Orange County Comprehensive Emergency Management Plan
2013


EMERGENCY MANAGEMENT
EMAP Accredited
ACCREDITATION PROGRAM

ORANGE COUNTY GOVERNMENT
FLORIDA

OFFICE OF EMERGENCY MANAGEMENT
ORANGE COUNTY FLORIDA
FIRE RESCUE DEPARTMENT

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Record of Changes

Date	Description of Change	Page and/or Section

Executive Summary

The Comprehensive Emergency Management Plan (CEMP) is the master operations document for Orange County in responding to all emergencies, as well as catastrophic, major, and minor disasters. The CEMP is authorized by Florida Statute Chapter 252, Orange County Administrative Regulation 10.01 (dated June 18, 1991, Revised November 11, 1997), and Orange County Emergency Management Ordinances #94-11 and #2000-17. The CEMP defines the responsibilities of all levels of Federal and State government, private, volunteer, non-governmental organizations and municipalities that make up the Orange County's Emergency Response Team (OCERT).

The CEMP establishes the framework for an effective system to ensure that the OCERT and municipalities are able to mobilize as a unified emergency organization, to safeguard the well-being of Orange County residents and visitors. The CEMP unites the efforts of these groups under the Emergency Support Function (ESF) format with a designated lead agency for a comprehensive approach to mitigation, planning, response and recovery from identified hazards. This organizational structure is compliant with the National Incident Management System (NIMS), and incorporates the principles set forth in the Incident Command System (ICS).

Orange County utilizes NIMS as the standard procedure for incident management in the County. The staff members of the Office of Emergency Management and OCERT are required to complete the appropriate NIMS training and other training as it relates to their emergency support function.

This plan is structured to parallel State and Federal activities set forth in the "State of Florida Comprehensive Emergency Management Plan" and the "Federal Response Plan," and describe how State, Federal and other outside resources will be coordinated to supplement county resources and response.

The CEMP is divided into three sections:

1. **The Basic Plan**

   The Basic Plan includes the purpose, scope and methodology of the plan, direction and control, organizational structure, alert notification and warning, the five phases of emergency management (prevention, preparedness, mitigation, response, and recovery) actions, responsibilities, authorities and references.

2. **The Emergency Support Function Annexes**

   The Emergency Support Function Annexes outline the agencies responsible for specific actions and duties in the event of a disaster and/or emergency.

3. **Support Annexes**

The Support Annexes include the following**:**

- Recovery Annex

  This annex outlines the steps taken during the recovery efforts following an emergency or a disaster.

- The Mitigation Annex

  This annex outlines the mitigation activities before, during, and immediately following a disaster. For Orange County, the Mitigation Annex is the current Orange County Local Mitigation Strategy.

- Emergency Support Functions Annexes

  This annex outlines the Emergency Support Function for each ESF 1-20 in the emergency operations center. These annexes include activities before, during, and immediately following activation. For Orange County, the Emergency Support Function Annex is the current Orange County Local standard operating guideline for Emergency Support Function personnel.

Board of County Commissioners Adoption Resolution

Orange County Comprehensive Emergency Management Plan   2013

Board of County Commissioners Adoption Resolution

APPROVED BY ORANGE COUNTY BOARD OF COUNTY COMMISSIONERS OCT 0 8 2013 KH/JM	ORANGE COUNTY COMPREHENSIVE EMERGENCY MANAGEMENT PLAN RESOLUTION NO. 2013-M-44

RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF ORANGE COUNTY, FLORIDA, APPROVING THE COMPREHENSIVE EMERGENCY MANAGEMENT PLAN

WHEREAS, Chapter 252, Florida Statues, assigns to the Board of County Commissioners, responsibility for disaster prevention, preparedness, mitigation, response, and recovery; and

WHEREAS, being prepared for disasters, means being ready to respond promptly as danger threatens, to preserve life and property, and to provide relief from suffering and privation; and

WHEREAS, local services may be overburdened or inadequate, and local government will have to operate effectively in different ways than in normal times to provide timely relief and minimize hardships in the event of natural and technological disasters in Orange County; and

WHEREAS, many populated areas and parts of communities may require evacuation, shelter, and food until the disasters ends, services are restored, and needed supplies and materials are available; and

WHEREAS, Chapter 27P-6, Florida Administrative Code, requires each County to develop a Comprehensive Emergency Management Plan; and

WHEREAS, Chapter 27P-6, Florida Administrative Code, furthermore, requires the governing body of Orange County to adopt by resolution, the Orange County Comprehensive Emergency Management Plan.

