

Dear reviewing editor,

This is a draft document. Please review and identify areas that need corrections or clarifications.

Please do your edits in red and email back to Nancy Stremple nstremple@fs.fed.us

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Thanks in advance for your assistance.

Nancy

FEMA URBAN FORESTRY TASK TEAM
OVERVIEW REPORT
HURRICANE LILLI

October 28 - November 27, 2002
and
December 2 - December 20, 2002

Date
FEMA

Date
USDA FOREST SERVICE

FEMA URBAN FORESTRY TASK TEAM

I. Executive Summary

Incident Overview

FEMA “Tasked” the USDA Forest Service to assist them with hazard tree identification on private land as a result from Hurricane Lilli storm damage.

The Forest Service was “Tasked” under the **Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288, as amended)**, which provides the authority for the Federal government to respond to disasters and emergencies in order to provide assistance to save lives and protect public health, safety, and property.

The Urban Forestry Task Team is tasked under Operations Public Assistance, Deputy Public Assistance Officer (PAO) for Debris.

FEMA requested five Federal Urban Foresters from Region 8 that were familiar with Southern tree species and knowledgeable in how urban and natural conditions affect tree biology and structure. A combination of these environmental factors could potentially create a hazardous condition for the public health, safety, and, welfare.

This is the first time FEMA has “Tasked Out” the Forest Service for this purpose and requested this type of technical specialty. The Southern Region has only four (4) Federal Urban Foresters that assist the thirteen (13) Southern States. Only one to two of these Urban Foresters were available to assist in the recovery efforts. None of the Federal Urban Foresters had any training with the basic Incident Command System (ICS).

The Forest Service Urban Forestry Staff requested assistance to fill the FEMA request from the Southern State Urban Forestry Coordinators. Through the Congressional Urban Forestry legislation and Forest Service regulations, the State Forestry or equivalent agencies are primary partner and delivery agent of the Federal U&CF program. State Urban Forestry Coordinators are partially funded with Federal U&CF dollars. The Southern Region Fire Compact with the Southern States also designates State staff to assist in emergency fire and natural disaster situations. This connection / relationship allowed FEMA to accept nonfederal (Quasi-Federal) State staff as team members.

Most of the State Urban Forestry staff has Incident Command System (ICS) training. All logistics and coordination would go through the Forest Service Southern Area Command Center.

The two available Federal Urban Foresters would be assigned as the FEMA Task team Forest Service liaisons and a State Urban Forester with ICS training and experience would be assigned to each of the FEMA Urban Forestry Task Team as the Task Team leader.

The Forest Service Liaison coordinated team members with the Forest Service Southern Area Command Center (SACC) contact to determine Urban Forestry eligibility. SACC would then coordinate through each States Command Center to activate and deploy the FEMA Urban Forestry Task Team members. Written orders were sent to the members and the Forest Service liaison would follow up with calls to the candidates and their State's Urban Forestry Coordinator. SACC and the Forest Service liaison relayed and confirm the arrival and departure of the Task Team members to the FEMA Disaster Field Office (DFO), Deputy Debris Officer. The FS Liaison provided written instructions to the team members on logistics, site conditions and team expectations.

Two FEMA Task requests were received. The first five (5), member task team reported Monday October 28 and were deactivated at the end of their tour of duty Wednesday November 22, 2002. The FS would change out team members during this tour of duty due to the availability of team members for two-week periods versus FEMA's 30-day tour of duty period. The second FEMA team reported Monday December 2, 2002 and was completed by Friday December 20, 2002.

The FEMA Forest Service Urban Forestry Task Team was successful in completing their assigned task. SACC did an excellent job in coordinating the Urban Forestry Task Teams and liaisons. The Urban Forestry Task team members were professional, knowledgeable and courteous with both their working groups and with the public. An Urban Forestry Task team member received a letter of appreciation from a Louisiana State representative for her patience and assistance in explaining the Task, its limitations and procedures. The team members educated the FEMA officials and the COE inspectors about urban tree storm damage evaluations, which assisted them in making their decisions. FEMA was very patient and provided the Urban Forestry Team with the criteria and parameters in which to operate. FEMA also provided staff and time to explain to the Urban Forestry Task Team the scope of the situation and procedures which assisted them in doing their job.

