

Columbus Consolidated Government

EMERGENCY STORM RESPONSE PLAN

Department of Public Services

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Emergency Storm Response Plan

SECTION 1 - INTRODUCTION

Storm events involving violent weather, such as tornadoes, severe thunderstorms, hurricanes, microbursts, and ice, are functions of climatic conditions in the Columbus Georgia area and should be expected to periodically impact the city's tree population. When a disaster such as these does occur, it causes the people and the government officials to take actions to ensure survival and safety of its citizens. Downed trees, power lines and wrecked property are major hindrances in getting help to injured people. The beautiful shade tree, now severely damaged, is a hazard that has to be removed quickly to allow emergency vehicles access throughout the city.

The purpose of this Emergency Storm Response Plan is to help clarify the roles of municipal personnel and establish uniform operating procedures in response to tree damage during storm events. It is essential that emergency crews of tree trimmers and removers have clear directions on how to get the work done without causing added damage to the trees.

Emergency action planning involves the following chronological components:

- **Preparation** - disaster planning and warning activities. Examples include: an early warning system for severe weather, a disaster response plan, identification of roles of municipal entities during a disaster, and identification of sources of additional assistance during an emergency.
- **Response** - immediate activity during and after the disaster. Examples include tree damage clean up, clearance, office/field communications, identification of debris disposal options, and the use of efficient record-keeping methods.
- **Recovery** - activities after the storm event that attempt to restore conditions existing prior to the disaster. Examples include public and private tree planting, tree care, and training of volunteers and municipal workers.

From the standpoint of the urban forest, storms are classified as either minor storms or major storms. For the purposes of this plan, the following will serve as definitions for these two terms:

- Minor storms are events in which the remediation of hazardous conditions requires less than a 24-hour timeframe and can be handled with resources available to the Urban Forestry and Beautification Division of Public Services.
- Major storms are those in which remediation of hazardous conditions requires more than a 24-hour timeframe and additional resources may be required from other city departments, leased or rented equipment or through the use of outside contractors. Further explanation of minor and major storm events can be found in Sections Four and Five of this plan.

SECTION 2 – ORGANIZATIONAL STRUCTURE AND STORM RESPONSIBILITIES

The Urban Forestry and Beautification Division falls under the direction of the Public Services Department. The Urban Forestry and Beautification Division has the primary

responsibility for the management and care of the tree population growing on the city's rights-of-way and other public lands. The Urban Forestry and Beautification Division maintains a database of tree locations and maintenance activities related to these and other publicly maintained trees. The remediation and tracking of tree-related storm damage is an important component of the program. As such, the City Arborist/ Division Manager of the Urban Forestry and Beautification Division of Public Services is responsible for coordinating storm response during minor storm events. Responsibility for major storm events will rest with the Director of Public Services.

Responsibilities of the City Arborist / Division Manager of the Urban Forestry and Beautification Division:

- Assisting in monitoring early warnings of impending storm conditions and intensities.
- Coordinating the movement of crews between management zones.
- Coordinating interdepartmental communication and auxiliary resources.
- Tracking costs associated with remediation and generating reports on damage assessment.
- Reviewing press releases for forestry and tree related information to be dispersed to the media.

Responsibilities of the Assistant Urban Forestry and Beautification Division Manger over the Urban Forestry Section:

- Inspection of storm damage reports to assess priority status and resource requirements needed at various locations.
- Prioritize work according to established criteria, issue work orders, and coordinate movement of tree maintenance crews through the Forestry Supervisor according to those priorities.
- Report resolution of completed work to command center and record and report follow up work required.
- Post storm inspection and assessment.

Responsibilities of the Grounds Maintenance Supervisor over Arboriculture:

- Direct Arboriculture crews to priority sites as determined by the Assistant Division Manager.
- Report resolution of completed work to Assistant Division Manger and report follow up work required.
- Utilize right-of-way and other Beautification crews if needed and advise Assistant Division Manger of the added crews.

Responsibilities of the Arboriculture crew personnel:

- Perform hazard abatement and clean up as determined by the Assistant Division Manger and as directed by the Forestry Supervisor.

All storm damage calls should be routed to Public Services administrative staff. Clean-up activities accomplished by workgroups other than Urban Forestry and Beautification Division personnel will record the location and type of damage. This will permit the UF&B staff to follow-up and incorporate this information into the computerized database and allow for any remediation to be scheduled for damaged trees.