NOW, THEREFORE, BE IT RESOLVED that Orange County's Comprehensive Emergency Management Plan be hereby adopted.

OCT 0 8 2013

Passed in open session this _____ day of _____ 2013.

Board of County Commissioners
Orange County, Florida

BY: _____
County Mayor

Attest:

BY: _____
Deputy Clerk

STATE OF FLORIDA, COUNTY OF ORANGE
I HEREBY CERTIFY this is a copy of a document
approved by the BCC on OCT 0 8 2013
MARTHA O. HAYNIE, COUNTY COMPTROLLER
By: Annica Moore   10/10/2013
for Deputy Clerk   Date

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Introduction

The Orange County Comprehensive Emergency Management Plan (CEMP) is a strategic operations oriented plan that addresses coordinating county and inter-county prevention preparedness, mitigigation, response, and recovery activities. The CEMP is consistant with the National Incident Management System (NIMS).

The CEMP Basic Plan describes the basic strategies, assumptions and mechanisms through which the county will mobilize resources and conduct activities to guide and support the County's Emergency Management Program. To facilitate effective intergovernmental operations, the CEMP adopts a functional approach that groups the type of assistance to be provided under Emergency Support Functions (ESFs) and Emergency Coordinating Officers (ECOs) to address functional needs at the county and municipal level. Each ESF/ECO is headed by a lead agency, which has been selected based on its expertise, authorities, resources, and capabilities in the functional area.

Purpose

The purpose of the CEMP is to establish uniform policy and procedures for the effective coordination of response to a wide variety of hazards. These hazards may differ in size and severity and affect the health, safety, and/or general welfare of the residents and visitors of Orange County. The CEMP addresses these hazards through the following five phases of emergency management:

1. **Prevention**

   This phase is composed of actions to avoid an incident or to intervene or stop an incident from occurring. Examples of this phase include sharing of information and/or hardening of critical infrastructure and facilities.

2. **Preparedness**

   This phase involves the preparing for prompt and efficient response and recovery activities to protect lives and property affected by an emergency and/or disaster. Activities within this phase include developing plans, conducting training and developing and executing exercises.

3. **Mitigation**

   This phase involves activities designed to reduce or eliminate risks to persons or property or to lessen the actual or potential effects or consequences of an incident. Mitigation measures may be implemented prior to or after an incident and are intended to reduce vulnerability to hazards over the long term.

4. **Response**

This phase of emergency management deals with responding to emergencies and/or disasters utilizing all systems, plans and resources to safeguard the health, safety and welfare of citizens and visitors. The response phase can include first responders being dispatched to emergencies and the activation of an Emergency Operations Center.

5. **Recovery**

Recovering from an emergency and/or disaster involves providing for the short-term assistance, which includes the rapid and orderly restoration and rehabilitation of persons and property affected. The long-term needs of citizens such as mental health counseling and individual needs not covered through State or Federal programs.

Scope

The CEMP plan establishes the coordinating structures, processes, and protocols required to integrate the specific statutory and policy authorities of various Orange County Departments and agencies into a framework for action to include prevention, preparedness, mitigation response, and recovery activities.

