Current City of Wilmington Tree Planting Practices

New Tree Planting
- New street tree locations (that did not previously have trees) are decided based on citizen requests and grant opportunities that allow new trees (conforming to grant requirements).
- Staff also plants new trees based upon recommendations for shade or aesthetic improvements within city parks and properties.
- Species are chosen based on prior experience, suggestions from area nurseries, stake holder recommendations, staff arborist's knowledge and citizen preference (when appropriate).

Replacement of trees that were removed or lost:
- Any street tree that was removed or lost due to storms, age, disease or accident will be replaced. This happens when funding is secured and a planting contract is executed.
- Staff typically organizes two phases for tree planting each year and the amount of trees re-placed is based on approved budgeted planting funds and development mitigation funds. The amounts may vary each year based on development, the state of the economy, and operational priorities.

The criteria for planting is:
- Tree species must be appropriate for the site.
- Trees will be planted based on mature size of the species vs. street plaza width, as follows:
    - Tree   Plaza
    - Small   < 5'
    - Medium   5'-8'
    - Large   > 8'

- In areas with overhead utilities, only small or medium maturing trees will be planted, regardless of plaza width. In such cases, tree spacing may be reduced in order to increase canopy coverage.
- Current tree plantings must also avoid conflict with underground utilities.(all utilities are located and marked before digging)
- In areas with significant remaining canopy coverage, smaller trees (2.5"-3" caliper) may be planted given the reasonable expectation that they will have a longer time to establish canopy coverage before the surrounding, larger trees are removed.

- In areas with little to no remaining canopy coverage, trees greater than 3" caliper may be planted in order to re-establish canopy coverage as quickly as possible.
- Small to medium maturing understory trees may be planted between larger trees that are in decline. When the larger trees are removed and replaced, this will help to maintain canopy coverage until the newly planted large-maturing trees regrow.
- When possible and practical, trees should be planted according to species selection by the owner of the property fronting the street plaza in question. **
- Avoid monoculture! Planting one species of tree along one street is acceptable; planting one species of tree on every street is not.

**Discuss tree species options/availability with property owners prior to selection.

Tree Species that the City typically plants:
- Beech
- Birch
- Black Gum
- Cedar
- Cherry
- Crepe Myrtle
- Cypress
- Dawn Redwood
- Dogwood
- Elm
- Fringe tree
- Ginkgo
- Golden rain tree
- Hollies
- Honey Locust
- Hornbeam
- Loquat
- Magnolia
- Maple
- Oaks
- Pistache
- Red Buds
- Sycamore
- Poplar
- Zelkova

City staff use many different cultivars and varieties from the species listed above.
Note the above list is not an all-inclusive list but represents the trees that are typically planted.

FUTURE PLANTING

Additional planting strategy based on street tree needs will be incorporated in the future. Need for trees will be identified by the Green Infrastructure Center report. The report contains maps that portray current street tree canopy coverage as well as overall landscape coverage throughout the city. Staff will assess the street locations with the lowest percentage of coverage to be prioritized for additional planting of street trees. As a designated "Tree City" we have a responsibility to continue efforts to protect and enhance the urban canopy. An attractive street canopy should consist of over 30% canopy coverage. The next page portrays of an example of the street tree canopy coverage map provided from the (GIC) report. The color coded streets show the locations in greatest need based on percentage.

