COUNTY DEPARTMENT AGENDA REQUEST

Department:	Fire and Emergency Services	Presenter(s):	M. Allen McCullough / Pete Nelms
Meeting Date:	Thursday, May 27, 2010	Type of Request:	Consent

Wording for the Agenda:

Approval of staff's recommendation to adopt the Atlanta Regional Evacuation Coordination Plan.

Background/History/Details:

In the spring of 2008, the Atlanta Regional Commission notified elected officials of cities and counties that lie in the metropolitan Atlanta area (Fayette included) to participate in the development of the Atlanta Regional Evacuation Coordination Plan. The objective of the plan, and Fayette County's participation, was to be part of a regional planning effort to facilitate a coordinated evacuation of the metro area should the need arise. Additionally, the evacuation plan will incorporate and enhance existing local emergency management plans and improve overall response throughout Fayette County and the region during a large scale regional evacuation. With Fayette County Emergency Management Agency's participation, the planning process took place over 13 months and was approved by the Atlanta Regional Commission in March of 2009. The project was funded through a grant that was acquired by the Urban Area Security Initiative (UASI) through the City of Atlanta. As part of the planning process, it has been recommended that Fayette County and all cities and counties in the metro area adopt the plan as written to be included in future updates of the plan and other regional projects.

What action are you seeking from the Board of Commissioners?

Adoption of the Atlanta Regional Evacuation Coordination Plan.

If this item requires funding, please describe:

Has this issue come before the Commissioners in the past?	No	If so, when?	
Do you need audio-visual for the presentation?	No	Back-up Material Submitted?	No

STAFF USE ONLY

Approved by Finance	Not Applicable	Reviewed by Legal	Yes
Approved by Purchasing	Not Applicable	Approved by County Clerk	Yes
Administrator's Approval	Yes		

Staff Notes:

Atlanta Regional Commission

Chief Elected Officials Evacuation Planning Meeting

September 29, 2008

Project Overview

ARC

BDR

TABLE OF CONTENTS

CHIEF ELECTED OFFICIALS MEETING

SECTION

Introduction / Agenda 1

Evacuation Scenario 2

Profiles / Planning Advisory Committee 3

Project Phases 4

- Evacuation Workshop ..... A
- Planning Analysis ..... B
- Hazard Analysis C
- Vulnerability Analysis ..... D
- Evacuation Zone Analysis ..... E
- Behavioral Analysis ..... F
- Transportation Analysis ..... G
- Shelter Analysis ..... H
- Evacuation Strategy and Coordination Plan I

Evacuation Success Factors 5

Copyright © 2008, by Beck Disaster Recovery, Inc.
ALL RIGHTS RESERVED
Unauthorized duplication, disclosure or distribution is prohibited.

Regional Evacuation Planning

The overarching goal of the Regional Evacuation Planning project is to maximize the preservation of life, while reducing the number of people that must evacuate and the distance they travel to seek safe refuge. The Regional Evacuation Plan, consisting of an evacuation strategy and coordination plan, aims to lessen the host shelter impact that a large-scale evacuation can have on the region. Using a "worst case scenario" assumption for all hazards present in the regional area, we will develop workable evacuation planning assumptions for the Atlanta region through a series of phases and in-depth analyses designed to derive critical information about the region's unique needs and risk factors. Each phase is intended to create planning assumptions, protocols and baselines, determine current short-falls/needs and establish various levels of response.

Several factors must be considered when developing evacuation plans and issuing appropriate evacuation warning orders for populations at risk. These factors can include timing of onset, magnitude, intensity, duration, time of day and potential impact. Each factor affects the number of people at risk, the time available to implement phased evacuations or shelter-in-place guidance, the distance evacuees must travel, roadway corridors, communication procedures, shelter capacity, mutual aid and traffic control measures to ensure at-risk populations can seek safe refuge. The Planning Advisory Committee will coordinate regional evacuation planning efforts for the 10-county Atlanta region, provide guidance on developing a regionally supported vision and provide creative and innovative solutions.

The objectives of the Regional Evacuation Planning Project will be to:

- Develop an *executable* Regional Evacuation Plan
- Plan for no-notice evacuation
- Estimate evacuation participation rates of at-risk populations
- Build consensus and increase inter-jurisdictional communication
- Develop accurate evacuation planning assumptions and clearance time guidance
- Provide foundation to improve public communication before, during and after an event
- Maximize life safety

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Purpose of the Meeting

The purpose of the meeting is to brief the Atlanta Regional Commission Chief Elected Officials on the Evacuation Planning Project and seek policy directions.

Meeting Agenda

Registration/Continental Breakfast .....8:30 a.m.

Introduction.....9:00 a.m.

- Opening Remarks – Sam Olens, Chairman of the ARC Board
- Introductions – Chick Krautler, ARC Director
- Evacuation Planning Scenario – Cristine McCombs, BDR

Atlanta Regional Evacuation Planning Project .....9:15 a.m.

- Introduction of Planning Advisory Committee – Emerson Bryan, ARC Director of Support Services
- Project Phases - Findings and Recommendations – Joanne Martin, BDR and Jeffrey Hescock, BDR

Evacuation Planning Success Factors .....10:15 a.m.

- Facilitated Discussions – Cristine McCombs, BDR

Wrap Up and Questions .....11:30 a.m.

Adjourn/Lunch.....12:00 p.m.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Evacuation Planning Scenario

Scenario: Hurricane Tom, a Category 4 Storm, made landfall on Saturday, September 27 near Savannah. The Atlanta region has been experiencing an unusual amount of rain for the month that preceded Hurricane Tom. Specifically 10 inches of rain had fallen in the last month which puts the Atlanta region in a vulnerable position leading up to this storm. Today, on September 29, the Atlanta region is now experiencing a tremendous amount of rainfall from this storm – 20 inches in the past 36 hours alone – with heavy rain expected to continue through Tuesday, September 30. Some areas have already exceeded the capacity of gutters, storm drains and sewers to convey runoff to stream channels. Due to the high winds, the region has experienced extensive power outages, and a number of roads are inaccessible due to flooding conditions and/or fallen debris. There is extensive flooding, and new peak records have caused rivers and streams throughout the region to go over their banks and are nearing flood stage. As a precaution, officials have determined that an extensive evacuation across the region needs to be conducted, involving 500,000 residents. It is estimated that approximately 10% of the evacuating population will require shelter.

Discussion

- From a **regional** perspective – How are you coordinating evacuation of individuals? How are you maintaining situational awareness?
- How are key officials alerted of the possible need to evacuate?
- How is the community informed of what steps they should take to be prepared for an evacuation?
    - Whether a person is located in an evacuation zone?
    - What evacuation routes they should use?
    - Location of nearby shelters?
- Who issues an evacuation order?
- Who makes the decision to return?
- What factors should influence a re-entry decision?

