESULTS FOR URBAN AREAS  
PERCENTAGES BY PRODUCT GROUPS

Product Group Classification	Item Count Sample Size = 13*			Weight N = 13			Volume N = 13					
	Avg. %	Standard Deviation	Standard Error	Summation	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\epsilon\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\epsilon\bar{x}$
Beer: Cans	4.4	4.0	1.1		11.8	0.0	2.5		6.3	5.0	1.4	
Bottles	0.6	0.9	0.2		4.1	6.5	1.8		0.7	1.2	0.3	
Cartons	0.2	0.4	0.1		0.9	2.0	0.6		0.8	1.7	0.5	
Total Beer:	5.2	4.4	1.2	5.2	16.9	12.3	3.4	16.9	7.8	6.3	1.7	7.8
Soft Drink: Cans	2.5	2.4	0.7		8.3	6.5	1.8		3.8	3.7	1.0	
Bottles	1.1	1.8	0.5		10.7	13.0	3.6		1.5	1.8	0.5	
Cartons	0.0	-	-		0.0	-	-		0.2	0.8	0.2	
Total Soft Drink:	3.6	2.9	0.8	8.8	19.0	13.6	3.8	35.9	5.5	4.6	1.3	13.3
Other Beer or Soft Drink Items	2.7	5.2	1.5	11.5	0.6	1.4	0.4	36.5	0.6	1.0	0.3	13.9
Grocery	7.0	3.8	1.0	18.5	8.6	5.3	1.5	45.1	17.0	12.3	3.4	30.9
Prepared Food	19.8	9.0	2.5	38.5	9.5	5.4	1.5	54.6	20.2	12.5	3.5	51.1
Snack Food	13.3	6.4	1.8	51.6	5.2	6.4	1.8	59.8	8.8	10.3	2.9	59.9
Tobacco	14.0	8.6	2.4	65.6	5.0	5.2	1.4	64.8	3.3	2.3	0.6	63.2
Automotive Parts or Products	0.0	-	-	65.6	0.3	0.9	0.2	65.1	0.0	-	-	63.2
Newspapers and Magazines	6.7	13.8	3.8	72.3	5.1	8.3	2.3	70.2	7.5	11.6	3.2	70.7
Household	12.9	8.9	2.5	85.2	6.5	5.9	1.6	76.7	10.7	8.9	2.5	81.4
Liquor	0.0	-	-	85.2	0.3	0.5	0.1	77.0	0.1	0.2	0.1	81.5
Wine	0.1	0.2	0.1	85.3	1.4	3.1	0.9	78.4	0.3	0.6	0.2	81.8
Misc. Paper	9.4	11.8	3.3	94.7	9.8	10.4	2.9	88.2	9.3	9.8	2.7	91.1
Misc. Glass	0.2	0.6	0.2	94.9	0.9	2.1	0.6	89.1	0.1	0.2	0.1	91.2
Misc. Plastic	3.3	3.1	0.9	98.2	2.1	2.5	0.7	91.2	2.9	2.9	0.8	94.1
Misc. Metal	0.7	1.1	0.3	98.9	3.5	4.8	1.3	94.7	1.1	1.6	0.4	95.2
All Other	1.1	1.1	0.3	100.0	5.1	6.2	1.7	99.8	4.8	11.5	3.2	100.0

\* Symbols used in boxheads for columns to the right.

TABLE II  
LITTER SURVEY RESULTS FOR RECREATIONAL AREAS  
PERCENTAGES BY PRODUCT GROUP

Product Group Classification	Item Count Sample Size = 10*			Weight N = 10			Volume N = 10										
	Avg. %	Standard Deviation	Standard Error	Summation	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	
					$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	$\bar{x}$	$\sigma$	$\sigma\bar{x}$	
Beer: Cans	6.4	4.3	1.4		8.9	6.0	1.9		4.9	1.5							
Bottles	3.7	4.8	1.5		18.5	15.5	4.9		6.4	2.0							
Cartons	0.3	0.5	0.2		0.6	0.9	0.3		1.9	0.6							
Total Beer:	10.4	8.1	2.6	10.4	28.0	14.4	4.6	28.0	10.6	3.4	15.2	10.6	3.4	15.2			
Soft Drink: Cans	6.4	4.1	1.3		10.8	10.6	3.4		8.3	2.6							
Bottles	2.9	5.1	1.6		20.2	16.6	5.2		11.4	3.6							
Cartons	0.0	-	-		0.0	-	-		-	-							
Total Soft Drink:	9.3	7.6	2.4	19.7	31.0	18.1	5.7	59.0	16.1	5.1	17.6	16.1	5.1	17.6			
Other Beer or Soft Drink Items	1.7	1.9	0.6	21.4	0.1	0.1	-	59.1	1.5	0.5	0.8	1.5	0.5	0.8			
Grocery	10.0	6.0	1.9	31.4	7.4	7.7	2.4	66.5	15.5	4.9	20.8	15.5	4.9	20.8			
Prepared Food	28.4	15.2	4.8	59.8	10.4	12.5	3.9	76.9	21.2	6.7	26.4	21.2	6.7	26.4			
Snack Food	19.0	11.4	3.6	78.8	2.6	1.5	0.5	79.5	2.4	0.8	5.4	2.4	0.8	5.4			
Tobacco	5.0	1.6	0.5	83.8	1.2	1.2	0.4	80.7	0.5	0.2	0.7	0.5	0.2	0.7			
Automotive Parts or Products	0.0	-	-	83.8	0.8	2.7	0.8	81.5	0.2	0.1	0.1	0.2	0.1	0.1			
Newspapers and Magazines	0.4	0.9	0.3	84.2	1.0	2.6	0.8	82.5	5.2	1.6	2.6	5.2	1.6	2.6			
Household	4.8	5.7	1.8	89.0	1.2	1.4	0.4	83.7	2.5	0.8	2.2	2.5	0.8	2.2			
Liquor	0.0	-	-	89.0	0.3	0.7	0.2	84.0	1.6	0.5	0.1	1.6	0.5	0.1			
Wine	0.6	0.6	0.2	89.6	11.0	11.2	3.5	95.0	2.2	0.7	2.0	2.2	0.7	2.0			
Misc. Paper	7.7	9.0	2.8	97.3	2.6	3.4	1.1	97.6	3.9	1.2	3.7	3.9	1.2	3.7			
Misc. Glass	0.8	2.3	0.7	98.1	0.4	0.8	0.3	98.0	-	-	0.0	-	-	0.0			
Misc. Plastic	1.0	1.0	0.3	99.1	0.5	0.7	0.2	98.5	2.2	0.7	1.2	2.2	0.7	1.2			
Misc. Metal	0.5	0.8	0.2	99.6	1.0	1.8	0.6	99.5	2.0	0.6	0.9	2.0	0.6	0.9			
All Other	0.3	0.5	0.2	99.9	0.7	1.8	0.6	100.2	0.7	0.2	0.3	0.7	0.2	0.3			

\* Symbols used in boxheads for columns to the right.

TABLE 12  
 COMBINED LITTER PROPORTIONS BY PRODUCT GROUPS  
 70% Highways, 25% Urban Areas, 5% Recreational Areas

Product Group Classification	Item Count		Weight		Volume	
	Avg. %	Summation	Avg. %	Summation	Avg. %	Summation
Beer: Cans	22.3		19.6		19.5	
Bottles	5.8		18.9		3.3	
Cartons	1.3		2.1		4.0	
Total Beer:	29.3	29.3	40.6	40.6	26.8	26.8
Soft Drink: Cans	5.8		6.8		5.4	
Bottles	2.5		11.9		3.1	
Cartons	0.1		0.1		0.2	
Total Soft Drink:	8.5	37.8	18.8	59.4	8.7	35.5
Other Beer or Soft Drink Items	2.0	39.8	0.2	59.6	0.7	36.2
Grocery	9.4	49.2	6.0	65.6	17.8	54.0
Prepared Food	14.8	64.0	4.2	69.8	12.4	66.4
Snack Food	8.6	72.6	1.9	71.7	4.0	70.4
Tobacco	7.8	80.4	1.7	73.4	1.6	72.0
Automotive Parts or Products	0.7	81.1	4.0	77.4	1.2	73.2
Newspapers or Magazines	2.6	83.7	2.0	79.4	4.8	78.0
Household	7.0	90.7	2.6	82.0	5.9	83.9
Liquor	0.5	91.2	3.0	85.0	0.7	84.6
Wine	0.3	91.5	2.4	87.4	0.7	85.3
Misc. Paper	5.2	96.7	5.8	93.2	8.2	93.5
Misc. Glass	0.3	97.0	0.4	93.6	0.0	93.5
Misc. Plastic	1.8	98.8	1.1	94.7	2.5	96.0
Misc. Metal	0.8	99.6	2.4	97.1	1.9	97.9
All Other	0.6	100.2	2.9	100.0	2.2	100.1

TABLE 13

COMBINED LITTER PROPORTIONS BY PRODUCT GROUPS  
65% Highways, 30% Urban Areas, 5% Recreational Areas

Product Group Classification	Item Count		Weight		Volume	
	Avg. %	Summation	Avg. %	Summation	Avg. %	Summation
Beer: Cans	21.0		19.1		18.6	
Bottles	5.4		17.9		3.1	
Cartons	1.2		2.1		3.8	
Total Beer:	27.6	27.6	39.0	39.0	25.5	25.5
Soft Drink: Cans	5.6		6.9		5.3	
Bottles	2.4		11.9		3.1	
Cartons	0.1		0.1		0.2	
Total Soft Drink:	8.1	35.7	18.8	57.8	8.6	34.1
Other Beer or Soft Drink Items	2.1	37.8	0.2	58.0	0.7	34.8
Grocery	9.2	47.0	6.2	64.2	17.8	52.6
Prepared Food	15.2	62.2	4.6	68.8	13.0	65.6
Snack Food	9.0	71.2	2.1	70.9	4.3	69.9
Tobacco	8.2	79.4	1.9	72.8	1.7	71.6
Automotive Parts or Products	0.6	80.0	3.8	76.6	1.1	72.7
Newspapers or Magazines	2.9	82.9	2.2	78.8	5.0	77.7
Household	7.4	90.3	2.9	81.7	6.2	83.9
Liquor	0.5	90.8	2.8	84.5	0.6	84.5
Wine	0.3	91.1	2.3	86.8	0.6	85.1
Misc. Paper	5.5	96.6	6.1	92.9	8.2	93.3
Misc. Glass	0.3	96.9	0.4	93.3	0.0	93.3
Misc. Plastic	1.9	98.8	1.2	94.5	2.6	95.9
Misc. Metal	0.8	99.6	2.5	97.0	1.8	97.7
All Other	0.6	100.2	3.1	100.1	2.4	100.1

TABLE 14

COMBINED LITTER PROPORTIONS BY PRODUCT GROUPS  
60% Highways, 35% Urban Areas, 5% Recreational Areas

Product Group Classification	Item Count		Weight		Volume	
	Avg. %	Summation	Avg. %	Summation	Avg. %	Summation
Beer: Cans	19.7		18.5		17.7	
Bottles	5.1		16.9		2.9	
Cartons	1.1		2.0		3.6	
Total Beer:	25.9	25.9	37.3	37.3	24.2	24.2
Soft Drink: Cans	5.4		7.0		5.2	
Bottles	2.3		11.8		3.0	
Cartons	0.1		0.1		0.2	
Total Soft Drink:	7.8	33.7	18.9	56.2	8.4	32.6
Other Beer or Soft Drink Items	2.1	35.8	0.3	56.5	0.7	33.3
Grocery	9.1	44.9	6.4	62.9	17.7	51.0
Prepared Food	15.6	60.5	5.0	67.9	13.6	64.6
Snack Food	9.3	69.8	2.3	70.2	4.7	69.3
Tobacco	8.6	78.4	2.2	72.4	1.8	71.1
Automotive Parts or Products	0.6	79.0	3.5	75.9	1.0	72.1
Newspapers or Magazines	3.2	82.2	2.4	78.3	5.2	77.3
Household	7.8	90.0	3.1	81.4	6.5	83.8
Liquor	0.4	90.4	2.6	84.0	0.6	84.4
Wine	0.2	90.6	2.3	86.3	0.6	85.0
Misc. Paper	5.8	96.4	6.3	92.6	8.3	93.3
Misc. Glass	0.3	96.7	0.5	93.1	0.0	93.3
Misc. Plastic	2.0	98.7	1.2	94.3	2.6	95.9
Misc. Metal	0.8	99.5	2.5	96.8	1.8	97.7
All Other	0.6	100.1	3.2	100.0	2.5	100.2

TABLE 15

COMBINED LITTER PROPORTIONS BY PRODUCT GROUPS  
75% Highways, 20% Urban Areas, 5% Recreational Areas

Product Group Classification	Item Count		Weight		Volume	
	Avg. %	Summation	Avg. %	Summation	Avg. %	Summation
Beer: Cans	23.6		20.2		20.5	
Bottles	6.2		19.9		3.5	
Cartons	1.3		2.2		4.3	
Total Beer:	31.0	31.0	42.3	42.3	28.2	28.2
Soft Drink: Cans	6.1		6.7		5.5	
Bottles	2.6		12.0		3.2	
Cartons	0.2		0.1		0.2	
Total Soft Drink:	8.8	39.8	18.7	61.0	9.0	37.2
Other Beer or Soft Drink Items	2.0	41.8	0.2	61.2	0.7	37.9
Grocery	9.5	51.3	5.8	67.0	17.9	55.8
Prepared Food	14.5	65.8	3.8	70.8	11.8	67.6
Snack Food	8.3	74.1	1.6	72.4	3.7	71.3
Tobacco	7.4	81.5	1.5	73.9	1.4	72.7
Automotive Parts or Products	0.8	82.3	4.3	78.2	1.3	74.0
Newspapers and Magazines	2.3	84.6	1.8	80.0	4.6	78.6
Household	6.6	91.2	2.3	82.3	5.6	84.2
Liquor	0.5	91.7	3.2	85.5	0.7	84.9
Wine	0.3	92.0	2.4	87.9	0.7	85.6
Misc. Paper	4.9	96.9	5.5	93.4	8.1	93.7
Misc. Glass	0.3	97.2	0.4	93.8	0.0	93.7
Misc. Plastic	1.7	98.9	1.0	94.8	2.5	96.2
Misc. Metal	0.8	99.7	2.3	97.1	1.9	98.1
All Other	0.5	100.2	2.8	99.9	2.0	100.1

CLASSIFICATION	1-64 Richmond		1-95 Petersburg		1-81 Bristol		1-81 Henneke		1-64 Norfolk		1-64 Hampton		1-95 Fairfax	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: aluminum	509	8.1	140	7.1	120	5.8	102	5.8	1161	14.6	458	29.6	409	4.1
nonaluminum	0	-	0	-	0	-	0	-	0	-	0	-	310	3.1
Bottles: returnable	191	1.9	71	3.6	110	5.3	58	3.3	187	2.4	115	7.4	0	-
nonreturnable	27	0.4	13	0.7	0	-	13	0.7	97	0.3	11	0.7	98	1.0
Cartons	727	10.3	212	10.7	330	15.9	261	15.1	1375	17.3	584	37.5	840	8.5
Total														
SOFT DRINK: Cans: aluminum	184	2.6	71	3.6	6	0.3	2	0.1	304	5.0	127	8.2	66	0.7
nonaluminum	4	0.1	12	0.6	178	8.6	52	3.0	0	-	1	0.1	152	1.5
Bottles: returnable	79	1.1	68	3.4	34	1.6	31	1.8	74	0.9	12	0.8	48	0.5
nonreturnable	0	-	0	-	0	-	0	-	0	-	2	0.1	2	-
Cartons	267	3.8	151	7.6	239	11.5	85	4.9	468	5.9	142	9.2	273	2.8
Total														
PLASTIC SIX PACK HOLDERS:	49	0.7	17	0.9	7	0.3	16	0.9	20	0.3	36	2.3	13	0.1
TAB CAN OPENERS:	1	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	271	3.8	35	1.8	29	1.4	53	3.0	504	6.3	32	2.1	464	4.7
other	137	2.2	18	0.9	52	2.5	20	1.1	161	2.0	11	0.7	137	1.4
Plastic	95	1.3	14	0.7	16	0.8	20	1.1	96	1.2	27	1.7	135	1.4
Metal	40	0.6	2	0.1	14	0.7	19	0.6	18	0.2	3	0.2	37	0.6
Glass	0	-	6	0.3	1	-	0	-	4	-	0	-	5	0.1
Total	613	8.7	92	4.6	112	5.4	103	5.9	782	9.8	73	4.7	798	8.1
PREPARED FOOD: Paper	775	11.0	102	5.1	138	6.7	175	10.0	785	9.9	99	6.4	586	5.9
Plastic	457	6.4	98	4.9	147	7.1	48	2.7	612	7.7	59	3.8	640	6.5
Total	1232	17.5	200	10.1	285	13.7	223	12.7	1397	17.6	158	10.2	1226	12.4
SNACK FOOD: Paper	587	8.3	149	7.5	95	4.6	83	4.7	378	4.8	62	4.0	125	1.3
TOBACCO: Paper	652	9.2	391	19.7	295	14.2	263	15.0	806	10.1	209	13.5	266	2.7
Plastic	0	-	1	0.1	0	-	2	0.1	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	1	0.1	0	-
Total	652	9.2	392	19.8	295	14.2	265	15.1	806	10.1	210	13.6	266	2.7
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-
other	38	0.5	25	1.3	0	-	28	1.6	36	0.5	19	1.2	70	0.7
Rubber: tire	137	1.9	371	18.7	201	9.7	140	8.0	66	0.8	100	6.5	129	1.3
other	38	0.4	0	-	0	-	28	1.6	0	-	0	-	0	-
Plastic: anti-freeze	0	-	2	0.1	0	-	0	-	0	-	0	-	16	0.2
other	0	-	0	-	0	-	0	-	0	-	0	-	9	0.1
Total	203	2.9	398	20.1	201	9.7	202	11.5	127	1.6	135	8.7	287	2.9
NEWSPAPER:	204	4.2	8	0.4	23	1.1	38	2.2	253	3.2	0	-	1734	17.5
HOUSEHOLD: Plastic	394	5.6	0	-	41	2.0	253	14.5	1722	21.7	35	2.3	90	0.9
Paper (incl. alum foil)	785	11.1	196	9.9	0	-	0	-	0	-	43	2.8	1205	12.2
MISC. PAPER: Cardboard	986	14.0	62	3.1	28	1.3	95	5.4	402	5.1	23	1.5	1031	10.4
Other (incl. paper bags)	0	-	0	-	250	12.0	0	-	0	-	8	0.5	728	7.4
WINE BOTTLES:	1	-	1	0.1	2	0.1	5	0.3	25	0.3	0	-	8	0.1
LIQUOR BOTTLES:	5	0.1	4	0.2	7	0.3	1	0.1	10	0.1	4	0.3	10	0.1
MISC. GLASS:	6	-	0	-	1	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	141	2.0	76	3.8	131	6.5	33	1.9	0	-	0	-	788	7.5
MISC. METAL: Cans	0	-	11	0.6	0	-	0	-	0	-	0	-	0	-
Other	12	0.2	3	0.2	0	-	66	3.8	5	0.1	0	-	90	0.9
CLEANING AGENT BOTTLES/CONTAINERS:	0	-	8	0.1	0	-	2	0.1	10	0.1	0	-	11	0.1
UNPREPARED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Coffee	155	2.2	19	1.0	29	1.2	10	0.9	100	2.1	33	2.1	416	4.2
Total	7054	100.0	1082	100.2	2075	99.8	1750	100.0	7550	100.1	1546	100.0	9591	100.1

Figure 1 Example of detailed summary-- item counts and proportions by product



## APPENDIX

## VIRGINIA LITTER CONTROL ACT

Sec.	Sec.
10-197. Title.	10-206. Further duties of Department.
10-198. Legislative findings; purpose; intent.	10-207. Private organizations to cooperate in anti-litter campaign.
10-199. Definitions.	10-208. Authority of Department to contract.
10-200. Rules and regulations; Administrative Process Act.	10-209. Penalty for violation of chapter.
10-201. Collection and survey of litter.	10-210. Notice to public required.
10-201.1. Litter tax.	10-211. Allowing escape of load material; penalty.
10-202. Enforcement of chapter.	10-212. Tax study.
10-203. Litter receptacles; placement; penalty for violations.	10-213. Preemption of certain local ordinances.
10-204. Litter bag.	
10-205. Responsibility for removal of litter from receptacles.	

§ 10-197. Title. — This chapter shall be known and may be cited as the "Virginia Litter Control Act." (1976, c. 757.)

§ 10-198. Legislative findings; purpose; intent. — A. The General Assembly finds that the population of Virginia is increasing steadily requiring vigilance on the part of government to protect the public health and safety as well as to maintain a healthful, clean and beautiful environment. The proliferation and accumulation of litter discarded throughout the State impairs these objectives and constitutes a public hazard, and in addition, litter tends to damage the economy of the State by making it less attractive to tourists and newcomers. There is an imperative need to anticipate, plan for, and accomplish effective litter control through a state-developed and coordinated plan of education, control, prevention and elimination.

B. The General Assembly declares that it is the purpose of this chapter to accomplish litter control throughout the State by delegating to and vesting in the Department of Conservation and Economic Development, authority to conduct a continuous program to control, prevent and eliminate litter from the State to the maximum practical extent. Every department of State government and all governmental units and agencies of the Commonwealth shall cooperate with the Department in the administration and enforcement of this chapter.

C. This chapter is intended to add to and to coordinate existing litter control and removal efforts, and not terminate existing efforts nor, except as specifically stated, to repeal or affect any State law governing or prohibiting litter or the control and disposition of waste. (1976, c. 757.)

§ 10-199. **Definitions.** — As used in this chapter:

A. "*Department*" means the Department of Conservation and Economic Development;

B. "*Disposable package or container*" means all packages or containers intended or used to contain solids, liquids or materials and so designated;

C. "*Litter*" means all waste material including but not limited to disposable packages or containers but not including the wastes of the primary processes of mining, logging, sawmilling, farming, or manufacturing;

D. "*Litter bag*" means a bag, sack, or other container made of any durable material which is large enough to serve as a receptacle for litter inside the vehicle or watercraft of any person. It is not necessarily limited to the state-approved litter bag but shall be similar in size and capacity;

E. "*Litter receptacle*" means those containers prescribed by the Department and which may be standardized as to size, shape, capacity, and color and which shall bear the State anti-litter symbol, as well as any other receptacles suitable for the depositing of litter;

F. "*Person*" means any natural person, corporation, partnership, association, firm, receiver, guardian, trustee, executor, administrator, fiduciary, or representative or group of individuals or entities of any kind;

G. "*Public place*" means any area that is used or held out for use by the public whether owned or operated by public or private interests;

H. "*Sold within the State*" or "*sales of the business within the State*" means all sales of retailers engaged in business within the State and all sales of products for use and consumption within the State in the case of manufacturers and wholesalers;

I. "*Vehicle*" includes every device capable of being moved upon a public highway and in, upon, or by which any person or property may be transported or drawn upon a public highway, except devices moved by human power or used exclusively upon stationary rails or tracks; and

J. "*Watercraft*" means any boat, ship, vessel, barge, or other floating craft. (1976, c. 757.)

§ 10-200. **Rules and regulations; Administrative Process Act.** — In addition to its other powers and duties, the Department shall have the power to propose and to adopt rules and regulations necessary to carry out the provisions, purposes and intent of this chapter pursuant to the Administrative Process Act, § 9-6.14:1 et seq. of the Code of Virginia. (1976, c. 757.)

§ 10-201. **Collection and survey of litter.** — The Department of Highways and Transportation shall make a collection and survey of litter to be completed by November thirtieth, nineteen hundred seventy-six, of the types and kinds of litter that are discarded in violation of the laws of the State. The survey shall include litter found throughout the State, including Standard Metropolitan Statistical Areas and rural and recreational areas. To the fullest extent possible, in Standard Metropolitan Statistical Areas the Department of Highways and Transportation shall make use of local litter and trash collection services through arrangements with local governing bodies and appropriate agencies, in the discharge of the duties imposed by this section. The Department of Highways and Transportation shall report to the Governor, the General Assembly and the Department as to the amount of litter collected pursuant to this section and shall include in its report an analysis by item, weight and volume, and, where practicable, the biodegradability of the types of products, packages, wrappings and containers which compose the principal amounts of the litter collected. The products whose packages, wrappings and containers constitute the litter shall include, but not be limited to the following categories:

1. Food for human or pet consumption.

## § 10-201.1

## § 10-203

2. Groceries.
3. Cigarettes and tobacco products.
4. Soft drinks and carbonated waters.
5. Beer and other malt beverages.
6. Wine.
7. Newspapers and magazines.
8. Paper products and household paper.
9. Glass containers.
10. Metal containers.
11. Plastic or fiber containers made of synthetic material.
12. Cleaning agents and toiletries.
13. Nondrug drugstore sundry products.
14. Distilled spirits.
15. Motor vehicle parts. (1976, c. 757.)

§ 10-201.1. Litter tax. — A. There is hereby levied and imposed upon every person in the State engaged in business as a manufacturer, wholesaler, distributor or retailer of products enumerated in § 10-201 an annual litter tax of two dollars and fifty cents.

B. The tax imposed hereunder shall be collected annually by the Department of Taxation in the same manner as the income tax imposed under chapter 4 (§ 58-151.01 et seq.) of Title 58, as provided by regulations promulgated by such Department. Such regulations shall not be subject to the Administrative Process Act, chapter 1.1:1 (§ 9-6.14:1 et seq.) of Title 9 of the Code of Virginia. All pertinent provisions of Title 58 relating to administration and collection of income taxes shall be applicable, mutatis mutandis. (1976, c. 757.)

Effective date. — Clause 2 of the 1976 act adding this chapter provides that "the tax imposed by § 10-201.1 shall be only effective for taxable years beginning in the year nineteen hundred seventy-six."

§ 10-202. Enforcement of chapter. — The Department may designate its trained employees to be vested with police powers to enforce and administer the provisions of this chapter and all rules and regulations adopted hereunder. The Department shall also have authority to contract with other State and local governmental agencies having law-enforcement powers for services and personnel reasonably necessary to carry out the provisions of this chapter. In addition, all law-enforcement officers in the Commonwealth of Virginia and those employees of the Commission of Game and Inland Fisheries vested with police powers shall enforce the provisions of this chapter and all rules and regulations adopted hereunder and are hereby empowered to arrest without warrant, persons violating any provision of this chapter or any of the rules and regulations adopted hereunder. All of the foregoing enforcement officers may serve and execute all warrants and other process issued by the courts in enforcing the provisions of this chapter and rules and regulations adopted hereunder. (1976, c. 757.)

§ 10-203. Litter receptacles; placement; penalty for violations. — A. On or after July one, nineteen hundred seventy-seven, the Department shall design and adopt by rule or regulation one or more types of litter receptacles which are reasonably uniform as to size, shape, capacity and color, for wide and extensive distribution throughout the public places of the State. Each such litter receptacle shall bear an anti-litter symbol designed and adopted by the Department. All litter receptacles shall be designed to attract attention and to encourage their use.

## § 10-204

## § 10-206

B. Litter receptacles of the uniform design shall be placed along the public highways of the State and at all parks, campgrounds, trailer parks, drive-in restaurants, gasoline service stations, parking lots, shopping centers, retail store parking lots, parking lots of major industrial and business firms, marinas, boat launching areas, boat moorage and fueling stations, public and private piers, beaches and bathing areas, and other public places within the State as specified by rule or regulation of the Department. The number of such receptacles required to be placed as specified herein shall be determined by a formula adopted by the Department and related to the need for such receptacles.

C. A person owning or operating any establishment or public place in which litter receptacles of the uniform design are required by this section shall procure and place such receptacles at his own expense on the premises in accord with rules and regulations adopted by the Department.

D. Any person who fails to place and maintain such litter receptacles on the premises in the number and manner required by rule or regulation of the Department, or who violates the provisions of this section or rules or regulations adopted hereunder shall be subject to a fine of fifteen dollars for each day of violation. (1976, c. 757.)

§ 10-204. Litter bag. — The Department may design and produce a litter bag bearing the State anti-litter symbol and a statement of the penalties prescribed for littering. Within one year after the effective date of this chapter, such litter bags may be distributed by the Division of Motor Vehicles at no charge to the owner of every licensed vehicle in the State at the time and place of the issuance of license or renewal thereof. The Department may make such litter bags available to the owners of watercraft in the State and may also provide such litter bags at no charge for tourists and visitors at points of entry into the State and at visitor centers to the operators of incoming vehicles and watercraft. (1976, c. 757.)