The CEMP addresses the various types of emergencies that are likely to occur in Orange County, from local emergencies to major or catastrophic disasters. It further provides policies and procedures for disseminating warnings, coordinating response, ordering evacuations, opening shelters, and for determining, assessing, and reporting the severity and magnitude of an emergency and/or disaster. It further establishes direction and control by directing resource requests for municipalities to County, County to State, and State to Federal based on Florida Statute Chapter 252, Orange County Administrative Regulation 10.01 (dated June 18, 1991, Revised November 11, 1997), and Orange County Emergency Management Ordinances #94-11 and #2000-17.

The CEMP details the Orange County Emergency Response Team (OCERT) and how it is composed of County departments, and agencies, municipalities, profit and non-profit organizations, as well as State and Federal liaisons. The mission is to safeguard the citizens and visitors by ensuring the rapid response and recovery of the County to a variety of hazards. The CEMP establishes the organization, concepts, and terminology under which OCERT will operate by defining the mechanisms to facilitate the delivery of immediate and prolonged assistance by:

- Establishing fundamental policies, program strategies, and assumptions.

- Establishing a concept of operations spanning the direction and control of an emergency and/or disaster from initial monitoring through post-disaster response and recovery.

- Defining the roles and responsibilities of elected and appointed government officials, county and municipal departments and agencies, private industries, and volunteer and civic organizations.

The CEMP provides guidance for actions necessary for recovery and mitigation in the corresponding annexes, with further details located in the Post Disaster Redevelopment Plan (PDRP) and the Local Mitigation Strategy (LMS). These plans outline recommended actions for recovery and mitigation efforts following a disaster.

The PDRP was created in 2012 to assist Orange County with long-term recovery processes after a catastrophic disaster. The goal of post-disaster redevelopment is to restore a community to its previous state or better, as well as to make smarter decisions that will increase resiliency to future hazards and disasters.

The LMS is a strategy adopted by Orange County, following approval from the State and FEMA, to address and mitigate potential hazards to minimize the impacts to the County after a disaster.

The LMS Working Group was established to make the whole community more resistant to natural and technological hazards by identifying and prioritizing mitigation projects. Following a disaster, the LMS Working Group convenes to discuss these projects and evaluate ways to implement them to reduce or eliminate the threats from future hazards.

Methodology

The Orange County CEMP was developed by the Office of Emergency Management (OEM) in accordance with the CEMP plan criteria (Form CEMP-001) established by the Office of the Governor, Division of Emergency Management. The principal planning effort is the responsibility of OEM and accomplished through a combined collaborative effort of various organizations within the OCERT. The team consists of the following OCERT ESF's:

- Transportation
- Public Works
- Planning
- Resource Support
- Energy
- Donation Management
- Animal Care
- Facilities Management

- Communications
- Fire Rescue
- Mass Care
- Health Services Department
- Public Information
- Law Enforcement
- Community and Business
- Utilities

The CEMP incorporates the concepts, assumptions, and terminology of the National Incident Management System (NIMS), as well as the National Response Framework (NRF) and institutionalizes the use of the Incident Command System for field response.

OEM ensures that all copies of the CEMP are current through maintenance, and distribution of the CEMP via CD/DVD and posting the most current CEMP on the Orange County Website.

The development of the CEMP used the basic planning process methods of:

- Conduct a Vulnerability Assessment.

- Conduct a Hazard Analysis.

- Develop the CEMP to include necessary plans, annexes, appendices, and procedures.

- Receive approval of the plan from the State and adopt via resolution by the Board of County Commissioners.

- Test the plan through training, exercises, and real-world emergencies and disasters.

- Revising and maintaining the plan.

A vulnerability assessment is conducted as a process of defining, identifying, and classifying vulnerabilities to County infrastructure. This analysis is conducted using the vulnerability assessment principles located in the Statewide Regional Evacuation Studies Program and by OCERT members most familiar with the facility, system or communities. This is a guided objective assessment process, established by comparing existing policy, program, and regulatory frameworks by the local jurisdictions. In turn to control development and facility operations in a manner that minimizes vulnerability to future disasters.

These Orange County assets may be impacted by hazards to include tropical storms or hurricanes, flooding, severe drought, hazardous materials, domestic incidents, and wildfires. Hazard scores are determined by the following as Low, Medium or High according to their severity of cost as stated in the PDRP.