Recommendations would be in the areas of communications, consistency, set protocol, ICS training, entry conferences, safety briefings, weekly FEMA team briefings, Forest Service Urban Forestry equipment list, close out briefings, standardized eligibility criteria, consistent SACC contacts, a list of available

Urban Foresters and a more specific FEMA Task order and contacts for clarification.

Urban Forestry Task Team

II. Introduction

A. Type of Review: This is a review of a first time mission with findings and recommendations to improve the process and performance of Urban Forestry Task teams. This information is to assist FEMA, The Forest Service and affected States in coordinating efforts, improve communication, and identifying training, equipment, and documentation needs.

- I. Purpose of Task: To address Hurricane Lilli storm damaged trees on private residential property and make recommendations for tree, stump and limb removal.
 - a. Program activation: This program is typically activated when there is a catastrophic disaster that impacts a large area. Example Hurricane Andrew, Hugo, Arizona Fires, New England Ice Storms, and Oklahoma City Tornado. It allows debris clean up crews and large equipment to go on private land to clean up the debris. It also identifies potentially hazardous storm damaged trees that would impact the health safety or welfare of the resident. Or when the FEMA Regional Director determines that the incident meets the criteria to activate this program.
 - b. Task Agency FEMA, and FEMA contractors,
Lead Agency: Corps of Engineers, COE.
Inspectors- COE, Private Contractors,
Urban Forestry Task Team Specialists- Forest Service /State Urban Foresters.
 - c. Eligibility of a site: FEMA determines the criteria of an eligible home site.

B. Dates Of Task Assignments: October 28 - November 27, 2002 and
December 2 - December 20, 2002

C. State Affected: Louisiana- Bonnie Stine, State Urban Forestry Coordinator

D. Team Leaders and Members

FEMA

Teresa Carter
Randy Emory
Kyle Mills
Neva Moore
Mike Polaris

Forest Service

Sharon Allen-Brick- USFS SACC unit Atlanta
Eva Moore – USFS SACC Unit Atlanta
Rol Pinehurst – USFS SACC Unit Atlanta
Leslie.....- USFS SACC Unit Atlanta
Mark Rondsville- USFS FA Unit Atlanta
Nancy Stremple- U&CF CF Unit Atlanta
Beattra Solomon- U&CF CF Unit Atlanta

Team One

Nick Harrison- TX FS Team Leader First two+ weeks
Beattra Solomon- USFS U&CF, FS Liaison
Nancy Stremple – USFS U&CF, FS Liaison Alternate
Virginia Russell – NC UF Program Coordinator,
Raymond “Chuck Norvell – GA Region UF
Charles Bailey – GA Regional UF
Mike Humphrey – FL UF Program Coordinator, FS Team Leader, final weeks
Kevin Drye – FL UF Partnership Coordinator
Walter Passmore – MS UF Program Coordinator
John Slater – AR Regional UF

Team Two

Dennis Gaston- VA, Urban Forester, Team Leader
Dave Terwilliger- VA Urban Forester
Beattra Solomon- USFS U&CF, FS Liaison, Alternate
Nancy Stremple – USFS U&CF, FS Liaison
Walter Passmore – MS UF Program Coordinator
Brian Waldrep – AL Urban Forestry Extension Partnership Coordinator

Alternates

Iris Magaly Zayas - USFS U&CF, FS Liaison
Nick Harrison- TX FS
Tom Simpson- TN
Raymond “Chuck Norvell – GA Region UF
Kevin Drye – FL UF Partnership Coordinator

III. Objective Of Review:

The objectives of the review are to examine and evaluate the delivery of Urban Forestry technical assistance to FEMA, the State of Louisiana and the local communities during the Hurricane Lilli storm damage clean up. This is to assure consistency with enabling Urban and Community Forestry (U&CF) legislation and FEMA and Forest Service established rules. It is also to determine effectiveness and efficiency of technical assistance delivery; to facilitate exchange of ideas and information; and to develop a more efficient Urban Forestry response network for natural disasters.