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

- **Jeffrey Hescock – Project Manager**
  - Former Government Preparedness Manager of Massachusetts Emergency Management Agency responsible for evacuation planning operations for three nuclear facilities
  - Evacuation planning experience in support of special events (Democratic National Convention, Boston Marathon and July 4th Celebration)

- **Joanne Martin – Principal-in-Charge**
  - 18 years of project management experience
  - Developed emergency plans for more than 30 jurisdictions
  - Director, East Coast Planning Operations, BDR Hickory, NC

- **Cristine McCombs – Program Manager**
  - Former Director of Massachusetts Emergency Management Agency
  - Evacuation planning in support of special events (Democratic National Convention, Boston Marathon and July 4th Celebration)
  - Directly responsible for planning for three nuclear power facilities

- **Craig Franklin – Trichord, Subject Matter Expert**
  - National expert in traffic management systems, real-time traffic sensors, traveler information, communication systems
  - Past President, ITS Virginia, BOD, DriveSmart Virginia, Loudoun County Transportation Safety Commission, Fairfax County Trauma Prevention Coalition

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Planning Advisory Committee

Each County Manager appointed a member of their County to serve on the Planning Advisory Committee for the Atlanta Regional Evacuation Planning Project. The roles and responsibilities of the Planning Advisory Committee members are as follows:

- Facilitate getting information from jurisdictions
- Provide input into the planning process
- Sounding board
- Build consensus in developing regional evacuation planning assumptions

Planning Advisory Committee	
County / Agency	Name (s)
Atlanta Regional Commission	Emerson Bryan and Tommy Griffin
Cherokee	Robby Westbrook
Clayton	Alex Cohilas and Beth Durmire
Cobb	Lanita Lloyd and Ken Doty
DeKalb	Don Frank and Phil Harrington
Douglas	Jason Milhollin
Fayette	Allen McCullough and Pete Nelms
Fulton/Atlanta	Rocky Moore and Suzanne Lord
GEMA	Joe McKinney and Sheri Russo
Gwinnett	Major Alan Doss
Henry	Don Ash and Donnie Reece
Rockdale	Myra Pearrell
UASI	Julia Janka

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Project Phases

There are three main assumptions for plan development:

- Developing a viable and workable evacuation plan.
  - The plan is not intended to replace plans created by local jurisdictions, but will provide an overall framework for development and coordination of plans.
- Managing evacuations associated with catastrophic incidents.
- Identifying where people will go when evacuated.

The BDR Team has been working in close collaborating with the ARC and the Planning Advisory Committee on the development of the regional evacuation strategy and coordination plan using the phased process below. This process follows' BDR's proven methodology for emergency evacuation plan development. There are four phases to the project which are described below.

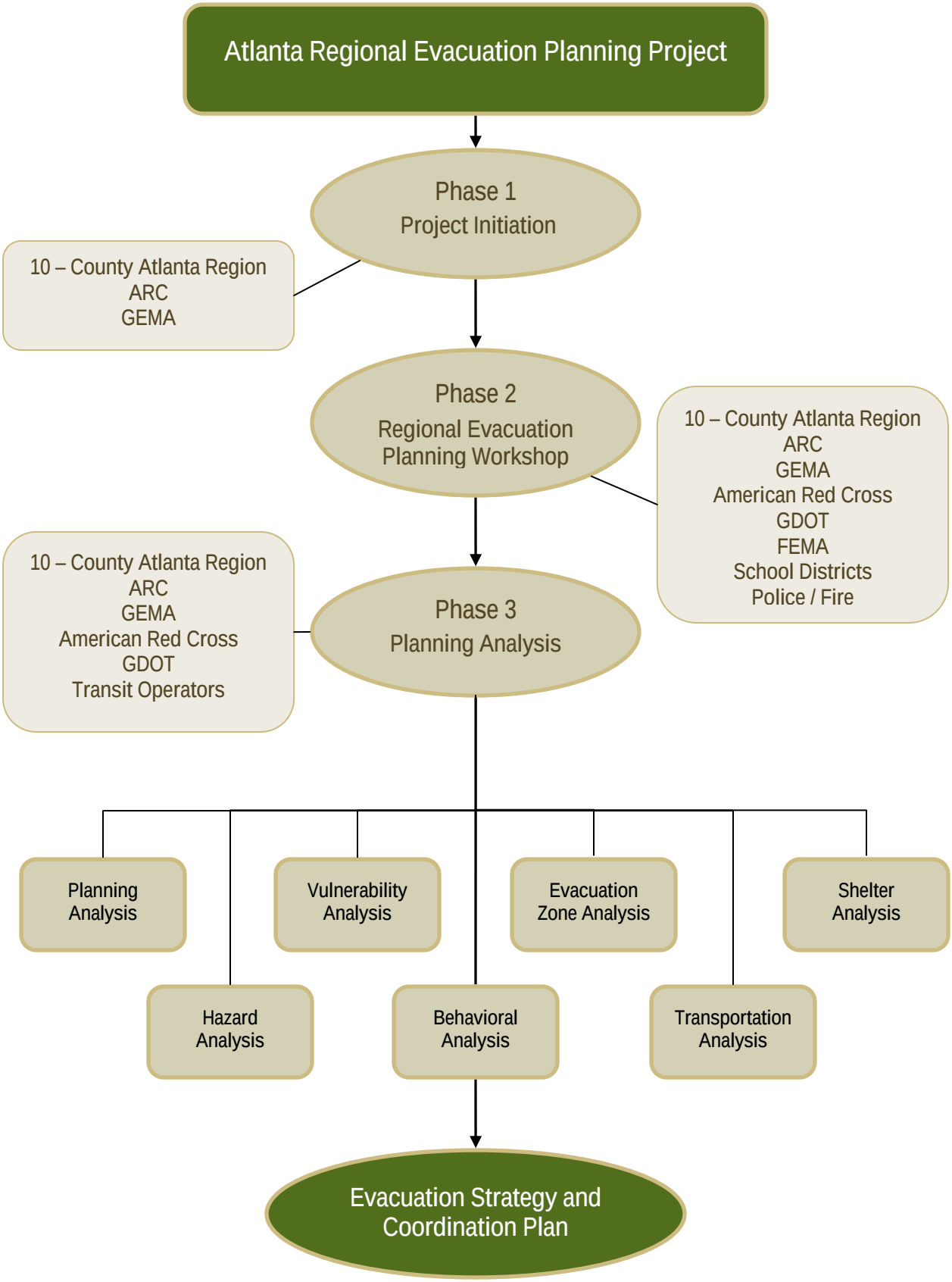
Phase	Requirements
Phase 1	
Project Initiation	▪ Creation of a work plan to outline the project assumptions, scope, deliverables and timeline ▪ Organization of the Planning Advisory Committee ▪ Project kickoff meeting
Phase 2	
Internal Evacuation Workshop	▪ Determining current planning assumptions ▪ Data shortfalls and needs ▪ Agency roles and responsibilities ▪ Procedural/protocol updates ▪ Planning corrective actions
Phase 3	
Planning Analysis	▪ Reviewing existing evacuation plans ▪ Identifying current planning assumptions ▪ Identifying strengths and weaknesses of existing plans
Hazard Analysis	▪ Reviewing existing hazard identification and risk assessments, including local hazard mitigation plans
Vulnerability Analysis	▪ Identifying the areas, populations and critical facilities or

Copyright © 2008, by Beck Disaster Recovery, Inc.
Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Phase	Requirements
	infrastructures, which are vulnerable to specific identified hazards.
Behavioral Analysis	▪ Determining the expected response (assumptions) of populations in pre-identified evacuation zones ▪ Innovative web-based phone survey
Evacuation Zone Analysis	▪ Identifying evacuation zones based on maximum risk potential
Transportation Analysis	▪ Examining existing traffic management plans ▪ Analyzing current roadway network, including roadway capacity, modes of transportation and traffic management strategies ▪ Integrating existing plans to a cohesive evacuation plan and to support or complement the evacuation strategy and coordination plan ▪ Analyzing different evacuation routes to determine which routes and staging areas have the greatest benefit to the evacuating public
Shelter Analysis	▪ Analyzing specific county and regional host shelter requirements, including persons with special needs requirements for sheltering and transportation ▪ Estimating the number of evacuees that will seek shelter
Phase 4	
Evacuation Strategy and Coordination Plan	▪ Bringing all of the planning analysis phases together to create executable plans ▪ Evacuation strategy, including checklists to support evacuation decision making ▪ Coordination plan, including framework for Regional Evacuation Assessment Communication Team (REACT)

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.


