

Public Tree Inventory City of Des Moines, Iowa

Davey Resource Group, a division of The Davey Tree Expert Company, was retained by Tree Des Moines, Inc. to complete a geographic information systems-based tree inventory for the City of Des Moines, Iowa in January 2016. All trees, stumps, and vacant planting sites along the city's public street rights-of-way (outside the immediate downtown area) were inventoried. Vacant planting sites were collected until the change order took effect on November 20, 2015. The inventory also included trees and stumps in the maintained areas of Greenwood Park, McRae Park, Nash Park, Union Park, Glendale Cemetery, and Laurel Hills Cemetery.

City of Des Moines, Iowa Tree Inventory

The following statistical summary of the public tree population reflects genus and species composition, condition, primary maintenance recommendations, and risk ratings:

- A total of 49,501 sites were inventoried, including 38,034 trees, 574 stumps, and 10,893 vacant planting sites.
- The inventory found 184 species representing 76 genera.
- The genus *Acer* (maple) comprised 17% of the tree population, followed by *Fraxinus* (ash), 14%; *Malus* (apple) 13%; *Quercus* (oak), 9%; *Celtis* (hackberry), 6%; *Tilia* (linden), 5%; *Platanus* (sycamore), 4%; *Ulmus* (elm), 4%; *Gleditsia* (honeylocust), 3%; *Pyrus* (pear), 3%; and all other species, 22%.
- Conditions include: 154 Very Good trees (less than 1%); 10,663 Good trees (28%); 22,023 Fair trees (58%); 4,701 Poor trees (12%); and 286 Critical trees (less than 1%). There were 207 Dead trees (less than 1%).
- Recommended primary maintenance needs include: 24,415 Tree Cleans (49%); 10,893 Plant Trees (22%); 8,951 Young Tree Trains (18%); 4,668 Removals (10%); and 574 Stump Removals (1%).
- Risk Ratings include: 9,519 Low Risk trees (25%); 23,631 Moderate Risk trees (62%); 4,844 High Risk trees (13%); and 40 Severe Risk trees (less than 1%).

The tree inventory is an important planning tool that should help Tree Des Moines and the City of Des Moines establish a systematic program for tree care and determine budget, staff, and equipment needs. Implementation of the maintenance recommendations will improve public safety and help guide future management decisions. When properly maintained, trees return economic, environmental, and social value to the community. These benefits greatly exceed the time and money invested in planting, pruning, protection, and removal.

Some of the environmental benefits trees provide include: shading and acting as windbreaks, which decreases residential energy consumption; slowing and reducing the amount of stormwater that reaches storm drains, rivers, and lakes; reducing noise levels; cleansing atmospheric pollutants; producing oxygen and absorbing carbon dioxide; stabilizing the soil by controlling wind and water erosion; and providing a habitat for wildlife. Additionally, the aesthetic benefits of properly-managed and well-placed trees are numerous. Attractive areas increase property values and appeal to commercial businesses. The shade and beauty trees provide enhance quality of life throughout the City of Des Moines.