# PERCENTAGE OF IMPERVIOUS COVERAGE
# in
# LOCAL WATERSHEDS of TOLLAND, CT

## KNOWLEDGE OF IMPERVIOUS COVERAGE IS AN IMPORTANT PLANNING TOOL

**Numerous studies have revealed that degradation of acquatic ecosystems within a watershed are directly related to the amount of impervious coverage within that watershed.**

**It has been experimentally determined that:**

**When a watershed has less than 10% of its surface area covered by impervious surfaces the ecology of the stream is relatively healthy.**

**When 10% to 30% of the watershed is covered with impervious surface the ecosystem of the stream begins to show stress from the run-off.**

**When more than 30% of the watershed is covered with impervious surfaces the stream's ecosystem becomes degraded.**

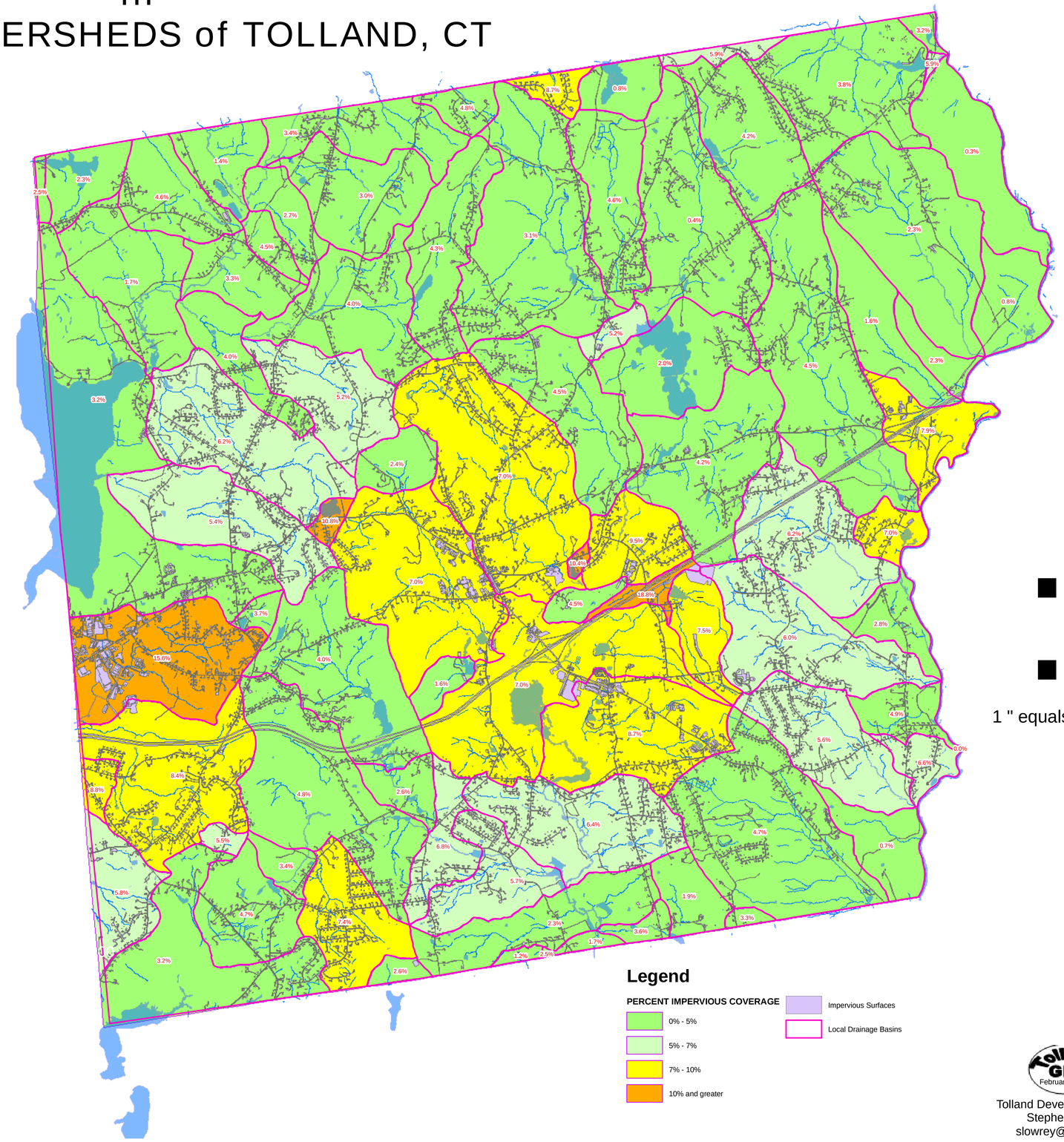
## HOW THE MAP WAS CREATED

**Tolland GIS has its Roads, Driveways and Buildings digitized as three separate polygon layers.**

1. **Using the UNION function, these three layers were combined Into one Impervious Surface layer.**
2. **Using the INTERSECT function, the impervious features were assigned to specific Local Drainage Basins.**
3. **Using the mathematical functions of ArcView's tables the impervious surface of each local drainage basin was reduced to a percentage of the total area of the watershed.**

**The watersheds are shown in different colors to highlight different amounts of impervious coverage and to note which watersheds are approaching or exceeding the 10% threshold.**

This map and data manipulation was accomplished using only the tools found in the standard version of ESRI ArcView




1 " equals 2,000 '

Tolland GIS
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