SECTION 3 – RESOURCE PREPAREDNESS AND ASSISTANCE

In order to maintain a proper state of readiness the Urban Forestry and Beautification Division will develop a listing of emergency numbers, resources and equipment. The list should include the following:

- Up to date emergency call-in lists for city staff
- Emergency numbers and contacts for Police, Fire, City Utilities, and other Public Services personnel
- Current inventory of municipal equipment available for tree clean-up operations
- Local vendors of rental equipment
- Contacts for “stand by” or “as needed” contracts
- Neighboring municipalities with resources that might be potentially available should an event be localized in scope (i.e. tornado)
- Brush staging areas, located throughout the city, where work crews can temporarily deposit storm debris

These listings shall be revised on a regular basis in order to keep the information current.

SECTION 4 – OPERATIONAL PROCEDURES – MINOR STORMS

4.1 Definition

Minor storm events shall be defined as:

- Those storm events which all road blockages, fallen trees, large limbs and large overhead hazards can be remedied within 24 hours after the end of the storm event.
- Follow-up work such as removal of stacked logs, brush removal, hazard reduction activities and inventory damage assessment can extend beyond the 48 hour time frame, however all hazards, vehicular, pedestrian and driveway obstructions have been cleared.
- All clean-up and follow-up activities should be completed within one week of the storm event.
- All minor storm events should be handled with resources available to the Urban Forestry and Beautification Division.

4.2 Receiving & Dispatching Calls – Storm Commencing During Normal Working Hours

In the event of a storm during normal working hours the calls should be directed to the Citizen Service Center. The information obtained from the caller will be immediately entered into the Citilink system and dispatched promptly to the Urban Forestry Division personnel.

In order to prioritize damage reports called into the City, the operator receiving the damage call is to obtain the following information:

1. The name & phone number of the caller.
2. The street address of the damage if possible- If unknown, the closest street Intersection.
3. Is anyone injured, people caught in car or home?
4. Is the tree a private tree or a city tree?
 - a. If the citizen knows, note in Citilink
5. Is there a power line involved?
 - a. If yes, call Georgia Power prior to noting in Citilink
6. Is the tree or branch fully blocking a street?
 - a. If only one lane blocked, note in Citilink
7. Is the tree split or rocking?
8. Is the tree or branch blocking a sidewalk only?
9. Is the tree or branch blocking exit from a home or business?
10. Is the tree at rest on a home or a car with no injuries or are people caught in car or home?

This information should be communicated in its entirety to the Urban Forestry staff so that work can be prioritized and crews dispatched properly.

In the event more than 10 calls are received within a 30-45 minute time span, or when notified by the Public Service Department, the Citizen Service Center will revert to emergency operating procedures for reporting and dispatching calls, which are as follows:

- The Citizens Service Center (CSC) will hold on dispatching calls and put all calls and associated information received into Citilink.
- The request will be pulled into the Public Services Tracking system and dispatched accordingly by Public Services administrative personnel.
- When emergency operations cease, the Public Services Department will notify the Citizens Service Center to resume normal operating procedures.

4.3 Receiving & Dispatching Calls – Storm Commencing during Non-working Hours

During non-working hours, calls received concerning damage from minor storms should be forwarded to the Department of Public Services Night and Weekend staff. The information recorded from the caller should be the same as indicated above.

If the number of calls received escalates beyond 10, or falls outside of the immediate response capability of the Public Services Emergency Crews, the on-call personnel will contact the Forestry Supervisor of Urban Forestry and Beautification or his designee so that coordination of any additional crews can occur.

4. Priority Ranking of Storm Calls

1. Trees down, injured people caught in car or home
2. Trees down, blocking arterial streets
3. Trees blocking exit from individual residences
4. Trees split or rocking, which have high probability of failing, causing personal injury or property damage
5. Trees or branches fallen and fully blocking non-arterial streets
6. Trees fallen and at rest on homes and or automobiles

The above priority listing is a guideline only. Circumstances may dictate the deviation from this priority listing when the threat of catastrophic loss is significant.

This priority listing will help to determine the proper allocation of equipment and crew resources during a storm event by the Division Manager, the Assistant Division Manager and the Forestry Supervisor.

4.5 Activity of Work to be done on Private Trees

If a tree from private property fails, the activity by city forces will be limited to two options:

1. Fallen trees and debris will be cleared from the right-of-way only
2. Fallen trees, which block exits from homes and business locations, should also be cleared to allow access to the buildings

In both instances, only the minimum work necessary to achieve the clearance goals should be done.