Wilmington Percent Street Tree Canopy
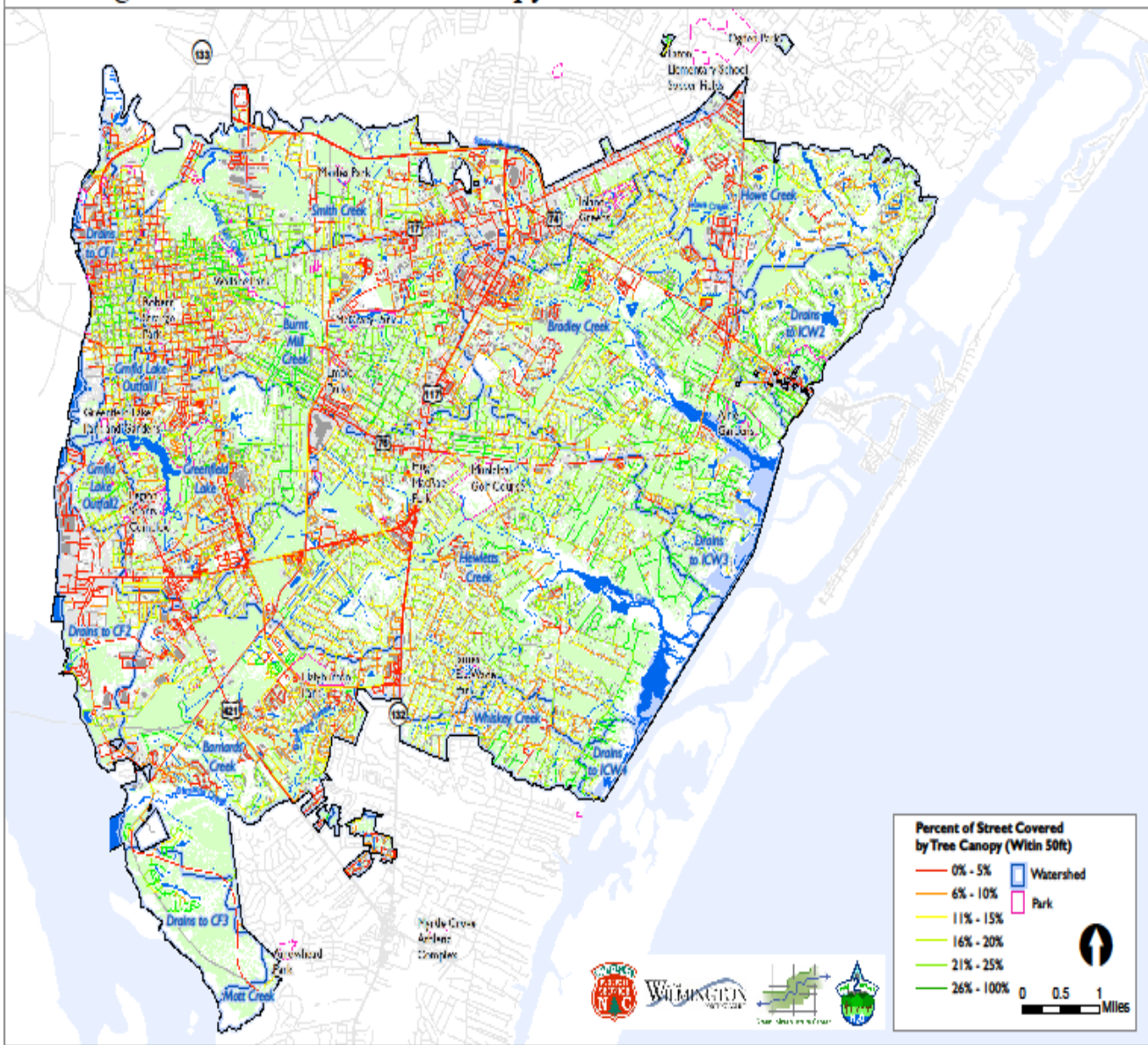
GIS BASED MAP
Another tool that we currently have in development is a GIS based map that consists of layers containing locations (city wide) of trees lost, locations of trees replanted as well as possible locations for future planting that could be requested, noted and analyzed for potential. This map will be an essential tool used to help manage our ongoing tree re-planting initiatives. Staffs intentions are that at some point the public will have access to a portion of the map to see progress.

In addition verbiage about proper selection of species/locations, proper pruning techniques, red flags to watch out for and FAQs can be added. The data used to compile this map consist of street trees lost due to Hurricane Florence, street trees that have had work requested along with trees planted since 2009. The map is near complete and we are currently testing its functions. The filters consist of (asset id, address, location description, location verified, tree type, owner, species, cultivar, grid, size, status, replacement, priority, stumps, comments, issue, hurricane tree, powerline, streetlight and risk level). Below is a screen shot showing an example of how tree locations appear on the map.