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Essential Resources for Storm Preparation

Storm Emergencies: They Can Happen Tomorrow

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There are hundreds of resources available that are related to urban forests and disasters. In this session, I will identify and discuss, in some detail, the 7 or 8 most essential resources that communities should use for planning, response and recovery.

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Presentation

- Definitions
- A short list of resources
 - An overview of each resource
 - A detailed look at important elements
- Additional web resources
- A checklist of actions




I will begin with a short list of disaster definitions that are part of a larger document (see resources at the end of presentation) of FEMA disaster definitions.

For those of you just being introduced to disaster concepts, it is important that you study & understand the FEMA disaster vocabulary.

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Essential Resources

- Pre-Disaster
 - Urban forest management (Tree risk)
 - Emergency preparedness
 - Helping homeowners
- Post-Disaster
 - Debris estimates
 - Public relations



Resources fall into one or both of two major categories. Those that can assist communities before a disaster (i.e. planning & preparation stages), and those that are useful following a disaster (i.e. during response & recovery).






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Definitions

- **Hazard**
Something that is potentially dangerous or harmful, often the root cause of an unwanted outcome.
- **Risk**
The probability of harmful consequences, or expected loss resulting from interactions between natural and human induced hazards.
- **Mitigation**
A sustained action taken to reduce or eliminate long-term risk to people and property from [disasters] and their effects.




Three important definitions. (see Combined Glossary of Disaster Terms (FEMA) at www.UrbanForestrySouth.org for others).

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Urban Tree Risk Management

A Community guide to Program Design and Implementation
Jill D. Pokorny, Plant Pathologist
USDA Forest Service, St. Paul, MN

- Overview
- Chapter 2: Planning & Design



The first resource for communities to use for planning and in pre-disaster stages is **Urban Tree Risk Management**.


I will give an overview of the major chapters and then look at components of Chapter 2, Planning & Design.

Although developed in the northeast, this manual is applicable throughout the east.

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Urban Tree Risk Management

- Introduction
 - Managing tree risk
 - Liability & risk
 - Developing a risk management plan
- Program Planning & Design
- Assessing Hazardous Defects
- Preventing Hazardous Defects
- Correcting Hazardous Defects



Urban Tee Risk Management has 5 chapters.

The introduction covers general concepts of managing urban tree risk, a discussion of liability and risk, and the basic steps for creating a risk management plan.

Chapter 2 I'll cover in more detail.

Chapter 3 is a photographic section that provides instructions on assessing hazardous defects in trees.

Chapter 4 discusses urban tree management techniques that can help prevent hazardous situations.

And, Chapter 5 provides information on correcting hazardous situations.





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2: Program Planning & Design

Ten Step Approach

1. Assess the tree resource
2. Review current mgt practices
3. Assess fiscal & human resources
4. Identify program goals
5. Formulate a risk strategy



The Program Planning & Design chapter discusses a 10 step approach to urban tree risk management.

These begin with inventories of trees, management practices, and resources (financial, personnel, and equipment).

A program goal (e.g. reduce insurance claims for damage by 50% by FY 2009) strategies are developed.

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2: Program Planning & Design

Ten Step Approach (con't)

6. Prioritize inspections & action
7. Select a risk rating system
8. Write comprehensive policy
9. Implement a tree risk strategy
10. Evaluate program effectiveness




The last 5 steps then move your community toward implementation of a formal urban tree risk management program that is evaluated over time and adjusted as necessary.

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Storms Over the Urban Forest

Planning, Responding, and Regreening –
A Community Guide to Natural Disaster Relief
Lisa I. Burban & John W. Anderson
USDA Forest Service, St. Paul, MN
University of Illinois, Champaign, IL

- Overview
- Tree Emergency Plan Worksheet



The second resource for discussion is ***Storms Over the Urban Forest.***

This publication was written in 1994, following Hurricane Andrew, but still applicable.

Of particular importance is the (revised) worksheet.






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Storms Over the Urban Forest

- Introduction
- Coping with Natural Disasters
- Natural Disaster Alert, Response & Recovery
- Regreening the Community
- Working with Disaster Relief Organizations
- Tornado Relief
- Notes from Hurricane Andrew
- Technical Resources




Major chapters in the *Storms* manual.

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Tree Emergency Plan Worksheet

Creating a Community Plan

1. Early Warning System
2. Local Emergency Manager
3. Public Relations Coordinator
4. Planning & Response Team Members
5. Available Response Staff & Crews
6. Emergency Call Out Procedure




The Tree Emergency Plan Worksheet has 26 sections. Not all may be applicable in you community, but the process of identifying those that are and assembling the information will help you prepare for involvement in your local Emergency Operations Plan.