§ 10-205. Responsibility for removal of litter from receptacles. — The responsibility for the removal of litter from receptacles placed at parks, beaches, campgrounds, trailer parks, and other public places shall remain upon those State and local agencies now performing litter removal services. The removal of litter from litter receptacles placed on private property used by the public shall remain the duty of the owner or operator of such private property. (1976, c. 757.)

§ 10-206. Further duties of Department. — In addition to the foregoing duties the Department shall:

A. Serve as the coordinating agency between the various industry and business organizations seeking to aid in the anti-litter effort;

B. Recommend to local governing bodies that they adopt ordinances similar to the provisions of this chapter;

C. Cooperate with all local governments to accomplish coordination of local anti-litter efforts;

D. Encourage, organize, and coordinate all voluntary local anti-litter campaigns seeking to focus the attention of the public on the programs of the State to control and remove litter;

E. Investigate the availability of, and apply for, funds available from any private or public source to be used in the program provided for in this chapter;

F. Allocate funds annually for the study of available research and development in the field of litter control, removal, and disposal, as well as study methods for implementation in the State of such research and development. In addition, such fund may be used for the development of public educational programs concerning the litter problem. Grants shall be made available for these purposes to those persons deemed appropriate and qualified by the Board of the Department;

## § 10-207

## § 10-212

G. Investigate the methods and success of other techniques in the control of litter, and develop, encourage and coordinate programs in the State to utilize such successful techniques as may aid in the control and elimination of litter; and

H. Report to the Governor and the General Assembly by December fifteenth, nineteen hundred seventy-six, on its proposed plan of litter control. (1976, c. 757.)

§ 10-207. **Private organizations to cooperate in anti-litter campaign.** — To aid in the statewide anti-litter campaign, all business, industry and private organizations which are active in anti-litter efforts are requested to cooperate with the Department so that the State anti-litter campaign may be made more effective. (1976, c. 757.)

§ 10-208. **Authority of Department to contract.** — The Department shall have the authority to make and enter into contracts with other State agencies, local agencies, or local governing bodies, to carry out the purposes and provisions of this chapter. (1976, c. 757.)

§ 10-209. **Penalty for violation of chapter.** — Every person convicted of a violation of this chapter for which no penalty is specially provided shall be punished by a fine of not more than twenty-five dollars for each such violation. (1976, c. 757.)

§ 10-210. **Notice to public required.** — On and after July one, nineteen hundred seventy-seven, pertinent portions of this chapter shall be posted along the public highways of the State and at public highway entrances to the State and in all campgrounds and trailer parks, at all entrances to State parks, forest lands, recreational areas, at all public beaches, and at other public places in the State where persons are likely to be informed of the existence and content of this chapter and the penalties for violating its provisions. (1976, c. 757.)

§ 10-211. **Allowing escape of load material; penalty.** — No vehicle shall be driven or moved on any highway unless such vehicle is constructed or loaded to prevent any of its load from dropping, sifting, leaking or otherwise escaping therefrom. Provided, however, that sand or any substance for increasing traction during times of snow and ice may be dropped for the purpose of securing traction, or water or other substance may be sprinkled on a roadway in the cleaning or maintaining of such roadway by the State or local government agency having that responsibility. Any person operating a vehicle from which any glass or objects have fallen or escaped, which could constitute an obstruction or damage a vehicle or otherwise endanger travel upon such public highway shall immediately cause the highway to be cleaned of all glass or objects and shall pay any costs therefor. Violation of this section shall constitute a Class 1 misdemeanor. (1976, c. 757.)

**Cross reference.** — As to punishment of Class 1 misdemeanors, see § 18.2-11.

§ 10-212. **Tax study.** — The Department of Taxation, in conjunction with the Department of Conservation and Economic Development shall conduct a study to determine the best method of taxation whereby the burden of administering this chapter will fall on those industries that manufacture or handle products that contribute to the litter problem. The departments shall consider methods of taxation that are fair and equitable, administratively practicable and that avoid multiple taxation of the designated tax base. The results of such study shall be included as part of the report required by § 10-201. (1976, c. 757.)

§ 10-213. **Preemption of certain local ordinances.** — The provisions of this chapter shall supersede and preempt any local ordinance not enacted prior to January one, nineteen hundred seventy-six, which requires a deposit on a disposable container or package. This section shall expire on June thirtieth, nineteen hundred seventy-seven. (1976, c. 757.)

§ 18.2-140. Destruction of trees, shrubs, etc.; depositing trash. — It shall be unlawful for any person to pick, pull, pull up, tear, tear up, dig, dig up, cut, break, injure, burn or destroy, in whole or in part, any tree, shrub, vine, plant, flower or turf found, growing or being upon the land of another, or upon any land reserved, set aside or maintained by the State as a public park, or as a refuge or sanctuary for wild animals, birds or fish without having previously obtained the permission in writing of such owner or his agent or of the superintendent or custodian of such park, refuge or sanctuary so to do, unless the same be done under the personal direction of such owner, his agent, tenant or lessee or superintendent or custodian of such park, refuge or sanctuary.

Any person violating this section shall be guilty of a Class 3 misdemeanor; provided, however, that the approval of the owner, his agent, tenant or lessee, or the superintendent or custodian of such park or sanctuary afterwards given in writing or in open court shall be a bar to further prosecution or suit. (Code 1950, § 18.1-178; 1960, c. 358; 1975, cc. 14, 15; 1976, c. 757.)

*The 1976 amendment deleted "or to deposit any trash, debris, garbage or litter thereon" near the middle of the first paragraph.*

LITTER SURVEY IN VIRGINIA — DETAILED RESULTS

by

Stephen N. Runkle  
Research Analyst

(The opinions, findings, and conclusions expressed in this report are those of the author and not necessarily those of the sponsoring agencies.)

Virginia Highway & Transportation Research Council  
(A Cooperative Organization Sponsored Jointly by the Virginia  
Department of Highways and Transportation and  
the University of Virginia)

Charlottesville, Virginia

January 1977





## "Litter Survey in Virginia -- Detailed Results"

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During its last session, the General Assembly of Virginia passed the "Virginia Litter Control Act", which in part assigned to the Department of Highways and Transportation the responsibility for conducting a survey of the types and kinds of litter being discarded in violation of the laws of the state. This survey was completed during the summer of 1976, and the results of the data analyses were published in the report "Litter Survey in Virginia". (1) In the report it was indicated that the detailed survey data would be made available at a later date.

The purpose of the present report is simply to present the detailed data as broken down into several product group classifications for each of the sites included in the survey.

The data are grouped into seven general categories, depending on the types of areas from which the samples were obtained. These general categories include urban interstate highways, rural interstate highways, arterial primary highways, non-arterial primary highways, secondary highways, urban areas, and recreational areas. Tables 1 - 7 contain locational data for all sites within the seven types of areas mentioned as well as gross sample information indicating the total weight, cubic yards, and number of items contained in each of the samples. Also indicated in Tables 1 - 7 are the numbers of days of litter accumulation at the sites represented by the samples.

For each of the seven area types, the data for each sample were sorted into detailed product group classifications on the basis of item count, weight, and volume. For each method, i.e., item count, weight, and volume, the proportions of the samples falling in the product group classifications were computed. Summaries from the computations are presented in Tables 8 - 28.



TABLE 1  
 LOCATIONAL AND GENERAL SAMPLE DATA - URBAN INTERSTATE

Route	Site		Location	Number of Items	Weight. (Lbs.)	Volume (Cu. Ft.)	Days	AVD
	City							
I-64	Richmond		MP. 16.60 - 17.10	7054	646.7	187.6	6	58,730
I-95	Petersburg		MP. 13.90 - 14.40	1982	220.6	29.8	3	18,680
I-81	Bristol		MP. 6.00 - 6.50	2075	224.5	45.1	70	16,430
I-581	Roanoke		MP. 1.80 - 2.30	1750	134.8	45.7	47	30,900
I-264	Norfolk		MP. 3.70 - 4.20	8119	546.7	169.0	86	75,750
I-64	Hampton		MP. 14.10 - 14.60	1546	195.4	34.8	8	34,455
I-95	Fairfax		MP. 12.50 - 13.00	309891	1216.6	461.4	183	100,750



TABLE 2

## LOCATIONAL AND GENERAL SAMPLE DATA - RURAL INTERSTATE

Route	Site		Location	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days	AVD
	County							
I-64	Louisa		MP. 5.05 - 5.55	985	136.0	21.0	44	10,170
I-77	Bland		MP. 2.80 - 3.20	849	68.5	11.3	70	5,670
I-85	Dimwiddie		MP. 13.70 - 14.20	1527	198.4	38.0	-	10,035
I-81	Shenandoah		MP. 19.36 - 19.86	1511	189.3	20.0	92	10,660
I-64	York		MP. 16.80 - 17.30	1358	183.7	36.4	61	15,000
I-95	Spotsylvania		MP. 14.40 - 14.90	1203	105.6	36.4	80	31,045
I-81	Montgomery		MP. 15.20 - 15.70	788	59.0	14.2	84	16,555
I-66	Pr. William		MP. 9.60 - 10.10	1569	208.6	16.8	48	18,555
I-81	Frederick		MP. 7.20 - 7.70	678	81.7	15.8	92	13,815



TABLE 3  
 LOCATIONAL AND GENERAL SAMPLE DATA - ARTERIAL PRIMARY

Route	Site		Location	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days	AVD
	County							
17	Essex		MP. 10.90 - 11.40	1495	165.2	27.0	-	2,810
33	Rockingham		MP. 15.00 - 15.50	779	84.0	17.6	60	5,370
360	Amelia		MP. 11.37 - 11.87	1182	132.6	25.1	42	6,925
460	Tazewell		MP. 46.31 - 46.81	2419	469.5	98.4	365	6,770
29	Pittsylvania		MP. 31.80 - 32.30	1419	265.2	41.0	59	8,240
460	Bedford		MP. 4.00 - 4.50	429	54.7	11.9	82	8,745
13	Northampton		MP. 8.88 - 9.38	1718	310.7	48.6	41	5,665
7	Loudoun		MP. 2.36 - 2.86	1239	168.6	43.4	73	28,500





TABLE 4  
 LOCATIONAL AND GENERAL SAMPLE DATA - NONARTERIAL PRIMARY

Route	Site		Location	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days	AVD
	County							
33	New Kent		MP. 5.80 - 6.30	2387	389.1	60.0	56	4,345
3	Westmoreland		MP. 19.35 - 19.85	841	95.6	20.2	63	3,160
501	Campbell		MP. 18.68 - 19.18	681	123.0	21.8	66	5,450
522	Culpeper		MP. 6.60 - 7.10	509	42.8	14.7	67	5,115
10	Surry		MP. 11.68 - 12.18	745	83.1	22.6	60	1,550
42	Augusta		MP. 16.80 - 17.30	382	46.1	8.7	68	7,575
21	Wythe		MP. 18.50 - 19.00	353	30.8	12.1	76	3,170



TABLE 5  
 LOCATIONAL AND GENERAL SAMPLE DATA - SECONDARY

Route	Site		Location	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days	AVD
	County							
651	Chesterfield		Rt. 604 - 0.5 mi. South	1782	532.3	67.1	52	972
626	Brunswick		MP. 6.25 - 6.75	1744	257.6	51.5	370	364
622	Aniherst		Between Rt. 1024 & Rt. 29	2539	247.4	54.6	123	3919
708	Albemarle		Rt. 29 - 0.5 mi. West	583	145.9	19.5	40	702
605	Lancaster		Rt. 3 - 0.5 mi. North	4408	757.5	166.4	69	729
652	Caroline		MP. 10.90 - 11.40	2102	406.5	65.7	50	278
612	Augusta		Between Rt. 906 & Rt. 907	589	87.7	18.6	127	1292
657	Clark		Rt. 310 - 0.5 mi. West	1050	107.4	33.1	44	523
635	Nottoway		Between Rt. 600 & Rt. 650	560	99.8	16.2	213	198
623	Rockingham		Between Elkton C. L. & Rt. 634	1566	231.8	55.1	30	472
632	Cochoiland		Between Rt. 6 & I-64	1392	189.5	47.8	55	1520
607	Louisa		Rt. 250 - 0.5 mi. North	955	146.3	36.0	44	183
621	Culpeper		Rt. 229 - 0.5 mi. East	729	95.5	17.6	42	467
637	Hanover		Between Rt. 656 & Rt. 652	1062	91.3	25.2	56	1714
643	Fauquier		Warrenton C. L. - Rt. 670	1956	200.4	47.1	147	2958
677	Campbell		Lynchburg C. L. - 0.5 mi. South	1394	183.6	41.5	146	848
813	Wise		Rt. A-58 - 0.5 mi. East	1932	398.3	70.0	365	1653
606	Sussex		Rt. 40 - 0.5 mi. South	1163	138.4	29.4	57	537
647	Suffolk		Between Rt. 32 & Rt. 13	2180	235.6	72.4	274	262
630	York		Between Rt. 17 & Rt. 173	2489	296.5	96.3	34	2653
620	Fairfax		Rt. 123 - 0.5 mi. South	1392	179.8	66.8	157	9963
614	Botetourt		Rt. 622 - 0.5 mi. East	479	71.5	11.1	93	177
614	Patrick		Rt. 645 - 0.5 mi. North	390	37.4	14.0	104	215
750	Pittsylvania		0.1 mi. West Danville C. L. - 0.6 mi. West Danville C. L.	2805	293.2	92.0	123	536
738	Pulaski		Pulaski C. L. - 0.5 mi. South	3073	380.5	75.7	114	491
641	Loudoun		Rt. 7 - 0.5 mi. South	2379	497.4	96.6	63	855
742	Wythe		Rt. 642 - 0.5 mi. South	335	29.8	12.4	76	304
603	Halifax		Rt. 864 - Rt. 647	2327	379.7	55.5	124	590
655	Bedford		Rt. 122 - 0.5 mi. East	1927	277.2	98.2	83	440
740	Washington		Rt. 609 - 0.5 mi. North	1816	264.4	60.0	87	522

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TABLE 6  
 LOCATIONAL AND GENERAL SAMPLE DATA - URBAN AREAS

City	Type of Sample	Mileage	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days
Alexandria	Hand Pick-up	9.0	381	13.65	6.64	1
Sullins College Bristol	Hand Pick-up	2.0	717	41.60	12.75	14
Alexandria	Elephant Vacs	12.0	148	2.21	1.83	1
Richmond	Hand Pick-up	0.5	942	88.71	53.23	1
Alexandria	Hand Cart	0.5	214	20.85	10.25	1
Bristol Downtown	Hand Pick-up	0.5	176	4.53	2.13	1
Norfolk Granby Street	Hand Pick-up	1.0	258	7.27	2.67	1
Norfolk Tidewater	Hand Pick-up	1.0	517	10.85	4.93	1
Charlottesville Barracks Road	Shopping Center	-	663	11.03	10.32	1
Danville	Street Sweeper	3.0*	735	24.38	14.08	2
Charlottesville	Street Sweeper	5.5*	967	7.88	4.28	1
Richmond	Street Sweeper	5.0*	1127	27.06	16.14	1
Alexandria	Street Sweeper	8.5*	487	48.70	20.85	1

\*curb miles



TABLE 7  
 LOCAL AND GENERAL SAMPLE DATA - RECREATIONAL AREAS

Location	Number of Items	Weight (Lbs.)	Volume (Cu. Ft.)	Days
Washington Park Charlottesville	358	51.30	8.02	1
McIntire Park Charlottesville	924	19.70	10.58	1
Belmont Park Charlottesville	88	13.09	1.44	1
Danville Playground	2134	86.42	32.75	2
Norfolk Zoo	1168	45.25	25.01	1
Norfolk Botanical Gardens	1420	50.95	29.97	1
Norfolk Lakewood	166	6.02	3.30	1
Norfolk City Park	168	12.03	2.93	1
Winchester Park	989	37.19	15.45	1
Pocohantas Campgrounds	82	4.11	0.97	1





CLASSIFICATION	1-64 Richmond		1-95 Petersburg		1-81 Bristol		1-531 Roanoke		1-264 Norfolk		1-64 Hampton		1-95 Fairfax	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: aluminum nonaluminum	569	8.1	140	7.1	120	5.8	102	5.8	1161	14.6	458	29.6	409	4.1
Bottles: returnable nonreturnable	0	-	0	-	100	4.8	91	5.2	0	-	0	-	310	3.1
Cartons	131	1.9	71	3.6	110	5.3	58	3.3	187	2.4	115	7.4	98	1.0
Total	727	10.3	212	10.7	330	15.9	264	15.1	1375	17.3	584	37.8	840	8.5
SOFT DRINK: Cans: aluminum nonaluminum	184	2.6	71	3.6	6	0.2	2	0.1	394	5.0	127	8.2	66	0.7
Bottles: returnable nonreturnable	4	0.1	12	0.6	178	8.6	52	3.0	0	-	1	0.1	152	1.5
Cartons	79	1.1	68	3.4	31	1.0	31	1.8	74	0.9	12	0.8	48	0.5
Total	267	3.8	151	7.6	239	11.5	85	4.9	468	5.9	142	9.2	273	2.8
PLASTIC SIX PACK HOLDERS:	49	0.7	17	0.9	7	0.3	16	0.9	20	0.3	36	2.3	13	0.1
TAB CAN OPENERS:	1	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	271	3.8	35	1.8	29	1.4	53	3.0	504	6.3	32	2.1	464	4.7
Plastic	157	2.2	13	0.9	52	2.5	20	1.1	161	2.0	11	0.7	137	1.4
Metal	95	1.3	14	0.7	16	0.8	20	1.1	96	1.2	27	1.7	135	1.4
Glass	40	0.6	2	0.1	14	0.7	10	0.6	18	0.2	3	0.2	37	0.6
Total	613	8.7	62	3.1	112	5.4	103	5.9	783	9.8	73	4.7	798	8.1
PREPARED FOOD: Paper	775	11.0	102	5.1	138	6.7	175	10.0	785	9.9	99	6.4	586	5.9
Plastic	457	6.4	38	1.9	147	7.1	48	2.7	612	7.7	59	3.8	640	6.5
Total	1232	17.5	200	10.1	285	13.7	223	12.7	1397	17.6	158	10.2	1226	12.4
SNACK FOOD: Paper	587	8.3	149	7.5	95	4.6	83	4.7	378	4.8	62	4.0	125	1.3
TOBACCO: Paper	652	9.2	391	19.7	295	14.2	262	15.0	806	10.1	209	13.5	266	2.7
Plastic	0	-	1	0.1	0	-	2	0.1	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	652	9.2	392	19.8	295	14.2	265	15.1	806	10.1	210	13.6	266	2.7
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	38	0.5	25	1.3	0	-	6	0.3	25	0.3	16	1.0	63	0.6
Rubber: tire other	137	1.9	371	18.7	201	9.7	140	8.0	66	0.8	100	6.5	129	1.3
Plastic: anti-freeze other	38	0.4	0	-	0	-	28	1.6	0	-	0	-	0	-
Total	203	2.9	398	20.1	201	9.7	202	11.5	127	1.6	135	8.7	287	2.9
NEWSPAPER:	294	4.2	8	0.4	23	1.1	38	2.2	253	3.2	0	-	1734	17.5
HOUSEHOLD: Plastic	394	5.6	0	-	41	2.0	253	14.5	1722	21.7	35	2.3	90	0.9
Paper (incl. alum foil)	785	11.1	196	9.9	0	-	0	-	0	-	43	2.8	1203	12.2
MISC. PAPER: Cardboard	986	14.0	62	3.1	28	1.3	95	5.4	402	5.1	23	1.5	1031	10.4
Other (incl. paper bags)	0	-	0	-	250	12.0	0	-	0	-	8	0.5	728	7.4
WINE BOTTLES:	1	-	1	0.1	2	0.1	5	0.3	25	0.3	0	-	8	0.1
LIQUOR BOTTLES:	5	0.1	4	0.2	7	0.3	1	0.1	10	0.1	4	0.3	10	0.1
MISC. GLASS:	0	-	0	-	1	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	141	2.0	76	3.8	134	6.5	33	1.9	0	-	0	-	738	7.5
MISC. METAL: Cans Other	0	-	11	0.6	0	-	0	-	5	0.1	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	12	0.2	3	0.2	0	-	66	3.8	0	-	0	-	90	0.9
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	155	2.2	19	1.0	25	1.2	16	0.9	169	2.1	33	2.1	416	4.2
TOTAL	7054	100.0	1982	100.2	2075	99.8	1750	100.0	7950	100.1	1546	101.0	9891	100.1



CLASSIFICATION	I-64 Louisiana		I-77 Blind		I-85 Dhawidde		I-81 Shenendoah		I-64 York		I-95 Spotsylvania		I-81 Montgomery		I-66 Pt. William	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	155 56 9 220	15.7 5.7 0.9 22.3	77 12 3 92	9.1 1.4 0.4 10.8	325 40 2 367	21.3 2.6 0.1 24.0	38 33 15 1 87	2.4 2.1 1.0 0.1 5.5	458 50 0 508	33.7 3.7 - 37.4	88 67 27 5 187	7.3 5.6 2.2 0.4 15.5	69 72 22 3 166	8.8 9.1 2.8 0.4 21.1	216 157 90 15 478	13.8 10.0 5.7 1.0 30.5
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	52 7 12 0 71	5.3 0.7 1.2 - 7.2	53 0 2 0 55	6.2 - 0.2 - 6.5	134 5 10 0 149	8.8 0.3 0.7 - 9.8	5 44 8 0 59	0.3 2.8 0.5 - 3.8	111 1 6 0 118	8.2 0.1 0.4 - 8.7	46 71 5 0 149	3.8 5.9 0.4 - 12.4	3 102 1 28 129	0.4 12.9 0.1 2.9 16.4	18 50 3 44 116	1.1 3.2 0.2 2.8 7.4
PLASTIC SIX PACK HOLDERS:	7	0.7	9	1.1	3	0.2	9	0.6	9	0.7	5	0.4	8	1.0	13	0.8
TAB CAN OPENERS:	0	-	22	2.6	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other Plastic Metal Glass Total	0 6 29 20 0 55	- 0.6 2.9 2.0 - 5.6	8 10 25 3 54	0.9 1.2 2.9 0.9 6.4	38 43 9 8 103	2.5 2.8 0.6 0.5 6.7	13 10 10 0 33	0.8 0.6 0.6 - 2.1	28 76 0 0 105	2.1 5.6 - - 7.7	0 21 13 33 68	- 1.7 1.1 2.7 5.7	0 11 4 11 26	- - 1.4 1.4 3.3	20 30 38 14 103	1.3 1.1 2.4 0.1 6.6
PREPARED FOOD: Paper Plastic Total	32 50 82	3.3 5.1 8.3	43 0 43	5.1 - 5.1	196 99 295	12.8 6.5 19.3	52 74 126	3.3 4.7 8.0	93 25 118	6.8 1.8 8.7	73 63 136	6.1 5.2 11.3	58 27 85	7.4 3.4 10.8	102 225 327	6.5 14.3 20.8
SNACK FOOD: Paper	100	10.2	66	7.8	72	4.7	212	13.5	53	3.9	60	5.0	63	8.0	47	3.0
TOBACCO: Paper Plastic Metal Total	126 0 0 126	12.8 - - 12.8	144 0 1 145	17.0 - 0.1 17.1	193 1 0 194	12.6 0.1 - 12.7	355 0 0 355	22.6 - - 22.6	133 0 0 133	9.8 - - 9.8	169 0 0 169	13.2 - - 13.2	182 0 0 182	23.1 - - 23.1	168 0 1 169	10.7 - 0.1 10.8
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other Total	2 17 64 0 6 94	0.2 1.5 6.5 - 0.6 9.5	0 7 112 0 6 125	- 0.8 13.2 - 0.7 14.7	0 10 41 0 0 62	- 0.7 2.7 - - 4.1	0 4 15 532 0 551	- 0.2 1.0 33.9 - 35.1	1 23 45 0 2 82	0.1 0.8 3.3 - 0.1 6.0	0 25 18 81 0 124	- 2.1 1.5 6.7 - 10.3	0 6 0 0 0 6	- 0.8 1.0 - - 0.8	0 4 15 8 7 91	- 0.3 0.5 3.6 0.5 0.4 5.8
NEWSPAPER:	6	0.6	0	-	20	1.3	5	0.3	13	1.0	3	0.2	0	-	7	0.4
HOUSEHOLD: Plastic Paper (incl. alum foil)	126	12.8	66	7.8	137	9.0	26 71	1.7 4.5	27 119	2.0 8.8	7 91	0.6 7.6	22 43	2.8 5.5	34 37	2.2 2.4
MISC. PAPER: Cardboard Other (incl. paper bags)	0 27	- 2.7	10 8	1.2 0.9	52 12	3.4 0.8	12 0	0.8 -	24 17	1.8 1.3	45 112	3.7 9.3	43 0	5.5 -	32 15	2.0 1.0
WINE BOTTLES:	1	0.1	0	-	1	0.1	0	-	2	0.1	0	-	0	-	1	0.1
LIQUOR BOTTLES:	2	0.2	4	0.5	2	0.1	2	0.1	1	0.1	2	0.2	0	-	7	0.4
MISC. GLASS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	41	4.2	11	1.3	27	1.8	9	0.6	11	0.8	35	2.9	4	0.5	59	3.8
MISC. METAL: Cans Other	0 4	- 0.4	3 23	0.4 2.7	0 0	- -	0 0	- -	0 1	- 0.1	0 1	- 0.1	0 0	- -	0 15	0 1.0
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	6	0.4	1	0.1	0	-	0	-	0	-	1	0.1
UNWRAPPED FOOD:	0	-	0	-	1	0.1	0	-	0	-	0	-	0	-	0	-
O.P.F.E.R.	23	2.3	113	13.3	24	1.6	13	0.8	17	1.3	19	1.6	11	1.4	17	1.1
Total	866	99.9	849	100.2	1527	100.1	1471	100.1	1358	100.2	1203	100.0	788	100.2	1509	100.2



CLASSIFICATION	1-81 Frederick	
	No.	%
BEER: Cans: alum non-alum	30	4.4
Bottles: returnable	34	5.0
Cartons	26	3.8
Total	93	13.7
SOFT DRINK: Cans: alum non-alum	7	1.0
Bottles: returnable	52	7.7
non-returnable	1	0.1
Cartons	13	1.9
Total	73	10.8
PLASTIC SIX PACK HOLDERS:	3	0.4
TAB CAN OPENERS:	0	-
GROCERY: Paper; paper bags	17	2.5
other	17	2.5
Plastic	3	0.4
Metal	20	2.9
Glass	1	0.1
Total	58	8.6
PREPARED FOOD: Paper	28	4.1
Plastic	49	7.2
Total	77	11.4
SNACK FOOD: Paper	57	8.4
Plastic		
TOBACCO: Paper	113	16.7
Plastic	4	0.6
Metal	0	-
Total	117	17.3
AUTOMOTIVE: Glass	0	-
Metal: oil cans	2	0.3
other	9	1.3
Rubber: tire	47	6.9
other	4	0.6
Plastic: anti-freeze	1	0.1
other	63	9.3
Total		
NEWSPAPER:	8	1.2
HOUSEHOLD: Plastic	10	1.5
Paper (incl. alum foil)	32	4.7
MISC. PAPER: Cardboard	13	1.9
Other (incl. paper bags)	39	5.8
WINE BOTTLES:	1	0.1
LIQUOR BOTTLES:	1	0.1
MISC. GLASS:	0	-
MISC. PLASTIC:	15	2.2
MISC. METAL: Cans	0	-
Other	2	0.3
CLEANING AGENT TOILETRIES CONTAINERS:	2	0.3
UNWRAPPED FOOD:	0	-
OTHER:	14	2.1
Total	678	100.1



