



## THE IMPACT OF LITTERING ON COMMUNITY HEALTH

### A POSITION PAPER FROM THE JEFFERSON COUNTY DEPARTMENT OF HEALTH

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#### STATEMENT OF POSITION:

The Jefferson County Department of Health supports measures designed to curtail littering. These measures should both discourage the act of littering and encourage clean-up of existing litter.

#### RATIONALE FOR POSITION:

Littering negatively impacts community aesthetics, community pride, property values, and the public's health.

#### BACKGROUND:

Littering is the careless and casual disposal of trash or waste, often along roadways and in other public places. It may include items as large as automobile tires and parts or as small as cigarette butts. Homer N. Calver, one of the founders of Keep America Beautiful, Inc. and a former secretary of the American Public Health Association, in his 1959 article *Litter and the Public Health* described litter as "unaccumulated refuse" and that "the campaign against litter is in effect a campaign for the accumulation of rubbish at central points from which it may be more economically collected for transportation and disposal."<sup>1</sup>

Littering may be either intentional or unintentional. Unintentional littering occurs as a result of uncovered trucks, unsecured vehicle loads, loss of vehicle parts, trash can spills, overflowing dumpsters, and other acts of carelessness.<sup>2</sup> According to Keep America Beautiful,<sup>3</sup> the seven primary sources of litter are

- pedestrians and cyclists,
- motorists,
- improperly covered business dumpsters,
- loading docks and marinas with inadequate waste receptacles,
- improperly contained waste and debris at construction and demolition sites,
- trucks with uncovered loads, and
- household trash scattered before or during collection.

Research by Keep America Beautiful found that people who intentionally litter do so because they feel no sense of ownership of public property, they believe someone else will pick up after them, and because litter has already accumulated.<sup>3</sup> Although young males driving pickup trucks were in the past the primary sources of roadside litter, recent research conducted in Texas found the highest percentage of litterers to be both males and females under 25 years of age

(77%).<sup>4</sup> The costs of collecting litter are significant. According to the Georgia Department of Transportation, “throwing trash out on the highway is literally like throwing money out the car window”, because of the clean-up costs involved.<sup>5</sup>

Litter items take varying amounts of time to decay. Paper takes two to five months, but many litter items are more enduring. Cigarette butts (the most common litter item) take one to twelve years to decay, aluminum cans 80-100 years, plastic six-pack rings 450 years, glass bottles 1 million years, and plastic bottles never decay.<sup>6</sup> A substantial percentage (18%) of litter ultimately ends up in streams and waterways.<sup>7</sup> Littering must be prevented or litter must be collected and disposed of appropriately.

Litter impacts the community health in several ways. Aesthetically and economically, visible litter decreases the desirability of neighborhoods, which decreases property values and results in economic decay. Economic decay is associated with apathy and crime, which, in turn, decreases the overall quality of life in the community.

In addition to decreasing the quality of life by detracting from the appearance of a neighborhood, litter has other, less obvious, public health implications. Refuse attracts vermin, which may act as vectors for infectious disease. Litter containing food items attracts stray domestic animals that are then killed on the roads. Old tires and other vessels provide breeding grounds for mosquitoes, which increase the threat of West Nile Virus and other mosquito-borne diseases.

Lacerations caused by broken glass littering streets and sidewalks present a significant cause of injury, particularly in children. A 1986 case-control study of children under 18 years of age treated at a hospital emergency room in Boston found a 60% reduction in emergency room visits for lacerations due to glass following the 1983 implementation of a “bottle bill” in Massachusetts. The authors attributed this reduction in glass-related lacerations to a decrease in the presence of glass discarded as litter.<sup>8</sup> A 1987 prospective study of children less than 18 years of age treated in a hospital emergency room in Philadelphia for lacerations found that 15% (425 children) of those children were injured by broken glass.<sup>9</sup>

## **SCOPE OF THE PROBLEM IN JEFFERSON COUNTY:**

Litter is widely perceived as a problem in Jefferson County. As part of a countywide community health improvement process during 2005-2006, the Jefferson County Department of Health (JCDH) conducted focus groups throughout the county during the spring and summer of 2005. Litter, illegal dumping, and a lack of recycling facilities were raised time and again as issues of great concern to the community.