Urban And Community Forestry Task Team Review Objectives

The objectives of the Review were to determine how well the Forest Service Urban Forestry Task Team carried out the FEMA Task request that included:

1. Understanding the FEMA task request
2. Identifying available Urban Foresters to fill the request.
3. Identifying communication and logistical aspects of the Task Request
4. Identifying equipment, training needs and guidelines.
5. Assess, and make recommendations to FEMA of hazard tree evaluation and hazard tree preventative standards.
6. Identify and provide FEMA with new technology that will assist them with storm damaged tree, woody debris and mitigation.
7. Assist States in identifying Urban Forestry Storm damage needs and preventive measures
8. Review and make recommendations to the Regional Natural Disaster compact as needed.
9. Evaluate the effectiveness of the Task Team process in building a lasting U&CF capacity at the State, Regional, and National level.
10. Utilize the review process to facilitate the exchange of information, ideas, and training opportunities between the states in the Southern Region, Forest Service, FEMA and other related agencies.
11. Identify, develop an Urban Forestry communication/information network to better assist FEMA and the States with Storm damaged trees and woody debris removal.

IV. Review Procedures

Urban Forestry Task Team

Description Of the Task implementation: The Urban Forestry Staff member Nancy Stremple, CF director, Jim Ehlers and SACC director, Sharon Allen Brick discussed the task over the phone and identified needs and established procedures. Nancy discussed the Task with the LA State Urban Forestry Coordinator, Bonnie Stine and then met with the SACC team members at their office to finalize procedures. Team members were identified and confirmed with SACC and the Urban Forestry liaison. Written procedures were emailed to the Task team members and SACC was copied. This information was then passed on to our FEMA contact Teresa Carter at the FEMA Disaster Field Office (DFO) in Baton Rouge, LA. The first task team arrived in Baton Rouge, LA Sunday evening, October 27, 2002. Team members met and scheduled to report at 7:00 AM at the DFO on Monday.

A 10:00 AM orientation meeting was scheduled with FEMA. However when team members arrived they were signed in and were immediately teamed with FEMA/COE debris inspectors and sent out to the field. Forest Service Field Team liaison Beatra Solomon contacted the FS Regional Task liaison, Nancy Stremple and informed her that the meeting did not occur. FEMA UF Task Team Leader, Nick Harrison, contacted SACC and informed them the orientation meeting did not occur. Nick then scheduled a meeting for that Wednesday with the FEMA DFO staff officials and a second meeting was scheduled that Friday, when questions arose about the changing evaluation criteria and the need to include the State Forestry Staff.

A typical field deployment consisted of five teams of two, made up of an Urban Forester and FEMA/COE inspector would leave the DFO each morning to the designated community after receiving a request list. Teams would meet with local officials who provide maps and/or accompanied the inspection teams to each of the list sites. Inspectors would determine if the sites were eligible. If the site was eligible then the Urban Forester would evaluate the trees within the eligible area for removal and/or limb removal (pruning). GPS points and digital pictures were taken of each site. When teams completed their task for the day, then they would return to the DFO and write up the reports. Copies of the reports were provided to the local officials for their records. This was the general routine for the 30-day tour of duty.

It was determined that FEMA's 30 day tour-of-duty did not coincide with the Forest Service and State's typical 14 day tour-of-duty, the Forest Service arranged to provide alternate Urban Foresters to fill in behind those team

members that could not stay beyond a two week period. Nancy Stremple covered Beattra Solomon, as the Forest Service field liaison during the times when Beattra had previous obligations to fulfill.