CLASSIFICATION	Rt. 17 Essex		Rt. 33 Rockingham		Rt. 366 Amida		Rt. 460 Tazewell		Rt. 59 Pennsylvania		Rt. 460 Bedford Co.		Rt. 13 Northampton Co.		Rt. 7 Loudoun Co.	
	No.	¢	No.	¢	No.	¢	No.	¢	No.	¢	No.	¢	No.	¢	No.	¢
BEER: Cans: alum non-alum	272	18.1	173	22.2	280	23.7	508	21.0	279	19.7	25	5.8	256	14.9	154	12.4
Bottles: returnable nonreturnable	98	6.5	65	8.3	39	3.3	188	7.8	242	17.1	34	7.9	214	12.5	68	5.5
Cartons	8	0.5	8	1.0	6	0.5	27	1.1	13	0.9	4	0.9	29	1.7	10	0.8
Total	378	25.2	246	31.6	325	27.5	723	29.9	621	43.8	83	19.3	499	29.0	293	23.6
SOFT DRINK: Cans: alum non-alum	25	1.7	42	5.4	128	10.8	571	23.6	21	1.5	1	0.2	311	18.1	5	0.4
Bottles: returnable nonreturnable	6	0.4	1	0.1	1	0.1	19	0.8	95	6.7	49	11.4	6	0.3	32	2.6
Cartons	81	5.4	25	3.2	21	1.8	86	3.6	17	1.2	9	2.1	23	1.3	7	0.6
Total	112	7.5	68	9.7	150	12.7	676	27.9	160	11.3	65	15.2	346	20.1	66	5.3
PLASTIC SIX PACK HOLDERS:	36	2.4	10	1.3	2	0.2	8	0.3	14	1.0	3	0.7	0	-	23	2.3
TAB CAN OPENERS:	304	20.2	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	59	3.9	40	5.1	26	2.2	98	4.1	23	1.6	15	3.5	104	6.1	58	4.7
Plastic	62	4.1	9	1.2	30	2.5	88	2.6	33	2.3	8	1.9	35	2.0	30	2.4
Metal	9	0.6	2	0.3	12	1.0	24	1.0	0	-	7	1.6	20	1.2	0	-
Glass	28	1.9	7	0.9	2	0.2	17	0.7	30	2.1	4	0.9	6	0.3	7	0.6
Total	159	10.6	58	7.4	70	5.9	227	9.4	89	6.3	34	7.9	165	9.6	95	7.7
PREPARED FOOD: Paper	52	3.5	75	9.8	99	8.4	158	6.5	109	7.7	38	8.9	49	2.9	80	6.5
Plastic	14	0.9	40	5.1	53	4.5	101	4.2	37	2.6	30	7.0	32	1.9	129	10.4
Total	66	4.4	116	14.9	152	12.9	259	10.7	146	10.3	68	15.9	81	4.7	209	16.9
SNACK FOOD: Paper	98	6.5	69	8.9	76	6.4	57	2.4	65	4.7	13	3.0	72	4.2	87	7.0
TOBACCO: Paper	100	6.7	92	11.8	128	10.8	101	4.2	144	10.1	30	7.0	93	5.4	52	4.2
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	100	6.7	92	11.8	128	10.8	101	4.2	144	10.1	30	7.0	93	5.4	52	4.2
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	1	0.1	0	-	0	-	0	-
Metal: oil cans other	3	0.2	5	0.6	0	-	0	-	9	0.6	0	-	6	0.3	5	0.4
Rubber: tire	1	0.1	0	-	24	2.0	1	-	9	0.6	2	0.5	5	0.3	4	0.3
other	0	-	0	-	82	6.9	7	0.3	63	4.4	0	-	116	6.8	82	5.4
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	5	0.4	0	-	0	-	0	-
Total	4	0.3	5	0.6	129	10.9	8	0.3	87	6.1	2	0.5	127	7.4	76	6.1
NEWSPAPER:	6	0.4	6	0.8	8	0.7	19	0.8	0	-	1	0.2	26	1.5	33	2.7
HOUSEHOLD: Plastic	59	3.9	52	6.7	61	5.2	137	5.7	61	4.3	1	0.2	20	1.2	85	6.9
Paper (incl. alum foil)	70	4.7	14	1.8	25	2.1	36	1.5	0	-	8	1.9	91	5.3	46	3.7
MISC. PAPER: Cardboard	4	0.3	0	-	0	-	0	-	0	-	79	18.4	0	-	0	-
Other (incl. paper bags)	10	0.7	0	-	1	0.1	0	-	1	0.1	2	0.5	7	0.4	0	-
WINE BOTTLES:	10	0.7	0	-	1	0.1	0	-	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	10	0.7	8	1.0	5	0.4	8	0.3	8	0.6	1	0.2	19	1.1	6	0.5
MISC. GLASS:	50	3.3	2	0.3	14	1.2	43	1.8	0	-	0	-	0	-	0	-
MISC. PLASTIC:	33	2.2	29	3.7	29	2.5	73	3.0	0	-	21	4.9	52	3.0	0	-
MISC. METAL: Cans	0	-	0	-	0	-	29	1.2	0	-	0	-	0	-	0	-
Other	0	-	1	0.1	0	-	0	-	0	-	7	1.6	0	-	7	0.6
CLEANING AGENT TOILETRIES CONTAINERS:	3	0.2	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	3	0.4	7	0.6	15	0.6	22	1.6	4	0.9	0	-	72	5.8
Total	1502	100.2	779	100.0	1182	100.1	2419	100.0	1419	100.2	429	39.9	1718	99.9	1239	100.1





CLASSIFICATION	Rt. 33 New Kent		Rt. 3 West Moreland		Rt. 501 Campbell		Rt. 522 Chilpeper		Rt. 10 Surry Co.		Rt. 42 Augusta Co.		Rt. 21 Wythe Co.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum	844	35.4	232	27.6	206	30.2	63	12.4	144	19.3	19	5.0	27	7.5
Bottles: returnable	133	5.6	55	6.5	59	8.7	16	3.1	25	3.3	38	9.9	35	9.7
nonreturnable	23	1.0	4	0.5	12	1.8	11	2.2	6	0.8	1	0.3	6	1.7
Cartons	1000	42.0	291	34.6	277	40.7	90	17.7	175	23.5	108	28.3	71	19.7
Total	1333	5.6	25	3.0	51	7.5	13	2.5	39	5.2	0	-	0	-
SOFT DRINK: Cans: alum	7	0.3	0	-	6	0.9	0	-	3	0.4	0	-	0	-
non-alum	99	4.1	47	5.6	2	0.3	4	0.8	10	1.3	15	3.9	0	-
Bottles: returnable	0	-	0	-	0	-	0	-	0	-	0	-	3	0.8
nonreturnable	239	10.0	72	8.6	59	8.7	17	3.3	52	7.0	45	11.8	42	11.7
Cartons	32	1.3	26	3.1	3	0.4	9	1.8	0	-	4	1.0	6	1.7
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-
PLASTIC SIX PACK HOLDERS:	106	4.4	26	3.1	36	5.3	50	9.8	25	3.4	10	2.6	12	3.3
TAB CAN OPENERS:	56	2.4	32	3.8	7	1.0	32	6.3	53	7.1	4	1.0	9	2.5
GROCERY: Paper: paper bags	21	0.9	20	2.4	2	0.3	0	-	8	1.1	4	1.0	4	1.1
other	8	0.3	0	-	7	1.0	6	1.2	11	1.5	5	1.3	3	0.8
Plastic	0	-	0	-	2	0.3	0	-	0	-	0	-	0	-
Metal	191	8.0	78	9.3	54	7.9	88	17.3	97	13.0	23	6.0	28	7.8
Glass	178	7.5	57	6.8	69	10.1	46	9.0	37	5.0	0	-	36	10.0
Total	212	8.9	23	2.7	19	2.8	41	8.1	46	6.2	17	4.5	22	6.1
PREPARED FOOD: Paper	390	16.4	80	9.5	88	12.9	87	17.1	83	11.1	17	4.5	58	16.1
Plastic	74	3.1	69	8.2	54	7.9	78	15.3	48	6.4	52	13.6	42	11.7
Metal	89	3.7	73	8.7	52	7.6	55	10.8	68	9.1	45	11.8	29	8.1
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-
TOBACCO: Paper	6	0.5	0	-	4	0.6	3	0.6	4	0.5	10	2.6	1	0.3
Plastic	82	3.4	0	-	7	1.0	2	0.4	7	0.9	1	0.3	4	1.1
Metal	7	0.3	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-	1	0.3	1	0.3
AUTOMOTIVE: Glass	100	4.4	0	-	12	1.8	5	1.0	11	1.5	12	3.1	7	1.9
Metal: oil cans	10	0.4	6	0.7	7	1.0	14	2.8	28	3.8	0	-	0	-
other	72	3.0	44	5.2	47	6.9	0	-	83	11.1	4	1.0	5	1.4
Rubber: tire	76	3.2	5	0.6	4	0.6	0	-	14	1.9	5	1.3	8	2.2
other	0	-	66	7.8	0	-	11	2.2	55	7.4	18	4.7	21	5.8
Plastic: anti-freeze	8	0.3	0	-	2	0.3	0	-	1	0.1	1	0.3	0	-
other	17	0.7	0	-	4	0.6	1	0.2	2	0.3	0	-	1	0.3
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NEWSPAPER:	63	2.6	16	1.9	13	1.9	0	-	16	2.1	8	2.1	10	2.8
HOUSEHOLD: Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Paper (incl. alum foil)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PAPER: Cardboard	3	0.1	0	-	0	-	48	9.4	1	0.1	0	-	0	-
Other (incl. paper bags)	0	-	0	-	0	-	0	-	0	-	0	-	0	-
VINE BOTTLES:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	19	0.8	15	1.8	2	0.3	6	1.2	11	1.5	0	-	7	1.9
MISC. GLASS:	2387	100.0	841	100.0	681	99.9	509	100.1	745	99.9	382	100.0	360	100.0
MISC. PLASTIC:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other	3	0.1	0	-	0	-	0	-	0	-	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	2387	100.0	841	100.0	681	99.9	509	100.1	745	99.9	382	100.0	360	100.0



CLASSIFICATION	Rt. 651 Chesterfield		Rt. 626 Brunswick		Rt. 622 Amherst		Rt. 708 Albemarle		Rt. 605 Lancaster		Rt. 652 Caroline		Rt. 612 Augusta		Rt. 657 Clarke	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	621	34.8	669	39.5	455	17.9	143	24.5	1750	39.7	468	22.3	143	24.3	361	34.4
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	49	2.6	69	4.0	128	5.0	27	4.6	240	5.4	68	3.2	38	6.4	107	10.2
PLASTIC SIX PACK HOLDERS:	2	0.1	18	1.0	8	0.3	2	0.3	1	-	0	-	4	0.7	4	0.4
TAB CAN OPENERS:	70	3.9	18	1.0	28	1.1	20	3.4	163	3.7	170	8.1	29	4.9	31	3.0
GROCERY: Paper: paper bags other Plastic Metal Glass Total	121	6.8	105	6.0	164	6.4	49	8.4	407	9.2	238	11.3	71	12.0	142	13.5
PREPARED FOOD: Paper Plastic	6	0.3	20	1.1	32	1.3	6	1.0	67	1.5	38	1.8	3	0.5	28	2.7
TAB CAN OPENERS:	0	-	0	-	72	2.8	42	7.2	0	-	0	-	21	3.6	0	-
GROCERY: Paper: paper bags other Plastic Metal Glass Total	60	3.4	169	9.7	138	5.4	6	1.0	178	4.0	188	8.9	7	1.2	41	3.9
PREPARED FOOD: Paper Plastic	98	5.5	37	2.1	187	7.4	24	4.1	112	2.5	67	3.2	37	6.3	36	3.4
SNACK FOOD: Paper	250	14.0	129	7.4	482	19.0	47	8.1	403	9.1	115	5.5	86	15.0	130	12.4
TOBACCO: Paper Plastic Metal Total	30	1.7	95	5.4	148	5.8	21	3.6	59	1.3	310	14.8	23	3.9	27	2.6
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other Total	70	3.9	63	3.6	279	11.0	34	5.8	76	1.7	103	4.9	49	8.3	38	3.6
NEWSPAPER:	0	-	0	-	0	-	0	-	0	-	0	-	2	0.3	0	-
HOUSEHOLD: Plastic Paper (incl. alum foil)	4	0.2	4	0.2	0	-	0	-	14	0.3	0	-	0	-	5	0.5
MISC. PAPER: Cardboard Other (incl. paper bags)	8	0.4	0	-	1	0.1	1	0.2	3	0.1	3	0.1	0	-	0	-
WINE BOTTLES:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	1	0.1	0	-	1	0.1	0	-	0	-	0	-	1	0.2	0	-
MISC. GLASS:	14	0.8	4	0.2	3	0.1	3	0.5	17	0.4	10	0.4	7	1.2	5	0.5
MISC. PLASTIC:	23	1.3	5	0.3	31	1.2	2	0.3	20	0.5	51	2.4	6	1.0	12	1.1
MISC. METAL: Cans Other	53	3.0	52	3.0	14	0.6	1	0.2	90	2.0	0	-	43	7.8	29	2.8
CLEANING AGENT TOILETRIES CONTAINERS:	37	2.1	0	-	42	1.7	0	-	87	2.0	50	2.4	8	1.4	53	5.0
UNWRAPPED FOOD:	33	1.9	7	0.4	88	3.5	30	5.1	267	6.1	92	4.4	10	1.7	0	-
OTHER:	9	0.5	6	0.3	5	0.2	1	0.2	29	0.7	4	0.2	1	0.2	1	0.1
Total	1782	100.1	1744	95.8	2539	100.0	533	99.9	4408	99.9	2102	90.8	589	100.0	1050	100.1



CLASSIFICATION	Rt. 625 Notoway		Rt. 625 Reesingham		Rt. 632 Goodland Co.		Rt. 607 Louisia		Rt. 621 Culpeper		Rt. 637 Hanover Co.		Rt. 643 Fauquier		Rt. 677 Campbell	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum	232	41.4	403	25.6	402	28.9	197	20.6	265	36.4	95	8.9	458	23.4	512	38.4
Bottles: returnable nonreturnable	47	8.4	133	9.7	102	7.3	119	12.5	106	14.5	49	4.6	149	7.6	81	6.1
Cartons	4	0.7	23	1.5	31	2.2	26	2.7	22	3.0	8	0.8	19	1.0	5	0.4
Total	283	50.5	579	36.7	536	38.5	342	35.8	393	53.9	303	28.5	626	32.0	598	44.8
SOFT DRINK: Cans: alum non-alum	43	7.7	172	10.9	125	9.0	48	5.0	23	3.2	23	2.2	58	3.0	114	8.5
Bottles: returnable nonreturnable	10	1.8	2	0.1	6	0.4	1	0.1	0	-	5	0.5	12	0.6	0	-
Cartons	17	3.0	79	5.0	48	3.4	21	2.2	4	0.5	7	0.7	40	2.0	24	1.8
Total	74	13.2	253	16.0	180	12.9	70	7.3	27	3.7	61	5.7	111	5.7	138	10.3
PLASTIC SIX PACK HOLDERS:	6	1.1	11	0.7	10	0.7	14	1.5	14	1.9	9	0.8	20	1.0	9	0.7
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	0	-	47	3.0	58	4.2	72	7.5	67	9.2	66	6.2	107	5.5	80	6.0
Plastic	13	2.3	59	3.7	53	3.6	54	5.7	15	2.1	25	2.4	26	1.3	20	1.5
Metal	5	0.9	0	-	20	1.4	4	0.4	0	-	0	-	10	0.5	12	0.9
Glass	3	0.5	34	2.2	15	1.1	27	2.8	0	-	8	0.8	10	0.5	10	0.7
Total	30	5.4	155	9.8	148	10.6	157	16.4	82	11.2	100	9.4	185	9.5	134	10.0
PREPARED FOOD: Paper Plastic	25	4.5	134	8.5	118	8.5	53	5.5	36	4.9	211	19.9	233	11.9	126	9.4
Total	40	7.1	228	14.5	160	11.5	71	7.4	88	12.1	273	25.7	412	21.1	181	13.6
SNACK FOOD: Paper	33	5.9	62	3.9	58	4.2	49	5.1	51	7.0	59	5.6	153	7.8	40	3.0
TOBACCO: Paper Plastic Metal	36	6.4	63	4.0	61	4.4	48	5.0	13	1.8	131	12.3	94	4.8	127	9.5
Total	36	6.4	63	4.0	61	4.4	48	5.0	13	1.8	131	12.3	94	4.8	127	9.5
AUTOMOTIVE: Glass Metal: oil cans other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire other	1	0.2	0	-	8	0.6	0	-	0	-	0	-	2	0.1	7	0.5
Plastic: anti-freeze other	0	-	0	-	4	0.3	0	-	0	-	0	-	0	-	0	-
Total	1	0.2	0	-	13	0.9	0	-	0	-	0	-	2	0.1	1	0.1
NEWSPAPER:	1	0.2	29	1.8	35	2.5	12	1.3	0	-	0	-	55	2.8	17	1.3
HOUSEHOLD: Plastic Paper (incl. alum foil)	16	2.9	68	4.3	50	3.6	139	14.6	51	7.0	109	10.3	214	10.9	37	2.8
MISC. PAPER: Cariboard Other (incl. paper bags)	0	-	23	1.5	24	1.7	0	-	0	-	14	1.3	28	1.4	7	0.5
WINE BOTTLES:	14	2.5	6	0.4	4	0.3	4	0.4	1	0.1	1	0.1	0	-	5	0.4
LIQUOR BOTTLES:	9	1.6	4	0.3	6	0.4	11	1.2	2	0.3	2	0.2	0	-	7	0.5
MISC. GLASS:	0	-	1	0.1	0	-	12	1.3	0	-	0	-	1	0.1	0	-
MISC. PLASTIC:	10	1.8	78	4.9	27	1.9	14	1.5	0	-	0	-	4	0.2	12	0.9
MISC. METAL: Cans Other	0	-	0	-	0	-	2	0.2	0	-	0	-	4	0.2	2	0.1
CLEANING AGENT TOILETRIES CONTAINERS:	10	1.8	11	0.7	0	-	1	0.1	0	-	0	-	8	0.4	10	0.7
UNWRAPPED FOOD:	1	0.2	0	-	3	0.2	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	2	0.4	6	0.4	17	1.2	9	0.9	0	-	0	-	13	0.7	2	0.1
Total	560	100.1	1577	100.0	1392	99.8	955	100.0	729	99.8	1062	99.9	1956	100.1	1334	99.8



CLASSIFICATION	Rt. 819 Wise Co.		Rt. 606 Sussex		Rt. 617 Suffolk		Rt. 530 York		Rt. 620 Fairfax		Rt. 614 Botetourt		Rt. 614 Patrick Co.		Rt. 750 Pittsylvania	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
B&EER: Cans: alum non-alum	379	16.1	299	25.9	944	43.3	440	17.7	122	8.8	50	10.4	97	24.9	114	4.1
Bottles: returnable	619	26.3	103	6.9	35	1.6	140	5.6	262	20.3	74	15.4	45	11.5	406	14.5
nonreturnable	312	13.3	11	1.0	17	0.8	26	1.0	99	7.1	68	14.2	11	2.8	162	5.8
Cartons	52	2.2	413	35.7	996	45.7	606	24.3	26	1.9	18	3.8	7	1.8	53	1.9
Total	1362	57.9	60	5.2	205	9.4	207	8.3	529	38.1	210	43.8	100	41.0	735	26.2
SOFT DRINK: Cans: alum	41	1.7	0	0	0	0	0	0	5	0.4	0	0	9	2.3	32	1.1
non-alum	197	8.4	11	1.0	0	0	0	0	90	6.5	17	3.5	33	8.5	88	3.1
Bottles: returnable	0	0	54	4.7	28	1.3	50	2.0	4	0.3	0	0	1	0.3	3	0.1
nonreturnable	51	2.2	0	0	117	5.4	0	0	34	2.4	38	7.9	0	0	37	1.3
Cartons	0	0	125	10.8	350	16.1	257	10.3	0	0	0	0	0	0	2	0.1
Total	289	12.3	7	0.6	13	0.6	14	0.6	133	9.6	55	11.5	43	11.0	162	5.8
PLASTIC SIX PACK HOLDERS:	10	0.4	0	0	0	0	0	0	10	0.7	17	3.5	9	2.3	28	1.0
TAB CAN OPENERS:	0	0	0	0	0	0	0	0	0	0	14	2.9	0	0	0	0
GROCERY: Paper: paper bags	90	3.8	93	8.0	147	6.7	102	4.1	58	4.2	14	2.9	14	3.6	131	4.7
other	66	2.8	0	0	84	3.9	92	3.7	49	3.5	0	0	10	2.6	71	2.5
Plastic	38	1.6	21	1.8	0	0	49	2.0	0	0	0	0	6	1.5	39	1.4
Metal	0	0	6	0.5	25	1.1	25	1.0	5	0.4	8	1.7	8	2.1	8	0.3
Glass	0	0	2	0.2	1	0	0	0	2	0.1	0	0	0	0	5	0.2
Total	204	8.7	122	10.6	270	12.4	268	10.8	114	8.2	22	4.6	38	9.7	254	9.1
PREPARED FOOD: Paper	130	5.5	65	5.6	0	0	430	17.3	229	16.5	0	0	4	1.0	572	20.4
Plastic	104	4.4	25	2.2	40	1.8	209	8.4	115	8.3	0	0	8	2.1	242	8.6
Metal	234	9.9	90	7.8	40	1.8	639	25.7	334	24.7	0	0	12	3.1	814	29.0
Total	74	3.1	177	15.3	135	6.2	91	3.7	36	2.6	125	26.1	22	5.6	155	5.5
TOBACCO: Paper	41	1.7	69	6.0	35	1.6	159	6.4	58	4.2	30	6.3	27	6.9	157	5.6
Plastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal	0	0	0	0	0	0	0	0	1	0.1	0	0	0	0	0	0
Total	41	1.7	69	6.0	35	1.6	159	6.4	59	4.2	30	6.3	27	6.9	157	5.6
AUTOMOTIVE: Glass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal: oil cans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other	9	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubber: tire	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastic: anti-freeze	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	11	0.5	0	0	0	0	0	0	1	0.1	0	0	3	0.8	10	0.4
NEWSPAPER:	6	0.3	25	2.2	31	1.4	48	1.9	38	2.7	0	0	5	1.3	66	2.4
HOUSEHOLD: Plastic	106	4.5	99	8.6	191	8.3	199	8.0	60	4.3	0	0	0	0	63	2.2
Paper (incl. alum foil)	0	0	0	0	62	2.8	149	6.0	12	0.9	0	0	8	2.1	125	4.5
MISC. PAPER: Cardboard	0	0	0	0	0	0	0	0	1	0.1	0	0	36	9.2	57	2.0
Other (incl. paper bags)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WINE BOTTLES:	8	0.3	4	0.3	8	0.4	8	0.3	0	0	0	0	0	0	3	0.1
LIQUOR BOTTLES:	6	0.3	14	1.2	7	0.3	15	0.6	7	0.5	0	0	1	0.3	15	0.5
MISC. GLASS:	0	0	0	0	0	0	23	0.9	0	0	0	0	0	0	0	0
MISC. PLASTIC:	0	0	4	0.3	17	0.8	5	0.2	46	3.3	5	1.0	8	2.1	0	0
MISC. METAL: Cans	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	2	0.1	1	0.1	1	0.2	0	0	0	0
CLEANING AGENT TOILETRIES CONTAINERS:	0	0	3	0.3	10	0.5	0	0	0	0	0	0	0	0	0	0
UNWRAPPED FOOD:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER:	1	0	4	0.3	25	1.1	5	0.2	1	0.1	0	0	3	0.8	67	2.4
Total	2352	99.9	1163	100.0	2180	100.0	2489	100.0	1592	100.2	479	99.9	390	100.0	2805	100.0





CLASSIFICATION	Rt. 738 Pulaski Co.		Rt. 641 Loudoun Co.		Rt. 742 Wythe Co.		Rt. 603 Halifax Co.		Rt. 655 Bedford Co.		Rt. 740 Washington Co.	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum	370	12.0	206	9.7	90	26.9	100	4.3	183	9.5	202	11.1
Bottles: returnable	711	23.1	796	35.5	84	25.1	986	42.4	547	28.4	184	10.1
nonreturnable	156	5.1	345	14.5	0	-	270	11.6	43	2.2	196	10.8
Cartons	26	0.8	62	2.6	22	6.6	32	1.4	12	0.6	56	3.2
Total	1263	41.1	1409	59.2	196	58.5	1389	59.7	785	40.7	640	35.2
SOFT DRINK: Cans: alum	0	-	8	0.3	0	-	27	1.2	5	0.3	1	0.1
Bottles: returnable	197	6.4	195	8.2	24	7.2	78	3.4	124	6.4	514	28.3
nonreturnable	0	-	42	1.6	0	-	7	0.3	15	0.8	12	0.7
Cartons	38	1.2	79	3.3	3	0.9	14	0.6	58	3.0	11	0.6
Total	235	7.6	325	13.7	27	8.1	3	0.1	1	0.1	0	-
PLASTIC SIX PACK HOLDERS:	49	1.6	23	1.0	9	2.7	31	1.3	35	1.8	7	0.4
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	191	6.2	81	3.4	21	6.3	82	3.5	91	4.7	72	4.0
other	32	1.0	29	1.2	4	1.2	69	3.0	54	2.8	38	2.1
Plastic	57	1.9	12	0.5	7	2.1	16	0.7	78	4.0	17	0.9
Metal	2	0.1	16	0.7	6	1.8	47	2.0	32	1.7	19	1.0
Glass	1	-	6	0.3	1	0.3	9	0.4	0	-	0	-
Total	283	9.2	144	6.1	39	11.6	223	9.6	255	13.2	146	8.0
PREPARED FOOD: Paper	198	6.4	167	7.0	18	5.4	121	5.2	55	2.9	79	4.4
Plastic	92	3.0	92	3.9	0	-	42	1.8	39	2.0	181	10.0
Total	290	9.4	259	10.9	18	5.4	163	7.0	94	4.9	260	14.3
SNACK FOOD: Paper	141	4.6	23	1.0	22	6.6	126	5.4	214	10.6	71	3.9
TOBACCO: Paper	339	11.0	12	0.5	7	2.1	62	2.7	62	3.2	42	2.3
Plastic	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-
Total	339	11.0	12	0.5	7	2.1	62	2.7	62	3.2	42	2.3
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	24	0.8	12	0.5	1	0.3	10	0.4	1	0.1	8	0.4
other	7	0.2	1	0.0	0	-	2	0.1	10	0.5	1	0.1
Rubber: tire	1	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	-	0	-
other	32	1.0	13	0.5	1	0.3	12	0.5	11	0.6	9	0.5
Total	63	2.0	26	1.1	1	0.3	12	0.5	11	0.6	9	0.5
NEWSPAPER:	14	0.5	49	2.1	0	-	17	0.7	22	1.1	5	0.3
HOUSEHOLD: Plastic	104	3.4	10	0.4	0	-	15	0.6	10	0.5	9	0.5
Paper (incl. alum foil)	77	2.5	16	0.7	10	3.0	32	1.4	53	2.8	2	0.1
MISC. PAPER: Cardboard	30	1.0	13	0.5	4	1.2	33	1.4	111	5.8	5	0.3
Other (incl. paper bags)	0	-	19	0.8	0	-	46	2.0	17	0.9	21	1.2
WINE BOTTLES:	0	-	8	0.3	0	-	3	0.1	1	0.1	19	1.0
LIQUOR BOTTLES:	85	2.8	27	1.1	2	0.6	21	0.9	9	0.5	36	2.0
MISC. GLASS:	62	2.0	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	50	1.6	12	0.5	0	-	17	0.7	53	2.8	6	0.3
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	-	0	-
Other	0	-	3	0.1	0	-	1	-	0	-	0	-
LEANING AGENT TOILETRIES CONTAINERS:	0	-	1	-	0	-	0	-	2	0.1	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-
CHEESE:	19	0.6	13	0.5	0	-	7	0.3	0	-	0	-
Total	3073	99.9	2379	99.9	335	100.1	2327	99.8	1927	100.1	1816	99.9