Atlanta Regional Evacuation Planning Project
Phase 1
Project Initiation
10 – County Atlanta Region
ARC
GEMA
Phase 2
Regional Evacuation Planning Workshop
10 – County Atlanta Region
ARC
GEMA
American Red Cross
GDOT
FEMA
School Districts
Police / Fire
Phase 3
Planning Analysis
10 – County Atlanta Region
ARC
GEMA
American Red Cross
GDOT
Transit Operators
Planning Analysis
Hazard Analysis
Vulnerability Analysis
Behavioral Analysis
Evacuation Zone Analysis
Transportation Analysis
Shelter Analysis
Evacuation Strategy and Coordination Plan

Evacuation Workshop

Purpose: The purpose of the Evacuation Workshop was to obtain insight and ideas about how the 10-County Atlanta Region works together in the event of a catastrophic event which results in evacuation of one or more of the communities.

Overview: The Evacuation Planning Workshop was held on May 15, 2008 at the Atlanta Regional Commission. The Workshop consisted of an overview of the Regional Evacuation Project in the morning, followed by facilitated breakout sessions in the morning and afternoon. Over 100 participants attended the Workshop from a variety of agencies and counties. The break out sessions were organized into four groups: Communications, Public Safety, Sheltering and Transportation. Each breakout session addressed and discussed one or more key evacuation planning concepts listed in the participants' workbooks.

Objectives of the Workshop:

- Identify key stakeholders and participants in the planning process.
- Identify evacuation hazards and vulnerabilities.
- Discuss roles/responsibilities to prepare for or respond during an evacuation event.
- Discover existing capabilities and resources.
- Determine shortfalls in capabilities and resources.
- Identify critical success factors for an effective evacuation.
- Build consensus for developing an executable plan through active participation in the planning process.

Workshop Accomplishments:

- Effective communication among workshop participants.
- Multi-jurisdictional participation.
- Communicated evacuation planning methodology to stakeholders.
- Discussed lessons learned from previous events impacting the communities.
- Identified specific hazard and vulnerability areas for the region and labeled these on maps.
- Identified current communication systems capabilities – included a briefing on the Pier Communication System which is being utilized in every county.

Key Observations from the Workshop Participants

- All agencies involved have the same goal, to save lives, but different perspectives on how to accomplish the goal.
- Keep the plan simple.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

- Expectations and capabilities for small scale shelter operations (isolated event) vs. large-scale shelter operations (catastrophic event).
- Evacuation planning will require a collaborative effort from the 10-county region and the Planning Advisory Committee.
- All counties and agencies in the region have the same concerns, obstacles and resources.
- All counties and agencies are planning on utilizing the same resources.
- Agencies need to clearly understand not only their own roles and responsibilities, but also the roles and responsibilities of other agencies.
- Not all counties have an evacuation plan within their Comprehensive Transportation Plans.

Recommendations for the Planning Advisory Committee:

- Training and exercising was emphasized by all groups in the workshop as being necessary to ensure effective evacuation plan implementation.
- Conduct a resource identification analysis.
- Establish mutual aid agreements.
- Ensure the plan is maintained; it should be considered a living, working document.
- Define roles and responsibilities for the various agencies and counties.
- Determine who is in charge and who can make decisions.
- The plan should encompass all interstates and arterials.
- Ensure the plan focuses on communicating will all populations.
- Utilize the Pier Communication System in the evacuation planning process.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Planning Analysis

Purpose: The purpose of the Planning Analysis Phase was to review County, State and local agency existing plans to identify strengths and weaknesses which will be used to determine the planning assumptions for the evacuation plan.

Overview: The BDR Team developed a set of criteria to evaluate each plan. The BDR reviewed several documents including:

- Georgia Department of Transportation Urban Evacuation Plan – Atlanta Pilot Project
- City of Atlanta – Emergency Response Plan
- County Emergency Operation Plans
- County Hazard Mitigation Plans
- Georgia Emergency Operation Plan

Planning Assumptions: Based on the review of the County, State, local agency documents the BDR Team and Planning Advisory Committee, the Team and Planning Committee developed the proposed planning assumptions for the development of the Regional Evacuation Plan. The initial planning assumptions below were derived from the findings of the evacuation workshop and review of the planning documents. The list is not meant to be exhaustive and are in draft form. More assumptions will be developed once the analysis phases have concluded.

- The Atlanta region is at risk from many human-caused and natural hazards including tornadoes, earthquakes, chemical releases, hazardous material incidents, public health threat, terrorist attacks, and severe storms, among others.
- The Atlanta region consists of 10 counties and more than 4 million people.
- Catastrophic emergencies in neighboring states and / or cities may require evacuations to and through Atlanta. Large-scale evacuations in neighboring jurisdictions may be required in the event of a national or statewide disaster requiring the cooperation and combined resources of neighboring states and municipalities. These could either be classified as a planned or "no-notice evacuation event".
- Catastrophic emergencies may necessitate the rapid evacuation of the general population of neighboring cities and/or states. The evacuees consist mostly of the general population traveling in privately-owned vehicles. In addition, hospitals, nursing homes and the non-ambulatory, homebound, tourists, spectators from sporting events, special needs populations also add to the number of evacuees that utilize the evacuation routes into Atlanta. The Atlanta region has identified local, state and federal resources that would be required to facilitate the process.
- The transportation network could sustain damage, limiting access to and from the evacuation.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

- The decision to evacuate could occur at any time of the day or night and there could be little control over the evacuation start time. The nature of the threat and the availability of time will have significant impact on the evacuation process.
- In all cases, the first priority for Emergency Evacuation Planning is to minimize loss of life.
- The evacuation will take place with the full coordination and cooperation of local, state, federal and regional agencies.
- Departments and agencies at all levels of government and certain non-government organizations, such as the American Red Cross, United Way, faith-based entities, non-profit sector will likely be required to deploy resources on short notice to provide timely and effective mutual aid and/or intergovernmental assistance.
- Clayton, Gwinnett, Douglas, and Cobb have Traffic Monitoring Cameras. The other counties do not. Thus traffic information will be derived by other means from these counties. GDOT utilizes an Intelligent Transportation System (ITS) that can used to assist in evacuations.
- A special needs registry is limited in the region. Thus special needs information from these counties must be derived by other means.
- Fayette County does not have mass transportation available and therefore other means of transportation must be determined.
- Limited medical needs of evacuees can be addressed in Red Cross shelters.
- Mutual aid from neighboring jurisdictions, spontaneous volunteers, spectators, etc. coming into the evacuated area will necessitate additional planning aspects (such as ingress routes, staging areas, etc.).
- Agencies will operate under their respective jurisdictions Emergency Operations Plan (EOP).

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Hazard Analysis

Purpose: The purpose of the Hazard Analysis was to review existing hazard identification and risk assessments performed for the jurisdictions, as well as local hazard mitigation plans to identify hazards which have the greatest impact in terms of evacuation requirements.

Overview: The BDR Team developed a set of criteria to review each hazard mitigation plan and then rated the risk of natural hazards and technological hazards in each county. Each hazard was rated by probability of occurring, potential impact on public safety, property damages and impact on businesses.

Overall Assessment Findings: All of the ten counties (Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry and Rockdale) in the Atlanta region are susceptible to a wide range of natural, technological and man-made hazards. While reviewing all the individual hazard vulnerability analysis (HVA) documents, flooding and severe weather pose the biggest naturally occurring threats for all ten counties. Hazardous materials (both facility and transportation accidents) have the highest technological threat for all ten counties. While tornadoes and hurricanes/tropical storms have a moderate likelihood of occurrence, the impacts on public safety and property would be so devastating that the risk level is high. Each county has identified hazard specific events in each of their hazard mitigation plans.