Beattra and Nick provided the team with reporting requirements and safety issues, as well as orienting new team members as they came aboard. It was determined during the end of the first task and the beginning of the second task that it would be necessary for the FEMA inspection teams to relocate closer to the communities they were evaluating. Nick Harrison closed out the first Task Team. The second Task Team was briefed by Walter Passmore, (who participated on the first Task Team), Beattra Solomon and Nancy Stremple. Dennis Gaston was assigned as the team leader for the second Task Team and closed out the second Task Mission.

V. Commendations

Urban & Community Forestry Program

- FEMA is to be commended on assisting these new Urban Forestry Technical Specialists with logistics, protocol and orienting them with FEMA regulations and guidelines. The Forest Service especially appreciates the time the FEMA Region VI Operations Director, Kyle Mills, took to meet with them.
- FEMA DFO staff was willing to discuss the task, answer questions, clarify directives and provided sources to obtain information and regulations. They have a well-organized check in and check out process for equipment and staff. They also provide on-site training during down time for personnel new to the organization and incident to become familiar with purpose, ethics and orientation. When issues were identified, FEMA staff responded in a timely manner. This reflects well upon the FEMA agency and their leadership
- Forest Service SACC Unit Director, Sharon Allen Brick and her staff are to be commended for their leadership in directing and coordinating this first time FEMA Task request and its members. It reflects well upon the Forest Service, Fire and Aviation Unit. Sharon also identified opportunities to train Urban Foresters in the Incident Command System (ICS) to better assist the Forest Service in expanding their role with natural disaster response.

- The SACC staff did a good job in keeping all participants informed and followed through when reports were needed from the Task Teams and when information was requested of them.
- The Forest Service SACC, U&CF Staff and Task Team members are to be commended for identifying safety issues and addressing them with the Urban Forestry Task Team members.
- Forest Service field liaison, Beatra Solomon is to be commended for coordinating Urban Forestry Task Team efforts on the ground, elevating issues to the proper levels, relaying information and taking control when necessary, to ensure that orders and protocols were carried out. She is also to be commended for her diplomatic efforts while working with local community members, as demonstrated with a letter of appreciation from that area's State Representative. This reflects well upon the Forest Service leadership and the Urban Forestry Program.
- Urban Forestry Task team leader, Nick Harrison did an excellent job in getting the Urban Forestry Task off to a safe and well-orchestrated start. Nick's expertise and training identified issues and protocols that needed addressed, which kept the Urban Forestry Task Team together, informed and on track. His documentation and sharing of information assisted in the transition of Urban Forestry team members, the second Urban Forestry Task Team and kept the State Forestry agency informed of their efforts. This reflects well upon the Forest Service, and the Texas Forest Service and their leadership in natural disasters situations.
- The Louisiana Urban Forestry Coordinator, Bonnie Stine is to be commended for her leadership in identifying the situation in Crowley LA and assisting FEMA in addressing the issue. She also briefed the Urban Forestry Task Team and the Forest Service of the situation, which prepared the Urban Forestry Team for similar situations.
- The Urban Forestry Task Team members and their Regional Urban Forestry Liaison, Nancy Stremple, are to be commended for their professionalism in working in an ever-changing environment. They worked well with their FEMA team members, local officials and especially with local residents under duress.

VI. FINDINGS AND RECOMMENDATIONS

Finding 1: The Task: The State of Louisiana worked with FEMA representatives to identify their need to have Urban Forestry specialists work with local officials on private residential property.

Though this first Urban Forestry Tasking appeared to have an awkward start, it improved through continual communication and clarification by the agencies and members involved. There were several areas identified that could be improved through continued communication, partnerships and criteria development. Areas of focus are: Task mission statement, The Task processing of the Urban Forestry Team participants, Task coordination, and debriefings.

