

Public Tree Inventory

City of Newark, Delaware

Davey Resource Group, a division of The Davey Tree Expert Company, completed a geographic information systems-based tree inventory of the City of Newark, Delaware in November 2015. All trees and stumps along public street rights-of-way, in public parks, open spaces, horticultural areas, and along specified trails were inventoried. Only *Fraxinus* (ash), *Quercus* (oak), and dead trees were collected along the trails. In unmaintained, wooded areas, only trees with a DBH greater than 24 inches were collected. Vacant planting sites were only collected along Main Street in open tree pits.

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The following statistical summary of the tree population reflects genus and species composition, general condition, risk ratings, maintenance and clearance recommendations, and overhead utility conflicts:

- A total of 4,193 sites were inventoried, including 4,087 trees, 100 stumps, and 6 vacant planting sites.
- The inventory found 155 species representing 78 genera.
- The species *Fraxinus americana* (white ash) comprised 14% of the tree population, followed by *Acer rubrum* (red maple), 6%; *Liriodendron tulipifera* (tuliptree), 6%; *Quercus rubra* (red oak), 5%; *Liquidambar styraciflua* (sweetgum), 4%; *Pinus strobus* (white pine), 4%; *Quercus alba* (white oak), 4%; *Quercus palustris* (pin oak), 4%; *Robinia pseudocacia* (black locust), 3%; *Thuja occidentalis* (white cedar), 3%; and all other species, 47%.
- There were 163 trees found to be in Excellent condition (4%), 381 in Very Good condition (9%), 1,168 in Good condition (29%), 1,598 in Fair condition (39%), 402 in Poor condition (10%), 83 in Very Poor condition (2%), and 74 in Critical condition (2%). There were 218 Dead trees (5%).
- There were 3,833 Low Risk trees (94%), 241 Moderate Risk trees (6%), and 13 High Risk trees (less than 1%).
- Recommended maintenance tasks include: 333 Complete Removals (8%); 101 Potential Habitat Trees (2%); 71 Sucker Trunks (2%); 14 Sucker Crowns (less than 1%); 8 Sucker Root Flares (less than 1%); 6 Raises (less than 1%); and 2 Directional Tree Cleans (less than 1%).
- Recommended clearance tasks include: 21 Pedestrian Clearance Issues (less than 1%); 9 Vehicle Clearance Issues (less than 1%); 4 Building Clearance Issues (less than 1%); and 2 Light Clearance Issues (less than 1%).
- There were 23 sites (trees and vacant planting sites) conflicting with Overhead Utilities (less than 1%), 305 sites growing close to Overhead Utilities (7%), and 3,865 sites recorded with No Overhead Utilities (92%).

The tree inventory is an important planning tool that should help the City of Newark 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 Newark.