

“Active Indiana municipal urban forestry programs: How are they addressing sustainability/environmental change?”

Authors: S. Freeman-Day, B.C. Fischer, C.B. DeVoe, D.J. Moxley

Abstract –

Both urban forest ecosystem services and threats to urban forest sustainability are well known. Urban forest management is more than individual tree care; it is managing the whole urban forest sustainably. Adding complexity is the concern for environmental change and identifying urban forest management strategies to both adapt and transition toward the future. To explore how Indiana urban forestry programs are addressing sustainability and environmental change we identified all Indiana cities that had been or are currently involved at least minimally in urban forestry from a variety of sources. These sources include IDNR CUF Program’s Tree City USA records and their grant awards (1992-2016), tree inventory consultancy projects, Indiana Arborist Association certified city arborist list, etc. We then used the list of active cities identified (74) and conducted a city-by-city website search. Collected information included tree ordinances, tree inventory reports, urban forest plans and related documents, citywide plans, etc. We downloaded each document to conduct a keyword analysis, identifying cities addressing urban forest sustainability and/or environmental change. Prominent keywords were diversity (species and age), monitor, stormwater, pests, sustainability and climate. We found 16 city urban forestry programs that are beginning to address sustainability/environmental change. Lead cities are contracting inventories with resultant reports and management plans that include monitoring and taking action around tree species and size diversity and assessing for urban forest environmental change impacts. Additionally, they are realizing the benefits trees have in reducing stormwater and heat island effects. We also identified cities on the verge of addressing urban forest sustainability/environmental change. Clearly, in the near future Indiana will have a group of model urban forestry programs for addressing sustainability/environmental change.