When The Forest Service received the Task order, there was some conflicting information about overtime. The Task Order mentioned that overtime was not authorized, but mentioned team members were to work beyond regular work hours. This was clarified through several phone calls that team members could work beyond their regular work hours at the same pay rate.

The Forest Service SACC staff, through their past FEMA Task experiences, were also able to identify additional Tasking issues and guide the Urban Forestry Task Teams in proper documentation and to ask specific questions for clarification.

There was also discussion on whether State Urban Foresters would be permitted to fill the Task request. The Forest Service was able to provide the necessary justification to allow them to participate. The Task experience identified the importance of communication and keeping all participants informed of new information, concerns and procedures. If the Forest Service is "Tasked" again in this type of situation, then they will be better prepared to assist FEMA with their request.

The first Urban Forestry Team members were to report Monday October 28 at 0700 to sign in and meet at 10:00 AM with FEMA officials. The meeting was canceled and the Urban Forestry team members were paired with FEMA/COE inspectors and sent immediately to the field. There was not any explanation why the meeting was cancelled, or was there any explanation to the co-inspector team members of our purpose, by FEMA. This contributed to the confusion.

The Urban Forestry Task team members worked under a unique FEMA program authority that addressed private residential property. It was explained to the Forest Service liaisons and team leader, that this program is rarely used and only applies in unique situations. It appears when this program is initiated, the administrative guidelines are general and not specific enough to assist the DFO Debris Officers in such as: setting eligibility criteria, incorporating hazard mitigation, or acknowledgement of local /State pruning or licensing laws when applicable. It also appears that this leaves the criteria up to the discretion of each rotating FEMA official to set new criteria and override anything established by the previous FEMA official, instead of building upon or adhering to the previous official's criteria.

It was observed that the criteria frequently changed when: FEMA representatives, over the task, were rotated out; when the task teams entered into a new local government jurisdiction and when wet areas partially dried out. The Urban Forestry/FEMA inspection teams adjusted accordingly, however, it occasionally created a conflict between local jurisdictions and FEMA. This occurred when, previously reviewed jurisdictions had case sites that needed confirmation or clarification, and these previous case sites were then evaluated under the new criteria. The second review usually ended in disqualifying a previously qualified site.

There were no daily, weekly, or close out meetings or debriefings with FEMA debris operation officials to discuss opportunities to streamline the process, reduce costs and time, discuss safety issues or protocol, identify tools, reporting formats, available software and to develop guidelines to assist FEMA and Task specialists in future situations.

The Task experience benefited Urban Forestry Team members understanding the dynamics of a Natural Disaster Task Mission. It strengthened the knowledge, skills and abilities that they are able to contribute to the Task, as well as, what would be needed in future situations to better serve FEMA, their States and the public. It identified how to better coordinate efforts between State Forestry agencies and the US Forest Service. The Forest Service identified how to improve coordination of efforts, identify team members, team member needs, State needs and reinforced the importance of ICS training and deployment protocols and that overall safety protocols are initiated and followed.

Recommendation 1a: Forest Service Urban Forestry Staff should coordinate with FEMA, and the Forest Service SACC staff to develop skills and knowledge criteria for Urban Forestry Specialists to respond FEMA Task requests for storm damaged trees and debris.

Recommendation 1b: Forest Service Urban Forestry staff needs to coordinate with SACC and develop an outline that will assist in addressing task requests (who, what, when, why, how, and where); assist Urban Foresters to understand the time frame to do task, the importance of keeping within budget, and developing a daily costs, etc.

Recommendation 1c: Forest Service Urban Forestry staff should develop a regional and national list of urban foresters specialists available for FEMA and the States.

Recommendation 1d: Forest Service Urban Forestry and SACC staff to review Natural Disaster Compact/Fire Compact to identify any needed changes. Present these recommendations to the Southern Group of State Foresters, (SGSF).

