

A Standardized Community Forest

Storm Damage



Assessment Protocol

for New England and New York

Ver. 2.0, July 6, 1998

THE NORTHEAST CENTER FOR URBAN & COMMUNITY FORESTRY AT UMASS/AMHERST

The intent of this project is to develop a standardized damage assessment protocol that will enable states and counties to consistently and accurately assess damage to street-side trees during and immediately after severe storms. This assessment will provide information on the extent of damage, the time, resources and costs needed for mitigation in a format consistent with state and federal emergency management agencies.

Draft Procedure

This project will consist of the following steps:

1. Development of an assessment system and methodology adaptable to rural and urban community forests.
2. Define assessor qualifications and development of an assessor's profile
3. Design and produce a training program and manual.

The initial damage assessment should be representative of the trees in the surveyed area and performed during or immediately after the storm. The standardized storm assessment protocol will be tailored to accommodate multiple community forest types (urban, large towns, small towns, rural and county areas).

Survey Criteria:

Required

1. Street or realty map of the community
2. Aerial photograph of the community
3. Confirmed miles of road
4. Percent of the roads that are tree lined
5. Community representative knowledgeable of the areas roads and street trees

Recommended

5. Land use map
6. GIS map/database of community
7. Completed street tree inventory

Assessment zones within each community:

1. Down town/Residential
2. Sub divisions
3. Main thoroughfares
4. Rural roads

Sampling/Plot Areas

Sample of convenience

Number of plots dependent on the uniformity of the area

Plots are predetermined, surveyed and recorded prior to the threat of severe weather

Plots are representative of entire area

Sample areas will be restricted to:

1. Tree lined streets
2. Trees within striking distance of the street
3. Linear plots; survey trees on both sides of the street
4. Plot width is determined by height of the street-side trees and their potential for impact during severe weather
5. Plot length will be predetermined and consider the following:
 - Tree species
 - Tree condition
 - Elevation
 - Soil characteristics
 - Wind direction

The Priority System

Each community will be broken down into zones using a point system, and color-coded according to priority. This rating system will consider the potential impact the trees' may have on the streets and infrastructure, and the area's importance in terms of public safety.

Zone breakdown according to priority:

High priority-Red: Combination of the following

- Large trees; Mature street trees
- Many trees; Forested area
- Major thoroughfare
- Location of emergency services
- High population density; High use area

Medium Priority-Yellow

- Medium sized trees; Large trees set back from road
- Secondary roads
- Residential/Low-use areas
- Medium to low population density

Low Priority-Green

- Small trees; Trees will not impact roads
- New residential areas or sub-divisions
- Low population density
- Shopping areas; downtown areas/business districts

Summary

The main goal of this project is to produce an accurate, consistent estimation of the damages and costs involved with cleanup of storm damaged trees in populated areas. This assessment should consider the following before being submitted to state and federal emergency management agencies.

- * Initial damage assessment must be conducted during and immediately after the storm event and submitted to the state emergency agency within 12 hours from the end of the incident.
- * Preliminary Damage Assessment (PDA) should be sent in within 12 hours from the end of the storm event and updated as necessary.
- * If assessment is deemed by state emergency management agencies to be sufficient, it is then forwarded to FEMA.

Comments

Please forward your comments and feedback on this proposed draft protocol by September 1, 1998 to the Northeast Center for Urban & Community Forestry. An revised draft will be forwarded to you for further comments in late July.