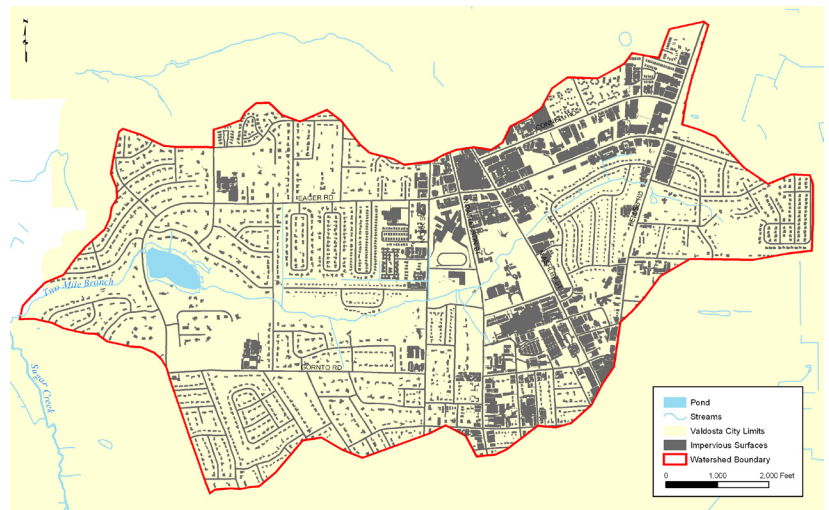


Sources of Fecal Coliform in the Two Mile Branch Watershed



Two Mile Branch, located in the City of Valdosta, has been placed on the Georgia 303(d) impaired stream list for not supporting its designated use of fishing as a result of past violations of Georgia water quality standards for fecal coliform. Fecal coliform are bacteria found in plants, soil, and human and animal waste. They are an indicator of a potential public health risk and not an actual cause of disease. A watershed study was conducted to create an inventory of pollution sources and develop a management plan to address water quality issues. Potential sources that were investigated included leaking sewer lines, failing septic systems, stormwater runoff, and illicit discharges.

Stormwater runoff is perhaps the largest source of fecal coliform in the watershed. Waste from pets and wildlife accumulates on surfaces throughout the watershed and is then carried to surface waters during storm events. There are 69 mapped stormwater conveyances or pipes in the Two Mile Branch watershed that carry stormwater directly to the stream or its tributaries when it rains. Stormwater also flows over land and enters into streams. Increases in imperviousness lead to increases in pathogen deposition and polluted stormwater runoff. Several types of structural best management practices (BMPs) could be implemented to capture stormwater runoff and treat it by reducing pathogen loads before it reaches surface waters. Potential BMPs in the Two Mile Branch watershed include stormwater wetlands, bioretention cells, wet detention, dry water quality swales, and grass channels.



Leaking sewer lines were a major source of fecal coliform in the stream prior to their repair which occurred from 1998-2000. Improvements included installing sleeves on some sewer lines and replacing lines where needed.

Failing septic systems are not always easy to identify especially if the failure involves untreated sewage entering a stream via groundwater. Water quality sampling data collected by the City has indicated that this is likely occurring in the Two Mile Branch watershed. Connecting failing septic systems to the public sewer system will practically eliminate this source of fecal coliform.