Recommendation 1e: Forest Service Urban Forestry staff to make recommendations to FEMA, and National Urban Forestry Advisory Council to incorporate International Society of Arboriculture/ ANSI 300 standards for proper pruning and safety guides for FEMA debris guides and policy.

Recommendation 1f: Forest Service Urban Forestry liaison and SACC staff to remind States that all deployment orders will be in writing. All actions should be documented and sent to all participating and standby State command centers.

Recommendation 1g: FEMA should develop administrative guidelines specific to private residential eligibility criteria. The Forest Service should assist FEMA in developing woody debris and storm damage tree removal and pruning guidelines after eligibility has been established. The Forest Service should also assist FEMA in apply new “Davey Resource Group” debris estimation formulas and techniques for future natural disasters with high woody debris. Coordinate between FEMA operations and FEMA mitigation units.

Recommendation 1h: Forest Service to work with FEMA mitigation/Fire Planning dollars and obtain self-sufficient Mobile Command Centers. About 5-6 stationed throughout Region 8. Identify the number of people to Staff each mobile unit that it can sustain and for how long. This would be useful in fire situations and immediately after a natural disaster, especial when housing facilities and resources are short or not available. Incorporate into each unit direct connect communication features (i.e. C.O.W)

Recommendation 1i. The communications could be improved upon. It is recommended that the Forest Service provide cell phones for its Urban Forestry Team members as standard deployment equipment. Even though FEMA provides cell phones. It would give team members open communication to team

members and back to home bases where as FEMA phones were somewhat restrictive. It is recommended by team members that the development of a communication system, such as the Nextel "C.O.W.s" system. Ideally, it would be great to have one these systems stationed in each state or placed in strategic states that experience above average disasters. Then import them from other locations based on demand. This would be a great initiative for FEMA to address in their mitigation planning program.

Through this program, it would also encourage the local, state and other federal governmental agencies to invest in communication systems that would complement the communication system that will be utilized during emergencies.

Recommendation 1j. It is recommended that the coordination of the program could operate more efficiently if local contractors or actual FEMA employees could be utilized to oversee the fieldwork instead of private contractors to FEMA. We believe that the FEMA "private contractors" did the best that they could and did a good job, however they were not familiar with the people, the geographic challenges, and Federal performance protocol as a public servant.

Recommendation 1k: A further enhancement of communication would be to develop a standard set of news releases that would be given to the local media groups in the affected areas to educate the citizens of the programs available to them, the above stated standards of work, any constraints that may apply, and an approximate timeline of program delivery. FEMA presently does this in general, however, not with this specific program.

Recommendation 1l: Some team members thought that the value of their assessments was discounted to the level of the individuals implementing the actual tree pruning and removal process. It is recommended that that the Urban Forestry professionals not lonely be utilized during the assessment phase of the FEMA program, but also the implementation phase as well. This way the non-biased urban forestry team members could keep a watchful eye over the contracted tree removal companies.

Recommendation 1m: The US Forest Service and State Urban Foresters were observed to have a different approach to the Task versus their inspector team members (COE and FEMA (private contractors). The Urban Forestry Task team members approach the task as a task they needed to do beyond their regular job duties. It would provide the urban forestry team members with hands on training that they could use to assist their own States in the future. The local governments and individual members of the public were viewed as their clients. The Urban Forestry team members tried to provide them with the best information or where to find the answers if they could not answer the public's questions.

This was not the approach of some of their FEMA inspection team counter parts. Some urban forestry team members observed that some of the private

contractors, not all of them, took the approach that in getting the job done, the public and local government entities were a road block, or annoyance and were wasting their time. Some of these entities were witnessed to be rude or some took a regulatory approach towards local entities asking for assistance and clarifications of what they needed to do. This often antagonized the public and their State and Federal representatives were sometimes contacted. It is recommended that these types of people unfamiliar with public service/assistance should never be allowed to be in contact with the public. They should stay in the DFO.