- Low:
  This score is assigned when there is a potential for the following: little or no number of injuries/deaths, little or no interruption to the economy, and the hazard does not affect the environment, and/or the hazard can cause damages or losses in the amount up to $100,000.

- Medium:
  This score is assigned when there is a potential for the following: a low number of injuries/deaths, a temporary interruption to the economy, a temporary impact to the environment, and/or the hazard can cause damages or losses in the amount from $100,000 to $5 million.

- High:
  This score is assigned when there is a potential for the following: high number of injuries/deaths, significant interruption to the economy, significant damage to the environment, and/or the hazard can cause damages or losses in the amount of $5 million or more.

A hazard analysis is then conducted with all the information gathered from the vulnerability assessment. The analysis is based on the estimated risk and frequency of occurrence of the hazard event. It is then compared to the probable consequences and inserted into the CEMP after final review from OEM staff and OCERT. The judgments made about the hazards threatening Orange County as a whole, and those potential vulnerabilities to those hazards is then determined by OEM with input from OCERT. These analyses are conducted every four years in accordance with the CEMP update.

The CEMP was developed by OEM staff in association with the OCERT members. This was accomplished by holding work review sessions with OEM staff. Throughout the process OCERT members shared information about existing local operating capacity and drafted annexes, procedures, prioritized issues relevant to their mission and task. This information was then reviewed for correctness and inputted to the CEMP

The CEMP is reviewed and approved every four years by the State of Florida. Following approval by the State of Florida, the Orange County Board of County Commissioners adopts a resolution implementing this plan for use by all County Departments and Divisions.   After the resolution is signed, the plan is then distributed to the OCERT members, County libraries, and posted to the County's website for public dissemination.

Testing of the CEMP happens throughout the year by conducting training, developing exercise capabilities and scenarios, and responding to real-world emergencies. When the Emergency Operations Center (EOC) is activated, the CEMP is referenced and then followed based on the type of emergency. When a deficiency is found within the CEMP, the deficiency is noted and evaluated to determine potential solutions. Additional trainings or exercises may be needed to educate responders and re-test their capabilities to prepare for the next emergency event.

The CEMP is maintained and revised annually by the Office of Emergency Management. When non-critical corrections are made, these corrections are noted on the record of changes page for review. However, if a correction may be detrimental to the safety of the staff and residents of the County, a critical update of the CEMP will be completed immediately by OEM Staff. A revised version of the CEMP will then be published and distributed to all OCERT members and other relevant personnel or groups.

Promulgation Statement

This plan provides a framework through which Orange County as a county plans and performs the respective emergency functions during a disaster. It assists the governments and non-governmental partners of Orange County to function effectively, regardless of disaster phase, also providing support to on scene emergency response personnel working to preserve life and property for the citizens of Orange County.

With the promulgation of this plan, the National Preparedness System and the National Incident Management System (NIMS) standardized procedures for managing personnel, communications, facilities and resources improves the County's ability to utilize state and federal funding enhancing local and state agency readiness, maintain first responder safety, and streamline incident management support and processes as adopted. A resolution adopting this plan is located in the Foreword Section of this plan on page V.

Departmental Responsibilities

The Comprehensive Emergency Management Plan (CEMP) includes an Acceptance of Responsibility form for each lead agency. This form serves as an agreement between the respective ESF and the Office of Emergency Management.

The form states that ESF Lead Agencies are responsible for adhering to all policies, procedures, and responsibilities notated within the Orange County's Comprehensive Emergency Management Plan.

It is the intent of assigning County departments and partnering organizations as lead agencies for Emergency Support Functions (ESFs), and to ensure accountability by an agency for certain emergency actions that may occur before, during and after a major disaster.

For copies of letters acknowledging and accepting plan responsibilities from County departments and our partner agencies, please refer to "Appendix A" of the CEMP. The following Non-County agencies have acknowledged and accepted the responsibilities in this plan.