Hazard and Vulnerability Assessment												
Natural/Technological Hazards												
Hazards / County	Civil Disturbances	Dam/Levee Failure	Earthquake	Flooding	Hazmat/Oil Spill (Transport)	Hazmat/Oil Spill/ Explosion (Fixed Site)	Hurricane/Tropical Storm	Severe Weather	Terrorism	Tornado	Wildfire	Average
Cherokee	6	7	7	12	10	9	11	9	10	11	10	9.27
Clayton	6	11	4	12	12	12	10	12	8	8	4	9.00
Cobb	7	11	10	11	12	12	8	12	11	11	4	9.91
DeKalb	7	10	10	11	12	12	8	12	11	11	4	9.82
Douglas	6	11	9	10	10	9	11	8	10	11	10	9.55
Fayette	7	11	7	12	8	8	10	9	10	10	4	8.73
Fulton	10	12	10	12	12	11	11	9	12	10	4	10.27

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Hazard and Vulnerability Assessment												
Natural/Technological Hazards												
Hazards / County	Civil Disturbances	Dam/Levee Failure	Earthquake	Flooding	Hazmat/Oil Spill (Transport)	Hazmat/Oil Spill/ Explosion (Fixed Site)	Hurricane/Tropical Storm	Severe Weather	Terrorism	Tornado	Wildfire	Average
Gwinnett	9	4	10	8	10	12	8	9	11	11	4	8.73
Henry	5	10	7	12	9	10	7	12	10	10	10	9.27
Rockdale	5	10	9	11	12	11	10	9	11	11	10	9.90
Average	6.80	9.70	8.30	11.10	10.70	10.60	9.40	10.10	10.40	10.40	6.40	

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Vulnerability Analysis

Purpose: The purpose of the Vulnerability Analysis was to identify those areas, populations and critical facilities or infrastructures, which are vulnerable to a catastrophic evacuation. From this information, decision-makers are able to understand populations at risk from a specific or identified threat as it begins to impact a community.

Overview: The BDR Team developed and distributed a vulnerable areas template to each County. The Vulnerable Areas were divided into the following two categories:

> **Category 1: Areas –** This includes population centers, major employment centers, and economic centers, commercial and industrial areas.
>
> **Category 2: Facilities –** Major tourist attractions, stadiums and critical facilities, such as hospitals, detention centers or large manufacturing plants.

Findings: In the Atlanta Region there are a total of 37 areas located in Category 1 and 57 facilities located in Category 2. Provided is list of each county's vulnerable areas and facilities.

County	Category	Area/Name	Address
Cherokee	Category 1: Areas	Not Provided	
	Category 2: Facilities	Georgia Northeastern Railroad	Many locations in the County
Clayton	Category 1: Areas	Hartsfield-Jackson Atlanta Airport	6600 N. Terminal Atlanta 30354
		Georgia Archives	5800 Jonesboro Rd., Morrow, GA 30260
		National Archives – SE Region	5780 Jonesboro Rd., Morrow, GA 30260
		Southlake Mall	Mt Zion Rd, Morrow, GA 30260
	Category 2: Facilities	Southern Regional Hospital	11 SW Upper Riverdale Rd., Riverdale GA 30274
		Clayton County Correctional Institute	11420 SLR, Hampton, GA 30228
		Clayton County Detention Center	9157 Tara Blvd, Jonesboro, GA 30236
		Robert Deyton Detention	11866 Hastings Bridge Rd,

Copyright © 2008, by Beck Disaster Recovery, Inc.
Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

County	Category	Area/Name	Address
		Facility (GEO Group)	Lovejoy, GA 30250
		Martha Glaze Regional Youth Detention Center	11850 Hastings Bridge Rd, Lovejoy, GA 30250
		Clayton County International Park	2300 GA Hwy 138, Jonesboro, GA 30236
		Clayton State University	5900 Lee Street, Morrow, GA 30260
Cobb	Category 1: Areas	Cumberland Mall	U.S. 41/Cobb Pkwy @ I-285
		Galleria Center	U.S. 41/Cobb Pkwy @ I-285
		Cobb Energy Center	U.S. 41/Cobb Pkwy @ I-285
		Mablehouse Amphitheater	5239 Floyd Rd., Mableton, GA
		Kennesaw State University	1000 Chastain Rd., Kennesaw, GA
		Southern Polytechnic State University	1100 S. Marietta Pkwy., Marietta, GA
		Life University	1269 Barclay Circle, Marietta, GA
		Town Center Mall	400 Earnest Barrett Pkwy., Kennesaw, GA
	Category 2: Facilities	Cobb-Marietta Water Authority James E. Quarles Water Treatment Plant	4402 Lower Roswell Rd., Marietta, GA
		Cobb-Marietta Water Authority Hugh A. Wyckoff Plant	3728 Mars Hill Rd., Acworth, GA
		Cobb County Adult Detention Center (Jail)	1825 County Services Parkway, Marietta, GA
		I-75 / I-285 Interchange	- N/A -
		Georgia Power Plant McDonough	5551 S. Cobb Dr., Smyrna, GA
		Colonial Pipeline Atlanta Junction Facility	3925 Anderson Farm Rd., Austell, GA
		Marathon Tank Farm	3895 Anderson Farm Rd., Austell, GA

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

County	Category	Area/Name	Address
		Norfolk Southern Rail Road Whitaker Intermodal Facility (Austell Rail Yard)	6000 Westside Rd., Austell, GA
		Dobbins Air Reserve Base	U.S. 41/Cobb Parkway @ S.R. 280/South Cobb Dr.
		Lockheed Martin Aeronautics – Marietta Plant	86 S. Cobb Dr., Marietta, GA
		Cobb County 911/EOC/Police HQ	140 N. Marietta Pkwy., Marietta, GA
		Wellstar Cobb Hospital	3950 Austell Rd., Austell, GA
		Wellstar Kennestone Hospital	677 Church St., Marietta, GA
		Wellstar Windy Hill Hospital	2540 Windy Hill Rd., Smyrna, GA
		Emory Adventist Hospital – Smyrna	3949 S. Cobb Dr., Smyrna, GA
		Six Flags Over Georgia Theme Park	275 Riverside Pkwy., Austell, GA
		White Water American Adventures Water Park	250 N. Cobb Pkwy., Marietta, GA
		Jim Miller Park / North Georgia State Fairgrounds	2245 Callaway Rd., Marietta, GA
DeKalb	Category 1: Areas	Malls – Northlake, North Dekalb, Perimeter, South Dekalb, Stonecrest	Tucker, Dunwoody, Decatur, Lithonia
	Category 2: Facilities	Stone Mtn Park	U.S. Highway 78 East, Exit 8
		Dekalb County Jail	4425 Memorial Dr.
		Dekalb County Medical Center	2701 North Decatur Rd.
		Egleston Hospital	2204 LaVista Rd.
		CDC	1600 Clifton Rd.
		Emory University	201 Dowman Dr.
Douglas	Category 1: Areas	Arbor Place Mall	6700 Douglas Blvd. Douglasville, Ga. 30135

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

County	Category	Area/Name	Address
	Category 2: Facilities	Well Star Douglas	2954 Hospital Drive Douglasville, Ga. 30134
		Inner Harbor	4685 Dorsett Shoals Road Douglasville, Ga. 30135
		Douglas County Sheriff's Office	6840 West Church Street Douglasville, Ga. 30134
		Douglas County Courthouse	8700 Hospital Drive Douglasville, Ga. 30134
Fayette	Category 1: Areas	Peachtree City Industrial Park	Dividend Dr. Peachtree City, Ga.
		Fayette Pavilion	Pavilion Parkway, Fayetteville, Ga.
	Category 2: Facilities	Piedmont Fayette Hospital	1255 West Highway 54 Fayetteville, Ga.
		Fayette County Justice Center and Jail	2 Center Drive Fayetteville, Ga.
Fulton	Category 1: Areas	Downtown Business District	Spring St, Decatur St, I-75/85, I-20
		Midtown	Tech Pkwy/Northisde Dr, 14th St, Piedmont Ave, North Ave
		Buckhead	Roswell Rd, Old Ivy Rd, Peachtree-Dunwoody/Roxboro Rd, E Paces Ferry Rd
		Sandy Springs Business District	Riverside Dr/Rivervalley Rd, Abernathy Rd, 400, I-285
		Alpharetta Business District	Alpharetta Hwy/Main St, Winward Pkwy, N Point Pkwy, Mansell Rd
		Fulton Industrial Blvd	Corridor along FIB
		Medical Center Complex ("Pill Hill")	Area containing St Joes, Northside and CHOA Hospitals at intersection of 400 and I-285
	Category 2: Facilities	Turner Field	755 Hank Aaron Dr SW Atlanta, GA 30315

