



downstream of the Lakeland Avenue culvert, indicating the possibility of sewer leakage.

#### 4.4.4 Problem Areas

1. Ashley Street - Coca Cola bottling plant flooding: The Coca Cola bottling plant located just upstream of the Ashley Street crossing has experienced flooding in the past from big storm events. Several drainage improvements upstream of this location such as culvert upgrades have lead to increased flows at this location. The Ashley Street culvert is acting as a bottleneck to the flow. Another establishment (a deli) just upstream of Ashley Street has experienced flooding of its parking lot during big storm events.
2. Pine Oak Circle area, north of the Lakeland Avenue has experienced repeated flooding of several low lying homes. Drainage improvements in this area along with Lakeland Avenue culvert upgrade have been completed. However, Park Avenue culvert south of Lakeland Avenue has been noted as a bottleneck at this location.
3. Gordon Street flooded during a January 2009 event due to debris clogging storm drains east of Hightower Street.

The storm event of April 2009 caused widespread flooding at several locations within the City, including most of the above locations in One Mile Branch.

#### 4.4.5 Results

The following paragraphs discuss the water quantity model results, the existing level of service in terms of roads flooding, and sediment loads due to erosion.

##### 4.4.5.1 Water Quantity Results

The stages for the 1.2-in, 5-, 25-, 50-, and 100-year, 24-hour design storms model runs are presented in **Table 4.4.4**. Road crown elevation, road names, and road classification (local, collector, arterial) are also shown in the table. The roads not meeting the City's defined Level of Service are highlighted in the model result tables. Due to lack of data in terms of finished floor elevations of houses and other structures, available topographic data were utilized to estimate potential flooding of structures for each storm event and tabulated. The model results table indicates the nearest node to the structure's flooding location.