- Lynx
- Salvation Army
- Property Appraisers Office
- OUC
- Peoples Gas

- Red Cross
- Orange County Sheriff
- Lake Apopka Gas
- Progress Energy
- Orange County Utilities

CEMP Distribution List

- American Red Cross
- Central Florida Regional Transportation Authority (LYNX)
- Florida Department of Health in Orange County
- Information System and Services Division (ISS)
- Orange County Animal Services
- Orange County Communications
- Orange County Community, Environmental & Development
- Orange County Consumer Fraud
- Orange County Fire and Rescue
- Orange County Health Services Department
- Orange County Human Resources
- Orange County Property Appraisers Office
- Orange County Public Works
- Orange County Purchasing/Contracts
- Orange County Sheriff's Office
- Orange County Utilities
- Orange County Website
- Orange County Municipalities
  - City of Apopka
  - Town of Eatonville
  - City of Maitland
  - City of Ocoee
  - City of Winter Park
  - Town of Windermere
  - Reedy Creek Improvement District (Cities of Bay Lake and Lake Buena Vista)
  - City of Belle Isle
  - City of Edgewood
  - City of Orlando
  - Town of Oakland
  - City of Winter Garden
- Salvation Army
- Progress Energy, OUC, TECO Gas

Distributed Changes

Any change request to the CEMP is submitted to the Office of Emergency Management and the request is then notated on the Record of Changes form located in this plan. The Record of Changes form is then updated and distributed to the above agencies for review.

Situation

This section of the Basic Plan includes the following information:

- Hazard Analysis

- Geographic Info

- Demographics

- Economic Profile and Impact

- Support Facilities

Orange County's Geographic Information System (GIS) contains current information and can be assessed prior to and following an emergency and/or disaster.

Several planning assumptions were made during the development of the Orange County Comprehensive Emergency Management Plan (CEMP).

- A major or catastrophic incident will overwhelm the capabilities of Orange County and its municipalities to provide prompt and effective emergency response and short term recovery measures.

- Transportation infrastructure will be damaged and local transportation services will be disrupted.

- Widespread damage to commercial telecommunications facilities will be experienced and the ability of first responders, government, and non-government agencies to communicate during the response phase will be impaired.

- Homes, public buildings, and other critical facilities and equipment will be destroyed or severely damaged.

- Debris may make streets and highways impassable, limiting the movement of emergency supplies and resources.

- Public utilities will be damaged and either fully or partially inoperable.

- Many victims will be in life-threatening situations requiring immediate rescue and medical care.

- There will be shortages of a wide variety of supplies necessary for emergency survival.

- Hospitals, nursing homes, pharmacies, and other health/medical facilities will be severely damaged or destroyed. Those that do remain in operation may be overwhelmed by the number of victims requiring medical attention.

- Damage to the region's airports could have significant impact on the region's economic prosperity and on the ability to move supplies and goods in and out of the County and the region.

Hazard Analysis

There are a number of hazards that are influenced by the County's geography, climate, economy and other man-made hazards that may increase the vulnerability, probability and/or potential impact to the County.

The result of the hazard identification and vulnerability assessment processes undertaken by the LMS Working Group and OCERT members were used to create the Hazards Analysis.   Table B-1 identifies the hazards affecting Orange County, the vulnerability of the hazard, the probability of the hazard, the impact severity of the hazard, and the estimated population at risk.   The intent of Table B-1 is to provide a snapshot of the information gathered and the judgments made about the various hazards threatening Orange County as a whole, as well as the potential vulnerability to those hazards.   Each hazard is explained in more detail throughout the Hazard Analysis.

As explained earlier in the Methodology, impact severity scores are determined and ranked by Low, Medium or High according to their severity of cost, as stated in the PDRP.

- Low:
  This score is assigned when there is a potential for the following: little or no number of injuries/deaths, little or no interruption to the economy, and the hazard does not affect the environment, and/or the hazard can cause damages or losses in the amount up to $100,000.