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

County	Category	Area/Name	Address
		Phillips Arena/Ga Dome/GWCC	Northside Dr, Ivan Allen/Jones Blvd, Centennial Drive, MLK Dr.
		Hartsfield-Jackson Int'l Airport	6000 North Terminal Parkway Atlanta, GA 30320
		Federal Penitentiary	601 McDonough Blvd Se Atlanta, GA 30315
Gwinnett	Category 1: Areas	Mall of Georgia	3333 Buford Dr.; Buford, Ga. 30519
		Discover Mills	5900 Sugarloaf Pkwy.; Lawrenceville, GA 30043
		Gwinnett Place Mall	2100 Pleasant hill Rd.; Duluth, GA 30096
		Gwinnett Technical College	5150 Sugarloaf Pkwy.; Lawrenceville, GA 30043
		Univ. of Ga. - Gwinnett	2530 Sever Rd.; Lawrenceville, GA 30043
		Georgia Gwinnett College	1000 University Center Lane; Lawrenceville, GA 30043
	Category 2: Facilities	Emory-Eastside Hospital	1700 Medical Way; Snellville, GA 30078
		Gwinnett Medical Center	1000 Medical Center Blvd.; Lawrenceville, GA 30045
		Gwinnett Medical Center – Duluth	3620 Howell Ferry Rd.; Duluth, GA 30096
		Gwinnett Comprehensive Correctional Complex	750 Hi Hope Rd.; Lawrenceville, GA 30045
		Gwinnett County Detention Center	2900 University Pkwy.; Lawrenceville, GA 30045
		Phillips State Prison	2989 W. Rock Quarry Rd.; Buford, GA 30519
		Gwinnett Center	6400 Sugarloaf Pkwy.; Duluth, GA 30096
		Gwinnett Braves Stadium	Buford Dr. @ Tech Center Pkwy.; Buford, GA 30519
Henry	Category 1: Areas	I 75 Corridor	Runs Clayton to Spalding

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

County	Category	Area/Name	Address
			County Line
		I 675 Corridor	Runs From Clayton to I75 South
	Category 2: Facilities	FAA Flight Center	299 Woolsey Road Hampton, GA 30228
		Atlanta Motor Speedway	1500 Highway 41-19 Hampton, GA 30228
		Georgia Power Customer Support Center	2500 Patrick Henry Parkway, Stockbridge GA 30281
Rockdale	Category 1: Areas	Rockdale Industrial Boulevard (several manufacturing plants)	Rockdale County near I-20
		City of Conyers (population area)	West Avenue to Salem Road (I-20)
		Commercial area (includes several large retailers)	1436 Dogwood Drive
		AT&T Facility	Salem Road near Flat Shoals
		Acuity Brands	1400 Lester Road
	Category 2: Facilities	Georgia International Horse Park	1996 Centennial Olympic Parkway
		Rockdale Medical Center	1412 Milstead Avenue
		Rockdale County Jail	911 Chambers Drive
		Rockdale County Courthouse and Administration Building	962 Court Street 903 Milstead Avenue
		ChemTura (Bio-Lab manufacturing)	1639 Dogwood Drive

Vulnerable Populations: During this assessment, vulnerable populations were analyzed to determine how these threats would have an impact on the area. The region has a large percentage of people living below the povertly level. In all of the ten counties there is a large percentage of persons over the age of 65. Older adult populations are disproportionately impacted by the adverse effects of disasters and are particularly vulnerable during and after disasters due to impaired physical mobility, diminished sensory awareness, chronic health conditions and social and economic limitations. A large percentage of non-English speaking populations exist in all ten counties of the ARC.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

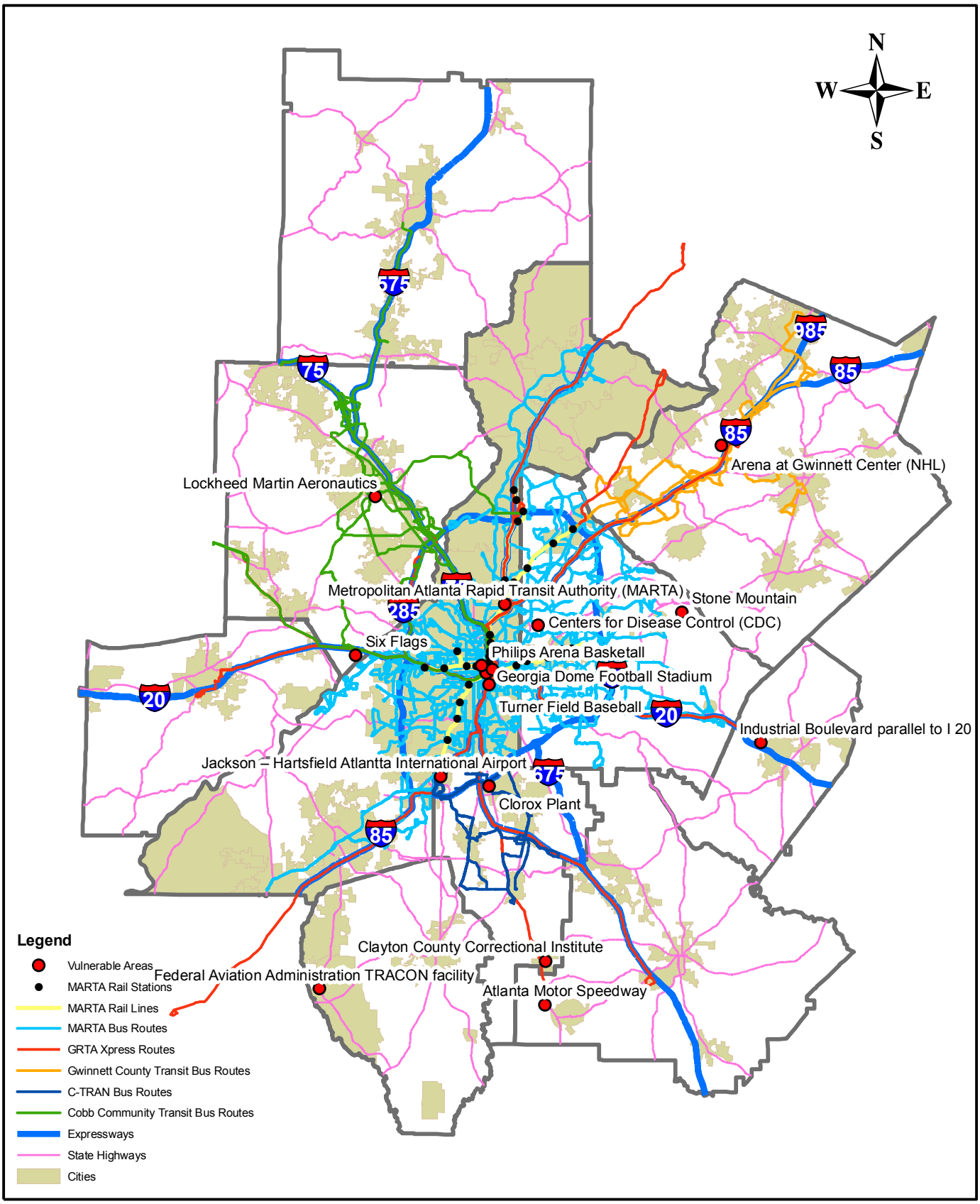
Atlanta Region Populations[1]

Population	Total	Percentage of Total
Region population	4,071,200	-
Population living below poverty level	482,730	12%
Persons 65 years and over	307,880	8%
Persons with disabilities	395,477	10%
Speak a language other than English at home	657,604	16%

[1] 2006 American Community Survey, U.S. Census Bureau

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.