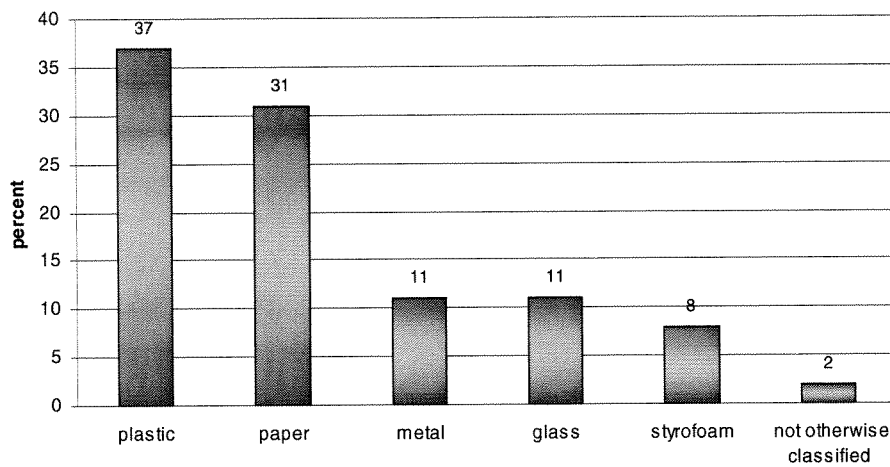
In an effort to quantify and characterize the litter problem in Jefferson County, the Jefferson County Department of Health and the Environmental Protection Division of the Jefferson County Commission, in partnership with Birmingham Vision and Sweeping Corporation of America, recently completed a county-wide litter survey. A representative sample of sites throughout Jefferson County was selected, including 26 sites on county roads, two sites within the City of Birmingham, and one site on Interstate 20/59.

Each litter collection site encompassed a 500-foot section of roadway and the area 10 feet on each side of the roadway. Litter was collected by personnel from the health department and

from the Environmental Protection Division of the Jefferson County Commission. Litter was bagged, labeled, and transported to health department facilities, where it was weighed, sorted into nine main categories and further sorted into subcategories. After the weight of each category and the number of items in each subcategory were recorded, those items that could be recycled (glass, plastic and metal cans) were delivered to the Alabama Environmental Council Recycling Center.

A total of 721 pounds of litter was collected from the 29 survey sites. The calculated average weight of litter per linear mile was 117 pounds. The largest percentage of litter by weight was glass (42%), for a total of 303 pounds. Litter items by count are presented in Figure 1 below.

**Figure 1. Jefferson County Litter Survey Results by Component\***



\* Hazardous materials, construction debris, and other miscellaneous materials such as grass, leaves or dirt were among the items weighed but each comprised less than 1% of the total weight.

Most of the litter collected as part of the Jefferson County 2006 Litter Survey was related to either fast food consumption or convenience store purchases (78%). Discarded paper items were primarily fast food containers (27%), cigarette packages and cartons (20%), other food-related packaging (17%) and fast food beverage containers (15%). Discarded plastic items were primarily beverage containers (36%), other food containers (24%), and fast food containers (22%). Metal items were primarily beverage containers, 45% alcoholic and 37% non-alcoholic.

### **LEGAL CONSIDERATIONS:**

A number of statutes and ordinances apply to littering in Jefferson County. Alabama's criminal littering statute (Section 13A-7-29, Code of Alabama) and two traffic code sections (Code of Alabama Sections 32-5-76 and 32-5A-60) are Class C misdemeanors carrying minimum fines of \$100.