- Medium:
  This score is assigned when there is a potential for the following: a low number of injuries/deaths, a temporary interruption to the economy, a temporary impact to the environment, and/or the hazard can cause damages or losses in the amount from $100,000 to $5 million.

- High:
  This score is assigned when there is a potential for the following: high number of injuries/deaths, significant interruption to the economy, significant damage to the environment, and/or the hazard can cause damages or losses in the amount of $5 million or more.

In addition to the increased potential for disasters, a number of other factors are also on the rise. These include property values, population growth, and population density within hazard vulnerable zones. This sets the stage for increased impact and economic ramifications of catastrophic events.

Table B-1: Hazard Identification

Hazards	Identification Method	Vulnerability	Probability	Impact Severity	Population at Risk
Hurricanes	• Review of past disaster declarations • Input from residents • Risk Assessments	Med/High	Med	High	100%
Flooding	• Review FIRM maps • Input from Public Works (ESF-3)	Med	Med	Med	60%
Hazardous Materials	• Public input • Review of past Hazardous Materials incidents • Orange County Fire Rescue (ESF-10)	Med	High	Med	75%
Radiological	• Hospital input • Orange County Fire Rescue (ESF-10)	Low/Med	Low	Low	< 2%
Civil Disturbances	• Public input • Orange County Sheriff's Office (ESF-16) • Civil Disturbances incidents/threats that have occurred in other parts of the country	Med	Low	Low	10%
Mass Immigration	• Public input • Mass Immigration that have occurred in other parts of the State	Low	Low	Low	< 2%
Extreme Temperatures	• National Weather Service • OEM	Med	High	Med	100%
Wildfires	• Review of past wildfire incidents • Orange County Fire Rescue (ESF-4)	High	Med	High	75%
Thunderstorms /Tornadoes	• National Weather Service • OEM • Input from residents	High	High	High	100%
Drought	• Review of past incidents OEM • Information collected by the National Oceanic and Atmospheric Administration (NOAA) • National Weather Service	Low/Med	Med	Low	100%
Sinkholes	• Past incidents reported to Orange County and the State of Florida (DEP) • Public input	Low/Med	Low/Med	Low	25%
Terrorism	• Public input • Terrorism incidents/threats that have occurred in other parts of the country • Orange County Sheriff's Office	High	Low	Med	60%
Exotic Pests Diseases	• Past incidents reported to Orange County and the State of Florida • Animal Control (ESF-17)	Low	Low	Low	< 2%
Pandemic Outbreaks	• Input from the Center for Disease Control (CDC) • Input from Public Health (ESF 8)	Med	Low	High	75%
Critical Infrastructure	• Review of past incidents reported to the Orange County OEM • Orange County Utilities (ESF-20)	Med	Low	Low	25%
Special Events	• Review of past events reported to OEM • Orange County Sheriff's Office (ESF-16)	Med	Low/Med	Med	10%
Major Transportation Incidents	• Review of past incidents reported to the Orange County OEM • Orange County Fire Rescue (ESF-4) • Florida Department of Transportation	Low/Med	Med/High	Med	85%

Listed below are types of hazards that may affect Orange County and historical events that may provide insight on what might be anticipated in the future. These hazard identifications were derived in part from the Orange County Local Mitigation Strategy and the Post Disaster Redevelopment Plan.

1. **Hurricanes**

   Because of its subtropical location and long coastline, Florida is particularly susceptible to hurricanes. The greatest threats posed by a hurricane in Orange County would be from high winds, rain-induced flooding, and hurricane-spawned tornadoes.

   Data from the National Oceanic and Atmospheric Administration (NOAA) shows Orange County is vulnerable to tropical depressions, tropical storms and hurricanes. According to NOAA, from 1851 to 2013 there were 68 tropical depressions, tropical storms and hurricanes where the eye tracked over Orange County. There also have been storms that impacted the County but never tracked through the County.

   These storms can affect certain portions of County or the whole county based on where the storm is located and what quadrant the county is located in. As a rule from NOAA, the northeast quadrant is the fiercest part of any storm.