BDR

Atlanta Regional Evacuation Planning: Vulnerable Areas

BDR
August 2008

Source: Layers Provided by Atlanta Regional Commision

NAD 1983 State Plane
Georgia West FIPS1002 Feet

Created in ArcGIS 9 using ArcMap

0 1 2 4 6 Miles

Evacuation Zone Analysis

Purpose: The purpose of the Evacuation Zone Analysis is to geographically locate evacuation zones by using identifiable Atlanta region landmarks such as highways, roads, buildings and neighborhoods so that the public can identify with the area being evacuated more easily. These zones will serve as the basis for determining evacuation clearance timing guidance.

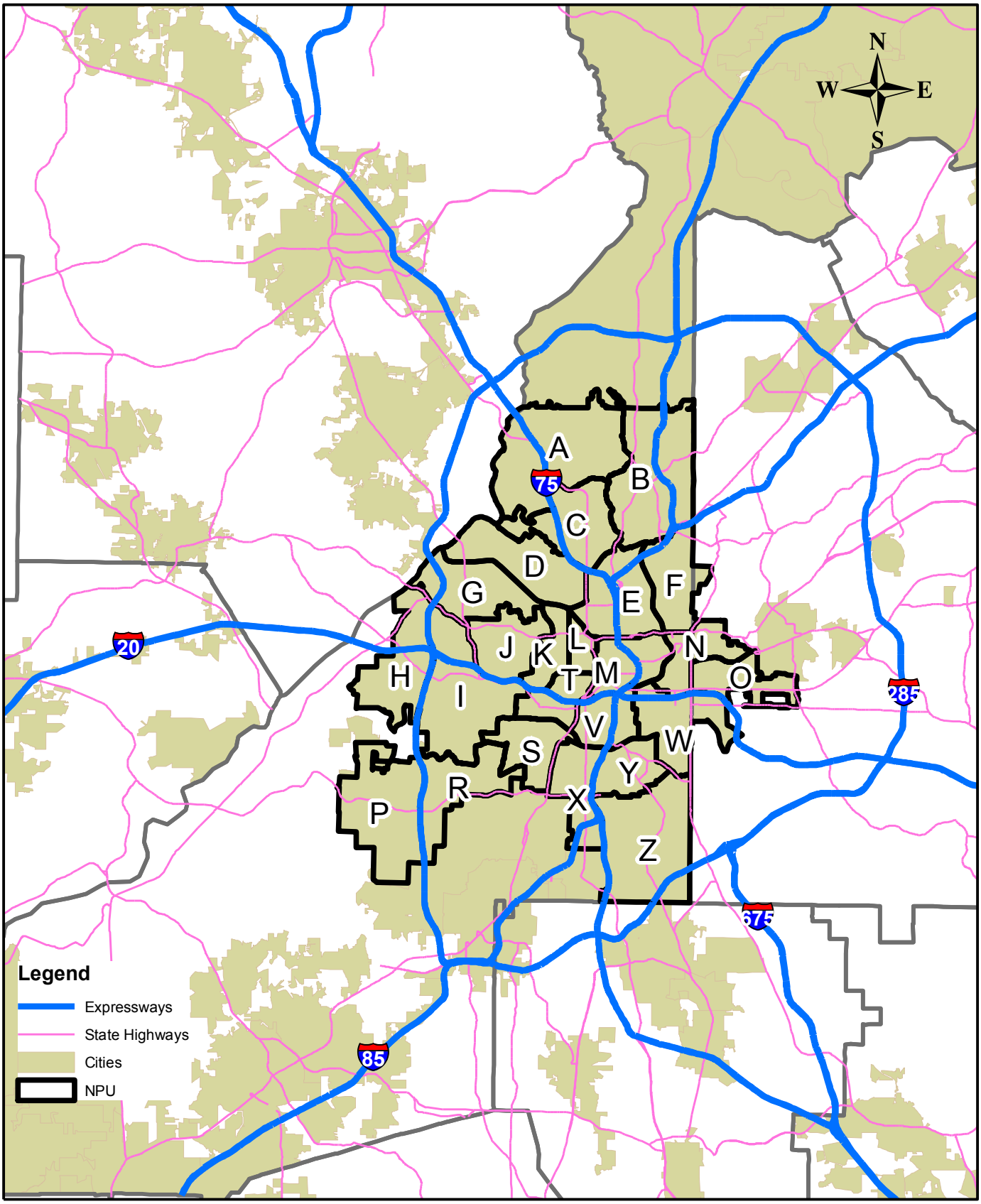
Evacuation Zones: The BDR Team and the Planning Advisory Committee have been working together to indentify the best approach for determining the evacuation zones, considering both the planning and operational factors. Originally, the Team developed the evacuation zones following the Atlanta Regional Commission's Super Districts (which is collection of census tracts). After further planning analysis, it was determined that operationally 58 evacuation zones is too complicated to manage. The Team has taken a different approach. The City of Atlanta is divided into 25 Neighborhood Planning Units or NPUs, which are citizen advisory councils that make recommendations to the Mayor and City Council on zoning, land use, and other planning issues. The NPU system was established in 1974 and has very defined boundaries. The City of Atlanta is going to utilize the NPU system for its evacuation zones and for the remaining counties boundaries are going to be determined by major highways.

Provided is the following map:

- Recommended Evacuation Zones by Atlanta NPU System and Major Highways

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.



