Planning Strategies for Storm Emergencies – Hurricanes, Floods, Tornadoes, Ice Storms

How do you cope with these?

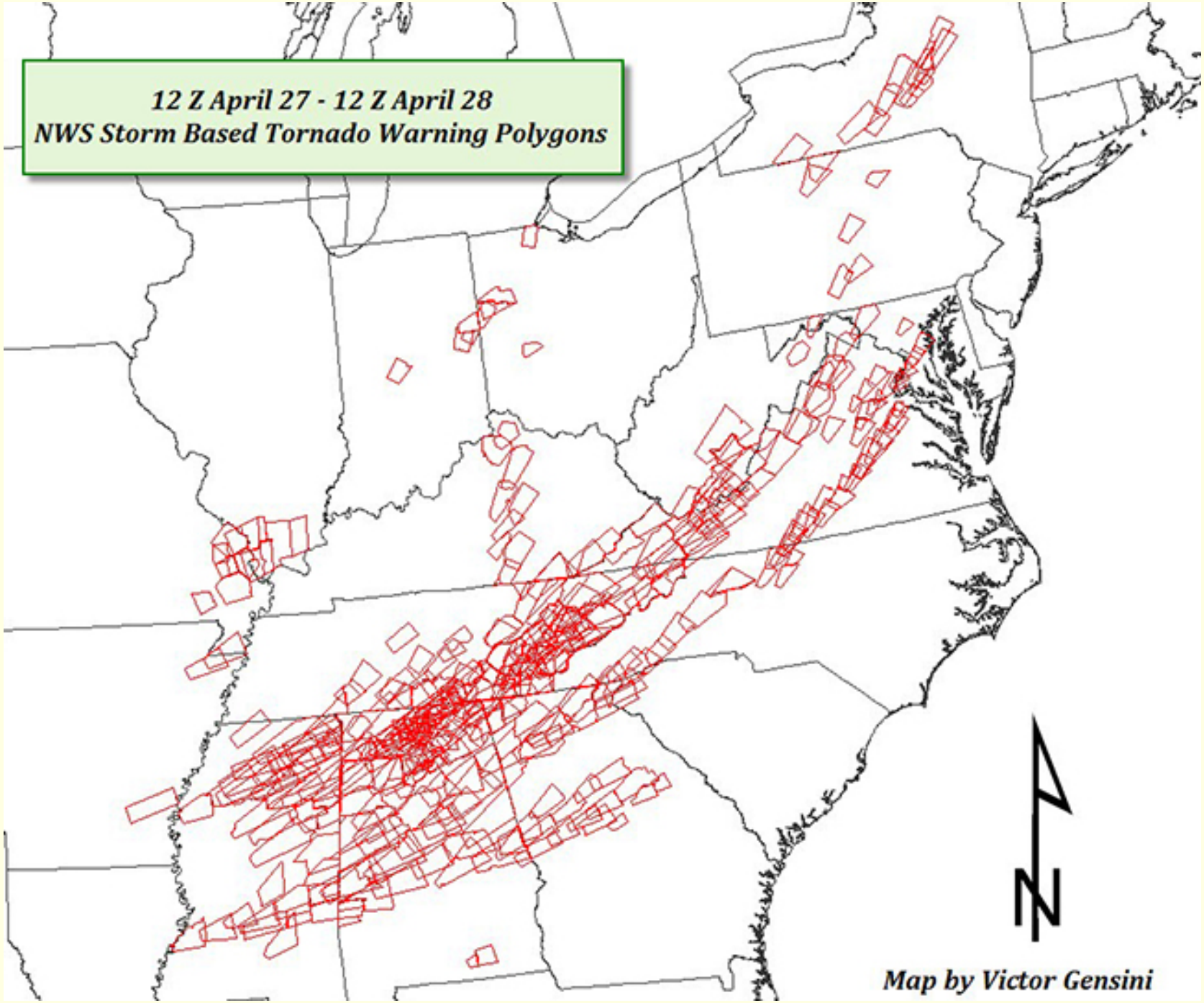
Hurricanes

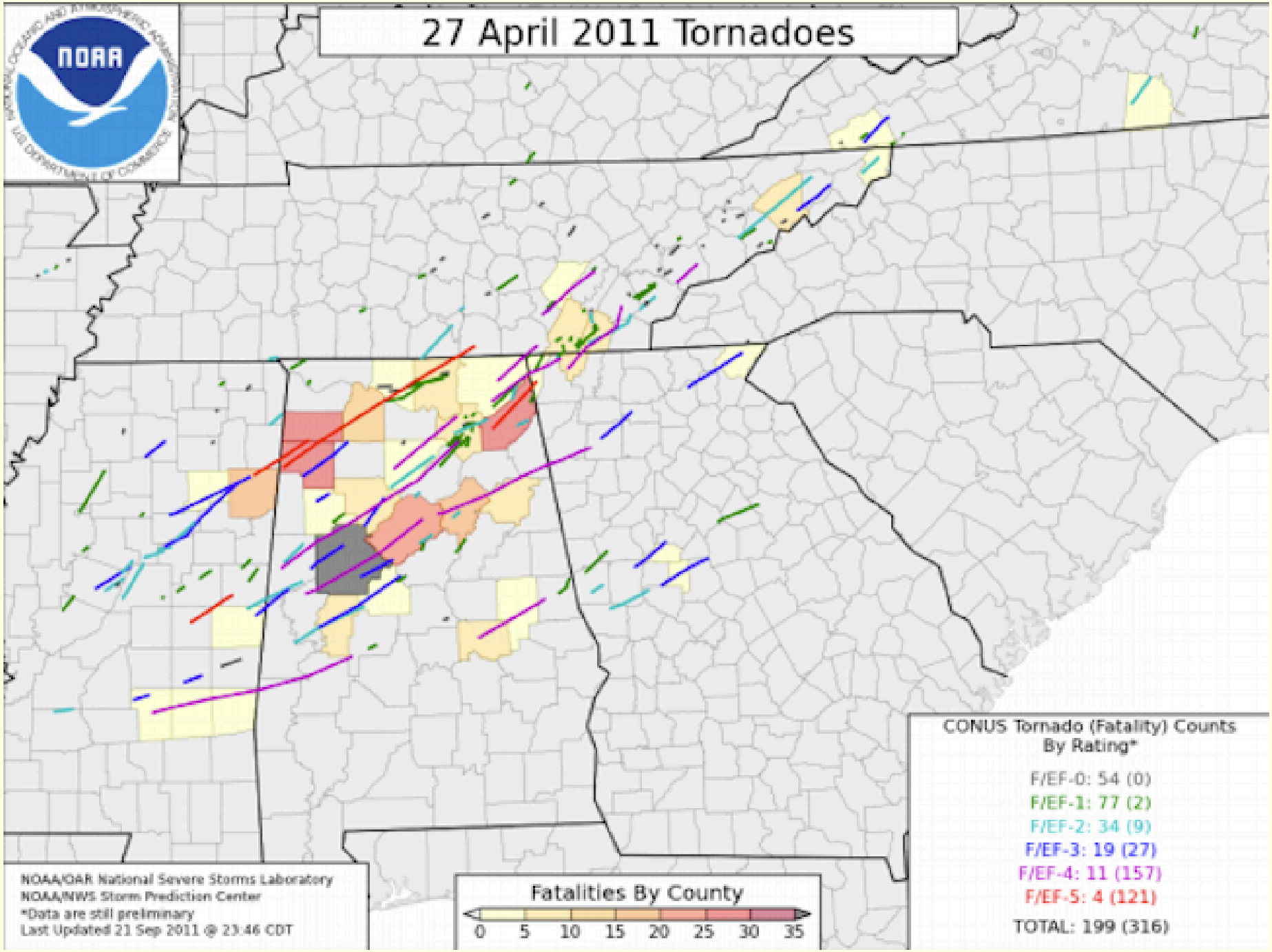
Hurricanes (Sandy -2012)

Floods

Tornadoes

Lady Lake, Florida


12 Z April 27 - 12 Z April 28
NWS Storm Based Tornado Warning Polygons
N
Map by Victor Gensini


27 April 2011 Tornadoes
NOAA
CONUS Tornado (Fatality) Counts
By Rating*
F/EF-0: 54 (0)
F/EF-1: 77 (2)
F/EF-2: 34 (9)
F/EF-3: 19 (27)
F/EF-4: 11 (157)
F/EF-5: 4 (121)
TOTAL: 199 (316)
Fatalities By County
0 5 10 15 20 25 30 35
NOAA/OAR National Severe Storms Laboratory
NOAA/NWS Storm Prediction Center
*Data are still preliminary
Last Updated 21 Sep 2011 @ 23:46 CDT

Joplin, Missouri 2011

Ice Storms

Downbursts

Storm Emergency Plan

Should mesh with your overall NIMS Plan.