   Hurricane Fran
   Source: NOAA Satellite Image

Hurricanes are rated according to the Saffir-Simpson Hurricane Wind Scale, which is a 1 to 5 rating based on the hurricane's intensity. The scale is used to give an estimate of the wind potential and property damage expected from a hurricane landfall. Wind speed is the determining factor in the scale. Table B-2 is the breakdown of the Saffir-Simpson Scale.

Table B-2: Saffir-Simpson Hurricane Wind Scale

Category	Wind Speed	Types of Damage Due to Winds
1	74-95 mph	**_Very dangerous winds will produce some damage:_** Well-constructed frame homes could have damage to roof, shingles, and vinyl siding and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110 mph	**_Extremely dangerous winds will cause extensive damage:_** Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3	111-129 mph	**_Devastating damage will occur:_** Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4	130-156 mph	**_Catastrophic damage will occur:_** Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	157 mph or higher	**_Catastrophic damage will occur:_** A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

Source: National Hurricane Center

Figure B-1: Storm Track History for Orange County (1851-2012)

Orange County has seen its share of tropical systems where the eye of the storm tracks through the County.   The frequency of this occurrence makes Orange County's population highly vulnerable.

The population most at risk during a Category 1 and Category 2 storms is individuals with a disability and the minority population.   Single-parent residences are consistently at risk during all five storm categories, however as the storm gets stronger, the more who are at risk.   According to PDRP, as the category of the hurricane raises from a Category 3, the population affected remains the same. Table B-3 shows populations at Risk for hurricanes based on the category.

Figure B-1 below shows the tracks of all the storms where the eye of the storm entered into Orange County from 1851 to 2012. The scale is as follows:

- Tracks in **"Red"** are Category 3 Hurricanes

- Tracks in **"Purple"** are Category 1 Hurricanes

- Tracks in **"Green"** are Tropical Storms

- Tracks in **"Blue"** are Tropical Depressions

Note: Orange County has never been struck with a category 4 or higher storm.

Figure B-1 Hurricane Tracks 1851-2012
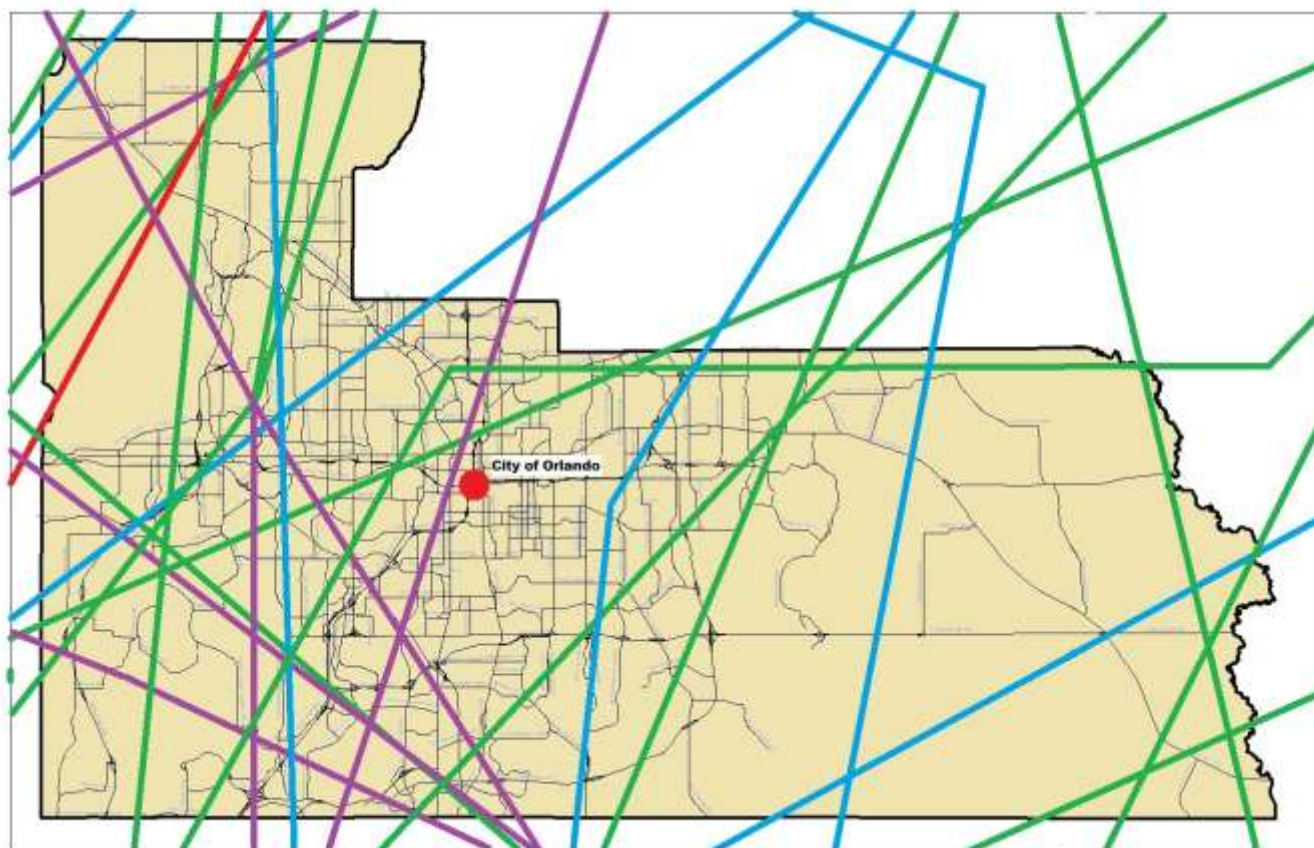
Table B-3: Populations Most at Risk