CLASSIFICATION	Alexandria Hand Truck		Stullins College Bristol		Richmond Hand Pickup		Alexandria Hand Cart		Bristol Downtown		Norfolk Granby St.		Norfolk Tidewater	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum	32	8.4	89	12.4	53	5.6	1	0.5	3	1.7	0	-	10	1.9
Bottles: returnable nonreturnable	4	1.0	18	2.5	5	0.5	5	2.3	0	-	0	-	4	0.5
Cartons	0	-	4	0.6	2	0.2	0	-	0	-	0	-	0	-
Total	36	9.4	111	15.5	60	6.4	6	2.8	3	1.7	3	1.2	14	2.7
SOFT DRINK: Cans: alum non-alum	0	-	60	8.4	19	1.9	2	0.9	9	5.1	0	-	5	1.0
Bottles: returnable nonreturnable	0	-	3	0.4	1	0.1	0	-	2	1.1	0	-	0	-
Cartons	2	0.5	0	-	54	5.7	8	3.7	2	1.1	3	1.2	1	0.2
Total	2	0.5	63	8.8	75	8.0	10	4.7	13	7.4	6	2.3	6	1.2
PLASTIC SIX PACK HOLDERS:	3	0.8	4	0.6	1	0.1	0	-	0	-	1	0.4	0	-
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	5	1.3	0	-	108	11.5	3	1.4	6	3.4	0	-	6	1.2
Plastic	11	2.9	13	1.8	12	1.3	15	7.0	2	1.1	3	1.2	25	4.8
Metal	0	-	21	2.9	10	1.1	0	-	0	-	1	0.4	0	-
Glass	1	0.3	0	-	2	0.2	0	-	1	0.6	0	-	1	0.2
Total	17	4.5	34	4.7	133	14.1	18	8.4	9	5.1	13	5.0	32	6.2
PREPARED FOOD: Paper	0.55	14.4	112	15.6	102	10.8	19	8.9	23	13.1	33	12.8	68	13.2
Plastic	0.32	8.4	75	10.5	41	4.4	21	9.8	27	15.3	23	8.9	38	7.4
Total	0.87	22.8	187	26.1	143	15.2	40	18.7	50	28.4	56	21.7	106	20.6
SNACK FOOD: Paper	69	18.1	43	6.0	69	7.3	28	13.1	34	19.3	23	8.9	115	22.3
TOBACCO: Paper	92	24.1	85	11.9	43	4.6	30	14.0	32	18.2	17	6.6	65	12.6
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	1	0.2
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	92	24.1	85	11.9	43	4.6	30	14.0	32	18.2	17	6.6	66	12.8
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire other	0	-	0	-	1	0.1	0	-	0	-	0	-	0	-
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	1	0.1	0	-	0	-	0	-	0	-
NEWSPAPER:	2	0.5	8	1.1	70	7.4	4	1.9	1	0.6	3	1.2	11	2.1
HOUSEHOLD: Plastic	66	17.3	135	18.8	238	25.3	47	22.0	33	18.8	16	6.2	4	0.8
Paper (incl. alum foil)	5	1.3	0	-	64	6.8	13	6.1	1	0.6	3	1.2	11	2.1
MISC. PAPER: Cardboard	0	-	20	2.8	20	2.1	6	2.8	0	-	89	34.5	124	23.9
Other (incl. paper bags)	0	-	4	0.6	2	0.2	1	0.5	0	-	0	-	0	-
WINE BOTTLES:	0	-	1	0.1	1	0.1	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	0	-	1	0.1	1	0.1	0	-	0	-	0	-	0	-
MISC. GLASS:	0	-	2	0.3	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	0	-	9	1.3	1	0.1	8	3.7	0	-	26	10.1	23	4.5
MISC. METAL: Cans	0	-	0	-	5	0.5	0	-	0	-	0	-	0	-
Other	2	0.5	0	-	3	0.3	0	-	0	-	0	-	4	0.8
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	1	0.1	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	1	0.1	0	-	0	-	0	-	0	-
OTHER:	0	-	11	1.5	11	1.2	3	1.4	0	-	2	0.8	1	0.2
Total	381	99.3	717	100.1	932	100.0	214	100.1	176	100.1	258	100.1	517	100.2



CLASSIFICATION	Danville		Charlottesville		Richmond		Alexandria		Elephant Alex. Yacs		Barracks Road	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum	28	3.8	15	1.6	64	5.7	53	10.9	0	-	23	3.5
Bottles: returnable nonreturnable	0	-	1	0.1	0	-	0	-	0	-	0	-
Cartons	1	0.1	13	1.3	0	-	1	0.2	0	-	1	0.2
Total	29	3.9	29	3.0	64	5.7	54	11.1	0	-	24	3.6
SOFT DRINK: Cans: alum non-alum	18	2.4	5	0.5	37	3.3	24	4.9	2	1.4	8	1.2
Bottles: returnable nonreturnable	0	-	0	-	0	-	0	-	0	-	0	-
Cartons	0	-	2	0.2	0	-	1	.2	0	-	0	-
Total	18	2.4	7	0.7	37	3.3	25	5.1	2	1.4	8	1.2
PLASTIC SIX PACK HOLDERS:	6	0.8	7	0.7	8	0.7	12	2.5	0	-	2	0.3
TAB CAN OPENERS:	52	7.1	171	17.7	0	-	0	-	0	-	26	3.9
GROCERY: Paper: paper bags other	15	2.0	18	1.9	0	-	2	0.4	0	-	15	2.3
Plastic	15	2.0	14	1.5	106	9.3	22	4.5	3	2.0	68	10.3
Metal	14	1.9	14	1.4	12	1.1	0	-	0	-	11	1.7
Glass	0	0	0	0	0	-	0	-	0	-	0	-
Total	49	6.7	47	4.9	118	10.5	24	4.9	3	2.0	94	14.2
PREPARED FOOD: Paper	72	9.8	31	3.2	115	10.2	58	11.9	4	2.7	92	13.9
Plastic	31	4.2	18	1.9	28	2.5	137	28.1	10	6.8	55	8.3
Total	103	14.0	49	5.1	143	12.7	195	40.0	14	9.5	147	22.2
SNACK FOOD: Paper	94	12.8	119	12.3	288	25.6	48	9.9	7	4.7	83	12.5
TOBACCO: Paper	120	16.3	350	36.2	126	11.2	27	5.5	18	12.2	55	8.3
Plastic	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-
Total	120	16.3	350	36.2	126	11.2	27	5.5	18	12.2	55	8.3
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	1	0.1	0	-	0	-	0	-	0	-	0	-
Rubber: tire other	0	-	0	-	1	0.1	0	-	0	-	0	-
Plastic: anti-freeze other	0	-	0	-	0	-	1	0.2	0	-	0	-
Total	1	0.1	0	-	1	0.1	1	0.2	0	-	0	-
NEWSPAPER:	30	4.1	4	0.4	41	3.6	58	11.9	76	51.4	3	0.5
HOUSEHOLD: Plastic	97	13.2	36	3.7	30	2.7	13	2.7	0	-	15	2.3
Paper (incl. alum foil)	61	8.3	0	-	7	0.6	4	0.8	0	-	0	-
MISC. PAPER: Cardboard Other (incl. paper bags)	0	-	33	3.4	0	-	0	-	0	-	163	24.6
WINE BOTTLES:	0	-	0	-	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	0	-	0	-	0	-	1	0.2	0	-	0	-
MISC. GLASS:	0	-	1	0.1	5	0.4	0	-	0	-	14	2.1
MISC. PLASTIC:	26	3.5	56	5.8	0	-	21	4.3	10	6.8	22	3.3
MISC. METAL: Cans Other	0	-	0	-	0	-	1	0.2	0	-	3	0.5
CLEANING AGENT TOILETRIES CONTAINERS:	20	2.7	35	3.6	0	-	0	-	0	-	3	0.5
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	1	0.1	0	-	0	-	0	-	0	-
Total	29	3.9	22	2.3	19	1.7	3	0.6	0	-	1	0.2
	735	99.8	967	100.0	1127	100.1	487	99.9	148	100.2	663	100.2



CLASSIFICATION	Charlottesville Washington Park		Charlottesville McIntire Park		Charlottesville Belmont Park		Danville Playground		Norfolk Zoo		Norfolk Botanical Gardens		Norfolk Lakewood		Norfolk City Park	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
BEER: Cans: alum non-alum Bottles: returnable nonreturnable Cartons	52	14.5	21	2.3	4	4.5	53	2.5	41	3.5	88	6.2	15	9.0	18	10.7
	53	14.8	0	-	8	9.1	16	0.7	18	1.5	16	1.1	0	-	3	1.8
	5	1.4	0	-	0	-	2	0.1	8	0.7	3	0.2	2	1.2	2	1.2
Total	110	30.7	21	2.3	12	13.6	71	3.3	75	6.4	107	7.5	17	10.2	23	13.7
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons	25	7.0	5	0.5	8	9.1	95	4.5	0	-	37	2.6	0	-	1	0.6
	1	0.3	2	0.2	1	1.1	6	0.3	0	-	72	5.1	16	9.6	7	4.2
	13	3.6	1	0.1	14	15.9	20	0.9	5	0.4	3	0.2	3	1.8	2	1.2
Total	39	10.9	8	0.9	23	26.1	121	5.7	28	2.4	112	7.9	19	11.5	10	6.0
PLASTIC SIX PACK HOLDERS:	4	1.1	2	0.2	4	4.5	6	0.3	2	0.2	9	0.6	0	-	3	1.8
TAB CAN OPENERS:	6	1.7	0	-	1	1.1	12	0.6	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags Plastic Metal Glass	39	10.9	3	0.3	4	4.5	140	6.6	57	4.9	72	5.1	0	-	17	10.1
	5	1.4	0	-	2	2.3	108	5.1	16	1.4	22	1.6	0	-	7	4.2
	6	1.7	6	0.6	1	1.1	128	6.0	20	1.7	91	6.4	22	13.3	0	-
	2	0.6	0	-	1	1.1	7	0.3	2	0.2	10	0.7	0	-	2	1.2
	0	-	0	-	0	-	0	-	3	0.3	1	0.7	0	-	1	0.6
Total	52	14.5	9	1.0	8	9.1	383	17.9	98	8.4	196	13.8	22	13.3	27	16.1
PREPARED FOOD: Paper Plastic	29	8.1	391	42.3	2	2.3	185	8.7	548	46.9	286	20.1	38	22.9	39	23.2
	15	4.2	33	3.6	0	-	124	5.8	35	3.0	122	8.6	11	6.6	6	3.6
	44	12.3	424	45.9	2	2.3	309	14.5	583	49.9	409	28.7	49	29.5	45	26.5
Total	18	5.0	348	37.7	30	34.1	620	29.1	217	18.6	180	12.7	10	6.0	18	10.7
TOBACCO: Paper Plastic Metal	24	6.7	56	6.1	4	4.5	136	6.4	46	3.9	70	4.9	3	1.8	10	6.0
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	2	0.6	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	26	7.3	56	6.1	4	4.5	136	6.4	46	3.9	70	4.9	3	1.8	10	6.0
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NEWSPAPER:	10	2.8	0	-	0	-	17	0.8	0	-	11	0.8	0	-	0	-
HOUSEHOLD: Plastic Paper (incl. alum foil)	32	8.9	38	4.1	0	-	245	11.5	45	3.9	215	15.1	0	-	1	0.6
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PAPER: Cardboard Other (incl. paper bags)	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	0	-	8	0.9	1	1.1	4	0.2	0	-	78	5.5	42	25.3	25	14.9
WINE BOTTLES:	4	1.1	0	-	1	1.1	16	0.7	9	0.8	0	-	1	0.6	3	1.8
LIQUOR BOTTLES:	1	0.3	0	-	0	-	0	-	0	-	1	0.1	0	-	0	-
MISC. GLASS:	1	0.3	0	-	0	-	154	7.2	0	-	0	-	0	-	0	-
MISC. PLASTIC:	7	2.0	4	0.4	0	-	3	0.1	15	1.3	27	1.9	0	-	3	1.8
MISC. METAL: Cans Other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	2	0.6	5	0.5	2	2.3	3	0.1	0	-	0	-	2	1.2	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	1	0.3	0	-	0	-	2	0.1	0	-	1	0.1	1	0.6	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	19	0.9	0	-	0	-	0	-	0	-
OTHER:	1	0.3	1	0.1	0	-	12	0.6	0	-	3	0.2	0	-	0	-
Total	358	100.1	324	100.1	88	95.8	2134	100.0	1168	100.1	1420	99.9	166	100.0	168	100.2





TABLE 14 CONTINUED

CLASSIFICATION	Winchester Park		Pocohontas Campground	
	No.	%	No.	%
BEER: Cans: alum non-alum	21	2.1	2	2.4
Bottles: returnable	10	1.0	1	1.2
Cartons	58	5.9	2	2.4
Total	6	0.6	0	-
SOFT DRINK: Cans: alum	95	9.6	5	6.1
Bottles: non-alum	0	-	0	-
Bottles: returnable	41	4.2	12	14.6
Cartons	8	0.8	0	-
Total	0	-	2	2.4
PLASTIC SIX PACK HOLDERS:	0	-	0	-
TAB CAN OPENERS:	49	5.0	14	17.1
GROCERY: Paper: paper bags	5	0.5	0	-
Plastic	36	3.6	1	1.2
Metal	14	1.4	0	-
Glass	0	-	0	-
Total	0	-	4	4.9
PREPARED FOOD: Paper	0	-	0	-
Plastic	308	31.2	8	9.8
Total	87	8.8	20	24.4
SNACK FOOD: paper	395	39.9	28	34.2
TOBACCO: Paper	212	21.4	12	14.6
Plastic	48	4.9	3	3.7
Metal	0	-	0	-
Total	0	-	0	-
AUTOMOTIVE: Glass	48	4.9	3	3.7
Metal: oil cans	0	-	0	-
other	0	-	0	-
Rubber: tire	0	-	0	-
other	0	-	0	-
Plastic: anti-freeze	0	-	0	-
other	0	-	0	-
Total	0	-	0	-
NEWSPAPER:	1	0.1	0	-
HOUSEHOLD: Plastic	1	0.1	0	-
Paper (incl. alum foil)	0	-	0	-
MISC. PAPER: Cardboard	133	13.5	13	15.9
Other (incl. paper bags)	0	-	0	-
WINE BOTTLES:	0	-	0	-
LIQUOR BOTTLES:	0	-	0	-
MISC. GLASS:	0	-	0	-
MISC. PLASTIC:	0	-	2	2.4
MISC. METAL: Cans	0	-	0	-
Other	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-
OTHER:	2	0.2	0	-
Total	989	100.2	82	100.1



CLASSIFICATION	I-64 Richmond		I-93 Petersburg		I-81 Bristol		I-581 Roanoke		I-264 Norfolk		I-64 Hampton		I-95 Fairfax	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
<b>BEER: Cans: alum</b>	56.33	8.7	13.96	6.3	6.29	2.8	5.40	4.0	113.73	20.8	45.34	23.2	23.56	1.9
<b>Bottles: returnable nonreturnable</b>	0	-	0	-	11.20	5.0	9.90	7.3	0	-	0	-	37.22	3.1
<b>Cartons</b>	61.57	9.5	33.37	15.1	42.17	18.8	1.14	0.8	87.89	16.1	54.05	27.7	45.46	3.7
<b>Total</b>	122.72	19.0	47.43	21.5	59.66	26.6	13.49	13.7	203.86	37.4	100.28	51.3	109.39	9.0
<b>SOFT DRINK: Cans: alum non-alum</b>	20.98	3.2	8.09	3.7	0.36	0.2	0.08	0.1	42.95	7.9	14.48	7.4	3.97	0.3
<b>Bottles: returnable nonreturnable</b>	3.96	0.6	3.60	1.6	17.73	7.9	6.00	4.4	0	-	0.99	0.5	17.97	1.5
<b>Cartons</b>	35.55	5.5	30.60	13.9	13.30	5.9	0.69	0.5	33.30	6.1	5.40	2.8	4.99	0.4
<b>Total</b>	60.49	9.4	42.29	19.2	46.69	20.8	6.77	5.0	76.25	14.0	20.98	10.7	48.76	4.0
<b>PLASTIC SIX PACK HOLDERS:</b>	0.06	-	0.17	0.1	0.05	-	0.14	0.1	0.16	-	0.34	0.2	0.12	-
<b>TAB CAN OPENERS:</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>GROCERY: Paper: paper bags other</b>	17.06	2.6	1.20	0.5	1.47	0.7	3.36	2.5	17.60	3.2	1.52	0.8	19.45	1.6
<b>Plastic</b>	4.40	0.7	0.57	0.3	1.26	0.6	0.85	0.6	5.38	1.0	0.24	0.1	6.42	0.5
<b>Metal</b>	2.90	0.4	0.34	0.2	0.32	0.1	0.39	0.3	2.65	0.5	0.24	0.1	6.71	0.6
<b>Glass</b>	4.84	0.7	0.24	0.1	0.83	0.4	1.02	0.8	1.52	0.3	0.40	0.2	4.69	0.4
<b>Total</b>	29.23	4.5	2.76	1.3	4.47	2.0	5.62	4.2	28.99	5.3	2.40	1.2	39.57	3.2
<b>PREPARED FOOD: Paper</b>	14.82	2.3	1.56	0.7	2.36	1.1	3.75	2.8	15.13	2.8	1.61	0.8	15.00	1.2
<b>Plastic</b>	2.18	0.3	0.54	0.2	1.30	0.6	0.50	0.4	2.77	0.5	0.30	0.2	3.57	0.3
<b>Total</b>	17.00	2.6	2.10	1.0	3.66	1.6	4.25	3.2	17.90	3.3	1.91	1.0	18.57	1.5
<b>SNACK FOOD: Paper</b>	3.96	0.5	0.62	0.3	0.67	0.3	0.67	0.5	2.32	0.4	0.41	0.2	2.48	0.2
<b>TOBACCO: Paper</b>	7.83	1.2	3.76	1.7	2.40	1.1	2.08	1.5	5.84	1.1	2.02	1.0	2.76	0.2
<b>Plastic</b>	0	-	0.01	-	0	-	0.01	-	0	-	0	-	0	-
<b>Metal</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Total</b>	7.83	1.2	3.77	1.7	2.40	1.1	2.09	1.5	5.84	1.1	2.09	1.0	2.76	0.2
<b>AUTOMOTIVE: Glass</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Metal: oil cans other</b>	4.80	0.7	13.13	6.0	0	-	1.48	1.1	4.75	0.9	1.63	0.8	11.97	1.0
<b>Rubber: tire other</b>	122.50	20.5	78.85	35.8	67.47	30.1	19.00	14.1	33.27	7.2	8.56	4.4	144.73	11.9
<b>Plastic: anti-freeze other</b>	0	-	0	-	0	-	2.71	2.0	29.96	5.5	43.98	22.5	131.78	10.8
<b>Total</b>	122.50	20.5	93.03	42.2	67.47	30.1	33.68	39.8	73.08	13.6	54.17	27.7	206.39	16.4
<b>NEWSPAPER:</b>	6.25	1.0	0.42	0.2	0.56	0.2	1.29	1.0	5.34	1.0	0	-	45.50	3.7
<b>HOUSEHOLD: Plastic</b>	20.88	3.2	0	-	0.39	0.2	6.99	5.2	25.22	4.6	0.51	0.3	5.50	0.5
<b>Paper (incl. alum foil)</b>	8.04	1.2	0.15	0.1	0	-	3.53	2.6	0	-	2.18	1.1	23.96	2.0
<b>MISC. PAPER: Cardboard</b>	85.13	13.2	1.65	0.7	4.60	2.0	9.74	7.2	40.51	7.4	2.54	1.3	127.89	10.5
<b>Other (incl. paper bags)</b>	0	-	0	-	20.41	9.1	0	-	0	-	0.18	0.1	27.49	2.3
<b>WINE BOTTLES:</b>	1.06	0.2	1.08	0.5	2.60	1.2	4.73	3.5	27.00	4.9	0	-	8.64	0.7
<b>LIQUOR BOTTLES:</b>	4.3	0.7	3.44	1.6	5.23	2.3	0.78	0.6	8.60	1.6	3.44	1.8	8.60	0.7
<b>MISC. GLASS:</b>	0	-	0	-	0.30	0.1	0	-	0	-	0	-	0	-
<b>MISC. PLASTIC:</b>	8.75	1.4	0.92	0.4	3.14	1.4	0.59	0.4	0	-	0	-	42.48	3.5
<b>MISC. METAL: Cans</b>	0	-	0.62	0.3	0	-	11.25	8.3	0	-	0	-	0	-
<b>Other</b>	8.55	1.3	0	-	0	-	0	-	2.09	0.4	0	-	283.74	23.7
<b>CLEANING AGENT TOILETRIES CONTAINERS:</b>	0	-	0.22	0.1	0	-	0.15	0.1	1.76	0.3	0	-	1.07	0.1
<b>UNWRAPPED FOOD:</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>OTHER:</b>	79.9	12.4	17.53	7.9	2.27	1.0	4.08	3.0	25.90	4.7	3.94	2.0	118.65	9.8
<b>TOTAL</b>	646.72	100.1	220.55	100.1	224.5	100.0	134.84	89.9	545.70	100.0	195.37	100.0	1216.62	100.1



CLASSIFICATION	I-64 Louisiana		I-77 Bland		I-85 Dinwiddie		I-81 Shenandoah		I-64 York		I-95 Spotsylvania		I-81 Montgomery		I-66 Prince William	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	15.30	11.3	5.85	8.5	32.18	16.2	2.28	1.2	45.34	24.7	5.37	5.1	3.15	5.3	12.96	6.2
Bottles: returnable	26.32	19.4	3.33	4.9	0	0	7.05	3.7	23.50	12.8	10.88	10.3	8.24	9.0	18.84	9.0
Cartons	1.74	1.3	0.55	0.8	0.40	0.2	0.18	0.1	0	0	0.23	0.2	9.70	16.4	42.30	20.3
Total	43.36	31.9	9.73	14.2	32.58	16.4	13.47	7.1	68.84	37.5	23.02	21.8	21.53	36.5	77.42	37.1
SOFT DRINK: Cans: alum non-alum	5.93	4.4	5.70	8.3	15.28	7.7	0.30	0.2	12.65	6.9	2.75	2.6	0.15	0.3	1.08	0.5
Bottles: returnable	6.93	5.1	0	0	4.95	2.5	1.98	1.0	0.99	0.5	6.90	6.5	2.24	20.7	6.00	2.9
nonreturnable	5.40	4.0	1.30	1.9	4.50	2.1	3.60	1.9	2.70	1.5	14.93	14.1	0.99	1.7	2.97	1.4
Cartons	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	18.26	13.4	7.00	10.2	24.73	12.3	11.16	5.9	16.34	8.9	27.33	25.9	25.41	43.0	30.12	14.4
PLASTIC SIX PACK HOLDERS:	0.07	0.1	0.06	0.1	0.03	0	0.05	0	0.08	0	0.65	0	0.08	0.1	0.11	0.1
TAB CAN OPENERS:	0	0	0.09	0.1	0	0	0	0	0	0	0	0	0	0	0	0
GROCERY: Paper: paper bags	0	0	0.22	0.3	0.80	0.4	0.59	0.3	1.37	0.7	0	0	0	0	2.97	1.4
Plastic	0.30	0.2	0.26	0.4	1.93	1.0	0.33	0.2	1.67	0.9	1.32	1.3	0.33	0.6	3.43	1.6
Metal	0.34	0.3	0.11	0.2	0.19	0.1	0.57	0.3	0	0	0.90	0.9	0.25	0.4	1.92	0.9
Glass	2.42	1.8	0.62	0.9	0.38	0.2	0	0	0	0	2.31	2.2	1.33	2.3	1.69	0.8
Total	3.06	2.3	2.19	3.2	5.59	2.8	1.49	0.8	3.89	2.1	5.13	4.9	1.91	3.2	10.47	5.0
PREPARED FOOD: Paper	2.00	1.5	0.52	0.8	3.37	1.8	0.85	0.4	1.93	1.1	3.95	3.7	1.43	2.4	5.36	2.6
Plastic	0.55	0.4	0.23	0.3	0.53	0.3	0.46	0.2	0.14	0.1	0.54	0.5	0.14	0.2	1.61	0.8
Total	2.55	1.9	0.75	1.1	4.10	2.1	1.31	0.7	2.07	1.1	4.49	4.3	1.57	2.7	6.97	3.3
SNACK FOOD: Paper	0.45	0.3	0.33	0.5	0.95	0.5	0.86	0.5	0.46	0.3	0.59	0.6	0.35	0.6	1.08	0.5
TOBACCO: Paper	0.94	0.7	1.02	1.5	2.10	1.1	3.43	1.8	1.47	0.8	1.36	1.3	2.45	4.1	3.76	1.8
Plastic	0	0	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0
Metal	0	0	0.01	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0.94	0.7	1.03	1.5	2.11	1.1	3.43	1.8	1.47	0.8	1.36	1.3	2.45	4.1	3.76	1.8
AUTOMOTIVE: Glass	0.74	0.5	0	0	0	0	0	0	11.33	6.2	0	0	0	0	0	0
Metal: oil cans	37.26	27.4	5.50	8.0	32.71	16.5	26.40	13.9	14.87	8.1	7.30	3.8	1.14	1.9	0.72	0.3
other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rubber: tire	13.40	9.9	24.45	35.7	57.56	29.0	123.71	63.4	38.57	21.0	11.35	10.8	0	0	20.95	10.0
other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.60	0.8
Plastic: anti-freeze	0.40	0.3	0.13	0.2	0	0	0	0	0.23	0.1	0	0	0	0	1.33	0.6
other	51.8	38.1	30.11	43.9	90.27	45.5	150.87	79.7	66.93	36.4	22.63	21.4	1.14	1.9	33.35	16.0
Total	0.45	0.3	0.33	0.5	0.95	0.5	0.86	0.5	0.46	0.3	0.59	0.6	0.35	0.6	1.08	0.5
NEWSPAPER:	0.45	0.3	0	0	0.96	0.5	0.07	0	0.46	0.3	0.35	0.3	0	0	2.27	1.1
HOUSEHOLD: Plastic	1.12	0.8	0.32	0.5	1.30	0.7	0.19	0.1	0.52	0.3	0.32	0.3	0.57	1.0	3.32	1.6
Paper (incl. alum foil)	0.33	0.2	0.12	0.2	0	0	1.23	0.6	2.92	1.6	2.65	2.5	0.35	0.6	1.38	0.7
MISC. PAPER: Cardboard	0	0	0.22	0.3	4.10	2.1	1.52	0.8	2.65	1.4	7.40	7.0	1.92	3.3	6.74	3.2
Other (incl. paper bags)	0.74	0.5	0.08	0.1	0.38	0.2	0	0	0.26	0.1	3.96	3.8	0	0	3.95	1.9
WINE BOTTLES:	1.08	0.8	0	0	1.08	0.5	0	0	2.16	1.2	0	0	0	0	1.08	0.5
LIQUOR BOTTLES:	1.72	1.3	3.35	4.9	1.72	0.9	1.72	0.9	0.86	0.5	1.85	1.8	0	0	6.02	2.9
MISC. GLASS:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MISC. PLASTIC:	0.93	0.7	0.14	0.2	1.73	0.9	0.10	0.1	6.30	3.4	1.61	1.5	0.51	0.9	7.10	3.4
MISC. METAL: Cans	0.57	0.4	0.52	0.8	0	0	0	0	0	0	0	0	0	0	0	0
Other	6.35	4.7	1.86	2.7	0	0	0	0	3.36	1.8	0.25	0.2	0	0	4.34	2.1
CLEANING AGENT TOILETRIES CONTAINERS:	0	0	0	0	0.29	0.1	0.15	0.1	0	0	0	0	0	0	0.10	0
ENWRAPPED FOOD:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER:	2.22	1.6	10.64	15.5	26.45	13.3	1.65	0.9	4.16	2.3	2.57	2.4	1.25	2.1	8.97	4.3
Total	136.00	100.0	68.54	100.0	189.57	99.9	189.27	100.0	182.73	100.0	105.56	100.0	59.04	100.0	205.65	99.9



CLASSIFICATION	I-81 Frederick	
	Wt.	%
BEER: Cans: alum	1.80	2.2
non-alum	4.08	5.0
Bottles: returnable	12.22	15.0
nonreturnable	0.15	0.2
Cartons	18.25	22.3
Total		
SOFT DRINK: Cans: alum	0.42	0.5
non-alum	6.24	7.6
Bottles: returnable	0.99	1.2
nonreturnable	5.85	7.2
Cartons	0	-
Total	13.50	16.5
PLASTIC SIX PACK HOLDERS:	0.03	-
TAB CAN OPENERS:	0	-
GROCERY: Paper: paper bags	1.35	1.7
other	0.67	0.8
Plastic	0.04	-
Metal	2.16	2.6
Glass	0.46	0.6
Total	4.68	5.7
PREPARED FOOD: Paper	0.79	1.0
Plastic	0.34	0.4
Total	1.13	1.4
SNACK FOOD: Paper	0.33	0.5
TOBACCO: Paper	2.32	2.8
Plastic	0.23	0.3
Metal	0	-
Total	2.57	3.1
AUTOMOTIVE: Glass	0	-
Metal: oil cans	0.38	0.5
other	9.84	12.0
Rubber: tire	19.69	24.1
other	0.26	0.3
Plastic: anti-freeze	0	-
other	0	-
Total	30.17	36.9
NEWSPAPER:	0.56	0.7
HOUSEHOLD: Plastic	0.56	0.7
Paper (incl. alum foil)	0.85	1.0
MISC. PAPER: Cardboard	1.85	2.3
Other (incl. paper bags)	1.12	1.4
WINE BOTTLES:	1.08	1.3
LIQUOR BOTTLES:	0.86	1.1
MISC. GLASS:	0	-
MISC. PLASTIC:	0.69	0.8
MISC. METAL: Cans	0	-
Other	0.33	0.5
CLEANING AGENT TOILETRIES CONTAINERS:	0.10	0.1
UNWRAPPED FOOD:	0	-
OTHER:	2.96	3.6
Total	81.72	95.9