While most emergency situations are handled locally, when there's a major incident help may be needed from other jurisdictions, the state and the federal government. NIMS was developed so responders from different jurisdictions and disciplines can work together better to respond to natural disasters and emergencies, including acts of terrorism. **NIMS benefits include a unified approach to incident management; standard command and management structures; and emphasis on preparedness, mutual aid and resource management.**

Tree Emergency Plan Worksheet

(Google for a pdf. Download)

1. Early Warning System/Weather Forecasting Service

Snowbird Weather Alert

Use an early warning procedure to look for weather threats. This can be:

The Weather Channel,

The National Weather Service,

A designated TV station,

The local police department.

Aim for a three hour lead time.

2. Designate a Local Emergency Manager

- This is the “Storm Boss”
- You can have different individuals for different levels or types of storms. This person should be well familiar with personnel, equipment, and procedures.
- This person or a backup should be on call 24/7.

3. Designate a Public Relations Coordinator

This is the individual primarily responsible for primary public relations, media contacts, citizen information, and communications about the natural disaster.

Remember – people want to be informed!

4. Disaster Planning and Response Team Members (Strategic)

- Mayor or a representative.
- Police and Fire Chiefs or reps.
- Director of Public Works.
- Public Relations Representative.
- City Council or a rep.
- County Emergency Management.
- Utility rep.
- Director of Parks.
- City Forester, Others.

5. Available Disaster Response and Crews

- Identify and list all municipal staff and crews available for disaster work. Think of saw crews but also teams that can be responsible for specific activities such as primary route clearing; manage debris staging sites; distribute supplies, food, fuel, equipment.
- Think of this as a military operation.

6. Emergency Callout Procedure

- Name _____ will call: Name _____
  Phone _____
  Mobile _____

- Name _____ will call: Name _____
  Phone _____
  Mobile _____

This info should be readily available to the “Storm Boss”.

7. Primary transportation and evacuation corridors and routes for emergency vehicles to hospitals.

- ID these sites and map for reference.
- Have maps available and accessible.
- Review periodically

These are the “first priority” areas

Priority Ranking of Storm Calls

1. Tree down, injured people trapped in car or home.
2. Trees fallen on live electric lines, especially on ground.
3. Trees down blocking major arterial roads.
4. Split or rocking trees, or large limbs hanging with a high probability of falling on people.
5. Trees or branches blocking non-arterial streets.
6. Trees blocking exit from residences.
7. Trees fallen and at rest on homes.
8. Trees fallen and at rest on automobiles
9. Broken branches hanging in trees.
10. Trees or branches partially blocking streets.
11. Broken branches on the ground.

These are fluid and can change depending on the individual situation. Crews MUST be briefed in advance about policy.

8. Critical power transmission corridor restoration sites and medical centers

- Discuss this with your electric company.

Decide who does what and where.

9. ID who is responsible for decision making and setting priorities during multiple life threatening situations.

- On the North side of town is a woman and her children trapped in her vehicle by a fallen tree.
- On the South side of town is a large storm damaged tree that is leaning over a busy major highway and is about to fall.
- Or how long does your inspector wait on-site after finding a downed “hot” line?

10. Tree Damage Clean-up Priorities

- List areas that need attention after life threatening situations are abated.
- See form at end of presentation.

11. Procedures for debris staging and removal

- Choose a site that is large, flat, well-drained and accessible to roads that can support weights of at least 9 tons per axle.

Suggestions: undeveloped parks, fairgrounds, industrial parks, large parking lots, etc. Consider noise implications near residential areas.

Debris Collection Areas

12. Debris and brush removal from private property.

- What is your City's policy for this?

Consider: Providing guidelines for residents. Specify types and amounts of debris, piling arrangements, dates for pickup and what you **won't** accept. Prepare a list of tree companies that can assist homeowners. These companies should be licensed, professionally trained, and insured. Provide this info to the Public Relations Coordinator.

Identify Wood Utilization Options

- Is there an opportunity to sell the wood, process it, or give it away?

- Establish a contract and emergency contact information for utilization services.

14. Equipment listing in-house

Equipment Available	Quantity	Department/Contact
1. Knuckleboom Trucks	10	PW Gary Delaney 757-5105
2. 65’ Aerial Lift Truck w/ double bucket	1	P&R Daniel Hixon 757-1318

15. Additional Equipment and Assistance Resources

- This is a list of potential vendors and contact information. For certain equipment it is critical to establish an emergency contract. This could include guaranteed equipment rental, extra crews from Asplundh, or a reciprocity contract with a neighboring city.

16. Staff Crew Organization and Equipment Needs

- In a large-scale emergency staff members may need to lead or direct crews from other Departments, from other cities, or from private contractors. Determine staff members who can fill this role.

17. Individual(s) responsible for record keeping.

- This person(s) does documentation and cost accounting during and after disasters. It is advisable to define a specific code for each storm event. This allows for effective accounting.

