



# Urban Forest Sustainability and Management Review CHECKLIST AND PROCESS

The Urban Forest Sustainability and Management Review (UFSMR) System can help urban forest programs benchmark changes in capacity over time and provide program direction, among other benefits. The UFSMR team collects and evaluates evidence related to the stated purpose of the review and communicates the findings through a review report.

## THE REVIEW CHECKLIST

The UFSMR system uses a comprehensive checklist covering every aspect of urban forest management and condition by categories (Box 1), components within the categories, and green asset evaluation criteria (Box 2).

The review checklist also establishes and describes standards of care, base practices, and a scoring system for each component. “Standards of Care” elements represent the minimum urban forest management “best practices” that a municipality/owner should consider for implementation. “Base Practices” represent additional

## BOX 1. Urban Forest Management and Sustainability Review Checklist Categories

1. Policy and ordinances
2. Professional staffing and training
3. Funding and accounting
4. Authority
5. Inventories
6. Urban forest management plans
7. Risk management
8. Disaster planning
9. Practices (standards and best management practices)
10. Community
11. Green asset evaluation (trees, soils): Observed outcomes

urban forest management elements that may effectively expand a program beyond the standards of care group.

Finally, the review checklist establishes a relative scoring system that can be used to monitor changes in a program over time. For each component that is evaluated, 0 points are attributed if the component doesn’t exist or is not practiced; 1 point is given if the component is in development; 2 points are given if the component is routinely practiced; and 3 points are given if the practice is exceeded. The points can then be totaled for an overall score.

## THE REVIEW PROCESS

The review process begins with the establishment of a review team. The team leader should be an expert in urban forest program management who is external to the program being reviewed. Team members should be made up of individuals who are knowledgeable of the program and practices being reviewed, such as a tree advisory board, but not directly involved with the program’s day-to-day decisions. At least one team member should be completely external to the program being reviewed. Once the review team is assembled the review should begin by following the phased protocol outlined in Box 3.



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## BOX 2. Green Asset Evaluation: Components and Evaluation Criteria

COMPONENTS	EVALUATION CRITERIA
Deadwood	Evidence of periodic or ad hoc deadwood removal (i.e., lack of dead limbs $\geq 2$ " in the trees or on the ground).
Genus Diversity	No genera exceed 20% of population; make specific observations for Acer, Quercus, and Ulmus.
Mature Tree Care	Mature trees are retained in the landscape and are of acceptable risk (i.e., veteran tree management).
Mulching	Evidence of adequate (i.e., spatial extent, depth, and material) roots zone mulching for all age classes.
Planting Site Volume Optimization	Species and sites are matched for optimization of above ground canopy (i.e., right tree in the right spot concept).
Rooting Volume Optimization	Species and sites are matched for optimization for below ground rooting volume (i.e., right tree in the right spot concept).
Species Diversity	No species/cultivars exceed 10% of population; make specific observations for Acer, Quercus, and Ulmus genera. Also evaluate the role of regionally local native species.
Soil Compaction	Evidence of soil compaction by users or staff during maintenance. Include "desire" lines and construction activity at time of evaluation.
Tree Health	Rating of overall tree health in all size (age) classes; look for crown dieback, decay, foliage density, and color.
Young Tree Pruning	Evidence of periodic (e.g., every 3 years to year 9) structural pruning (e.g., subordination cuts, dominant central leader, co-dominant stems lower than 20').

## BOX 3. Review Protocol

Discovery	All written documents (current and historical) pertaining to the urban forest management program are obtained for the review team and organized in a matrix with the document titles in the first column and the Review Checklist categories in the first row, and an assigned document number in the box where that document might align with a category.
Review	Using the documents from discovery, the review team evaluates all defined processes in the current program. During this phase a preliminary assessment is made to identify acceptable, exceptional, and deficient practices.
Green Asset Evaluation	Members of the review team who are not directly involved with the management conduct an on-site assessment and report on the condition (i.e., health) of the green assets within the scope of the review. This assessment may be coincident with the review and interview phases of the process and should be conducted during a season that would provide optimum evaluation of the condition (i.e., probably leaf-on).
Interview	The team discusses and interviews others identified during the preliminary review about the actual day-to-day operation.
Discussion	The team discusses findings from discovery and interviews.
Report	The team prepares a final report with rating and recommendations.
Outreach	The team holds an exit (press) conference for management and the broader community (leadership, management, and citizens).
Response	Management develops an action plan for the next 1–3 years to address and improve critical deficiencies. This may also include a 6-month to 1-year priority plan to address critical issues.