CLASSIFICATION	Rt. 17 Essex		Rt. 33 Rockingham		Rt. 366 Amelia		Rt. 460 Tazewell		Rt. 29 Pittsylvania		Rt. 460 Bedford		Rt. 13 Northampton Co.		Rt. 7 Loudoun Co.	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	29.16	17.7	17.13	20.4	27.72	20.9	50.29	10.7	16.74	6.3	1.50	2.7	25.34	8.2	9.24	5.5
Bottles: returnable nonreturnable	32.81	19.7	30.55	36.4	18.33	13.8	88.30	19.8	29.04	10.9	4.08	7.5	100.58	32.5	8.16	4.8
Cartons	1.54	0.9	1.78	2.1	0.65	0.5	9.71	2.1	3.46	1.3	0.70	1.3	5.55	1.8	28.67	17.0
Total	63.21	38.3	49.46	58.9	46.70	35.2	148.36	31.6	90.13	34.0	15.68	28.7	131.47	42.4	45.00	28.4
SOFT DRINK: Cans: alum non-alum	2.52	1.7	4.79	5.7	14.59	11.0	65.09	13.9	1.26	0.5	0.06	0.1	35.45	11.4	0.30	0.2
Bottles: returnable nonreturnable	6.76	4.1	0.99	1.2	0.99	0.7	18.94	4.0	5.70	2.1	5.88	10.8	5.94	1.9	3.84	2.3
Cartons	42.70	25.8	11.25	13.4	9.45	7.1	38.70	8.2	25.74	9.7	4.05	7.4	10.35	3.3	9.90	5.9
Total	52.28	31.6	17.03	20.3	25.03	18.9	122.73	26.1	40.63	15.3	15.93	29.1	51.86	16.7	20.97	12.4
PLASTIC SIX PACK HOLDERS:	0.35	0.2	0.07	0.1	0.01	-	0.10	0	0.13	-	0.01	-	0	-	0.26	0.2
TAB CAN OPENERS:	0.68	0.4	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	2.40	1.5	2.95	3.5	1.14	0.9	12.24	2.6	2.25	0.8	0.65	1.2	4.30	1.4	5.00	3.0
Plastic	2.82	1.5	0.37	0.4	0.85	0.6	6.75	1.4	1.90	0.7	0.30	0.5	0.86	0.3	1.21	0.7
Metal	0.45	0.3	0.04	-	0.40	0.3	0.48	0.1	0	0	0.25	0.5	1.84	0.6	0	-
Glass	1.40	0.8	0.88	1.0	0.24	0.2	1.63	0.3	3.63	1.4	0.48	0.9	0.73	0.2	0.85	0.5
Total	7.26	4.4	4.24	5.0	2.63	2.0	21.10	4.5	9.16	3.5	1.68	3.1	7.73	2.5	7.06	4.2
PREPARED FOOD: Paper	0.96	0.6	1.50	1.8	3.58	2.7	5.30	1.1	3.98	1.5	0.90	1.6	2.10	0.7	3.36	2.0
PLASTIC	0.07	-	0.53	0.7	0.20	0.2	0.84	0.2	0.19	0.1	0.15	0.3	0.14	-	0.61	0.4
Total	1.03	0.6	2.05	2.4	3.78	2.9	6.14	1.5	4.17	1.6	1.05	1.9	2.24	0.7	3.97	2.4
SNACK FOOD: Paper	1.21	0.7	0.42	0.5	0.51	0.4	1.67	0.4	0.73	0.3	0.08	0.1	0.68	0.2	0.93	0.6
TOBACCO: Paper	0.87	0.5	0.59	0.7	1.17	0.9	2.14	0.5	1.91	0.7	0.30	0.5	0.87	0.3	0.66	0.4
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0.87	0.5	0.59	0.7	1.17	0.9	2.14	0.5	1.91	0.7	0.30	0.5	0.87	0.3	0.66	0.4
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	3.50	1.3	0	-	0	-	0	-
Metal: oil cans other	0.68	0.4	1.55	1.8	5.52	4.2	1.80	3.8	1.71	0.6	11.20	20.5	1.14	0.4	0.95	0.6
Rubber: tire other	4.60	2.8	0	-	31.22	23.5	96.2	20.5	2.31	0.9	0	-	3.71	1.2	1.30	0.8
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	95.60	36.0	0	-	75.42	24.3	24.73	14.7
Total	5.28	3.2	1.55	1.8	40.14	30.3	114.20	24.3	103.42	39.0	11.20	20.5	80.27	23.9	27.00	16.0
NEWSPAPER:	0.37	0.2	0.01	-	0.64	0.5	1.51	0.3	0	-	0.04	0.1	1.21	0.4	1.80	1.1
HOUSEHOLD: Plastic	0.55	0.3	0.36	0.4	2.90	1.5	17.27	3.7	2.38	0.9	0.12	0.2	0.30	0.1	2.54	1.5
Paper (incl. alum foil)	5.42	3.3	0.19	0.2	2.10	1.6	13.32	2.9	0	-	0.89	1.6	1.55	0.5	3.03	1.8
MISC. PAPER: Cardboard Other (incl. paper bags)	2.30	1.4	0	-	0	-	0	-	0	-	2.20	4.0	5.26	1.7	11.20	6.6
WINE BOTTLES:	9.15	5.5	0	-	1.08	0.8	0	-	1.08	0.4	2.16	4.0	7.56	2.4	0	-
LIQUOR BOTTLES:	9.17	5.6	6.88	8.2	4.30	3.2	6.88	1.5	6.88	2.6	0.86	1.6	16.34	5.3	5.16	3.1
MISC. GLASS:	4.01	2.4	0.61	0.7	1.57	1.2	1.89	0.4	0	-	0	-	0	-	0	-
MISC. PLASTIC:	1.91	1.2	0.24	0.3	0.25	0.2	2.16	0.5	0	-	0.55	1.0	2.61	0.8	0	-
MISC. METAL: Cans Other	0	-	0	-	0	-	4.45	0.9	0	-	1.44	2.6	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0.16	0.1	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	165.21	99.9	84.00	99.9	132.61	100.2	469.48	106.0	265.24	100.0	54.66	99.8	309.95	99.9	168.77	103.2
Total	0	-	0.15	0.2	0.70	0.5	5.56	1.2	4.62	1.7	0.45	0.8	0	-	28.82	17.1







CLASSIFICATION	Rt. 651 Chesterfield		Rt. 626 Brunswick		Rt. 622 Amherst		Rt. 708 Albemarle		Rt. 605 Launcester		Rt. 652 Caroline		Rt. 612 Augusta		Rt. 637 Clarke	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: alum non-alum	291.87	54.8	69.21	26.5	49.40	20.0	14.50	9.9	173.25	22.9	45.19	11.1	15.60	17.8	35.74	33.3
Bottles: returnable nonreturnable	92.12	17.3	109.51	42.5	62.40	25.2	10.20	7.0	260.85	34.4	82.70	20.4	18.40	21.0	13.95	13.0
Cartons	4.34	0.8	11.85	4.6	3.77	1.5	1.50	1.0	37.45	4.9	2.58	0.6	0.77	0.9	5.70	5.3
Total	398.33	73.0	189.57	73.6	115.37	46.7	26.20	18.0	471.55	62.3	130.47	32.1	34.77	39.6	55.39	51.6
SOFT DRINK: Cans: alum non-alum	5.59	1.1	7.87	3.1	15.20	6.1	3.20	2.2	27.36	3.6	7.86	1.9	6.40	7.3	12.20	11.4
Bottles: returnable nonreturnable	1.98	0.4	17.82	6.9	8.50	3.4	1.66	1.1	0.99	0.1	0	0	4.60	5.2	3.96	3.7
Cartons	31.50	5.9	8.10	3.1	9.40	3.8	20.90	14.3	73.35	9.7	38.52	9.5	20.30	23.1	13.95	13.0
Total	39.07	7.3	33.79	13.1	33.10	13.4	25.70	17.6	102.36	13.5	46.38	11.4	31.30	35.7	30.11	28.0
PLASTIC SIX PACK HOLDERS:	0.05	-	0.18	0.1	0.30	0.1	0.05	-	0.66	0.1	0.41	0.1	0.03	-	0.27	0.3
TAB CAN OPENERS:	0	-	0	-	0.17	0.1	0.10	0.1	0	-	0	-	0.02	-	0	-
GROCERY: Paper: paper bags other	2.87	0.5	6.50	2.5	5.40	2.2	0.40	0.3	14.52	1.9	4.72	1.2	0.40	0.5	1.45	1.4
Plastic	0.90	0.2	1.33	0.5	0.50	0.2	0.25	0.2	6.47	0.9	1.66	0.4	0.37	0.4	1.15	1.1
Metal	1.02	0.2	0.12	0.1	1.80	0.7	1.80	1.2	1.76	0.2	0.61	0.2	0.57	0.7	0.33	0.3
Glass	1.69	0.3	2.54	1.0	1.80	0.7	7.50	5.1	2.90	0.4	1.98	0.5	0.25	0.3	0.48	0.5
Total	4.14	0.8	1.84	0.7	1.70	0.7	5.70	3.9	3.50	0.5	0	0	0	0	0.46	0.4
PREPARED FOOD: Paper Plastic	10.62	2.0	12.51	4.9	10.42	4.2	15.80	10.8	29.81	3.9	9.38	2.3	1.65	1.9	4.14	3.9
Plastic	4.95	0.9	2.77	1.1	6.40	2.6	0.40	0.3	11.97	1.6	0.65	0.2	2.52	2.9	2.54	2.4
Total	1.08	0.2	0.21	0.1	0.86	0.3	0.30	0.2	1.28	0.2	0.23	0.1	0.15	0.2	0.92	0.9
SNACK FOOD: Paper	6.03	1.1	2.98	1.2	7.26	2.9	0.70	0.5	13.25	1.8	0.94	0.2	2.67	3.0	3.46	3.2
Paper	0.44	0.1	1.12	0.4	1.03	0.4	0.15	0.1	1.35	0.2	4.72	1.2	0.19	0.2	1.63	1.5
TOBACCO: Paper Plastic Metal	1.01	0.2	0.75	0.3	2.14	0.9	0.40	0.3	0.20	-	1.23	0.3	0.63	0.7	0.32	0.3
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
AUTOMOTIVE: Glass Metal: oil cans other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire	23.80	4.5	0	-	0.84	0.3	1.00	0.7	2.58	0.3	63.63	16.4	0	-	0.95	0.9
Plastic: anti-freeze other	0.67	0.1	0	-	0.15	0.1	43.00	29.5	0	-	25.43	6.3	0.38	0.4	0	-
Total	25.81	4.9	0	-	0.45	0.2	0	0	0	-	0	-	0.02	-	0	-
NEWSPAPER:	6.14	1.2	0.34	0.1	1.21	0.5	0.70	0.5	2.63	0.4	2.06	0.5	0.23	0.3	0.86	0.8
HOUSEHOLD: Plastic Paper (incl. alum foil)	0.75	0.1	1.06	0.4	0.05	-	0.01	-	3.61	0.5	0.85	0.2	0.55	0.6	0.25	0.2
MISC. PAPER: Cardboard Other (incl. paper bags)	10.97	2.1	0	-	15.70	6.4	0	-	17.86	2.4	7.21	1.8	4.24	4.8	6.0	5.6
WINE BOTTLES:	0.90	0.2	0	-	1.75	0.7	1.00	0.7	16.19	2.1	0.05	-	0.06	0.1	0	-
LIQUOR BOTTLES:	9.72	1.8	6.48	2.5	6.65	2.5	0.60	0.4	31.32	4.1	4.40	1.1	1.90	2.2	1.08	1.0
MISC. GLASS:	22.36	4.2	8.6	3.3	14.10	5.7	2.40	1.7	50.74	6.7	8.67	2.1	4.90	5.6	2.58	2.4
MISC. PLASTIC:	0	-	0	-	0.82	0.3	3.60	2.5	0	-	0	-	0	-	0	-
MISC. METAL: Cans Other	5.84	1.1	0.41	0.2	0.87	0.4	0	-	7.86	1.0	1.97	0.5	0.49	0.6	0.67	0.6
CLEANING AGENT TOILETRIES CONTAINERS:	.2	0	0	-	0.25	0.1	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	2.50	1.0	23.78	16.3	2.52	0.3	35.44	8.7	3.13	3.6	0	-
OTHER:	4.09	0.8	0	-	32.40	13.1	0.30	0.2	0.25	-	60.83	14.9	0.52	0.6	0	-
Total	532.28	100.0	257.61	100.0	247.40	100.0	145.90	100.0	757.52	100.0	466.46	100.0	87.72	100.0	107.44	100.0



CLASSIFICATION

	Rte. 625 Nottoway		Route 623 Rockingham		Route 632 Goochland Co.		Route 607 Louisa		Route 621 Culpeper		Route 637 Hanover Co.		Route 643 Fauquier		Route 677 Campbell	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	22.97	23.0	33.90	14.6	39.80	21.0	19.50	13.3	26.24	27.5	5.70	6.2	45.34	22.6	50.69	27.6
Bottles: returnable nonreturnable	22.09	22.1	71.91	31.0	0.67	0.4	55.93	38.2	49.82	52.2	23.03	25.2	70.03	34.9	38.07	20.7
Cartons	0.84	0.8	3.85	1.7	8.46	4.5	6.50	4.4	4.45	4.7	2.21	2.4	2.87	1.4	1.41	0.8
Total	45.90	46.0	109.66	47.3	96.87	51.1	81.93	56.0	80.57	84.3	49.06	53.7	118.24	59.0	90.17	49.1
SOFT DRINK: Cans: alum	4.90	4.9	19.61	8.5	14.25	7.5	5.47	3.7	2.02	2.7	1.38	1.5	6.61	3.3	13.00	7.1
Bottles: returnable nonreturnable	9.90	9.9	1.99	0.9	5.94	3.1	0.99	0.7	0.99	1.0	4.95	5.4	11.88	5.9	12.87	7.0
Cartons	7.65	7.7	35.55	15.3	21.63	11.4	9.45	6.5	1.80	1.9	3.15	3.4	18.00	9.00	10.80	5.9
Total	22.45	22.5	57.14	24.7	42.03	22.2	15.91	10.9	5.41	5.7	12.60	13.8	36.49	18.2	30.67	16.7
PLASTIC SIX PACK HOLDERS:	0.05	0.1	0.10	-	0.09	-	0.13	0.1	0.13	0.1	0.07	0.1	0.18	0.1	0.08	-
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	1.16	1.2	3.85	1.7	2.16	1.1	3.58	2.5	2.22	2.3	6.30	6.9	4.57	2.3	8.63	4.7
other	0	-	1.61	0.7	4.03	2.1	0.69	0.5	0.98	1.0	2.00	2.2	1.38	0.7	1.88	1.0
Plastic	0.01	-	0	-	0.49	0.3	0.52	0.4	0	-	0	-	0.75	0.4	0.39	0.2
Metal	0.36	0.4	6.25	2.7	1.82	1.0	3.27	2.2	0	-	0.97	1.1	1.73	0.9	1.73	0.9
Glass	1.38	1.4	1.84	0.8	0.92	0.5	0.92	0.6	0	-	0.46	0.5	11.04	5.5	1.38	0.8
Total	2.96	3.0	13.65	5.9	9.42	5.0	9.12	6.2	3.33	3.5	9.73	10.7	19.47	9.7	14.01	7.6
PREPARED FOOD: Paper	0.75	0.8	4.40	1.9	3.71	2.0	1.32	0.9	1.48	1.6	3.61	4.0	2.17	1.1	4.62	2.5
Plastic	0.14	0.1	0.79	0.3	0.37	0.2	0.40	0.3	0.22	0.2	0.79	0.9	1.00	0.5	0.32	0.2
Total	0.89	0.9	5.19	2.2	4.08	2.2	1.72	1.2	1.70	1.8	4.40	4.8	3.17	1.6	4.94	2.7
SNACK FOOD: Paper	0.96	1.0	0.39	0.2	1.14	0.6	0.64	0.4	0.33	0.4	0.82	0.9	1.62	0.8	0.81	0.4
TOBACCO: Paper	0.63	0.6	0.68	0.3	1.43	0.8	0.45	0.3	0.14	0.2	1.69	1.9	0.41	0.2	2.30	1.3
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0.63	0.6	0.68	0.3	1.43	0.8	0.45	0.3	0.14	0.2	1.69	1.9	0.41	0.2	2.30	1.3
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0.57	0.6	0	-	0.19	0.1	0	-	0	-	0	-	0	-	0	-
other	0.71	0.7	0	-	1.34	0.7	0	-	0	-	0	-	1.31	0.7	3.95	2.2
Rubber: tire	0	-	0	-	2.98	1.6	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
other	1.28	1.3	0	-	4.51	2.4	0	-	0	-	0	-	1.31	0.7	0.03	-
Total	0.01	-	6.18	2.7	2.62	1.4	0.26	0.2	0	-	0	-	3.42	1.7	2.21	1.2
HOUSEHOLD: Plastic	0.79	0.8	4.07	1.8	0.74	0.4	15.26	10.4	0.81	0.9	0	-	3.76	1.9	1.13	0.6
Paper (incl. alum foil)	0	-	0	-	0.97	0.5	0	-	0	-	1.85	2.0	0	-	0	-
MISC. PAPER: Cardboard	0	-	0	-	7.29	3.8	0	-	0	-	8.32	9.1	5.50	2.7	2.47	1.3
Other (incl. paper bags)	0	-	4.30	1.8	1.16	0.6	0	-	0.46	0.5	0	-	0.60	0.3	0	-
WINE BOTTLES:	15.12	15.2	7.80	3.4	4.32	2.3	4.32	3.0	1.03	1.1	1.08	1.2	0	-	5.40	2.9
LIQUOR BOTTLES:	7.74	7.8	3.44	1.5	5.16	2.7	9.46	6.5	1.72	1.8	1.72	1.9	0	-	6.02	3.3
MISC. GLASS:	0	-	0.65	0.4	0	-	0.45	0.3	0	-	0	-	0.05	-	0	-
MISC. PLASTIC:	0.15	0.2	3.55	1.5	2.74	1.4	0.89	0.6	0	-	0	-	0	-	1.26	0.7
MISC. METAL: Cans	0.70	0.7	3.85	1.7	0	-	0.38	0.3	0	-	0	-	0.80	0.4	0.30	0.2
Other	0	-	3.95	1.7	0	-	3.58	2.5	0	-	0	-	4.56	2.3	15.10	8.2
CLEANING AGENT TOILETRIES CONTAINERS:	0.15	0.2	0	-	0.87	0.5	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.04	-	7.09	3.1	4.10	2.2	1.89	1.3	0	-	0	-	0.81	0.4	2.8	1.5
Total	99.77	100.2	231.82	100.2	189.54	100.1	146.26	100.1	95.49	100.2	91.34	100.1	200.40	100.0	183.65	99.9





CLASSIFICATION	Route 813 Wise Co.		Route 606 Sussex		Route 647 Suffolk		Route 630 York		Route 620 Fairfax		Route 614 Botetourt		Route 614 Patrick Co.		Route 750 Pittsylvania	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum	20.04	4.8	22.55	16.3	93.46	39.7	43.56	14.7	7.32	4.1	3.00	4.2	5.82	15.6	6.88	2.3
non-alum	76.44	18.1	34.75	25.1	16.45	7.0	65.80	22.2	33.84	18.8	8.88	12.4	5.40	14.4	48.76	16.6
Bottles: returnable	114.60	27.2	2.30	1.7	3.20	1.4	3.22	1.1	4.28	2.4	3.55	5.0	5.17	13.8	76.14	26.0
nonreturnable	224.83	53.4	59.60	43.1	113.11	48.0	112.58	38.0	91.97	51.2	47.39	66.3	17.76	47.5	142.45	48.6
Cartons	3.07	0.7	6.03	4.4	23.37	9.9	23.60	8.0	0.30	0.2	0	0	0.54	1.4	1.92	0.7
Total	25.32	6.0	10.67	7.7	0	0	0	0	10.80	6.0	2.04	2.9	3.96	10.6	10.60	3.6
SOFT DRINK: Cans: alum	0	0	28.65	20.7	12.60	5.3	22.50	7.6	3.96	2.2	0	0	0.99	2.6	2.97	1.0
non-alum	114.60	27.2	2.30	1.7	3.20	1.4	3.22	1.1	15.30	8.5	17.10	23.9	0	0	16.63	5.7
Bottles: returnable	0	0	49.35	32.8	38.93	16.5	46.10	15.5	0	0	0	0	0	0	0.78	0.3
nonreturnable	142.99	33.9	0.03	0	0.15	0.1	0.13	0	30.36	16.9	19.14	26.8	5.49	14.7	32.92	11.2
Cartons	0.04	0	0	0	0	0	0	0	0.11	0.1	0.21	0.3	0.08	0.2	0.25	0.1
Total	0	0	0	0	0	0	0	0	0	0	0.03	0	0	0	0	0
PLASTIC SIX PACK HOLDERS:	6.16	1.5	4.25	3.1	5.13	2.2	10.35	3.5	5.90	3.3	0.98	1.4	0.80	2.1	8.24	2.8
TAB CAN OPENERS:	5.13	1.2	0	0	3.83	1.6	4.31	1.5	3.97	2.2	0	0	0.44	1.2	3.74	1.3
GROCERY: Paper: paper bags	0.35	0.1	0.32	0.2	0	0	3.46	1.2	0	0	0	0	0.40	1.1	1.53	0.5
Plastic	0	0	0.86	0.6	3.03	1.3	2.65	0.9	0.61	0.3	1.50	2.1	0.97	2.6	0.96	0.3
other	0	0	1.96	1.4	0.46	0.2	0	0	0.92	0.5	0	0	0	0	2.30	0.8
Metal	11.64	2.8	7.39	5.3	12.45	5.3	20.77	7.0	11.40	6.3	2.48	3.5	2.61	7.0	16.77	5.7
Glass	4.35	1.0	1.32	1.0	0	0	12.14	4.1	8.85	4.9	0	0	0.03	0.1	16.85	5.7
Total	0.37	0.1	0.36	0.2	0.37	0.2	1.24	0.4	1.35	0.8	0	0	0.11	0.3	1.33	0.5
PREPARED FOOD: Paper	4.72	1.1	1.58	1.1	0.37	0.2	13.38	4.5	10.20	5.7	0	0	0.14	0.4	18.18	6.2
Plastic	1.46	0.3	1.24	0.9	1.76	0.7	1.36	0.5	0.59	0.3	1.18	1.7	0.17	0.5	1.80	0.6
Total	0.60	0.1	0.66	0.5	0.41	0.2	2.10	0.7	0.91	0.5	0.37	0.5	0.19	0.5	1.72	0.6
TOBACCO: Paper	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal	0.6	0.1	0.66	0.5	0.41	0.2	2.10	0.7	1.06	0.6	0.37	0.5	0.19	0.5	1.72	0.6
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AUTOMOTIVE: Glass	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Metal: oil cans	14.50	3.4	0	0	0	0	0	0	0	0	0	0	0	0	1.33	0.5
other	0.67	0.2	0	0	0	0	0	0	0	0	0	0	0	0	3.56	1.2
Rubber: tire	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.53	0.2
other	0.34	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plastic: anti-freeze	15.51	3.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
other	0.21	0	1.05	0.8	2.25	1.0	17.10	5.8	3.96	2.2	0	0	0.19	0.5	4.67	1.6
Total	5.80	1.4	2.56	1.8	8.29	3.5	12.45	4.2	1.50	0.8	0	0	0	0	4.94	1.7
NEWSPAPER:	0.61	0.1	0	0	27.86	11.8	33.19	11.2	1.79	1.0	0	0	1.02	2.7	25.80	8.8
HOUSEHOLD: Plastic	7.63	1.8	4.58	3.3	8.64	3.7	8.64	2.9	2.73	1.5	0	0	7.67	20.5	2.68	0.9
Paper (incl. alum foil)	5.16	1.2	13.10	9.5	6.02	2.6	12.90	4.4	6.02	3.3	0	0	0.86	2.3	12.90	4.4
MISC. PAPER: Cardboard	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other (incl. paper bags)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WINE BOTTLES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LIQUOR BOTTLES:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MISC. GLASS:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MISC. PLASTIC:	0	0	0.19	0.1	6.86	2.9	0.77	0.3	4.41	2.5	0.15	0.2	0.24	0.6	0	0
MISC. METAL: Cans	0	0	0	0	0	0	7.65	2.6	0.19	0.1	0	0	0	0	0	0
Other	0	0	0	0	0	0	1.90	0.6	11.23	6.2	0.56	0.8	0	0	0	0
CLEANING AGENT TOILETRIES CONTAINERS:	0	0	0.77	0.6	1.50	0.6	0	0	0	0	0	0	0	0	0	0
UNWRAPPED FOOD:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OTHER:	0.18	0	0.30	0.2	6.98	3.0	1.40	0.5	2.25	1.3	0	0	0.20	0.5	17.30	5.9
Total	421.38	99.8	138.40	100.0	255.58	100.1	296.49	100.1	179.77	100.0	71.51	100.1	37.41	100.0	293.19	99.9