4.6 Trees Growing on Private Property

- A Tree failure, or any part thereof, and any resulting property damage resulting from trees growing on private property with a likelihood of causing property damage or injury is the responsibility of the property owner.
- In the event an inspection determines the damaged tree is located on private property, the inspector shall inform the resident that tree removal or cleanup is their responsibility.
- In the event failure of a private tree or portion of a tree results in the blocking of a public road, right of way or sidewalk, the action taken shall be to take the minimum action required to clear the right- of -way. The remaining clean up or removal shall be the responsibility of the property owner.

4.7 Reporting Property Damage

- Any damage to property caused by fallen trees or limbs should be reported to Risk Management and the appropriate report filed.
- Additionally, any damage caused by city personnel during the process of removing fallen trees, limbs or portions of trees is to be reported.
- Careful assessment of the damage as it existed before removal activities commenced as well as any damage that occurred as a result of the removal process should be carefully noted to assist the risk management division in determining liability for property damage.

4.8 Brush Removal

During minor storm events, brush removal will ordinarily occur concurrently with hazard reduction operations. During circumstances in which the abatement of hazards warrants the later removal of brush, this material will be left on-site. Quantities of brush that present logistical difficulties for on-site chipping will be brought to staging areas for later volume reduction.

4.9 Emergency Service Log and Reporting

The Urban Forestry and Beautification Division maintains a computerized database of information regarding the locations and maintenance activities of city maintained trees on public rights-of-ways. The accurate tracking of storm damage and subsequent tree loss is crucial to the long-term success of the City's tree program. As such, all crews involved in storm clean up shall use the "Storm Damage Master Log", or a similar form, to record the necessary information for each call. In addition, labor and equipment hours involved in the storm event and subsequent clean-up operation shall be recorded.

The master log is to be given to the Assistant Division Manager on a timely basis following the storm event as well as labor and equipment hours used. Interdepartmental cooperation will ensure that an accurate accounting is made regarding the extent of property damage, tree loss and clean-up costs associated with an event. The Assistant Division Manager or his designee will then use this information to prepare a Storm Damage Summary after each event.

4.10 Work Order Processing:

Normal work order generation and handling needs to be abandoned in storm event situations. Issuing work orders from the command center is simply not practical. The ever-changing priorities that evolve during a storm event require flexibility and require that field supervisors remain in the field to direct operations and react to changing priorities.

- The Storm Damage Master Log is to be used by the command center as well as the crew leaders, the Forestry Supervisor, and Assistant Division Manger to track work done as well as work to be done and any follow up requirements such as clean up and re-evaluation of trees.
- It is the responsibility of the Forestry Supervisor to complete work orders from the field
- It is the responsibility of the Assistant Division Manger or his designee to manage the Storm Damage Master Log.
- Follow-up work orders can be issued by the command center and at the request of the forestry Supervisor and/or Assistant Division Manger after all hazards are abated, crisis mode has passed and normal clean-up procedures can commence.

4.11 Post Storm Tree Assessment

Post Storm Tree Assessment should be done as soon after the storm event as possible.

- Walking inspection of impacted areas
- Drive-through inspection of areas with known problems
- Inspection of trees that received damage in the storm
- A certified arborist or an arborist trained in looking and evaluating hazard conditions should perform inspections

To increase public safety, it is imperative that the trees within the areas that have been impacted by the storm event be inspected. Driving inspections can be done to reveal areas of significant damage. Areas with significant damage should be walked. Walking inspections allow for closer observations and allow the inspector to see all sides of the tree. All inspectors should use binoculars. Post storm inspections are critical. If in house staff cannot handle the workload, private consultants should be hired to fill in.

SECTION 5 – OPERATIONAL PROCEDURES – MAJOR STORMS

5.1 Definition

Major Storm Events shall be defined as:

- Those storms where the clearance of roads, fallen trees, large limbs and large overhead hazards cannot be completed within 24 hours after the end of the storm event.
- Major storms may require the use of resources beyond those assigned to the UF&B Division.
- Additional resources may be required from other Division, city departments, leased or rented equipment or require the use of outside contractors.

