# The Tuscarora Creek Watershed Study

**Background:** With the endorsement of the Leesburg Town Council, the Piedmont Environmental Council (PEC) secured a watershed grant in 2004 to assess current conditions of Tuscarora Creek and all the lands from which runoff eventually drain to the creek (i.e. the "watershed"). The PEC contracted with the Center for Watershed Protection who conducted field work with the Town's Department of Engineering and Public Works (DEPW) in August 2006, and prepared the report entitled "Summary of Findings from Tuscarora Creek Field Work and Baseline Assessments."

To better coordinate with the PEC on watershed planning, the Town Council established a Steering Committee composed of the Town's Environmental Advisory Commission (EAC), a member of the Planning Commission, and appropriate Town staff. The Steering Committee is seeking public input and will make recommendations related to the study to Town Council in May.

**Overview:** The study focused on two major areas:

- A Baseline Watershed Assessment – an existing conditions analysis.
- Identification of Stormwater Retrofits, Upland Pollution Prevention, Conservation Areas, and Stream Corridor Restoration Opportunities – a list of measures that may be used to improve and protect water quality in Tuscarora Creek.

**Findings:** Tuscarora Creek has fair to poor habitat value for aquatic insects and fish based on a survey of conditions in and around the stream. The creek demonstrates dramatic fluctuations in stream flow and water quality typical of urban streams. The potential for the continued decline of the Creek is likely with continued growth pressures. As recently as 2004, portions of Tuscarora Creek have been impaired by bacteria contamination. There are many opportunities to improve and protect natural habitat and water quality within Tuscarora Creek.

**Recommendations:** There are over 80 recommendations that fall into the following six major categories of measures to address problems within the creek and protect its resources:

1. Improvements to existing stormwater facilities and regulations within the Town.
2. Educate residents and businesses within the watershed on management of their properties to protect water quality and prevent or reduce runoff from their lands.
3. Protect and establish forested stream buffers, conserve forested lands, wetlands and replant trees throughout the watershed.
4. Repair erosion problems within the stream channel specifically and the watershed in general; establish additional wetlands, rain gardens, and other water-quality improvement facilities in the watershed.
5. Implement development practices to reduce its impact on the watershed resources (e.g. better site design, and low-impact-development measures).
6. Promote and support public stewardship practices.