CLASSIFICATION	Alexandria Hand Truck		Sullins College Bristol		Richmond Hand Pickup		Alexandria Hand Cart		Bristol Downtown		Norfolk Granby St.		Norfolk Tidewater Dr.	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	2.49	18.2	8.45	20.3	5.30	6.0	0.11	0.5	0.29	6.4	0.31	4.3	1.10	10.1
Bottles: returnable nonreturnable	1.49	10.9	7.63	18.3	2.50	2.8	1.10	5.3	0	-	0	-	1.65	15.2
Cartons	0	-	0.28	0.7	0.33	0.4	0	-	0	-	0	-	0	-
Total	3.98	29.2	16.36	39.3	8.13	9.2	1.21	5.8	0.29	6.4	0.31	4.3	2.75	25.4
SOFT DRINK: Cans: alum non-alum	0	-	5.40	13.0	2.10	2.4	0.23	1.1	1.01	22.3	0.25	3.4	0.55	5.1
Bottles: returnable nonreturnable	0	-	1.32	3.2	1.03	1.2	0	0	0.68	15.0	0	-	0	-
Cartons	1.27	9.3	0	-	23.40	26.6	4.72	22.6	0.70	15.5	2.31	31.8	0.74	6.8
Total	1.27	9.3	6.72	16.2	28.83	32.5	4.95	23.7	2.39	52.8	2.56	35.2	1.29	11.9
PLASTIC SIX PACK HOLDERS:	0.02	0.1	0.02	-	0	-	0	-	0	-	0.01	0.1	0	-
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	0.61	4.5	0	-	2.53	2.9	0.50	2.4	0.12	2.6	0	-	1.12	10.3
Plastic	0.44	3.2	0.31	0.7	0.49	0.6	0.60	2.9	0.07	1.5	0.10	1.4	0.29	2.7
Metal	0	-	0.36	0.9	0.84	0.9	0	0	0	-	0.01	0.1	0	-
Glass	0.13	1.0	0	-	0.28	0.3	0	-	0.23	5.1	0.74	10.2	0	-
Total	1.20	8.8	0.67	1.6	4.78	5.4	1.10	5.3	0.42	9.3	0.85	11.7	0.33	3.1
PREPARED FOOD: Paper	0.88	6.4	1.82	4.4	1.63	1.8	0.63	3.0	0.38	8.4	0.76	10.5	1.12	10.3
Plastic	0.17	1.2	0.39	0.9	0.50	0.6	0.16	0.8	0.02	0.4	0.12	1.7	0.23	2.1
Total	1.05	7.6	2.21	5.3	2.13	2.4	0.79	3.8	0.40	8.8	0.88	12.2	1.35	12.4
SNACK FOOD: Paper	0.42	3.1	0.01	-	0.65	0.7	0.50	2.4	.41	9.1	0.08	1.1	1.50	13.8
TOBACCO: Paper	0.77	5.6	0.63	1.5	0.30	0.3	0.50	2.4	0.24	5.3	0.15	2.1	0.31	2.9
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0.08	0.7
Metal	0	-	0	-	2.73	3.1	0	-	0	-	0	-	0	-
Total	0.77	5.6	0.63	1.5	0.30	0.3	0.50	2.4	0.24	5.3	0.15	2.1	0.39	3.6
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire other	0	-	0	-	2.73	3.1	0	-	0	-	0	-	0	-
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	2.73	3.1	0	-	0	-	0	-	0	-
NEWSPAPER:	0.14	1.0	0.44	1.1	4.17	4.7	1.78	8.5	0.01	0.2	0.09	1.2	0.13	1.2
HOUSEHOLD: Plastic	2.32	17.0	3.26	7.8	3.33	3.8	2.02	9.7	0.35	7.7	0.07	1.0	0.06	0.6
Paper (incl. alum foil)	0.43	3.2	0	-	18.43	20.8	4.74	22.7	0.02	0.4	0.79	10.9	0.35	3.2
MISC. PAPER: Cardboard	0	-	0.65	1.6	0.96	1.1	1.40	6.7	0	-	0.97	13.4	0.42	3.9
Other (incl. paper bags)	0	-	1.22	10.1	2.13	2.4	1.21	5.8	0	-	0	-	0	-
WINE BOTTLES:	0	-	0.56	1.3	0.83	0.9	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	0	-	3.10	7.6	0	-	0	-	0	-	0	-	0	-
MISC. GLASS:	0	-	0.24	0.6	0	-	0.44	2.1	0	-	0.26	3.6	0.39	3.6
MISC. PLASTIC:	0	-	0	-	3.33	3.8	0	-	0	-	0	-	0	-
MISC. METAL: Cans	0	-	0	-	1.80	2.0	0	-	0	-	0	-	0	-
Other	2.05	15.0	0	-	0.80	0.9	0	-	0	-	0	-	0.39	3.6
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	2.45	5.9	5.31	6.0	0.21	1.0	0	-	0.25	3.4	0.09	0.8
Total	13.65	100.0	41.60	99.9	88.71	100.1	20.85	99.9	4.53	100.0	7.27	100.1	10.85	100.1



CLASSIFICATION	Danville		Charlottesville		Richmond		Alexandria		Alexandria (Elephant Vac)		Charlottesville Barracks Road	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	2.73	11.2	1.30	16.5	8.20	30.3	10.44	21.4	0	-	0.95	8.6
Bottles: returnable nonreturnable	0	-	0.05	0.6	0	-	0	-	0	-	0	-
Cartons	3.03	12.4	1.93	24.5	8.20	30.3	11.21	23.0	0	-	1.06	9.6
Total												
SOFT DRINK: Cans: alum non-alum	2.18	8.9	0.53	6.7	3.32	12.3	8.40	17.2	0.16	7.5	0.95	8.6
Bottles: returnable nonreturnable	0	-	0	-	0	-	0	-	0	-	0	-
Cartons	0	-	0.25	3.2	0	-	0.76	1.6	0	-	0	-
Total	2.18	8.9	0.78	9.9	3.32	12.3	9.16	18.8	0.16	7.5	0.95	8.6
PLASTIC SIX PACK HOLDERS:	0.05	0.2	0.06	0.8	0.07	0.3	0.20	0.4	0	-	0.01	0.1
TAB CAN OPENERS:	0.14	0.6	0.36	4.6	0	-	0	-	0	-	0.03	0.3
GROCERY: Paper: paper bags other	0.61	2.5	0.31	3.9	0	-	0.31	0.6	0	-	0.81	7.3
Plastic	0.71	2.9	0.19	2.4	0.15	0.6	2.13	4.4	0.24	11.2	0.33	3.0
Metal	0.07	0.3	0.06	0.8	0.19	0.7	0	-	0	-	1.04	9.4
Glass	0.67	2.7	0.02	0.3	0	-	0	-	0	-	0	-
Total	2.06	8.4	0.58	7.4	0.34	1.3	2.44	5.0	0.24	11.2	2.18	19.8
PREPARED FOOD: Paper	1.96	8.0	0.34	4.3	2.45	9.1	6.28	12.9	0.09	4.2	2.08	18.9
Plastic	0.14	0.6	0.03	0.4	0.24	0.9	2.34	4.8	0.10	4.7	0.25	2.3
Total	2.10	8.6	0.37	4.7	2.69	9.9	8.62	17.7	0.19	8.9	2.33	21.1
SNACK FOOD: Paper	1.03	4.2	0.26	3.3	5.94	22.0	2.43	5.0	0.01	0.5	0.22	2.0
TOBACCO: Paper	1.28	5.3	0.55	7.0	1.18	4.4	1.08	2.2	0.45	21.0	0.46	4.2
Plastic	0	-	0	-	0	-	0	-	0	-	0	-
Metal	1.28	5.3	0.55	7.0	1.18	4.4	1.08	2.2	0.45	21.0	0.46	4.2
Total												
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire other	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-	0	-
NEWSPAPER:	0.83	3.4	0.01	0.1	0.50	1.8	6.28	12.9	0.64	29.9	0.07	0.6
HOUSEHOLD: Plastic	0.94	3.9	0.20	2.5	1.23	4.5	2.00	4.1	0.42	19.6	0.26	2.4
Paper (incl. alum foil)	4.74	19.4	0	-	0.65	2.4	1.54	3.2	0	-	0	-
MISC. PAPER: Cardboard	0	-	0.20	2.5	0	-	0	-	0	-	1.34	12.1
Other (incl. paper bags)	0	-	0	-	0	-	0	-	0	-	0	-
WINE BOTTLES:	0	-	0	-	0	-	0	-	0	-	0	-
LQUOR BOTTLES:	0	-	0	-	0	-	0.61	1.3	0	-	0	-
MISC. GLASS:	0	-	0.01	0.1	0.32	1.2	0	-	0	-	0.23	2.5
MISC. PLASTIC:	0.70	2.9	0.27	3.4	0	-	0.56	1.1	0.03	1.4	1.00	9.1
MISC. METAL: Cans	0.21	0.9	0	-	0	-	0.22	0.5	0	-	0.72	6.5
Other	1.60	6.6	0.73	9.3	0	-	0	-	0	-	0.09	0.8
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0.01	0.1	0	-	0	-	0	-	0	-
OTHER:	3.49	14.3	1.56	19.8	2.61	9.6	1.95	4.0	0	-	0.03	0.3
Total	24.38	100.0	7.88	99.9	27.06	100.0	48.7	100.0	2.14	100.0	11.03	100.0





CLASSIFICATION	Charlotteville Washington Park		Charlotteville McIntire Park		Charlotteville Delmont Park		Danville Playground		Norfolk Zoo		Norfolk Botanical Gardens		Norfolk Lakenwood		Norfolk City Park	
	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%	Wt.	%
<b>BEER: Cans: alum</b>	4.48	8.7	4.30	21.8	0.32	2.4	5.84	6.8	0.41	0.9	5.35	10.5	0.70	11.6	0.84	7.0
<b>Bottles: returnable</b>	22.37	43.6	0	-	2.11	16.1	7.52	8.7	0.42	0.9	2.14	4.2	0	-	0.27	2.3
<b>Cartons</b>	0.74	1.4	0	-	0	-	0.26	0.3	6.66	14.7	1.17	2.3	0.77	12.8	2.17	18.0
<b>Total</b>	27.59	53.8	4.30	21.8	2.43	18.6	13.62	15.8	8.13	18.0	8.66	17.0	0	-	0	-
<b>SOFT DRINK: Cans: alum</b>	2.73	5.3	0.52	2.6	0.90	6.9	10.83	12.5	0	-	2.45	4.8	0	-	0.04	0.3
<b>non-alum</b>	1.10	2.1	2.90	14.7	0.95	7.3	5.94	6.9	2.20	4.9	8.95	17.6	0	-	0.76	6.3
<b>Bottles: returnable</b>	8.64	16.8	1.95	9.9	7.26	55.5	9.00	10.4	2.10	4.6	1.92	3.8	1.95	22.4	1.50	12.5
<b>nonreturnable</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Cartons</b>	12.47	24.3	5.37	27.3	9.11	69.6	25.77	29.8	4.30	9.5	13.32	26.2	0	-	0	-
<b>Total</b>	0.03	0.1	0.01	0.1	0.64	0.3	0.05	0.1	0.01	-	0.09	0.2	0	-	0.02	0.2
<b>PLASTIC SIX PACK HOLDERS:</b>	0.01	-	0	-	0	-	0.05	0.1	0	-	0	-	0	-	0	-
<b>TAB CAN OPENERS:</b>	0.08	0.2	0.11	0.6	0.09	0.7	6.09	7.0	0	-	2.20	4.3	0	-	0.49	4.1
<b>GROCERY: Paper: paper bags</b>	0.22	0.4	0	-	0	-	3.69	4.3	5.00	11.1	0.76	1.5	0	-	0.23	1.9
<b>other</b>	0.01	-	0.04	0.2	0	-	0.84	1.0	0.42	0.9	5.68	11.2	0.10	1.7	0	-
<b>Plastic</b>	0.02	-	0	-	0.05	0.4	0.85	1.0	0.14	0.3	0.60	1.2	0	-	0.18	1.5
<b>Metal</b>	0	-	0	-	0	-	0	-	2.28	5.0	0.34	0.7	0	-	0.90	7.5
<b>Glass</b>	0.33	0.6	0.15	0.8	0.14	1.1	11.47	13.3	7.84	17.3	9.58	18.8	0.10	1.7	1.80	15.0
<b>Total</b>	0.30	0.6	7.69	39.0	0	-	3.53	4.1	10.01	22.1	4.04	7.9	0.74	12.3	0.75	6.2
<b>PREPARED FOOD: Paper</b>	0.08	0.2	0.25	1.3	0	-	0.41	0.5	0.23	0.5	0.66	1.3	0.10	1.7	0.01	0.1
<b>Plastic</b>	0.38	0.7	7.94	40.3	0	-	3.94	4.6	10.24	22.6	4.70	9.2	0.84	14.0	0.76	6.3
<b>Total</b>	0.45	0.9	0.80	4.1	0.10	0.8	2.91	3.4	1.94	4.3	0.83	1.6	0.23	3.8	0.19	1.6
<b>SNACK FOOD: Paper</b>	0.13	0.3	0.30	1.5	0	-	0.76	0.9	0.64	1.4	0.82	1.6	0.03	0.5	0.08	0.7
<b>Plastic</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Metal</b>	0.13	0.3	0.30	1.5	0	-	0.76	0.9	0.64	1.4	0.82	1.6	0.03	0.5	0.08	0.7
<b>Total</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>AUTOMOTIVE: Glass</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Metal: oil cans</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>other</b>	0	-	0	-	0	-	0.08	0.1	0	-	0	-	0	-	0	-
<b>Rubber: tire</b>	0	-	0	-	0	-	0	-	0	-	4.26	8.4	0	-	0	-
<b>other</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Plastic: anti-freeze</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>other</b>	0	-	0	-	0	-	0.08	0.1	0	-	4.26	8.4	0	-	0	-
<b>Total</b>	0.09	0.2	0	-	0	-	0.79	0.9	0	-	4.22	8.3	0	-	0	-
<b>NEWSPAPER:</b>	0.48	0.9	0.57	2.9	0	-	2.59	3.0	0.93	2.1	1.45	2.9	0.01	0.1	0.01	0.1
<b>HOUSEHOLD: Plastic</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>Paper (incl. alum foil)</b>	0	-	0.21	1.1	0	-	0.12	0.1	0	-	1.10	2.2	0.60	10.0	0.16	1.3
<b>MISC. PAPER: Cardboard</b>	4.50	8.8	0	-	1.10	8.4	17.28	20.0	11.00	24.3	0	-	1.20	19.9	3.40	28.3
<b>Other (incl. paper bags)</b>	0.78	1.5	0	-	0	-	0	-	0	-	0.86	1.7	0	-	0	-
<b>WINE BOTTLES:</b>	0.93	1.8	0	-	0	-	1.74	2.0	0	-	0	-	0	-	0	-
<b>LIQUOR BOTTLES:</b>	0.15	0.3	0.02	0.1	0	-	0.06	0.1	0.22	0.5	0.55	1.1	0	-	0.03	0.3
<b>MISC. GLASS:</b>	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
<b>MISC. PLASTIC:</b>	2.90	5.7	0.02	0.1	0.17	1.3	0.22	0.3	0	-	0	-	0.20	3.3	0	-
<b>MISC. METAL: Cans</b>	0.06	0.1	0	-	0	-	0.30	0.3	0	-	0.02	-	0	-	0	-
<b>Other</b>	0	-	0	-	0	-	1.76	2.0	0	-	0	-	0	-	0	-
<b>CLEANING AGENT TOILETRIES CONTAINERS:</b>	0.02	-	0.01	0.1	0	-	2.91	3.4	0	-	0.49	1.0	0	-	0	-
<b>UNWRAPPED FOOD:</b>	51.30	100.0	19.70	100.2	13.09	100.1	86.42	100.2	15.25	100.0	50.95	100.0	6.02	100.0	12.03	100.2
<b>OTHER:</b>																
<b>Total</b>	51.30	100.0	19.70	100.2	13.09	100.1	86.42	100.2	15.25	100.0	50.95	100.0	6.02	100.0	12.03	100.2



CLASSIFICATION	Winchester Park		Pocohantas Campground	
	Wt.	%	Wt.	%
BEER: Cans: alum non-alum	0.95	2.6	0.12	2.9
Bottles: returnable	1.18	3.2	0.12	2.9
Cartons nonreturnable	17.10	46.0	0.94	22.9
Total	0.95	2.6	0	-
	20.18	54.3	1.18	28.7
SOFT DRINK: Cans: alum non-alum	0	-	0	-
Bottles: returnable	4.30	11.6	1.44	35.0
Cartons nonreturnable	4.93	13.3	0	-
Total	0	-	0.90	21.9
	9.23	24.8	2.34	56.9
PLASTIC SIX PACK HOLDERS:	0.04	0.1	0	-
TAB CAN OPENERS:	0.04	0.1	0	-
GROCERY: Paper: paper bags other	1.97	5.3	0	-
Plastic	0	-	0.02	0.5
Metal	0	-	0	-
Glass	0	-	0	-
Total	1.97	5.3	0.02	0.5
PREPARED FOOD: Paper	0.22	0.6	0.14	3.4
Plastic	0.70	1.9	0.07	1.7
Total	0.92	2.5	0.21	5.1
SNACK FOOD: Paper	1.65	4.4	0.05	1.2
TOBACCO: Paper	0.38	1.0	0.02	0.5
Plastic	0	-	0	-
Metal	0	-	0	-
Total	0.38	1.0	0.02	0.5
AUTOMOTIVE: Glass	0	-	0	-
Metal: oil cans	0	-	0	-
other	0	-	0	-
Rubber: tire	0	-	0	-
other	0	-	0	-
Plastic: anti-freeze	0	-	0	-
other	0	-	0	-
Total	0	-	0	-
NEWSPAPER:	0.22	0.6	0	-
HOUSEHOLD: Plastic	0.02	0.1	0	-
Paper (incl. alum foil)	0	-	0	-
MISC. PAPER: Cardboard	0	-	0	-
Other (incl. paper bags)	2.40	6.5	0.20	4.9
WINE BOTTLES:	0	-	0	-
LIQUOR BOTTLES:	0	-	0	-
MISC. GLASS:	0	-	0	-
MISC. PLASTIC:	0	-	0.09	2.3
MISC. METAL: Cans	0	-	0	-
Other	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-
OTHER:	0.14	0.4	0	-
Total	37.19	100.2	4.11	100.1



CLASSIFICATION	I-64 Richmond		I-65 Petersburg		I-81 Bristol		I-581 Roanoke		I-264 Norfolk		I-64 Hampton		I-95 Fairfax	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	14.37	7.8	3.54	12.3	3.03	6.9	2.58	6.0	29.32	18.1	11.57	35.8	10.33	2.3
Bottles: returnable nonreturnable	4.37	2.4	2.37	8.2	3.02	6.9	1.59	3.7	5.14	3.2	3.16	9.8	2.69	0.6
Cartons	2.17	1.2	0.09	0.3	0	-	0.92	2.2	1.01	0.6	0.40	1.2	1.42	0.3
Total	20.91	11.3	6.00	20.8	8.58	19.5	7.39	17.3	35.47	21.8	15.13	46.7	22.7	4.9
SOFT DRINK: Cans: alum non-alum	4.65	2.5	1.79	6.2	0.15	0.4	0.05	0.1	9.95	6.1	3.21	9.9	1.67	0.4
Bottles: returnable nonreturnable	0.13	0.1	0.40	1.3	4.49	11.2	1.31	3.1	0	-	0.03	0.1	3.84	0.8
Cartons	2.32	1.3	2.00	6.9	0.70	1.6	0	-	2.18	1.4	0.35	1.1	0.17	-
Total	7.10	3.9	4.19	14.4	6.34	14.4	2.73	6.4	12.13	7.5	3.64	11.3	7.2	1.5
PLASTIC SIX PACK HOLDERS:	0.10	0.1	0.28	1.0	0.08	0.2	0.23	0.5	0.26	0.2	0.57	1.8	0.25	0.1
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	25.88	14.0	1.82	6.3	2.23	5.1	5.09	11.9	26.67	16.4	2.30	7.1	29.47	6.4
Plastic	3.73	2.0	0.48	1.7	1.07	2.4	0.72	1.7	4.56	2.8	0.20	0.6	5.44	1.2
Metal	3.22	1.8	0.38	1.3	0.36	0.8	0.43	1.0	2.94	1.8	0.27	0.8	7.46	1.6
Glass	0.68	0.4	0.03	0.1	0.24	0.6	0.17	0.4	0.30	0.2	0.05	0.2	0.96	0.2
Total	33.51	18.2	2.76	9.6	3.91	8.9	6.41	15.0	34.50	21.2	2.82	8.7	43.37	9.4
PREPARED FOOD: Paper	14.28	7.8	1.50	5.2	2.27	5.2	3.61	8.5	14.55	9.0	1.55	4.8	14.42	3.1
Plastic	3.52	1.9	0.87	3.0	2.10	4.8	0.81	1.9	4.47	2.8	0.48	1.5	3.76	1.3
Total	17.80	9.7	2.37	8.2	4.37	10.0	4.42	10.3	19.02	11.7	2.03	6.3	20.18	4.4
SNACK FOOD: Paper	3.47	1.9	0.54	1.9	0.59	1.4	0.59	1.4	2.04	1.3	0.36	1.1	2.18	0.5
TOBACCO: Paper	3.53	1.9	1.32	4.6	0.94	2.1	0.82	1.9	2.30	1.4	0.80	2.5	1.09	0.2
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	3.53	1.9	1.32	4.6	0.94	2.1	0.82	1.9	2.30	1.4	0.80	2.5	1.09	0.2
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	3.25	1.7	0.89	3.1	0	-	1.29	3.0	2.66	1.6	0.58	1.8	9.79	2.1
Rubber: tire other	5.71	3.1	3.39	11.8	2.91	6.6	1.31	3.1	1.29	0.8	1.90	5.9	5.68	1.2
Plastic: anti-freeze other	0.44	0.2	0.23	0.8	0	-	0	-	0	-	0	-	2.66	0.6
Total	9.40	5.1	4.51	15.6	2.91	6.6	2.60	6.1	3.95	2.4	2.48	7.7	18.13	4.0
NEWSPAPER:	7.44	4.0	0.50	1.7	0.67	1.5	1.54	3.6	6.36	3.9	0	-	54.17	11.8
HOUSEHOLD: Plastic	16.57	9.0	0	-	0	-	5.55	13.0	9.79	6.0	0.40	1.2	4.44	1.0
Paper (incl. alum foil)	7.04	3.8	1.47	5.1	0.37	0.9	2.77	6.5	9.77	6.0	1.18	3.7	18.60	4.1
MISC. PAPER: Cardboard	39.78	21.6	0.77	2.7	9.54	21.7	4.22	9.9	18.93	11.7	1.19	3.7	59.76	13.0
Other (incl. paper bags)	0	-	0	-	2.38	5.4	0	-	0	-	0.09	0.3	14.44	3.2
WINE BOTTLES:	0.06	-	0.06	0.2	0.12	0.3	0.31	0.7	1.56	1.0	0	-	0.50	0.1
LIQUOR BOTTLES:	0.20	0.1	0.16	0.6	0.29	0.7	0.04	0.1	0.41	0.3	0.16	0.5	0.41	0.1
MISC. GLASS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	6.84	3.7	0.72	2.5	2.45	5.6	0.46	1.1	0	-	0	-	33.19	7.2
MISC. METAL: Cans	0	-	0.60	2.1	0	-	0	-	1.36	0.8	0.87	2.7	3.42	0.8
Other	1.48	0.8	0.11	0.4	0	-	1.95	4.6	0.36	0.2	0	-	136.70	29.8
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0.03	0.1	0	-	0.06	0.1	0.10	0.1	0	-	0.44	0.1
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	9.23	5.0	2.51	8.7	0.41	0.9	0.67	1.6	4.20	2.6	0.65	2.0	18.70	4.1
Total	184.46	100.1	28.90	100.2	43.95	100.1	42.76	100.1	162.51	100.1	32.37	100.2	459.44	100.2



CLASSIFICATION	I-64 Louisiana		I-77 Bland		I-85 Dinwiddie		I-81 Shenandoah		I-64 York		I-95 Spotsylvania		I-81 Montgomery		I-66 Prince William	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	3.91 1.54 0.78 6.23	18.6 7.3 3.7 29.6	1.94 0.33 0.25 2.52	17.1 2.9 2.2 22.2	8.20 1.10 0.18 9.48	21.6 2.9 0.5 24.9	0.96 0.83 0.41 2.28	4.8 4.2 2.1 11.4	11.57 1.37 0 12.94	31.8 3.8 - 35.5	2.22 1.69 0.74 4.75	6.1 4.6 2.0 13.0	1.74 1.82 0.60 4.36	12.1 12.0 4.2 30.2	5.45 3.96 2.47 13.38	8.8 6.4 4.0 21.6
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	1.31 0.02 0.35 0 1.68	6.2 0.1 1.7 - 8.0	1.34 0 0.66 0 2.00	11.8 - 5.8 - 17.6	3.38 0.17 0.29 0 3.84	8.9 0.5 0.8 - 10.1	0.13 1.11 0.07 0.24 1.55	0.7 5.6 0.4 1.2 7.8	2.80 0.03 0.18 0 3.01	7.7 0.1 0.5 - 8.3	1.16 1.79 0.17 0.79 3.91	3.2 4.9 0.5 2.2 10.7	0.08 0.58 0.03 0 3.37	0.6 17.9 0.2 4.7 23.4	0.45 1.26 0.10 1.29 3.22	0.7 2.0 0.2 2.1 5.2
PLASTIC SIX PACK HOLDERS:	0.12	0.6	0.10	0.9	0.05	0.1	0.08	0.4	0.13	0.4	0.08	0.2	0.13	1.0	0.18	0.3
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other Plastic Metal Glass Total	0 0.25 0.94 0.34 0 1.53	- 1.2 4.5 1.6 - 7.3	0.33 0.22 0.31 0.14 0.10 1.10	2.9 1.9 2.7 0.14 0.9 9.7	1.21 1.64 0.50 0.16 3.65	3.2 4.3 1.3 0.4 9.6	0.89 0.28 1.58 0 2.75	4.5 1.4 7.9 - 13.7	1.98 1.42 0 0.03 3.43	5.4 3.9 - 0.1 9.4	7.33 1.00 2.7 0.03 8.92	20.1 2.7 1.5 0.1 24.5	0.23 6.69 0.14 0 1.11	1.9 4.8 1.0 - 7.7	4.50 2.91 5.33 0.24 13.01	7.3 4.7 8.6 0.4 21.0
PREPARED FOOD: Paper Plastic Total	1.92 0.89 2.81	9.1 4.2 13.4	0.50 0.37 0.87	4.4 3.3 7.7	3.45 0.85 4.28	9.0 2.2 11.3	0.82 0.74 1.56	4.7 3.7 7.8	1.86 0.23 2.09	5.1 0.6 5.7	3.80 0.6 4.67	10.4 2.4 12.8	1.38 0.23 1.61	9.6 1.6 11.2	5.15 2.60 7.75	8.3 4.2 12.5
SNACK FOOD: Paper	0.39	1.9	0.20	2.6	0.83	2.2	0.75	3.8	0.40	1.1	0.52	1.4	0.31	2.1	0.95	1.5
TOBACCO: Paper Plastic Metal Total	0.37 0 0 0.37	1.8 - - 1.8	0.47 0 0.49 0.96	4.1 - 4.3 8.5	0.83 0 0 0.83	2.2 - - 2.2	1.35 0 0 1.35	6.8 - - 6.8	0.53 0 0 0.53	1.6 - - 1.6	0.54 0 0 0.54	1.5 - - 1.5	0.96 0 0 0.96	6.7 - - 6.7	1.48 0 0 1.48	2.4 - - 2.4
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other Total	0.01 0.27 2.52 0.58 0 0.09 3.47	0.1 1.3 12.0 2.8 - 0.4 16.5	0 0.16 0.32 0.23 0 0.03 0.74	- 1.4 2.8 2.0 - 0.3 6.5	0 0.54 2.21 2.48 0 0 5.23	- 1.4 5.8 6.5 - - 13.8	0 0 1.79 5.33 0 0 7.12	- - 9.0 26.6 - - 35.6	0.18 0.60 1.01 1.65 0 0.05 3.49	0.5 1.6 2.8 4.5 - 0.1 9.6	0 0 0.49 0.49 0 0 3.96	0 3.7 1.3 1.3 - - 6.4	0 0 0 0 0 0 0	0 6.7 - - - - 2.1	0 1.48 0 0 0 0.29 2.00	0 2.4 1.0 1.5 - 0.5 3.2
NEWSPAPER:	0.54	2.6	0	-	1.14	3.0	0.08	0.4	0.55	1.5	0.42	1.2	0	-	2.70	4.4
HOUSEHOLD: Plastic Paper (incl. alum foil)	0.20 0.91	1.0 4.3	0.25 0.30	2.2 2.6	0 0.98	2.6 2.6	0.15 0.97	0.8 4.9	0.41 1.68	1.1 4.6	0.25 3.53	0.7 9.7	0.45 0.28	3.1 1.9	2.59 0.95	4.2 1.5
MISC. PAPER: Cardboard Other (incl. paper bags)	0 0.43	- 2.0	0.10 0.08	0.9 0.7	1.92 0.36	5.0 1.0	0.71 0	3.6 -	1.24 0.13	3.4 0.4	3.46 1.19	9.5 3.3	0.90 0	6.2 -	3.15 2.18	5.1 3.5
WINE BOTTLES:	0.06	0.3	0	-	0.06	0.2	0	-	0.12	0.3	0	-	0	-	0.06	0.1
LQUOR BOTTLES:	0.08	0.4	0.16	1.4	0.08	0.2	0.08	0.4	0.04	0.1	0.08	0.2	0	-	0.29	0.5
MISC. GLASS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	0.73	3.5	0.11	1.0	1.33	3.6	0.08	0.4	4.92	13.5	1.20	3.5	0.40	2.8	5.55	9.0
MISC. METAL: Cans Other	0 1.10	- 5.2	0 0.32	- 2.8	0 0.18	- 0.5	0.25 0	1.2 -	0 0.58	- 1.6	0 0.04	- 0.1	0.33 0	2.3 -	0 0.75	- 1.2
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0.06	0.2	0	-	0	-	0	-	0	-	0.04	0.1
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.39	1.9	1.44	12.7	3.70	9.7	0.25	1.2	0.69	1.9	0.46	1.3	0.21	1.5	1.61	2.6
Total	21.04	100.2	11.34	100.0	38.02	100.2	20.01	100.2	36.43	100.0	36.44	100.0	14.42	100.1	61.84	99.9