Recommendation 1n:

The Urban Forestry Task team members and their FEMA inspectors were able to adjust to the eligibility criteria that changed daily and meet their mission requirements.

It is recommended that once FEMA sets the criteria for eligibility, then they need to stick with that criteria and mandated that each incoming FEMA staff member or designee be required to follow that format.

Finding 2: Urban Forestry Task Team

The Urban Forestry Team identified the following areas to be established prior to going out to the field. An equipment check list and equipment, training, ICS, FEMA protocol, Entry, briefing, safety briefings, daily reporting procedures, field contact procedures, and exit procedures, standard written guidelines,

Standard equipment needs for the field, such as: hard hats, gloves, goggles, digital cameras, orange safety vests, safety protocol manual, cell phones, laptop computers with FS / internet access and palm and excel software, identification clothing/badges, disks, FEMA manuals/administrative guidelines, rain gear, FEMA/ FS/ State Forestry door knob notification, GPS units/ palms w/ GPS units, and standard reporting forms, etc.

Most of the State Urban Foresters had ICS training. Those team members that had that training or were familiar with basic training demonstrated their leadership and kept the team together. Some team members that lacked that training became part of the confusion and some peripheral issues interfered with their duties.

Some of the team members, during their down time, participated in the FEMA training sessions that was provided on weekends. This training proved useful later on during the Urban Forester's Task and after it was completed. Safety training/protocol was deficient in the beginning, however during the second task it was being implemented. The location of the Disaster Field Office (DFO) had a social safety issue with it being located in high crime area. Urban

Forestry team members were not briefed on the situation by FEMA, but were briefed by the Forest Service field liaison that was familiar with the area.

Other challenges occurred when the debris division leadership changed. Often new debris officers would change the eligibility criteria from the previous debris officer, sometimes making it difficult for the inspectors and team members to determine what sites were eligible. This also confused the local governments trying to comply with the FEMA eligibility criteria. If standard written guidelines were developed, this could reduce the confusion and increase consistency.

Daily briefings would also assist in the discussion and addressing the issues as they arose.

Recommendation 2a: All Forest Service and State Urban Forestry Staff have basic ICS training, crew boss training, and develop a hybrid FEMA and ICS training for future Urban Forestry task team members. Develop an eligibility list of Urban Foresters in the region/ nationally. Develop a standard equipment list and a safety assessment of the natural and human environment.

Recommendation 2b: Revise Storms over urban forest manual to create a technical / response toolbox and check list for states and Forest Service to use develop forms and software and a safety and equipment checklist.

Recommendation 2c: Incorporate into FEMA mitigation programs Davey resource group software debris estimation. Develop several demonstration sites through out region/ nation of demo communities.

Recommendation 2d: Incorporate natural disaster response/ ICS training into university UF curriculum.

Recommendation 2e: FS to work with FEMA on developing standard reporting forms and software for hazard trees; a process for setting up a system form communities to receive requests and reduce duplication of requests; a written in house process for FEMA debris officers to utilize when implementing the hazard tree inspections, such as a set criteria from the beginning, if criteria needs to change, at what point is it changed and what is grand fathered in, changes of leadership to follow set protocol for eligibility as set at the beginning of a mission.

Recommendation 2f (repeat of recommendation 1l)

Recommendation 2g: It is recommended that future urban forestry task team members be trained in daily in the following reporting procedures and format to SACC/FEMA, field personnel report in end of day, FEMA report of findings standardize format. Another area would be deactivation procedures and reports.