5.2 Storm Response Team

Upon notification of an impending major storm event, the Emergency Storm Response Team involving the Director of Public Services, The Assistant Director of Public Services over operations, the City Arborist/Division Manger of UF&B, the Assistant Division Mangers of UF&B, and other departmental representatives as designated by the Director of Public Services, will meet to monitor storm progress and coordinate resources. It is the responsibility of the Storm Response Team to make arrangements for both internal and external auxiliary resources. The Director of Public Services will have the final determination as to when to have the Storm Response Team activate any “standing’ or “as needed” contracts.

The Department Director or his designee will serve as the media representative to disseminate information to the public about the clean-up efforts.

5.3 Receiving & Dispatching Calls

All calls regarding storm damage should be directed to the Citizen Service Center where the information is to be entered into Citilink. The Department of Public Services Operations Area will pull the information into the Public Services

Tracking system and prioritize and dispatch calls as to severity. Where massive damage has occurred, it is particularly important to separate high priority calls, which must be promptly handled, from those calls that can be delayed for several days to a week.

In order to prioritize damage reports called into the City, the operator receiving the damage call is to obtain the following information:

1. The name & phone number of the caller.
2. The street address of the damage if possible- If unknown, the closest street Intersection.
3. Is anyone injured, people caught in car or home?
4. Is the tree a private tree or a city tree?
If the citizen knows, note in Citilink
5. Is there a power line involved?
If yes, call Georgia Power prior to noting in Citilink
6. Is the tree or branch fully blocking a street?
If only one lane blocked, note in Citilink
7. Is the tree split or rocking?
8. Is the tree or branch blocking a sidewalk only?
9. Is the tree or branch blocking exit from a home or business?
10. Is the tree at rest on a home or a car with no injuries or are people caught in car or home?

5.4 Priority Ranking of Storm Calls

A major storm event makes it impossible to respond on an individual basis to each service request. As a result, only the most critical calls involving a strong potential for failure will be serviced in this manner. Lower priority calls will be addressed in the area as work is systematically performed. Priority service will be given to calls in the following order:

1. Trees down, injured people caught in car or home
2. Trees down, blocking arterial streets
3. Trees blocking exit from individual residences
4. Trees split or rocking, which have high probability of failing, causing personal injury or property damage
5. Trees or branches fallen and fully blocking non-arterial streets
6. Trees fallen and at rest on homes and or automobiles

The above priority listing is a guideline only. Circumstances may dictate the deviation from this priority listing when the threat of catastrophic loss is significant.

Priority listing will help to determine the proper allocation of equipment and crew resources during a storm event.

5.5 Activity of Work to be done on Private Trees

If a tree from private property fails, the activity by city forces will be limited to two options:

1. Fallen trees and debris will be cleared from the right-of-way only
2. Fallen trees, which block exits from homes and business locations, should also be cleared to allow access to the buildings.

In both instances, only the minimum work necessary to achieve the clearance goals should be done.

5.6 Area-wide clean up

The Storm response team will divide the city into clean-up units based on geographic region. Road clearing will be the priority to enable access for medical emergency and subsequent cleanup equipment. After the road clearing has been accomplished, crews will concentrate on hanging limbs and broken branches within the clean up unit. The initial emphasis will be on hazard reduction with the brush pick-up to occur later.

In order to accomplish the brush clean up in the most efficient manner, the following strategies will be employed:

- A press release will be issued detailing the magnitude of the storm and the expected clean-up time. The press release should explain the time in which debris will be picked up in their neighborhood and any specific information as to type of debris that will be collected and any instructions on how to place the debris adjacent to the roadway for pick up.
- Large woody debris should be picked up and brought to a centralized staging area for tub grinding and disposal.
- On-site chipping of brush is the preferred method of disposing of branches. The object is to reduce handling time and the number of dump truck trips required to dispose of debris. Chips and any branches that could not be handled on site will be brought to pre-determined staging areas. All crews will be advised of the staging location closest to their working unit area.
- Brush clean up will be accomplished in a systematic sweep of the area of storm impact. Deviations from a systematic clean up strategy will increase the overall time and cost involved in the overall clean up.

5.7 Trees Growing on Private Property

- Tree failure, or any part thereof, and any resulting property damage resulting from trees growing on private property with a likelihood of causing property damage or injury to the public is the responsibility of the property owner.
- In the event an inspection determines the damaged tree is located on private property, the inspector shall inform the resident that tree removal or cleanup is their responsibility.
- In the event failure of a private tree or portion of a tree results in the blocking of a public road, right of way or sidewalk, the action taken shall be to take the

minimum action required to clear the right of way. The remaining clean up or removal shall be the responsibility of the property owner.