TABLE 23 CONTINUED

CLASSIFICATION	I-81 Frederick	
	Vol.	%
BEEF: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	0.76 0.86 0.71 0.07 2.40	4.8 5.4 4.5 0.4 15.2
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons Total	0.18 1.31 0.03 0.38 0 1.90	1.1 8.3 0.2 2.4 - 12.0
PLASTIC SIX PACK HOLDERS:	0.05	0.3
TAB CAN OPENERS:	0	-
GROCERY: Paper: paper bags other Plastic Metal Glass Total	2.05 0.57 0.11 0.34 0.03 3.10	13.0 3.6 0.7 2.1 0.2 19.6
PREPARED FOOD: Paper Plastic Total	0.76 0.55 1.31	4.8 3.5 8.3
SNACK FOOD: Paper	0.33	2.1
TOBACCO: Paper Plastic Metal Total	0.91 0.20 0 1.11	5.7 1.3 - 7.0
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other Total	0 0 0.67 0.85 0 0 1.52	- - 4.2 5.4 - - 9.6
NEWSPAPER:	0.67	4.2
HOUSEHOLD: Plastic Paper (incl. alum foil)	0.44 0.67	2.8 4.2
MISC. PAPER: Cardboard Other (incl. paper bags)	0.86 0.23	5.4 1.5
WINE BOTTLES:	0.06	0.4
LIQUOR BOTTLES:	0.04	0.3
MISC. GLASS:	0	-
MISC. PLASTIC:	0.54	3.4
MISC. METAL: Cans Other	0 0.03	- 0.2
CLEANING AGENT TOILETRIES CONTAINERS:	0.04	0.3
UNWRAPPED FOOD:	0	-
OTHER:	0.53	3.3
Total	15.83	100.1



LITTER PROPORTIONS BY VOLUME FOR PRODUCT GROUP CLASSIFICATION - ARTERIAL PRIMARY

CLASSIFICATION	Route 17 Essex		Route 33 Rockingham		Route 360 Amelia		Route 460 Tazewell		Route 29 Pittsylvania		Route 460 Bedford		Route 13 Northampton		Route 7 Loudoun	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	6.87	25.4	4.37	24.8	7.07	30.6	12.83	13.0	7.05	17.2	0.63	5.3	6.46	13.3	3.89	9.0
Bottles: returnable	2.69	10.0	1.79	10.1	1.07	4.6	5.16	5.2	2.39	5.8	0.55	4.6	5.88	12.1	1.68	3.9
Cartons	0.69	2.6	0.80	4.5	0.29	1.3	4.37	4.4	1.56	3.8	0.32	2.7	2.50	5.2	0.87	2.0
Total	10.25	38.0	6.96	39.4	8.43	36.5	22.36	22.7	17.11	41.8	2.36	19.9	14.84	30.6	8.16	18.8
SOFT DRINK: Cans: alum	0.63	2.3	1.06	6.0	3.23	14.0	14.42	14.7	0.53	1.3	0.03	0.3	7.85	16.2	0.13	0.3
non-alum	0.20	0.7	0.03	0.2	0.03	0.1	0.63	0.6	2.40	5.9	1.24	10.4	0.20	0.4	0.81	1.9
Bottles: returnable	2.38	8.8	0.74	4.2	0.62	2.7	2.53	2.6	0.87	2.1	0.20	1.7	0.68	1.4	0.65	1.5
nonreturnable	0	-	0	-	0	-	0	-	0.13	0.3	0.02	0.2	0.01	0	0	0
Cartons	3.21	11.9	1.83	10.4	3.88	16.8	17.58	17.9	4.43	10.8	1.75	14.7	8.74	18.0	1.82	4.2
Total	0.58	2.2	0.12	0.7	0.02	-	0.17	0.2	0.22	0.5	0.43	3.6	0	-	0.43	1.0
PLASTIC SIX PACK HOLDERS:	0.08	0.3	0	-	0	-	0	-	0	-	0	-	0	-	0	-
TAB CAN OPENERS:	3.64	13.5	4.47	25.3	1.73	7.5	19.60	19.9	3.46	18.2	1.00	8.4	6.62	13.0	7.58	17.5
GROCERY: Paper: paper bags	1.32	4.9	0	-	0.44	1.9	0.53	0.5	1.61	3.9	0.25	2.1	0.73	1.5	1.03	2.4
other	0.50	1.9	0.04	0.22	0.03	0.1	0.29	0.3	0.51	1.3	0.07	0.6	2.04	4.2	0	-
Plastic	0.47	1.7	0.12	0.7	0	-	0	-	0.10	0.3	0	-	0.10	0.2	0	-
Metal	0.03	0.1	0	-	0	-	0	-	0.10	0.3	0	-	0	-	0	-
Glass	5.96	22.1	4.63	26.2	2.20	9.5	20.42	20.7	5.68	13.9	1.60	13.5	9.49	19.5	8.61	19.8
Total	0.92	3.4	1.44	8.2	2.53	11.0	5.10	5.2	3.83	9.4	0.87	7.3	2.02	4.2	3.23	7.4
PREPARED FOOD: Paper	0.11	0.4	0.89	5.0	0.32	1.4	1.35	1.4	0.8	0.8	0.34	2.0	0.23	0.5	0.98	2.2
Plastic	1.03	3.8	2.33	13.2	2.85	12.3	6.45	6.6	4.14	10.1	1.11	9.3	2.25	4.6	4.21	9.7
Total	1.06	3.9	0.37	2.1	0.45	2.0	1.46	1.5	0.64	1.6	0.07	0.6	0.30	0.6	0.83	1.9
SNACK FOOD: Paper	0.34	1.3	0.23	1.3	0.46	2.0	0.84	0.9	0.47	1.2	0.12	1.0	0.34	0.7	0.26	0.6
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0.34	1.3	0.23	1.3	0.46	2.0	0.84	0.9	0.47	1.2	0.12	1.0	0.34	0.7	0.26	0.6
Total	0	-	0	-	0	-	0	-	0.06	0.2	0	-	0	-	0	-
AUTOMOTIVE: Glass	0.16	0.6	0.27	1.5	0	-	1.58	1.6	0.49	1.2	0	-	0	-	0	0.27
Metal: oil cans	0.96	3.6	0	-	1.15	5.0	0.82	0.8	0.48	1.2	2.34	19.7	0.78	1.6	0.27	0.6
other	0	-	0	-	0	-	4.15	4.2	4.12	10.1	0	-	0	-	1.07	2.5
Rubber: tire	0	-	0	-	0	-	0	-	0.01	0	0	-	3.25	6.7	0	-
other	0	-	0	-	0	-	0	-	0	0	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	0	0	-	0	-	0	-
other	1.12	4.2	0.27	1.5	1.15	5.0	6.55	6.7	5.16	12.6	2.34	19.7	4.03	8.3	1.61	3.7
Total	0.44	1.6	0.01	0.1	0.76	3.3	0.73	0.7	0	-	0.05	0.4	1.44	3.0	2.14	4.9
NEWSPAPER:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
HOUSEHOLD: Plastic	0.41	1.5	0.25	1.4	1.46	6.3	5.81	5.9	1.89	4.6	0.10	0.8	0.24	0.5	2.02	4.7
Paper (incl. alum foil)	0	-	0	-	0	-	7.62	7.9	0	-	0	-	1.18	2.4	2.39	5.5
MISC. PAPER: Cardboard	0	-	0.09	0.5	0.98	4.3	6.18	6.3	0	-	1.03	8.7	2.46	5.1	5.23	12.1
Other (incl. paper bags)	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
WINE BOTTLES:	0.63	2.3	0	-	1.06	0.3	0	-	0.06	0.2	0.12	1.0	0.44	0.9	0	-
LEQUOR BOTTLES:	0.41	1.5	0.33	1.9	0.20	0.9	0.33	0.3	0.33	0.8	0.04	0.3	0.78	1.6	0.25	0.6
MISC. GLASS:	0	-	0.01	0.1	0	-	0.03	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	1.49	5.5	0.19	1.0	0.20	0.9	1.69	1.7	0	-	0.43	3.6	2.04	4.2	0	-
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other	0	-	0.03	0.2	0	-	0	-	0	-	0.25	2.1	0	-	1.27	2.9
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	0	-	0	-	0	-	0.83	2.0	0.08	0.7	0	-	4.20	9.7
Total	27.61	100.1	17.65	100.0	23.10	100.1	98.42	100.0	40.96	100.1	11.88	99.9	48.57	100.0	43.43	100.1



LETTER PROPORTIONS BY VOLUME FOR PRODUCT GROUP CLASSIFICATION - NONARTERIAL PRIMARY

CLASSIFICATION	Route 33 New Kent		Route 3 Westmoreland		Route 501 Campbell		Route 522 Culpeper		Route 10 Stafford		Route 42 Augusta		Route 21 Wythe	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum Bottles: returnable nonreturnable Cartons	21.31 1.72 1.82 24.85	38.1 3.1 3.3 44.4	5.86 1.51 0.34 7.71	29.1 7.5 1.7 38.3	5.20 1.62 1.03 7.85	23.8 7.4 4.7 35.9	1.59 0.44 1.06 3.09	10.8 3.0 7.2 21.0	3.64 0.69 0.41 4.74	16.1 3.1 1.8 21.0	0.48 1.26 1.04 2.90	5.5 14.4 11.9 33.2	0.68 0.88 0.16 2.18	5.6 7.2 1.3 18.0
SOFT DRINK: Cans: alum non-alum Bottles: returnable nonreturnable Cartons	3.36 0.23 2.91 0 6.50	6.0 0.4 5.2 - 11.6	0.63 0 1.38 0 2.01	3.1 - 6.8 - 10.0	1.29 0.20 0.06 0 1.55	5.9 0.9 0.3 - 7.1	0.33 0 0.12 0 0.45	2.2 - 0.8 - 3.1	0.98 0.10 0.29 0 1.37	4.3 0.4 1.3 - 6.1	0 0.76 0 0.44 1.20	- 8.7 - 5.0 13.7	0 0.98 0 0 1.40	8.1 - - 3.5 11.5
PLASTIC SIX PACK HOLDERS:	0.48	0.9	0.32	1.6	0.03	0.1	0.12	0.8	0	0	0.07	0.8	0.08	0.7
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other Plastic Metal Glass	5.15 0 0.57 0.14 0	9.2 - 1.0 0.3 0	2.45 0.76 0.33 0 3.57	12.3 3.8 1.6 - 17.7	2.27 0.20 0.23 0.12 2.89	10.4 0.9 1.1 0.5 13.2	3.76 1.59 0 0.10 5.45	25.6 10.8 - 0.7 37.1	1.86 0.96 0.32 0.19 3.33	8.2 4.2 1.4 0.8 14.7	0.68 0.08 0.07 0.08 0.91	7.8 0.9 0.8 0.9 10.4	1.50 0.34 0.19 0.01 2.04	12.4 2.8 1.6 0.1 16.8
PREPARED FOOD: Paper Plastic	3.60 0.08 4.28	6.4 1.2 7.7	1.29 0.16 1.45	6.4 0.8 7.2	1.22 0.13 1.35	5.6 0.6 6.2	1.08 0.40 1.48	7.4 2.7 10.1	1.38 0.68 2.06	6.1 3.0 9.1	0 0.15 0.15	- 1.7 1.7	0.74 0.18 0.92	6.1 1.5 7.6
SNACK FOOD: Paper	0.44	0.8	0.46	2.3	0.54	2.5	0.54	3.7	0.32	1.4	0.30	3.4	0.35	2.9
TOBACCO: Paper Plastic Metal	0.36 0 0 0.36	0.6 - - 0.6	0.39 0 0 0.39	1.9 - - 1.9	0.20 0 0 0.20	0.9 - - 0.9	0.22 0 0 0.22	1.5 - - 1.5	0.60 0 0 0.60	2.7 - - 2.7	0.19 0 0 0.19	2.2 - - 2.2	0.20 0 0 0.20	1.6 - - 1.6
AUTOMOTIVE: Glass Metal: oil cans other Rubber: tire other Plastic: anti-freeze other	0 0.26 4.76 6 0.24 5.26	- 0.5 8.5 - 0.4 9.4	0 0 0 0 0 0	- - - - - -	0.22 0.31 0.09 0 0 0.62	1.0 1.4 0.4 - - 2.8	0 0.50 0.36 0 0 0.86	- 3.4 2.5 - - 5.9	0 0.14 0.95 0 0 1.09	0 0.6 4.2 - - 4.8	0 0.39 0.08 0 0.04 0.46	- 4.5 0.3 - 0.5 5.3	0 0.03 0.02 0 0.17 0.22	- 0.2 0.2 - 1.4 1.8
NEWSPAPER:	0	-	0.50	2.5	0.30	1.4	1.33	9.1	3.12	13.3	0	-	0	-
HOUSEHOLD: Plastic Paper (incl. alum foil)	0 0.61	- 1.1	0 0.50	- 2.5	0 0.06	- 0.3	0 0.55	- 3.7	0.29 1.10	1.3 4.9	0.01 0.46	0.1 5.3	0.17 0.45	1.4 3.7
MISC. PAPER: Cardboard Other (incl. paper bags)	2.93 0	5.2 -	0.41 0.37	2.0 1.8	1.38 0	6.3 -	0 0.24	- 1.6	2.27 0.89	10.0 3.9	1.62 0.06	18.6 0.7	3.36 0.17	27.7 1.4
WINE BOTTLES:	0.50	0.9	0	-	0.12	0.5	0	-	0.06	0.3	0.06	0.7	0	-
LIQUOR BOTTLES:	0.60	1.1	0	-	0.16	0.7	0.04	0.3	0.08	0.4	0	-	0.04	0.3
MISC. GLASS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	1.40	2.5	0.09	0.4	0.13	0.6	0	-	0.37	1.6	0.34	3.9	0.20	1.6
MISC. METAL: Cans Other	0 0.81	- 1.4	0 0	- -	0 4.59	- 21.0	0 0	- -	0 0	- -	0 0	- -	0 0	0.4 -
CLEANING AGENT TOILETRIES CONTAINERS:	0.11	0.2	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.95	1.7	2.37	11.8	0.08	0.4	0.32	2.2	0.91	4.0	0	-	0.31	2.6
Total	55.94	100.0	20.15	100.0	21.85	99.9	14.69	100.1	22.60	100.0	8.73	100.0	12.14	100.0



LITTER PROPORTIONS BY VOLUME FOR PRODUCT GROUP CLASSIFICATION - SECONDARY

CLASSIFICATION	Route 651 Chesterfield		Route 626 Brunswick		Route 622 Amherst		Route 708 Albemarle		Route 605 Lancaster		Route 652 Caroline		Route 612 Augusta		Route 657 Clark	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum	15.68	24.4	17.40	36.0	11.49	22.6	3.61	19.2	44.19	23.0	11.82	18.7	3.61	21.5	9.12	29.3
Bottles: returnable	2.55	4.0	3.01	6.2	1.71	3.4	0.29	1.5	5.63	3.6	2.27	3.6	0.51	3.0	1.28	4.1
nonreturnable	1.95	3.0	5.34	11.0	1.70	3.4	0.68	3.6	16.87	10.7	1.16	1.8	0.35	2.1	2.57	8.3
Cartons	20.18	31.4	25.75	53.3	14.90	29.4	4.58	24.4	66.74	42.2	15.25	24.1	4.47	26.6	12.97	41.6
Total																
SOFT DRINK: Cans: alum	1.24	1.9	1.74	3.6	3.23	6.4	0.68	3.6	6.06	3.8	1.72	2.7	0.96	5.7	2.70	8.7
non-alum	0.07	0.1	0.60	1.2	0.27	0.5	0.07	0.4	0.03	-	0	-	0.13	0.8	0.13	0.4
Bottles: returnable	2.06	3.2	0.53	1.1	0.82	1.6	0.59	3.1	4.70	3.0	2.06	3.3	0.85	5.1	0.91	2.9
nonreturnable	0	-	0	-	0	-	0	-	0.30	0.2	0	-	0	-	0	-
Cartons	3.37	5.2	2.87	5.9	4.32	8.5	1.34	7.1	11.18	7.1	3.78	6.0	1.94	11.5	3.74	12.0
Total																
PLASTIC SIX PACK HOLDERS:	0.08	0.1	0.30	0.6	0.50	1.0	0.08	0.4	1.10	0.7	0.68	1.1	0.05	0.3	0.45	1.4
TAB CAN OPENERS:	0	-	0	-	0.02	-	0.01	0.1	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	4.35	6.8	9.85	20.4	8.18	16.1	0.61	3.2	22.0	13.9	6.47	10.2	0.61	3.6	2.20	7.1
other	4.99	7.8	1.47	3.0	0.29	0.6	0.21	1.1	5.48	3.5	1.41	2.2	0.31	1.8	0.97	3.1
Plastic	1.13	1.8	0.13	0.3	1.53	3.0	2.00	10.6	1.96	1.2	0.68	1.1	1.58	9.4	0.27	0.9
Metal	0.24	0.4	0.35	0.7	0.76	1.5	0.76	4.0	0.51	0.3	0.54	0.9	0.10	0.6	0.07	0.2
Glass	0.30	0.5	0.63	1.3	0.03	0.1	0.10	0.5	0.06	-	0	-	0	-	0.01	-
Total	11.01	17.1	11.83	24.5	10.79	21.3	3.68	19.6	30.01	19.0	9.10	14.4	2.60	15.5	3.52	11.3
PREPARED FOOD: Paper	4.76	7.4	2.66	5.5	6.15	12.1	0.38	1.9	11.51	7.3	0.63	1.0	2.42	14.4	2.44	7.8
Plastic	1.74	2.7	0.34	0.7	1.39	2.7	0.48	2.6	2.06	1.3	0.47	0.7	0.24	1.4	1.48	4.8
Total	6.50	10.1	3.00	6.2	7.54	14.9	0.86	4.6	13.57	8.6	1.10	1.7	2.66	15.8	3.92	12.6
SNACK FOOD: paper	0.39	0.6	0.98	2.0	0.90	1.8	0.13	0.7	1.18	0.7	1.18	1.9	0.17	1.0	1.43	4.6
TOBACCO: Paper	0.40	0.6	0.30	0.6	0.84	1.7	0.16	0.9	0.08	0.1	0.48	0.8	0.25	1.5	0.13	0.4
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0.40	0.6	0.30	0.6	0.84	1.7	0.16	0.9	0.08	0.1	0.48	0.8	0.25	1.5	0.13	0.4
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0.22	0.3	0.22	0.5	0	-	0	-	0	-	0	-	0	-	0	-
other	1.61	2.5	0	-	0.06	0.1	0.07	0.4	0.17	0.1	4.51	7.1	0	-	0	-
Rubber: tire	0	-	0	-	0	-	1.85	9.9	0	-	1.10	1.7	0.02	0.1	0	-
other	0.03	-	0	-	0.01	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0.09	0.1	0	-	0.10	0.2	0	-	0	-	0	-	0	-	0	-
other	1.95	3.0	0.22	0.5	0.17	0.3	1.92	10.2	0.93	0.6	5.61	8.9	0.02	0.1	0	-
Total	7.31	11.4	0.40	0.8	1.44	2.8	0.83	4.4	3.13	2.0	2.45	3.9	0.27	1.6	1.02	3.3
NEWSPAPER:	0	-	0	-	0	-	0	-	2.73	1.7	0	-	0	-	0	-
HOUSEHOLD: Plastic	0.59	0.9	0.82	1.7	0.04	0.1	0.01	0.1	0	-	0	-	0	-	0	-
Paper (incl. alum foil)	5.13	8.0	0	-	7.34	14.5	0	-	8.35	5.3	3.37	5.3	2.38	14.1	2.80	9.0
MISC. PAPER: Cardboard	0.44	0.7	0.76	1.6	0	-	0.49	2.6	8.18	5.2	0.03	-	0.12	0.7	0	-
Other (incl. paper bags)	0.56	0.9	0.38	0.8	0.25	0.5	0.06	0.3	1.81	1.1	0.25	0.4	0.06	0.4	0.06	0.2
WINE BOTTLES:	1.07	1.7	0.41	0.8	0.57	1.1	0.08	0.4	2.42	1.5	0.61	1.0	0.12	0.7	0.12	0.4
LIQUOR BOTTLES:	0	-	0	-	0.01	-	0.06	0.3	0	-	0	-	0	-	0	-
MISC. GLASS:	4.56	7.1	0.32	0.7	0.68	1.3	0	-	6.14	3.9	1.54	2.4	0.38	2.3	0.52	1.7
MISC. PLASTIC:	0.04	0.1	0	-	0	-	0.05	0.3	0	-	2.15	3.4	0	-	0.27	0.9
MISC. METAL: Cans	0	-	0	-	0.43	0.8	4.12	21.9	0.44	0.3	6.14	9.7	0.81	4.8	0	-
Other	0	-	0	-	0	-	0.26	1.4	0.09	0.1	0	-	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.73	1.1	0	-	0	-	0.06	0.3	0	-	8.94	14.1	0.09	0.5	0	-
Total	64.31	100.0	48.34	100.0	50.74	100.0	18.78	100.0	158.08	100.1	63.33	100.2	16.82	100.0	31.15	100.0





CLASSIFICATION	Route 625 Nottoaway		Route 623 Rockingham		Route 632 Goochland		Route 607 Louisa		Route 621 Culpeper		Route 637 Hanover		Route 643 Fauquier		Route 677 Campbell	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	5.86	38.9	10.18	19.3	10.15	22.3	4.97	14.2	6.69	40.8	3.81	15.6	11.57	25.7	12.93	25.5
Bottles: returnable nonreturnable	0.61	4.1	1.98	3.8	0.02	0.02	1.54	4.4	1.37	8.4	0.63	2.6	1.92	4.3	1.05	2.1
Cartons	0.38	2.5	1.73	3.3	3.91	8.6	2.93	8.4	2.00	12.2	1.00	4.1	1.29	2.9	0.64	1.3
Total	6.85	45.5	13.89	26.4	15.40	33.8	9.44	27.0	10.06	61.3	5.44	22.3	14.78	32.8	14.62	28.9
SOFT DRINK: Cans: alum non-alum	1.09	7.2	4.34	8.2	3.16	6.9	1.21	3.5	0.58	3.5	0.66	2.7	1.46	3.2	2.88	5.7
Bottles: returnable nonreturnable	0.33	2.2	0.07	0.1	0.20	0.4	0.03	0.1	0.03	0.2	0.17	0.7	0.40	0.9	0.43	0.8
Cartons	0.50	3.3	2.32	4.4	1.41	3.1	0.62	1.8	0.12	0.7	0.21	0.9	1.18	2.6	0.71	1.4
Total	1.92	12.8	6.73	12.8	4.77	10.5	1.86	5.3	0.73	4.5	1.04	4.3	3.09	6.9	4.02	7.9
PLASTIC SIX PACK HOLDERS:	0.08	0.5	0.17	0.3	0.15	0.3	0.22	0.6	0.22	1.3	0.12	0.5	0.30	0.7	0.13	0.3
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags other	1.76	11.7	5.83	11.1	3.27	7.2	5.44	15.6	2.13	13.0	6.06	24.8	6.92	15.4	13.08	25.8
Plastic	0.01	0.1	1.36	2.6	3.42	7.5	0	-	0.22	1.3	0	-	2.57	5.7	1.59	3.1
Metal	0.05	0.3	0.57	1.1	0.54	1.2	0.58	1.7	0	-	0	-	0.83	1.8	0.43	0.8
Glass	0.02	0.1	0.03	0.1	0.02	0.02	0.02	0.1	0	-	0.01	-	0.30	0.7	0.17	0.3
Total	1.84	12.2	7.79	14.8	7.50	16.4	6.50	18.6	2.35	14.3	6.21	25.4	10.81	24.0	15.29	30.2
PREPARED FOOD: Paper	0.72	4.8	4.23	8.0	3.57	7.8	1.27	3.6	1.42	8.7	3.47	14.2	2.09	4.6	4.44	8.8
Plastic	0.23	1.5	1.27	2.4	0.60	1.3	0.65	1.9	0.44	2.7	1.27	5.2	1.61	3.6	0.52	1.0
Total	0.95	6.3	5.50	10.4	4.17	9.1	1.92	5.5	1.86	11.3	4.74	19.4	3.70	8.2	4.96	9.8
SNACK FOOD: paper	0.84	5.6	0.34	0.6	1.00	2.2	0.56	1.6	0.29	1.8	0.72	2.9	1.42	3.2	0.71	1.4
TOBACCO: Paper	0.25	1.7	0.27	0.5	0.56	1.2	0.18	0.5	0.06	0.4	0.67	2.7	0.16	0.4	0.91	1.8
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0.25	1.7	0.27	0.5	0.56	1.2	0.18	0.5	0.06	0.4	0.67	2.7	0.16	0.4	0.91	1.8
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans other	0.01	0.1	0	-	0.09	0.2	0.11	0.3	0.05	0.3	0	-	0	-	0	-
Rubber: tire other	0	-	0	-	0.13	0.3	0	-	0	-	0	-	0.09	0.2	0.17	0.3
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0.01	0.1	0	-	0.22	0.5	0.11	0.3	0.05	0.3	0	-	0.09	0.2	0.17	0.3
NEWSPAPER:	0.01	0.1	7.36	14.0	3.12	6.8	0.31	0.9	0	-	0	-	4.07	9.0	2.63	5.2
HOUSEHOLD: Plastic	0	-	2.06	3.9	0.59	1.3	0	-	0	-	0	-	2.21	4.9	0	-
Paper (incl. alum foil)	0.60	4.0	1.17	2.2	0.74	1.6	12.10	34.6	0.60	3.7	1.46	6.0	2.21	4.9	0.74	1.5
MISC. PAPER: Cardboard Other (incl. paper bags)	0	-	2.01	3.8	3.41	7.5	0	-	0.04	0.2	3.89	15.9	2.57	5.7	1.15	2.3
WINE BOTTLES:	0.88	5.8	0.38	0.7	0.25	0.5	0.25	0.7	0.06	0.4	0.06	0.2	0	-	0.31	0.6
LIQUOR BOTTLES:	0.39	2.6	0.16	0.3	0.25	0.5	0.45	1.3	0.08	0.5	0.08	0.3	0	-	0.29	0.6
MISC. GLASS:	0	-	0.03	0.1	0	-	0.01	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	0.12	0.8	2.77	5.3	2.14	4.7	0.70	2.0	0	-	0	-	0.74	1.6	0.98	1.9
MISC. METAL: Cans Other	0.30	2.0	0.92	1.7	0.05	0.1	0	-	0	-	0	-	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-	0.79	1.8	2.33	4.6
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.01	0.1	0.45	0.9	0.69	1.5	0.34	1.0	0	-	0	-	0.25	0.6	1.40	2.8
Total	15.05	100.1	52.70	100.0	45.60	99.8	34.95	99.9	16.40	100.0	24.43	99.9	45.00	100.0	50.64	99.8

