Prioritizing Community Tree Risk – Community Scale

Introduction
There is an immediate need for communities to improve their storm preparedness and their ability to respond quickly after severe storm events. The best way for a community to make these improvements is to develop a tree risk management program that is designed to prevent and correct structural tree defects, before they become hazardous and before a major storm strikes. The tree risk management program should provide a written, systematic procedure for inspecting and evaluating potentially hazardous trees, and implementing timely corrective actions. Equally as important, the tree risk management program should complement the community's overall street and park tree management program goals, and should be fully integrated with the planting, tree care maintenance, and emergency response programs.

It is time for community leaders and residents to recognize that tree risk management is a critical public safety issue - similar in importance to other essential public safety services such as traffic light maintenance, bridge and roadway construction and repairs, sewage disposal, and a source of clean and abundant drinking water - and a public safety issue that warrants the investment of community resources.

Background
A well-designed and implemented community tree risk management program will provide the community with the framework to manage their urban forest, both from an ecological standpoint of promoting resource health and resiliency and from a public safety standpoint of ensuring reasonable care is being taken to manage the public safety risks associated with hazardous trees and storm events.

Each year, city foresters and municipal managers face the potential of incurring billions of dollars in property damage and personal injury claims, and even death resulting from falling trees or branches. History documents that most trees fail during storm events, and every year countless storms rage through the Northeastern U.S. Severe storms can cripple community public service and emergency response systems. Although storms are commonplace, and the risks trees pose to public safety are often high, many communities still operate under a mode of crisis management when it comes managing the health and safety of their urban forest resources. There is an immediate need for communities to improve their storm preparedness and their ability to respond quickly after severe storm events. This is best accomplished by developing a tree risk management program.

Discussion and Proposed Actions for Planners

1. Develop a Tree Risk Management Program Based on Historical Lessons Learned
- Post-storm surveys document that most trees and branches that fail during storm events have pre-existing and preventable structural defects - structural defects that could have been prevented through proper tree planting and pruning practices, and could have been detected and corrected if the trees had been inspected for the presence of hazardous defects. **Lesson learned:** There is measurable value (improved storm preparedness, reduced clean-up costs, and increased public safety) in investing community resources into a tree risk management program to prevent the formation of structural defects through proper tree planting and pruning practices, and to inspect trees on a regular basis to detect, assess, and correct hazardous tree

defects, before they cause tree failures.

- Most street and park tree management plans state the need to remove high-risk or hazardous trees (standing dead or nearly dead trees) as a top priority, but fail to identify a process to systematically detect, assess, and correct hazardous defects in trees. **Lesson learned:** A tree risk management program fills a critical information gap and provides the community with a systematic approach to accurately identify high-risk trees, and initiate the timely removal or corrective treatment of hazardous trees, before a severe storm strikes.

- Most communities have some sort of plan for responding to emergencies and for taking immediate action to address life-threatening situations and to clear away debris and downed trees that block emergency access routes and medical facilities. However, few communities are prepared to conduct post-storm surveys to assess the extent of damage to the remaining tree population, and to effectively manage the public safety risks associated with highly hazardous trees in need of immediate removal or corrective pruning. Post-storm tree damage surveys should be a top priority after a major storm, and should be conducted by staff or contractors trained in tree damage assessment and risk evaluation methods. **Lesson learned:** If a tree risk management program exists, the community will have a tree risk evaluation system in place, and a ready source of trained staff or contractors to assist with emergency post-storm tree damage and risk surveys.

2. Develop a Tree Risk Management Program Based on a Proven 10-Step Process.
- The Forest Service published a training manual to assist communities in developing tree risk management programs entitled U*rban Tree Risk Management: A Community Guide to Program Design and Implementation:* http://www.na.fs.fed.us/spfo/pubs/uf/utrmm/. Chapter 2 of the Guide discusses a 10-Step Program Design Process to address specific needs and fiscal resources within the community, establish program goals, formulate and implement tree risk management strategies, and evaluate program effectiveness. Here is a outline of the 10-Step Process:

  Tree Risk Management Program Planning and Design: A Ten Step Process
  - A. *What do you have?*
    - **Step 1.** Assess the tree resource.
    - **Step 2.** Review current tree management practices.
    - **Step 3.** Assess fiscal and human resources available to manage the tree resource.
  - B. *What do you want?*
    - **Step 4**. Identify program goals.
  - C. *How do you get what you want?*
    - **Step 5.** Formulate a tree risk management strategy.
    - **Step 6**. Prioritize inspection and corrective action needs (Develop a Tree Risk Zone Map).
    - **Step 7.** Select a tree risk rating system.
    - **Step 8.** Write a comprehensive tree risk management program policy.
    - **Step 9**. Implement a tree risk management strategy.
  - D. *Are you getting what you want?*
    - **Step 1**0. Evaluate and revise.