

2.3.2 Master Stormwater Management Plan

The Master Stormwater Management Plan, written in 1996, was based on existing conditions in the City (RSH 1996). A hydrologic model was developed based on soil, land use, and flow data collected throughout the City. The model was then run using a 25-year/24-hour rain event with a rainfall volume of 7.5 inches to determine water surface elevations throughout the watershed. The model used (SWMM) is capable of incorporating nonpoint source pollutant discharges and how they are transported through the watershed although that function was not utilized in the master planning effort. At the time, water quality was not as much of a priority as managing water quantity. In addition to modeling, a field investigation was conducted throughout the watershed to determine any deficiencies in the stormwater system. In the Two Mile Branch watershed a number of problems were highlighted including flooding downstream of road crossings (N. Ashley Street, N. Oak Street, and Jerry Jones Road), flooding on the stream reach between Seymour Street and University Drive, sediment accumulation in Joree Millpond, and severe erosion downstream of Jerry Jones Road. Finally, the plan labeled the headwater region of Two Mile Branch as a retention pond and considered the slow draw down rate to be a problem. It is important to note this headwater region is a natural spring-fed headwater wetland and should not be altered or enlarged (See Figure 2).



Figure 2. Headwater Wetland of Two Mile Branch

Based on the model analysis, field review, and input from landowners, recommendations were made that included enlarging culverts and dredging channels to facilitate efficient removal of surface water from the City during rain events. Some on-line retention facilities were recommended in order to