18. Designate an individual for damage assessment and damage survey reports.

- This person should be familiar with FEMA and Division of Emergency Management procedures. This person coordinates with FEMA and prepares reports needed for public assistance.

19. Disaster Budget

Identify potential activities to anticipate costs

1. Personnel Regular Time
2. Overtime
3. Equipment owned
4. Equipment contracted
5. Operational supplies
6. Disposal/recycling
7. Administrative costs/overhead

20. Funding info from past storms

Review costs from past storms to anticipate costs for future storms and establish budget needs.

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21. Who are the individual(s) and organizations for community re-greening efforts city-wide.

- City Forester
- Community tree groups (Trees Atlanta, Baton Rouge Green)

22. List of specific community and neighborhood groups that support community re-greening efforts

Group: Shepherd Community Council

Representative: Malcolm Walker

Phone: (423) 265 -4317

Mobile Phone: (423) 902-8533

23. Community urban forestry comprehensive master plan.

- A good comprehensive plan is your best defense against storms. Develop your plan to include info related to storm preparedness. ID critical activities such as hazard tree removal, pruning cycles, and annual tree care needs.
- Well cared for and properly pruned trees are less susceptible to storm damage.
- Storm prone areas may need more frequent pruning and attention.

24. Community tree risk management plan.

- A good plan will provide the community with a method for identifying moderate to high risk trees and initiate timely removal of hazard trees.
- Go to: www.na.fs.fed.us/spfo/pubs/uf/utrmm/index.htm

25. Storm Damage Assessment

If a storm is severe enough to receive a formal disaster declaration state and/or federal funding may be available. To facilitate this it is important to quickly develop an estimate of the damage. Consider the i-TREE Storm Damage Assessment Protocol (SDAP) for ice events. Go to: www.itreetools.org/applications.html

i-Tree: Tools for assessing and managing Community Forests - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites
Address http://www.itreetools.org/
Go Links Google Search Sign In
Tools for assessing and managing
Community Forests
About i-Tree >>
i-Tree
Get the i-Tree Tools Installation CD-ROM >>
Resource/Learning Center
Support
Quick Links
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Assessing Urban Ecosystems
Find out how to assess your community's entire urban forest.
click here to begin
Assessing Street Tree Populations
Learn how to assess the street tree component of your community's urban forest.
click here to begin
Applications and Utilities
Access tools to help you strengthen your community's tree management efforts.
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Search
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<< Download i-Tree Updates >>
i-Tree Implementation and Development Team wins 2008 Forest Chief's Honor Award for Engaging Urban America.
What's New?
i-Tree April 2009 Newsletter now available
April 2009 i-Tree Newsletter>>
View USFS Project Leader Dave Nowak's interview on urban forest benefits
News10 Nowak Interview>>
i-Tree: Measuring the Urban Forest in FLC NewsLink
FLC article March 2009 >>
i-PED - Pest Evaluation and Detection Protocol
Learn more about i-PED>>
Coming in the spring of 2009: i-Tree Version 3.0
Preview of i-Tree v3.0 >>
i-Tree v2.1 mid-cycle updates are now available
http://www.itreetools.org/applications.shtm
Internet
start
Inbox - Microsoft Out...
i-Tree: Tools for asse...
Power Point Presenta...
Microsoft PowerPoint ...
2:06 PM

26. Contacts for additional assistance

- Area or district forester
- University extension agent
- City foresters of neighboring cities
- State Urban forestry coordinators
- Local NIMS coordinator

Activate your Emergency Operations Center (in a quiet place where fewer people is a good thing)

- Storm Boss
- Call takers
- Sector Supervisors
- “Go-fers”

Establish a contact within the electrical utility for coordination of when it is safe to go to a specific jobsite.

Has the site been cleared by a trouble shooter?
Is the line repaired and the site ready for clean-up?

Storm Damage Log

Location	Date/ Time	Type Work required	# of Barricades	Electric Utility notified Y or N/A	Emergency completed? Y or N	Brush picked up?
4100 Jones Ave.	Dec. 28, 4:45 A.M.	Remove branch from street	4 flashers	Yes	No	Yes

Debris Removal Contractors

- GSA has a contract with Asplundh Environmental Services and Davey Tree for debris removal and emergency pruning. Following a Presidentially declared natural disaster a city/county can contract directly with Asplundh and bypass the bid process. Rates are negotiable and based on volumes of debris. Some states (Florida) can take advantage w/o a presidential declaration. Check with your county EMA.

GREAT REFERENCE!

http://www.smarttreespacific.org/urban-forestry-emergency-operations-planning-guide/