5.8 Reporting Property Damage

- Any damage to property caused by fallen trees or limbs should be reported to Risk Management and on the appropriate property damage report form.
- Additionally, any damage caused by city personnel during the process of removing fallen trees, limbs or portions of trees is to be reported.
- Careful assessment of the damage as it existed before removal activities commenced as well as any damage that occurred as a result of the removal process is to be carefully noted on the appropriate form to assist the Risk Management division in determining liability for property damage.

5.9 Emergency Service Log and Reporting

The Urban Forestry and Beautification Division maintains a computerized database of information regarding the locations and maintenance activities of city maintained trees on public rights-of-ways. The accurate tracking of storm damage and subsequent tree loss is crucial to the long-term success of the City's tree program. As such, all crews involved in storm clean up will use the "Storm Damage Master Log", or a similar form to record the necessary information for each call. This will allow the database system to be updated and to follow up on any additional work a particular tree might need after the storm has passed. The Arboriculture workgroup is working to remedy any future problems. In addition, labor and equipment hours involved in the storm event and subsequent clean-up operations shall be recorded.

The master log is to be given to the Assistant Division Manager or his designee on a timely basis following the storm event as well as labor and equipment hours used. Interdepartmental cooperation will ensure that an accurate accounting is made regarding the extent of property damage, tree loss and clean-up costs associated with an event. The Assistant Division Manager or his designee will then use this information to prepare a Storm Damage Summary after each event.

5.10 Communications

The purpose of all emergency response procedures is to bring a degree of order to what can often be described as a chaotic situation. Communication between management, administrative staff, field supervisory personnel and crew leaders are paramount to successful emergency response operations. In addition, communication with the media is critical to surviving disasters.

- Anticipate a loss of normal methods of communication (telephone). Identify alternative methods (cellular phones, 2-way radios, ham radios, etc.)
- Set up clear communication channels among emergency agencies and personnel.
- Establish and publicize a phone number and staff person for public contact.

- Work with the media early and often taking the time to get accurate information out and being frank about the extent of damage and the estimated time needed for recovery.
- Prepare to deliver Public Safety Announcements on topics such as how to stay safe by watching for hangers, leaning trees, and downed power wires as well as chainsaw safety operations and proper tree care practices.
- Remind the public to get help from arborists who are insured and, if possible, certified or registered and to take their time in deciding tree removals, as long as no hazard is present.

5.11 Post Storm Tree Assessment

Post Storm Tree Assessment should be done as soon after the storm event as possible.

- Walking inspection of impacted areas
- Drive-through inspection of areas with known problems
- Inspection of trees that received damage in the storm
- A certified arborist or an arborist trained in looking and evaluating hazard conditions should perform inspections

To increase public safety, it is imperative that the trees within the areas that have been impacted by the storm event be inspected. Driving inspections can be done to reveal areas of significant damage. Areas with significant damage should be walked. Walking inspections allow for closer observations and allow the inspector to see all sides of the tree. All inspectors should use binoculars. Post storm inspections are critical. If in house staff cannot handle the workload, private consultants should be hired to fill in.

5.12 Additional Considerations of a Major Storm Event

- Supplies – Contingency plans should be made for the procurement of adequate fuel, food, replacement clothing and shelter for field crews who may be traveling from outside the area. Local supplies may be diminished following a major emergency.
- Non- local People – Representatives from State and Federal agencies may come and assist the City of Columbus after a major storm event. Contact individuals should be selected who can serve as local guides to the area.
- Standing Contracts – It is helpful to have contracts in place for debris removal, tree removal and removal of hazardous limbs, grinding of debris, etc. prior to a major storm event. These contracts can be implemented and used “as needed” in a storm event. Contracts for tree pruning and remediation should require a certified arborist.

SECTION 6 – CONCLUSION

The City of Columbus has a commitment to protecting both the safety and quality of life of its residents. The Urban Forestry and Beautification Division is designed to maximize both of these goals through proactive management of the urban forest in the community. Mitigation activities such as proper pruning, regular monitoring, and ensuring proper planting of trees all contribute to minimizing the impact of future storms. It is important to re-evaluate the Emergency Storm Response Plan after each event, minor and major, through input from critical members of the operation. Each process should be evaluated and refined as necessary so as to ensure efficient operations are maintained.

This Plan is based upon successful procedures in use by many municipalities throughout the country. Its primary function is, however, as a guide. There may be circumstances following a storm event that will require deviation from this plan.