TABLE 20 CONTINUED



CLASSIFICATION	Route 813 Wise		Route 606 Sussex		Route 647 Suffolk		Route 630 York		Route 620 Fairfax		Route 614 Botetourt		Route 614 Patrick		Route 750 Pittsylvania	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
DEER: Cans: alum	9.57	14.4	7.55	27.1	23.84	36.5	11.11	11.9	3.08	4.7	1.26	11.3	2.45	17.9	2.88	3.1
Bottles: returnable	15.63	23.5	0.95	3.4	0.45	0.7	1.81	1.9	7.12	10.9	1.87	16.7	1.14	8.3	10.25	11.1
nonreturnable	3.15	4.7	1.04	3.7	1.44	2.2	1.45	1.5	1.28	2.0	1.87	16.7	0.14	1.0	2.09	2.3
Cartons	6.19	9.3	9.54	34.2	25.73	39.4	14.37	15.4	13.41	20.6	6.60	59.0	0.62	4.5	4.82	5.2
Total	34.54	51.8											4.35	31.8	20.04	21.8
SOFT DRINK: Cans: alum	1.04	1.6	1.52	5.4	5.18	7.9	5.23	5.6	0.13	0.2	0	-	0.23	1.7	0.81	0.9
non-alum	4.97	7.5	0.37	1.3	0	-	0	-	2.27	3.5	0.43	3.8	0.83	6.1	2.22	2.4
Bottles: returnable	0	-	1.59	5.7	0.82	1.3	1.47	1.6	0.13	0.2	0	-	0.03	0.2	0.10	0.1
nonreturnable	1.5	2.3	0	-	1.33	2.0	0	-	1.00	1.5	1.12	10.0	0	-	1.09	1.2
Cartons	0	-	12.5	45.1	7.33	11.2	6.70	7.2	1.93	3.0	0	-	0	-	0.35	0.4
Total	7.51	11.3	3.48	12.5	11.2	16.4	13.7	15.4	5.33	8.2	1.55	13.9	1.09	8.0	4.57	5.0
PLASTIC SIX PACK HOLDERS:	0.07	0.1	0.05	0.2	0.25	0.4	0.22	0.2	0.18	0.3	0.35	3.1	0.13	1.0	0.47	0.5
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	9.33	14.0	6.44	23.1	7.77	11.9	0	-	8.94	13.7	0	-	1.21	8.9	12.48	13.6
other	4.35	6.5	0	-	0	-	15.68	16.8	3.36	5.2	1.14	10.2	0.37	2.7	3.17	3.4
Plastic	0.39	0.6	0.89	3.2	0	-	3.84	4.1	0	0	0	-	0.44	3.2	1.70	1.8
Metal	0	-	0.10	0.4	0.42	0.6	0.04	-	0.08	0.1	0.14	1.3	0.14	1.0	0.14	0.2
Glass	0	-	0.03	0.1	0.01	0.01	0	-	0.02	-	0	-	0	-	0.04	-
Total	14.07	21.1	7.46	26.7	8.20	12.6	19.56	20.9	12.40	19.1	1.28	11.4	2.16	15.8	17.53	19.1
PREPARED FOOD: Paper	4.18	6.3	1.27	4.6	0	-	11.67	12.5	8.51	13.1	0	-	0.02	0.2	16.20	17.6
Plastic	0.60	0.9	0.42	1.5	0.60	0.9	2.00	2.1	2.18	3.3	0	-	0.18	1.3	2.15	2.3
Total	4.78	7.2	1.69	6.1	0.60	0.9	13.67	14.6	10.69	16.4	0	-	0.20	1.5	18.35	20.0
SNACK FOOD: paper	1.28	1.9	1.09	3.9	1.54	2.4	1.19	1.3	0.52	0.8	1.04	9.3	0.15	1.1	1.58	1.7
TOBACCO: Paper	0.24	0.4	0.26	0.9	0.16	0.2	0.83	0.9	0.36	0.6	0.15	1.3	0.07	0.5	0.68	0.7
Plastic	0	-	0	-	0	-	0	-	0	0	0	-	0	0	0	-
Metal	0	-	0	-	0	-	0	-	0.06	0.1	0	-	0	0	0	-
Total	0.24	0.4	0.26	0.9	0.16	0.2	0.83	0.9	0.42	0.7	0.15	1.3	0.07	0.5	0.68	0.7
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0	-	0	-	3.75	5.7	0	-	0	-	0	-	0	-	0	-
other	0.98	1.5	0	-	0	-	0	-	0	0	0	-	0	0	0.24	0.3
Rubber: tire	0.03	-	0	-	0	-	0	-	0	0	0	-	0.03	0.2	0.02	-
other	0	-	0	-	0	-	0	-	0	0	0	-	0	0	0	-
Plastic: anti-freeze	0.07	0.1	0	-	0	-	0	-	0	0	0	-	0	0	0	-
other	1.08	1.6	0	-	3.75	5.7	0	-	0	0	0	-	0.03	0.2	0.26	0.3
Total	2.26	3.4	3.75	13.2	3.75	5.7	0	-	0	0	0	-	0.03	0.2	0.26	0.3
NEWSPAPER:	0.25	0.4	1.25	4.5	3.33	5.1	6.33	6.8	4.71	7.2	0	-	0.23	1.7	5.56	6.0
HOUSEHOLD: Plastic	0.28	0.4	2.07	7.4	6.50	10.0	13.77	14.1	1.18	1.8	0	-	0	0	3.78	4.1
Paper (incl. alum foil)	1.51	2.3	0	-	0	-	0	-	0	0	0	-	0.11	0.8	1.65	1.8
MISC. PAPER: Cardboard	0.29	0.4	0	-	0.32	0.5	15.51	16.6	10.43	16.0	0	-	0.48	3.5	12.06	13.1
Other (incl. paper bags)	0	-	0	-	0	-	0	-	0	0	0	-	4.40	32.2	1.47	1.6
WINE BOTTLES:	0.50	0.8	0.25	0.9	0.50	0.8	0.50	0.5	0	-	0	-	0	-	0.19	0.2
LIQUOR BOTTLES:	0.25	0.4	0.57	2.0	0.29	0.4	0.01	-	0.29	0.4	0	-	0.04	0.3	0.61	0.7
MISC. GLASS:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	0	-	0.15	0.5	5.36	8.2	0.07	0.1	3.45	5.3	0.12	1.1	0.19	1.4	0	-
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0.38	0.4
Other	0	-	0	-	0	-	0.60	0.6	1.95	3.0	0.10	0.9	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0.17	0.3	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	0.05	0.2	1.25	1.9	0.25	0.3	0.13	0.2	0	-	0.04	0.3	2.79	3.0
Total	66.65	100.1	27.91	99.8	65.28	100.0	93.58	100.1	65.09	100.0	11.19	100.0	13.67	100.1	91.97	100.0



TABLE 20 CONTINUED

CLASSIFICATION	Route 738 Iubaski		Route 611 Loudoun		Route 742 Wythe		Route 603 Halifax		Route 655 Bedford		Route 740 Washington	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	9.94	13.1	5.20	5.6	2.27	19.0	2.53	3.2	4.62	4.8	5.10	8.5
Bottles: returnable	17.49	24.5	20.10	21.7	2.12	17.7	24.90	31.3	13.81	14.5	4.65	7.8
Bottles: nonreturnable	1.87	2.6	4.45	4.8	0	-	0.02	-	1.18	1.2	5.38	9.0
Cartons	1.94	2.7	6.64	7.2	1.61	13.5	4.34	5.5	1.87	2.0	5.71	9.5
Total	30.64	42.9	36.39	39.4	6.00	50.2	35.23	44.4	21.48	22.5	20.84	34.7
SOFT DRINK: Cans: alum	0	-	0.20	0.2	0	-	0.68	0.9	0.13	0.1	0.03	0.1
non-alum	4.97	7.0	4.92	5.3	0.61	5.1	1.97	2.5	3.13	3.3	13.01	21.7
Bottles: returnable	0	-	1.40	1.5	0	-	0.23	0.3	0.50	0.5	0.40	0.7
nonreturnable	1.12	1.6	2.32	2.5	0.09	0.8	0.41	0.5	17.10	17.9	0.32	0.5
Cartons	0	-	0.07	0.1	0	-	0.26	0.3	0.07	0.1	0	-
Total	6.09	8.5	8.91	9.6	0.70	5.9	3.28	4.1	20.86	21.9	13.75	22.9
PLASTIC SIX PACK HOLDERS:	0.77	1.1	0.32	0.3	0.13	1.1	0.62	0.8	0.62	0.7	0.10	0.2
TAB CAN OPENERS:	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	7.53	10.5	8.44	9.1	1.48	12.4	8.44	10.6	6.26	6.6	6.36	10.6
other	0.96	1.3	1.69	1.8	0.11	0.9	3.79	4.8	2.45	2.6	1.25	2.1
Plastic	3.33	4.7	0.81	0.9	0.24	2.0	0.86	1.1	3.88	4.1	4.62	7.7
Metal	0.03	-	0.27	0.3	0.10	0.8	0.79	1.0	0.54	0.6	0.32	0.5
Glass	0.02	-	0.09	0.1	0.01	0.1	0.07	0.1	0	-	0	-
Total	11.87	16.6	11.30	12.2	1.94	16.2	13.95	17.5	13.13	13.8	12.55	20.9
PREPARED FOOD: Paper	2.31	3.2	6.63	7.2	1.48	12.4	4.23	5.3	1.51	1.6	2.13	3.6
Plastic	0.55	0.8	1.73	1.9	0	-	0.55	0.7	0.32	0.3	2.26	3.8
Total	2.86	4.0	8.36	9.0	1.48	12.4	4.78	6.0	1.83	1.9	4.39	7.3
SNACK FOOD: paper	2.56	3.6	0.59	0.6	0.35	2.9	1.67	2.1	1.74	1.8	0.57	1.0
TOBACCO: Paper	1.11	1.6	0.13	0.1	0.02	0.2	0.76	1.0	0.39	0.4	0.60	1.0
Plastic	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-
Total	1.11	1.6	0.13	0.1	0.02	0.2	0.76	1.0	0.39	0.4	0.60	1.0
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0	-	0	-	0	-	0	-	0	-	0	-
other	1.49	2.1	0	-	0	-	0.34	0.4	1.53	1.6	0	-
Rubber: tire	0.78	1.1	0.09	0.1	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Total	2.27	3.2	0.09	0.1	0	-	0.34	0.4	1.53	1.6	0	-
NEWSPAPER:	0.77	1.1	11.30	12.2	0.94	7.9	0.94	1.2	0.93	1.0	0.13	0.2
HOUSEHOLD: Plastic	1.60	2.2	0.45	0.5	0	-	0.88	1.1	0.67	0.7	0.69	1.2
Paper (incl. alum foil)	1.96	2.7	0.34	0.4	0.21	1.8	0.35	0.4	0.56	0.6	0.07	0.1
MISC. PAPER: Cardboard	2.32	3.2	6.94	7.5	0.10	0.8	3.56	4.5	14.39	15.1	1.34	2.2
Other (incl. paper bags)	0	-	0.36	0.4	0	-	9.20	11.6	3.03	3.2	0.33	0.6
WINE BOTTLES:	0	-	0.50	0.5	0	-	0.19	0.2	0.06	0.1	1.19	2.0
LIQUOR BOTTLES:	3.48	4.9	1.11	1.2	0.08	0.7	0.86	1.1	0.37	0.4	1.43	2.4
MISC. GLASS:	0.08	0.1	0	-	0	-	0	-	0	-	0	-
MISC. PLASTIC:	1.65	2.3	0.72	0.8	0	-	1.02	1.3	13.67	14.3	1.57	2.6
MISC. METAL: Cans	0	-	0.65	0.7	0	-	0.54	0.7	0	-	0.43	0.7
Other	0	-	0.60	0.6	0	-	0.76	1.0	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0.03	-	0	-	0	-	0.09	0.1	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	1.46	2.0	3.38	3.7	0	-	0.53	0.7	0	-	0	-
Total	71.49	100.0	92.47	99.8	11.95	100.1	79.52	100.1	55.35	100.1	59.98	100.0



UNITED STATES DEPARTMENT OF COMMERCE BUREAU OF ECONOMIC ANALYSIS - WASHINGTON, D. C.

CLASSIFICATION	Alexandria Hand Truck		Bristol S.H. Coll.		Richmond Hand Pickup		Alexandria Hand Cart		Bristol Downtown		Norfolk Granby St.		Norfolk Tidewater dr.	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	0.81	12.2	2.25	17.6	1.34	2.5	0.03	0.3	0	0	0	0	0.13	2.6
Bottles: returnable nonreturnable	0.11	1.7	0.49	3.8	0.14	0.3	0.14	1.4	0	0	0	0	0.13	2.6
Cartons	0	-	0.13	1.0	0.15	0.3	0	-	0	0	0	0	0.11	2.2
Total	0.92	13.9	2.87	22.5	1.63	3.1	0.17	1.7	0.08	3.8	0.08	3.0	0.37	7.5
SOFT DRINK: Cans: alum non-alum	0	-	1.52	11.9	0.45	0.9	0.05	0.5	0	0	0	0	0	-
Bottles: returnable nonreturnable	0.06	0.9	0	0.8	0.03	0.1	0	-	0.23	10.8	0.08	3.0	0.13	2.6
Cartons	0	-	0	-	1.59	3.0	0.24	2.4	0.07	3.3	0	-	0.03	0.6
Total	0.06	0.9	1.62	12.7	2.21	4.2	0.29	2.8	0.06	2.8	0.09	3.4	0.16	3.3
PLASTIC SIX PACK HOLDERS:	0	-	0.03	0.2	0	-	0	-	0	0	0.02	0.7	0	-
TAP CAN OPENERS:	0	-	0	-	0	-	0	-	0	0	0	-	0	-
GROCERY: Paper: paper bags other	0.92	13.9	0	-	3.83	7.2	0.76	7.4	0.18	8.5	0	-	0.27	5.5
Plastic	0.37	5.6	0.26	2.0	0.42	0.8	0.51	5.0	0.06	2.8	0.08	3.0	0.25	5.1
Metal	0	-	2.50	19.6	2.33	4.4	0	-	0	0	0	0	0	-
Glass	0.02	0.3	0	-	0.03	0.1	0	-	0.02	0.9	0.15	5.6	0	-
Total	1.31	19.7	2.76	21.6	6.64	12.5	1.27	12.4	0.26	12.2	0.24	9.0	0.55	11.2
PREPARED FOOD: Paper	0.85	12.8	0.52	4.1	1.57	3.0	0.61	6.0	0.37	17.4	0.73	27.3	1.08	21.9
Plastic	0.27	4.1	0.63	4.9	0.81	1.5	0.26	2.5	0.16	7.5	0.19	7.1	0.37	7.5
Total	1.12	16.9	1.13	9.0	2.38	4.5	0.87	8.5	0.53	24.9	0.92	34.5	1.45	29.4
SNACK FOOD: Paper	0.37	5.6	0.01	0.1	0.57	1.1	0.44	4.3	0.36	16.9	0.07	2.6	1.32	26.8
TOBACCO: Paper	0.30	4.5	0.25	2.0	0.12	0.2	0.20	2.0	0.09	4.2	0.06	2.2	0.12	2.5
Plastic	0	-	0	-	0	-	0	-	0	0	0	0	0	0
Metal	0.30	4.5	0.25	2.0	0.12	0.2	0.20	2.0	0.09	4.2	0.06	2.2	0.15	3.1
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	0	0	0	0	-
Metal: oil cans other	0	-	0	-	0	-	0	-	0	0	0	0	0	-
Rubber: tire other	0	-	0	-	0.12	0.2	0	-	0	0	0	0	0	-
Plastic: anti-freeze other	0	-	0	-	0	-	0	-	0	0	0	0	0	-
Total	0	-	0	-	0.12	0.2	0	-	0	0	0	0	0	-
NEWSPAPER:	0.17	2.6	0.32	4.1	4.96	9.3	2.12	20.7	0.01	0.5	0.11	4.1	0.15	3.1
HOUSEHOLD: Plastic	0	-	1.12	8.8	0.35	0.7	0	-	0	0	0	2.2	0	-
Paper (incl. alum foil)	1.83	27.6	1.44	11.3	2.03	3.9	1.30	12.7	0.27	12.7	0	-	0.03	0.6
MISC. PAPER: Cardboard	0.20	3.0	0	-	8.61	16.1	2.21	21.6	0.16	7.5	0.37	13.9	0.16	3.3
Other (incl. paper bags)	0	-	0	-	0.47	0.9	0.80	7.8	0.01	0.5	0.33	12.4	0.20	4.1
WINE BOTTLES:	0	-	0.25	2.0	0.12	0.2	0.14	1.4	0	0	0	0	0	-
LIQUOR BOTTLES:	0	-	0.04	0.3	0.04	0.1	0.06	0.6	0	0	0	0	0	-
MISC. GLASS:	0	-	0.08	0.6	0	-	0	-	0	0	0	0	0	-
MISC. PLASTIC:	0	-	0.19	1.5	0	-	0.34	3.3	0	0	0.20	7.5	0.30	6.1
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	0	0	0	0	-
Other	0.36	5.4	0	-	0.31	0.6	0	-	0	0	0	0	0.07	1.4
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	0	0	0	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	0	0	0	0	-
OTHER:	0	-	0.42	3.3	22.65	42.6	0.04	0.4	0	0	0.04	1.5	0.02	0.4
Total	6.64	100.1	12.75	100.0	53.23	100.2	10.25	100.2	2.13	100.1	2.67	100.1	4.93	100.2





CLASSIFICATION	Darville		Charlottesville		Richmond		Alexandria		Alexandria Elephant Vacs		Charlottesville Barracks Rd.	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	6.71	5.0	0.38	8.9	1.62	10.0	1.56	7.5	0	-	0.53	5.6
Bottles: returnable	0	-	0	-	0	-	0	-	0	-	0	-
Cartons	0.14	1.0	0.26	6.1	0	-	0.35	1.7	0	-	0.05	0.5
Total	0.65	6.0	0.64	15.0	1.62	10.0	1.91	9.2	0	-	0.65	6.1
SOFT DRINK: Cans: alum non-alum	0.45	3.2	0.13	3.0	0.93	5.0	0.70	3.4	0.05	2.7	0.20	1.9
Bottles: returnable	0	-	0	-	0	-	0	-	0	-	0	-
nonreturnable	0	-	0.06	1.4	0	-	0.03	0.2	0	-	0	-
Cartons	0	-	0	-	0.45	2.8	0	-	0	-	0	-
Total	0.45	3.2	0.19	4.4	1.38	8.6	0.73	3.5	0.05	2.7	0.20	1.9
PLASTIC SIN. PACK HOLDERS:	0.08	0.6	0.10	2.3	0.12	0.8	0.33	1.6	0	-	0.02	0.2
TAB CAN OPENERS:	0.01	0.1	0.05	1.2	0	-	0	-	0	-	0.01	0.1
GROCERY: Paper: paper bags	0.92	6.5	0.47	11.0	0	-	0.47	2.3	0.20	10.9	1.86	18.0
other	0.60	4.3	1.06	24.8	0	-	1.81	8.7	0	-	1.83	17.7
Plastic	0.15	1.3	0.07	1.6	0.53	3.3	0	-	0	-	1.16	11.2
Metal	0.08	0.6	0.02	0.5	0	-	0	-	0	-	0	-
Glass	0	-	0	-	0	-	0	-	0	-	0	-
Total	1.79	12.7	1.62	37.0	0.53	3.3	2.28	10.9	0.20	10.9	4.85	47.0
PREPARED FOOD: Paper	1.89	13.4	0.33	7.7	2.36	14.6	6.04	29.0	0.09	4.9	1.93	18.7
Plastic	2.21	15.7	0.05	1.2	0.39	2.4	3.77	18.1	0.10	5.5	0.40	3.9
Total	4.10	29.1	0.38	8.9	2.75	17.0	9.81	47.1	0.19	10.4	2.33	22.6
SNACK FOOD: paper	0.90	6.4	0.23	5.4	5.21	32.3	2.13	10.2	0.01	0.6	0.19	1.9
TOBACCO: Paper	0.50	3.6	0.22	5.1	0.46	2.9	0.43	2.1	0.18	9.8	0.18	1.8
plastic	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0	-	0	-	0	-	0	-	0	-	0	-
Total	0.50	3.6	0.22	5.1	0.46	2.9	0.43	2.1	0.18	9.8	0.18	1.8
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-	0	-
NEWSPAPER:	0.99	7.0	0.01	0.2	0.60	3.7	0	-	0.76	41.5	0.08	0.8
HOUSEHOLD: Plastic	0	-	0	-	0.74	4.6	0	-	0	-	0	-
Paper (incl. alum foil)	0.73	5.2	0.10	3.7	1.97	12.2	1.57	7.5	0.42	23.0	0.20	1.9
MISC. PAPER: Cardboard	2.21	15.7	0	-	0.30	1.9	0.72	3.5	0	-	0	-
Other (incl. paper bags)	0	-	0.10	2.3	0	-	0	-	0	-	0.66	6.4
WINE BOTTLES:	0	-	0	-	0	-	0	-	0	-	0	-
LIQUOR BOTTLES:	0	-	0	-	0	-	0.04	0.2	0	-	0	-
MISC. GLASS:	0	-	0.01	0.2	0	-	0	-	0	-	0.04	0.4
MISC. PLASTIC:	0.55	3.9	0.21	4.9	0	-	0.44	2.1	0.02	1.1	0.78	7.6
MISC. METAL: Cans	0.05	0.4	0	-	0	-	0.11	0.5	0	-	0.12	1.2
Other	0.28	2.0	0.13	3.0	0	-	0	-	0	-	0.02	0.2
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0.59	4.2	0.23	5.4	0.46	2.9	0.35	1.7	0	-	0.01	0.1
Total	14.08	100.1	4.28	99.9	16.14	100.2	20.85	100.1	1.83	100.0	10.32	100.2



MULTI-PURPOSE RECREATION BY PRODUCT GROUP CLASSIFICATION - RECREATIONAL AREAS

CLASSIFICATION	Charlotteville Washington Park		Charlotteville McIntire Park		Charlotteville Belmont Park		Danville Playground		Norfolk Zoo		Norfolk Botanical Gardens		Norfolk Lakewood		Norfolk City Park	
	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	1.31	16.3	0.53	5.0	0.10	7.0	1.49	4.6	1.04	4.2	2.22	7.4	0.38	11.5	0.45	15.4
Bottles: returnable	1.46	18.2	0	-	0.22	15.3	0.44	1.4	0.49	2.0	0.08	0.3	0.05	1.5	0.05	1.7
Cartons	0.33	4.1	0	-	0.07	4.6	0.12	0.4	0.29	1.2	0	-	0	-	0	-
Total	3.10	38.7	0.53	5.0	0.39	27.1	2.05	6.3	2.02	8.1	2.70	9.0	0.43	13.0	0.58	19.8
SOFT DRINK: Cans: alum non-alum	0.63	7.9	0.13	1.2	0.20	13.9	2.40	7.3	0	-	0.93	3.1	0	-	0.03	1.0
Bottles: returnable	0.03	0.4	0.07	0.7	0.03	2.1	0.20	0.6	0.58	2.3	1.82	6.1	0.40	12.1	0.18	6.2
nonreturnable	0.33	4.7	0.03	0.3	0.41	28.5	0.59	1.8	0.15	0.6	0.09	0.3	0.90	27.3	0.06	2.1
Cartons	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	1.04	13.0	0.23	2.2	0.64	44.5	3.19	9.7	0.73	2.9	2.84	9.5	1.30	39.4	0.27	9.2
PLASTIC SIX PACK HOLDERS:	0.05	0.6	0.02	0.2	0.07	4.9	0.08	0.3	0.02	0.1	0.15	0.5	0	-	0.03	1.0
TAB CAN OPENERS:	0.01	0.1	0	-	0	-	0	-	0	-	0	-	0	-	0	-
GROCERY: Paper: paper bags	0.12	1.5	0.17	1.6	0.14	9.7	9.23	28.2	7.58	30.3	3.33	11.1	0	-	0.71	25.3
other	1.22	15.2	0	-	0	-	3.13	9.6	0.66	2.6	0.64	2.1	0	-	0.19	6.5
Plastic	0.01	0.1	0.44	4.2	0	-	2.33	7.1	0.47	1.9	6.31	21.1	0.11	3.3	0	-
Metal	0.03	0.4	0	-	0.02	1.4	0.12	0.4	0.03	0.1	0.17	0.6	0	-	0.03	1.0
Glass	0	-	0	-	0	-	0	-	0.10	0.4	0.03	0.1	0	-	0.03	1.0
Total	1.38	17.2	0.61	5.8	0.16	11.1	14.31	45.2	8.84	35.4	10.48	35.0	0.11	3.3	0.99	33.8
PREPARED FOOD: Paper	0.29	3.6	7.39	69.9	0	-	3.39	10.4	9.63	38.5	3.88	13.0	0.71	21.5	0.72	24.6
Plastic	0.13	1.6	0.40	3.8	0	-	6.66	2.0	0.37	1.5	1.06	3.5	0.16	4.9	0.02	0.7
Metal	0.42	5.2	7.79	73.6	0	-	4.05	12.4	10.00	40.0	4.94	16.5	0.87	26.4	1.74	25.3
Total	0.39	4.9	0.70	6.6	0.09	6.3	1.92	5.9	1.70	6.8	0.73	2.4	0.20	6.1	0.03	1.0
SNACK FOOD: Paper	0.09	1.1	0.12	1.1	0	-	0.30	0.9	0.11	0.4	0.32	1.1	0.01	0.3	0	-
Plastic	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal	0.09	1.1	0.12	1.1	0	-	0.30	0.9	0.11	0.4	0.32	1.1	0.01	0.3	0	-
Total	0.09	1.1	0.12	1.1	0	-	0.30	0.9	0.11	0.4	0.32	1.1	0.01	0.3	0	-
AUTOMOTIVE: Glass	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Metal: oil cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Rubber: tire	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Plastic: anti-freeze	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
other	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Total	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
NEWSPAPER:	0.33	4.1	0	-	0	-	0.94	2.9	0	-	5.02	16.8	0	-	0	-
HOUSEHOLD: Plastic	0	-	0	-	0	-	0	-	0.18	0.7	0.78	2.6	0	-	0	-
Paper (incl. alum foil)	0.33	4.7	0.45	4.3	0	-	1.85	5.6	0.55	2.2	0.73	2.4	0	-	0	-
MISC. PAPER: Cardboard	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other (incl. paper bags)	0	-	0.11	1.0	0	-	1.68	5.1	0	-	0.53	1.8	0.29	8.8	0.08	2.7
WINE BOTTLES:	0.16	2.0	0	-	0.06	4.2	1.00	3.1	0.69	2.8	0	-	0.06	1.8	0.19	6.5
LIQUOR BOTTLES:	0.04	0.5	0	-	0	-	0	-	0	-	0.04	0.1	0	-	0	-
MISC. GLASS:	0.01	0.1	0	-	0	-	0.10	0.3	0	-	0	-	0	-	0	-
MISC. PLASTIC:	0.12	1.5	0.02	0.2	0	-	0.05	0.2	0.17	0.7	0.43	1.4	0	-	0.02	0.7
MISC. METAL: Cans	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
Other	0.50	6.2	0	-	0.03	2.1	0.04	0.1	0	-	0	-	0.03	0.9	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-	0	-	0.33	1.0	0	-	0.01	-	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
OTHER:	0	-	0	-	0	-	0.36	1.1	0	-	0.09	0.3	0	-	0	-
Total	8.02	99.9	10.58	100.0	1.44	100.2	32.75	100.1	25.01	100.1	29.97	100.0	3.30	100.0	2.93	100.0



TABLE 28 CONTINUED

CLASSIFICATION	Winchester Park		Pocobantas Campground	
	Vol.	%	Vol.	%
BEER: Cans: alum non-alum	0.53	3.4	0.05	5.2
Bottles: returnable	0.25	1.6	0.03	3.1
nonreturnable	0.59	3.8	0.05	5.2
Cartons	0.43	2.8	0	-
Total	1.80	11.6	0.13	13.4
SOFT DRINK: Cans: alum non-alum	0	-	0	-
Bottles: returnable	1.04	6.7	0.30	30.9
nonreturnable	0.27	1.8	0	-
Cartons	0	-	0.06	6.2
Total	1.31	8.5	0.36	37.1
PLASTIC SIX PACK HOLDERS:	0.07	0.5	0	-
TAB CAN OPENERS:	0.01	0.1	0	-
GROCERY: Paper: paper bags	2.98	19.5	0	-
other	0	-	0.02	2.1
Plastic	0	-	0	-
Metal	0	-	0	-
Glass	0	-	0	-
Total	2.98	19.3	0.02	2.1
PREPARED FOOD: Paper	5.09	32.8	0.13	13.4
Plastic	1.13	7.3	0.11	11.3
Total	6.22	40.3	0.24	24.8
SNACK FOOD: Paper	1.45	9.4	0.04	4.1
TOBACCO: Paper	0.15	1.0	0.01	1.0
Plastic	0	-	0	-
Metal	0	-	0	-
Total	0.15	1.0	0.01	1.0
AUTOMOTIVE: Glass	0	-	0	-
Metal: oil cans	0	-	0	-
other	0	-	0	-
Rubber: tire	0	-	0	-
other	0	-	0	-
Plastic: anti-freeze	0	-	0	-
other	0	-	0	-
Total	0	-	0	-
NEWSPAPER:	0.26	1.7	0	-
HOUSEHOLD: Plastic	0	-	0	-
Paper (incl. alum foil)	0	-	0	-
MISC. PAPER: Cardboard	0	-	0	-
Other (incl. paper bags)	1.17	7.6	0.10	10.3
WINE BOTTLES:	0	-	0	-
LIQUOR BOTTLES:	0	-	0	-
MISC. GLASS:	0	-	0	-
MISC. PLASTIC:	0	-	0.07	7.2
MISC. METAL: Cans	0	-	0	-
Other	0	-	0	-
CLEANING AGENT TOILETRIES CONTAINERS:	0	-	0	-
UNWRAPPED FOOD:	0	-	0	-
OTHER:	0.03	0.2	0	-
Total	15.45	100.2	0.97	100.0