The Jefferson County Weed and Litter Ordinance (Ordinance No. 1188/1223) applies to the unincorporated area of Jefferson County and specifies that lots, places and premises must be kept free from litter, applies to both intentional and unintentional littering, and carries a

minimum fine of \$250.<sup>10</sup> Individual municipalities within the county also have litter ordinances in place. The City of Hoover's litter control ordinance provides for a fine of \$200 plus court costs for a first offense and \$250 plus court costs for each subsequent violation.<sup>11</sup>

## **STUDY IMPLICATIONS:**

Litter from fast food restaurants is a nationwide problem, with fast-food packaging comprising about 20 percent of all litter and snack packaging (e.g., chip bags, drink containers, candy wrappers) comprising another 20 percent.<sup>11</sup> Of the litter collected as part of the health department's recent litter survey, 42% of discarded paper products, 22% of plastic products, and 93% of discarded polystyrene (Styrofoam) originated at fast food restaurants. In all, 78% of the litter collected was related either to fast food consumption or convenience store purchases. Oakland, California this year enacted a tax on fast food restaurants to help defray the cost of litter removal.<sup>12</sup> The Oakland City Council also recently voted to enact an ordinance banning polystyrene food containers. Approximately 100 other cities have already banned use of polystyrene by restaurants.<sup>13</sup> Both a fast-food tax and a polystyrene ban are viable options for litter reduction in Jefferson County. Texas's 2005 Visible Litter Study found 61% of litter items identified by brand name. The three most common brands were Marlboro Light (18%), Marlboro (13%), and McDonalds (3%). Also in the Texas study, tobacco, food and non-alcoholic beverage-related items comprised 73% of all litter.<sup>14</sup>

Encouraging recycling is another means of reducing litter. Useable raw materials, such as paper, aluminum, steel, plastic, glass, and rubber (scrap tires) can be recovered from discarded items and recycled to create new products. Currently, curbside recycling is only available to some county residents. Where curbside recycling is available, the types of items collected are limited. For example, curbside recycling in the City of Birmingham no longer includes collection of glass.

## **ACTION PLAN:**

In order to address the ongoing litter problem within Jefferson County, cooperative efforts must be initiated by both governmental and private agencies.

- (1) We must educate our citizens about litter, encouraging them to think differently about the consequences of littering, to take pride in their surroundings, and to take personal responsibility for proper disposal of items they wish to discard.
- (2) We must educate and work with the fast food industry and convenience store owners to reduce litter that originates in their establishments by
  - a. providing information to businesses on the prevalence and impact of fast food and convenience store litter,
  - b. suggesting alternative packaging that may degrade more readily than that in common use,
  - c. suggesting re-useable packaging (e.g., fast food bags designed for us as automobile trash bags, re-useable beverage cups),
  - d. encouraging placement of outdoor trash receptacles, and
  - e. developing educational materials targeting fast food and convenience store customers and encouraging them to refrain from littering.
- (3) We must make it easier to dispose of unwanted items, including

- a. improved collection and disposal mechanisms and facilities,
  - b. placement of more trash receptacles at “transition points (points that naturally encourage littering because people must stop eating or smoking before they proceed, such as bus stops and entrances to public buildings),
  - c. provision of additional convenient recycling facilities,
  - d. and working with local waste disposal companies and local governments to
    - i. require curb-side trash pick-up by municipalities; and
    - ii. increase and improve curbside recycling services.
- (4) Jefferson County should consider the passage of legislation
- a. requiring a cash deposit for bottles and cans;
  - b. levying a tax on fast food restaurants and outlawing the use of polystyrene containers. Jefferson County should follow the lead of other environmentally conscious jurisdictions by levying a take-out tax/fee on fast food restaurants and outlawing the use of polystyrene containers.
- (5) Hold both intentional and unintentional litterers accountable for their actions, including
- a. increased enforcement of existing ordinances
  - b. passage of new ordinances designed to address unintentional littering, particularly the prohibition of the carrying uncovered loads by both private and commercial vehicles.

**SUMMARY:**

Litter is widely perceived as a problem in Jefferson County. Litter persists in the environment for many years and impacts the public’s health by contributing to economic decay, an increase in crime and a decrease in quality of life by attracting vermin and domestic animals, and by posing an injury risk Litter can be reduced through public and private education campaigns directed toward the public, improved collection and disposal of litter, improved opportunities for recycling, and increased enforcement of existing ordinances and the passage of new ordinances.

For additional information regarding this statement or the Jefferson County 2006 Litter Survey, please contact Barbara Newman at 930-1245 or visit the Jefferson County Department of Health web site at [www.JCDH.org](http://www.JCDH.org).



Jefferson County Board of Health

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