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Tree Emergency Plan Worksheet

Creating a Community Plan

7. Primary Transportation Corridors
8. Critical Power Corridors
9. Decision Making Responsibility
10. Tree Damage Clean-up Priorities
11. Debris Staging & Removal
12. Debris & brush Removal: Private



The Tree Emergency Plan Worksheet (sections 7-12).






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Tree Emergency Plan Worksheet

Creating a Community Plan

13. Wood Utilization Opportunities
14. In-house Equipment Listing
15. Additional Equipment & Assistance
16. Staff & Crew Organization
17. Record Keeping Responsibility
18. Damage Assessment Responsibility




The Tree Emergency Plan Worksheet
(sections 13-18).

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Tree Emergency Plan Worksheet

Creating a Community Plan

19. Disaster Budget
20. Funding from Past Storms: History
21. Community Regreening Responsibility
22. Community & Neighborhood Groups
23. UF Management Plan
24. Tree Risk Management Plan




The Tree Emergency Plan Worksheet
(sections 19-24).

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Tree Emergency Plan Worksheet

Creating a Community Plan

25. Storm Damage Assessment
26. Contacts for Additional Assistance



The Tree Emergency Plan Worksheet
(sections 25-26).






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Trees & Hurricanes

Mary Duryea & Ed Gilman

- Assessing Damage and Restoring Trees After a Hurricane (on-line publication)
- Establishing a more wind-resistant urban forest
- Managing the urban forest to make it more wind resistant
 - Restoration Pruning




Based on years of research by Drs. Mary Duryea and Ed Gilman at the University of Florida.

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Storm Damage Assessment Protocol

I-Tree Suite of Programs

- Preliminary Debris Assessment
 - Pre-storm sampling (optional)
 - Post-storm sampling




The ***Storm Damage Assessment Protocol*** is part of the i-Tree suite of software developed by the Forest Service.

This protocol can be use with or without a pre-disaster sample, and produced debris estimates & reports accepted by FEMA.

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NADF: Storm Recovery Kit

- Press Releases
 - In the Wake of the Storm
 - Can These Trees Be Saved
 - Watch for Scams
 - Tree First Aid
 - Others Have Recovered
 - Reducing Future Damage
- <http://www.arboday.org/media/stormrecovery/>

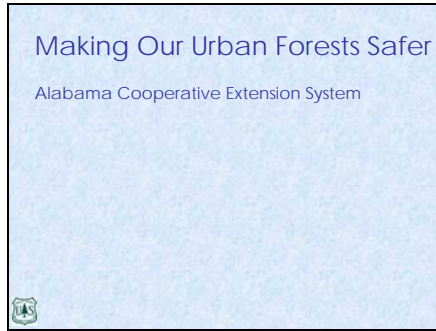


The NADF's ***Storm Recovery Kit*** contains press releases and other post-disaster fact sheets suitable for residents and community leaders.





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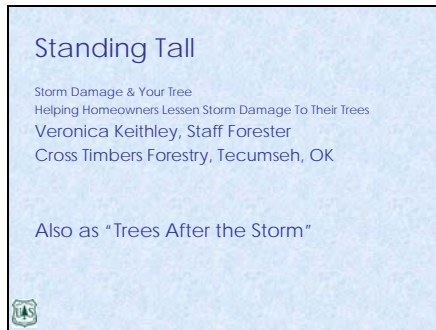
A publication for pre-disaster use with property owners and residents was developed by the Alabama U&CF program.

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While some weather information is Alabama specific, most of the content can be used in any community to prepare people & trees for a disaster.

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This publication was funded by the Oklahoma U&CF program following 1999 tornadoes.





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Standing Tall

- Introduction
- Disasters & Trees
 - Tornadoes
 - High winds
 - Hurricanes
 - Floods
 - Ice Storms
 - Lightening




The pamphlet covers all types of storm damage common in Oklahoma.

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Standing Tall

- Tree Damage
 - Branches
 - Trunk
 - Root
 - Tree Decline
- Damage Assessment
- Maintenance after the storm
- Will my tree survive?



It looks specifically at the types of tree damage homeowners can expect to see. And, discusses assessment and maintenance that is appropriate.

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Web Resources

- TreesAndHurricanes.ifas.ufl.edu/
- www.ITreeTools.org
- www.Arborday.org
- www.TreeLink.org
- www.UrbanForestryIndex.net
- www.UrbanForestrySouth.org
 - Keywords: disaster, storm, hazard, risk, hurricane



Major Internet resources.






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Urban Forestry Action Checklist

1. Prepare a risk management plan
 - Tree assessments
 - Manage this risk
2. Become part of your local Emergency Plan – Protect trees
3. Provide homeowners information critical for a healthy urban forest
4. Assess & protect remnant trees following a disaster



When you leave this conference, I would urge you to use these (and other resources) to accomplish 3 tasks; and prepare for task 4.



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For additional information.