Finding 3: Data base setup, reporting and guidelines for Urban Forestry Task

The original reporting and response system became a major dilemma as the number of requests began to overwhelm the parish employees. As time lapsed, homeowners began to make follow-up calls, and the employees were reentering their names as separate requests. A well documented, MS Excel spreadsheet database was requested by Beattra Solomon, USFS Urban Forester. This spreadsheet would contain all the information from the field form, but it would be accessible to only one parish employee who would update the database after collecting the daily requests from the other parish staff who accepted calls. By inserting the data into a standard MS Excel spreadsheet, a simple search for duplicate names and addresses reduced the estimated workload to and actual twenty to thirty percent decrease. It also provided a complete description of the reported disaster, which pinpointed the hazardous trees and debris, and identified rental and previously assisted properties. This format was carried on a floppy disk by each team to install on the next Applicant's computer system.

After the parishes began to utilize the database, they expressed their appreciation in being involved in the response project. Parish officials enjoyed playing a role in the reconstruction of their communities, and by being able to update the database, print and document pictures and field forms, they could make follow-up phone calls inform the residents of an estimated date of service completion.

Recommendation 3a: Set up local excel database for communities to submit sites, reduce duplication, photos.

Recommendation 3b: Make this equipment, software available to local governments and include on the supply needs lists.

Finding 4: Opportunities The urban forestry task team members identified numerous opportunities that could save FEMA, and the public, both time, money, and to perform the task more efficiently.

Presently there is no information available to the public about tree hazards after a natural disaster. For example, residents are unaware of weigh distribution in regards to a tree. They do not realize that by removing one side of a tree can present a more intense hazard to the surfaces that fall beneath the remaining side of the tree. By removing a certain portion of a tree, the center of gravity

shifts and creates an unsuspected lean that will result in disaster following the next windstorm. Residents were more than grateful for this knowledge and expertise that Urban Foresters could provide. A collaborated document would receive positive feedback for both agencies—FEMA specializes in emergency management, and Forest Service can protect/ salvage their trees.

The Forest Service is presently doing research and has implemented this research in woody debris estimation that is more accurate than what FEMA has presently in place. Through the Davey Resource Group, random community tree block estimates can be performed pre-disaster to determine the ROW debris amounts after a natural disaster. This information can also be developed to address trees on private land based on tree species/size/ and time of year.

The International Society of Arboriculture has developed proper tree pruning guidelines to prevent and reduce future costs of storm damage to our community trees. These standards should be utilized by FEMA during their implementation process for damaged limbs. This would reduce future costs of natural disaster damage.

Recommendation 4a: FEMA and the USFS should collaborate to create a pamphlet/brochure to distribute to the affected public after a natural disaster. This literature could demonstrate a more basic analysis of hazardous trees.

Finding 5: Safety Protocol: During our Task period, basic safety protocol procedures were ignored or not enforced. The Urban Forestry Task team members took it upon themselves to brief each other on basic safety precautions when working around potentially hazardous trees, especially along roads. In other situations, the DFO was located in a high crime area of Baton Rouge. FEMA has security in place day and night, however team members were never briefed about personal safety arriving and leaving the DFO. One of our team members, who are from this area, was able to brief us on areas to stay away, as well as, areas that were safe. Field inspection teams did not typically wear or carry safety gear that would be appropriate working around hazardous trees, such as, hard hats, gloves, safety vests, etc. Emphasis on safety did not occur until after there was an injury or fatality of local employees of a Parish.

Recommendation 5a: Make sure all UF team members are briefed on the local situation. Have them bring their own safety gear in case it is not provided. Basic ICS training can assist in preparing teams for these situations and should be incorporated into individual development plans for those individuals interested in participating on these urban forestry natural disaster teams.

VII. Appendixes

Appendix A. List of Attendees At Entry And Exit Conferences:

Participants

Affiliation

Entry Conference:

Beattra Solomon

Nick

USDA Forest Service

Exit Conference

Nancy Stremple

Dennis Gaston

USDA Forest Service

Virginia Dept. of Forestry

Appendix B:

Storms over the UF (Souf II: technical implementation outlines, network, directory, training assessment and sessions, teams, Identified roles & responsibilities, logistics, notification, pay reporting, de-activation, closing the participant communications loop, equipment needs, forms, guidelines, revision of compact as needed.