

Salmonella, and E. coli. A bacterial source tracking study in Seattle, WA reported that approximately 20% of bacteria isolates were matched with dogs (EPA, 1993). The impact of pet waste on stormwater contamination is a factor of both the number of pets in a watershed, and the efficacy of pet owners in disposing of the waste.

In an effort to quantify the density of domestic animals in the watershed, the number of household pets was calculated based on market research statistics from the American Veterinary Medical Association (AVMA, 2007). This includes national statistics on the percent of households owning various types of pets, as well as the average number of pets per each household. National statistics showed that 36.1% of households owned dogs, 31.6% owned cats, and 4.6% owned birds. Additionally, the average number of pets owned per household is 1.6 dogs, 2.1 cats, and 2.1 birds. Given the 2,460 residential parcels currently present in the subject area, it was calculated that roughly 1,420 dogs, 1,630 cats, and 240 birds are domestically owned within the Two Mile Branch watershed. Since the majority of birds are kept indoors, they are not a likely source of fecal coliform. Dogs produce an average of 0.75 pounds each per day. This would amount to 200 tons of dog waste per year. Cats in the watershed would produce less waste. Studies show that over half of the cats in the United States remain indoors. Outdoors cats usually attempt to bury waste making it less susceptible to runoff. However, cats are not always able to bury waste and therefore it can be carried by stormwater to streams.

No current data exists on the pet waste habits of the residents of the Two Mile Branch watershed. However, an extensive citizen survey, which included data on pet waste removal, was conducted in 2005 by the North Carolina Department of Environment and Natural Resources. The results of the survey showed that 47% of urban pet walkers, 49% of suburban pet walkers, and 59% of rural pet walkers 'rarely' or 'never' picked up pet waste. Those reporting to 'always' or 'often' pick up pet waste were 35% of urban, 34% of suburban, and 27% of rural pet walkers (Bartlett, 2006).

An additional source of fecal coliform in the watershed is from wildlife. The TMDL (EPD 2006) states there are 21 deer per square mile in the Lowndes County. This would equate to approximately 55 deer in the 2.6 square mile watershed. This contribution is minor compared to the number of domestic animals within the watershed. Canada geese and other waterfowl will also contribute fecal coliform to the watershed once construction on the Joree Millpond is complete. A management recommendation for reducing the number of Canada geese is found in Section 4.1.3.

3.5 Sediment and Floatable Debris

While performing the field portion of the fecal coliform source inventory, attention was paid to any potential sediment or floatable debris source. Overall the upland areas of the watershed appeared clean with minimal trash or debris and very little sediment. At the time there was one small construction site containing two single family homes and one major construction site, a hospital expansion, in the watershed. Sediment fences were in place at the main site as well as covers on all existing stormwater inlets. In general the site looked well managed although some fences appeared to be in need of repair. In addition, outside of the main construction area, a trench had recently been excavated to bury cable. The excavated soil had been piled on existing pavement alongside the trench. There were no erosion control measures in place around this pile area and it was evident that some of the soil had runoff. Finally, accumulated soil was found in the retention pond downhill of the site. In order to minimize issues such as these, the City should revisit sites where construction will occur for extended periods of time. Preparations were underway for what appeared to be a second major construction site near the hospital.