BDR

Evacuation Zone Analysis: Atlanta Evacuation Zones

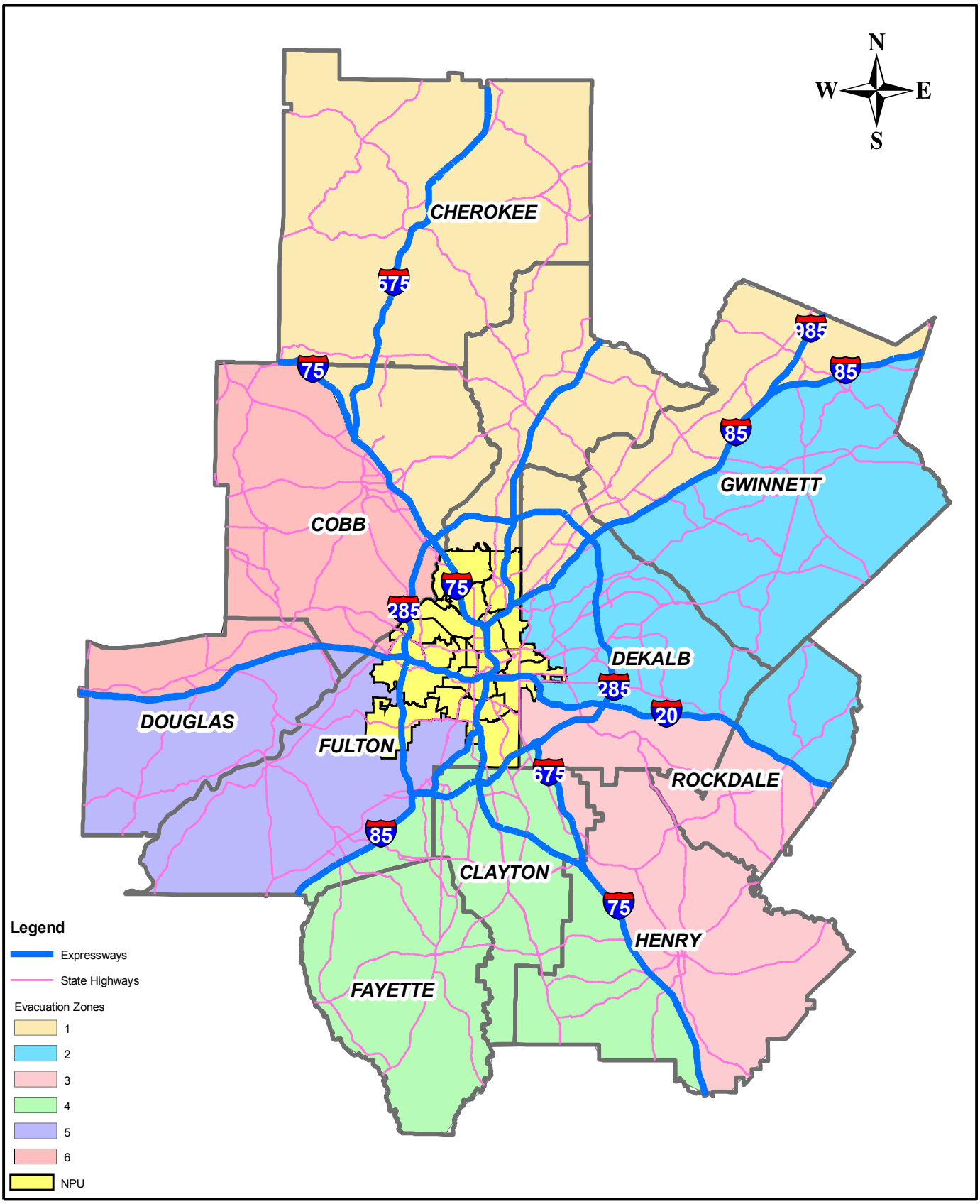
BDR
September 2008

Source: Layers Provided by Atlanta Regional Commision

NAD 1983 State Plane
Georgia West FIPS1002 Feet

Created in ArcGIS 9 using ArcMap

0 0.5 1 2 3 Miles



Evacuation Zone Analysis: County Evacuation Zones

BDR
September 2008

Source: Layers Provided by Atlanta Regional Commision

NAD 1983 State Plane
Georgia West FIPS1002 Feet

Created in ArcGIS 9 using ArcMap

0 1 2 4 6 Miles

Behavioral Analysis

Purpose: The purpose of the Behavioral Analysis is to collect behavioral research estimates and assumptions about how people react, or have reacted in the past, when an evacuation is implemented.

Overview: The BDR Team, in collaboration with the Planning Advisory Committee, developed a behavioral analysis survey consisting of ten questions which focused on the following six areas: Information, Intention to Evacuate, Destinations, Assistance, Type of Transportation and Pets. The survey is being conducted utilizing the Honeywell Instant Alert Plus phone based system.

Survey:

Introduction - *Hello, The Atlanta Regional Commission asks for your participation in a very important survey on emergency evacuation planning. The survey will take approximately 5 minutes and will help our metropolitan area better plan for and respond to major emergencies. We appreciate your taking this time to answer a few questions about evacuation planning and what you would do during an emergency that may require you to evacuate. Thank you for your cooperation.*

Behavioral Analysis Questions

1. Where do you go for emergency information?
   - □ Newspaper
   - □ Internet / Websites
   - □ Radio
   - □ Television
   - □ Friends/family
   - □ Other

2. If you were directed by government officials to evacuate from your home, would you evacuate?
   - □ Yes
   - □ No

3. If you evacuate from your home, where would you seek safe shelter?
   - □ Stay with family/friends
   - □ American Red Cross shelter
   - □ Hotel/motel

Copyright © 2008, by Beck Disaster Recovery, Inc.
Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

□ Church
□ Other

4. If you evacuate from your work, where would you seek safe shelter?
□ Stay with family/friends
□ American Red Cross shelter
□ Hotel/motel
□ Church
□ Home
□ Other

5. Ideally, where would your want your safe shelter to be located?
□ Within my county
□ In a neighboring county
□ In the metropolitan region
□ In Georgia
□ Outside of Georgia

6. Would you need assistance if you had to evacuate? If answered no, go to question number 8.
□ Yes
□ No

7. What type of assistance would you need?
□ Transportation
□ Visual or hearing assistance
□ Medical Assistance
□ Other

8. What type of transportation would you utilize if you had to evacuate?
□ Personal Car or Truck
□ Public Bus
□ Public Subway or Rail
□ Other

9. Do you have a pet at your home? (If they answer no, they will get a message thanking them for completing the survey).
□ Yes
□ No

Copyright © 2008, by Beck Disaster Recovery, Inc.
Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

10. What would you do with your pets if you had to evacuate?
    - □ Take them with you
    - □ Leave them at home
    - □ Leave them with friends / family
    - □ Unsure

Thank you for your participation in this survey. The information you have provided will be vital to ensuring the region's ability to conduct an emergency evacuation.

Survey Distribution by County: The County populations for Cherokee, Clayton, Cobb, DeKalb, Douglas, Fayette, Fulton, Gwinnett, Henry and Rockdale were added to determine the Region's total population. Then by dividing the County's population by Region's population we established how much each County contributes to the Region's population. These percentages were then used to determine how many surveys will be distributed in each county. This was done by multiplying the percentage by the total number of surveys that will be conducted.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Transportation Analysis

Purpose: The purpose of the Transportation Analysis is to calculate the clearance times needed to conduct a safe and timely evacuation.

Overview: This phase will analyze different evacuation routes to determine which routes and staging areas will have the greatest benefit to the evacuating public. Our analysis will be based on a comprehensive understanding of the regional and state-wide transportation network and identification of the origination-destination pairs for potential evacuees. Using this analysis as a baseline, we shall use our knowledge of the capacity of the surface transportation network, available alternate routes and available modes of transportation to determine which traffic management strategies best support the Evacuation Plan. Our analysis will include the integration of real-time traffic information in determining real-time travel times from point-to-point and using those travel times in managing evacuation routes. The transportation analysis will be completed in conjunction with local transportation agencies and local law enforcement. The analysis will be based upon local traffic models for scenarios requiring a north, south, east and west evacuation. We will be kicking off the Transportation Analysis as well as the Shelter Analysis during the Planning Advisory Committee meeting on October 1.

Preliminary Findings: Based on transportation data provided by the U.S. Census Bureau we are able to determine the percentage of transportation type for the means of transportation to work for workers 16 years and older for the Atlanta Region.

Atlanta Region Transportation Populations[1]

Means of Transportation to Work for Workers 16 Years and Over		
Transportation Type	Total	Percentage of Total
Total Surveyed	1,733,135	-
Car, truck, or van	1,556,902	90%
Public transportation	73,861	4%
Motorcycle	1,360	0.08%
Bicycle	1,651	0.10%
Walked	23,347	1.35%
Other means	13,515	0.78%
Worked at home	62,499	3.61%

[1] Census 2000 Summary, U.S. Census Bureau

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Evacuation Routes: Based on preliminary research, the BDR Team has determined the following Evacuation Routes:

Interstates:
I -75
I-85
I-285
I-20
I-675

Arterials:
Spring Street
MLK Drive
Courtland
Piedmont
Hill St.
Northside Drive
Capitol Ave.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Shelter Analysis

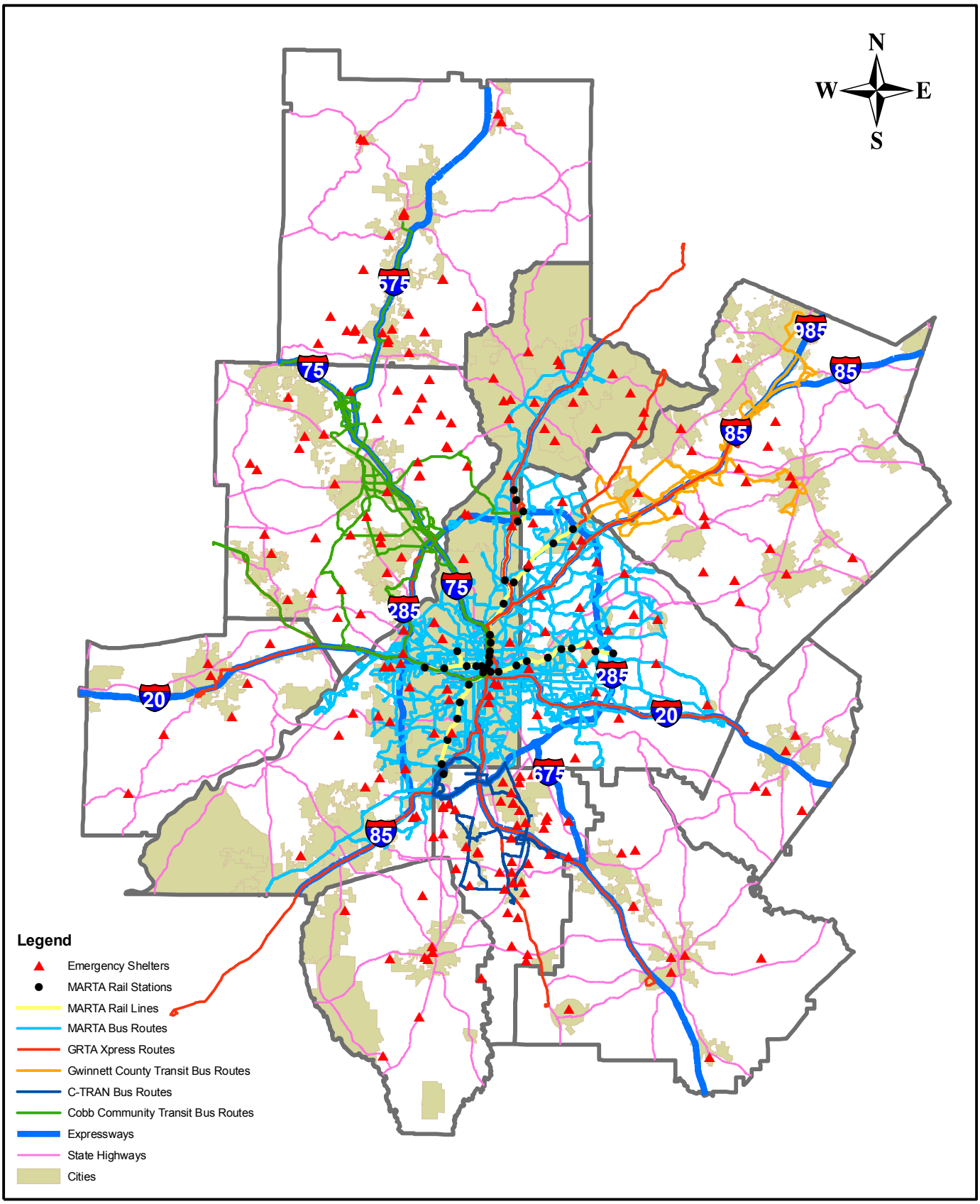
Purpose: The purpose of the Shelter Analysis is to estimate the number of evacuees that will seek public shelter and the number of shelter spaces available to provide information for use in determining evacuation clearance times.

Preliminary Shelter Analysis: The BDR Team conducted preliminary meetings with the American Red Cross on shelter capacity for the Atlanta Region. The Team reviewed many plans pertaining to sheltering. During the next Planning Advisory Committee on October 1, we will kickoff the shelter analysis portion of the project and coordinate meetings with key stakeholders located in the region. In preparation for the kickoff meeting, we have mapped emergency shelters for the region.[1]

[1] Information from the Georgia Department of Human Resources

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.



Atlanta Regional Evacuation Planning: Emergency Shelters

BDR
August 2008

Source: Layers Provided by Atlanta Regional Commision

NAD 1983 State Plane
Georgia West FIPS1002 Feet

Created in ArcGIS 9 using ArcMap

0 1 2 4 6 Miles

Evacuation Strategy and Coordination Plan

Purpose: The purpose of the Evacuation Strategy and Coordination Plan is to bring all of the planning analysis phases together to create executable plans.

Overview: The BDR Team will use the findings from the planning analyses phases to ultimately create an executable evacuation strategy and coordination plan based on current capabilities. In conjunction with the Planning Advisory Committee, the BDR Team develops accurate planning assumptions upon which to base operational evacuation clearance times and designs a real-time evacuation communication plan among the regional jurisdictions to coordinate evacuations or host community functions.

A time-delineated checklist will be developed as a support tool for defining, guiding and documenting local government preparedness and response actions through timed phases during an event that could potentially cause large-scale evacuations. Its goal is to supplement the Evacuation Plan and to ensure that citizens at risk are protected in a timely fashion and that the necessary human and physical resources are in place to support protective evacuation or shelter-in-place measures. The checklist will be tailored to fit regional government operational timeframes and should serve as a tool to aid decision-makers in implementing a time-structured emergency response. The checklist provides a step-by-step list of considerations, which enable local government officials to follow a structured guide to prepare for a potential or realized event. The considerations listed are based on standard preparedness and response guidelines and are designed to promote coordination among all agencies. These considerations, ultimately present a logical sequence for decision-makers to follow for implementing response actions according to prescribed priorities and needs. BDR will conduct a final working group session for the Evacuation Strategy Team review and provide final feedback on the evacuation strategy and coordination plan.

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

Evacuation Success Factors

Decision Making and Executive Management

- What are regional priorities at this point and how are they determined?
- At this point in the response, what regional coordination needs to occur to support an evacuation of this size? Would any regional coordination already have occurred?
- How would you accomplish that coordination?
- Who has the authority to issue evacuation orders? Would region considerations and/or collaboration be given when issuing these orders?
- What are the most pressing issues that require regional collaboration?

Public Communication

- How are key officials alerted of the possible need to evacuate?
- How is the community informed of what steps they should take to be prepared for an evacuation?
- Is there a distinct "regional message" to the residents in the region? How is it crafted and disseminated? What is the message? Why is it unique to the region?
- What is the message to the public who continues to ask "when will this be over?" "When will we be safe again?" "Why didn't our public officials prepare better for this? What went wrong?" How is faith in the government restored/maintained?

Operations

- In an operational sense, what is the interface between the ARC and you as leadership of individual jurisdictions?
- What aspects of the operational response are uniquely regional, if any, and why? What activities must be synchronized among all jurisdictions in the region?
- Does the private sector play a role in supporting the region during this period?
- Who makes the decision to return?
- What factors should influence a re-entry decision?

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.

- What can the ARC do to facilitate the development of a recovery strategy?

Evacuation of People with Special Needs

There are a number of hospitals, assisted living facilities and nursing homes in the area, as well as populations of non-English speaking individuals, individuals with disabilities who live independently in the community and homeless in this region.

- What are your greatest concerns about ensuring you, as someone in leadership, can say with a degree of honesty to those news cameras that adequate resources and plans are in place to ensure effective evacuation of these individuals?

Shelter Considerations

- Do you know if you have shelters that can accommodate individuals with disabilities? Individuals with medical needs? Pets? Is having such sheltering capacity a priority? Yes or no, does it need to be?

- In a regional setting, you may be asked to open a shelter that would not house residents from your jurisdiction, but would house residents from other jurisdictions. Are you willing to do that? What arrangements would have to be made to open those shelters for non-county use? (i.e., formal MOUs?) Would reimbursement become an issue for you? Who makes the decision to open up new shelters?

Funding

- Are there any formal agreements regarding resource sharing? If so, do they adequately address financial responsibilities? If not, how will you address issues as they would pertain to funding responsibilities to support a regional response?

- Have you given any thought about the financial concerns for providing jurisdictional resources to another jurisdiction in support of a regional response? Do you have any concerns? How can they be addressed?

Copyright © 2008, by Beck Disaster Recovery, Inc.

Confidential: This document is considered a trade secret and any misappropriation may be subject to civil and criminal penalties.