Storm Category	Minority Population	Over 65	Disabled	At or below Poverty Line	Language Isolated Households	Single Parent Households
Category 1	61	84	290	55	27	59
Category 2	229,595	74,805	239,001	88,729	17,705	50,895
Category 3	280,638	89,985	286,832	106,233	19,664	61,409
Category 4	280,638	89,985	286,832	106,233	19,664	61,409
Category 5	280,638	89,985	286,832	106,233	19,664	61,409

Source: Orange County Post Disaster Redevelopment Plan

Orange County was significantly impacted by the 2004 hurricanes (Charley, Frances and Jeanne). Hurricane Charley had the most significant impact on the County as the eye went right through the county. However Hurricane Frances and Jeanne were west of Orange County which put the County in the Northeast Quadrant of the storm. The actual damage calculated according to SHELDUS was approximately $433 Million dollars in damages with 26,700 total damaged parcels. Table B-4 shows the Maximum Damage Summary for Orange County based on storm category.

Orange County is also impacted by Tropical Storms and Tropical Depressions. The most recent storm to impact Orange County was Tropical Storm Fay in 2008. This storm produced localized flooding due to 15 to 20 inches of rain. Areas impacted the greatest by the storm included:

- Riverdale Road off of Buck Road near the Little Econ River, where 20 homes were impacted.
- The west side of the Econ River south of State Road 50 near Sunflower Trail where the river overflowed its banks and impacted the wells of residents in this area.

Table B-4: Maximum Damage Summary for Orange County

Storm Category	Tax Parcel based Wind Damage	Census based Wind Damage	Uninhabitable Housing Units
Category 1	$749.87 Million	$584.47 Million	0.1% of Total Housing Units
Category 2	$3.70 Billion	$2.72 Billion	0.6% of Total Housing Units
Category 3	$11.11 Billion	$7.98 Billion	1.8% of Total Housing Units
Category 4	$30.07 Billion	$21.27 Billion	4.9% of Total Housing Units
Category 5	$61.14 Billion	$42.54 Billion	9.9% of Total Housing Units

Source: Orange County Post Disaster Redevelopment Plan

2. **Flooding**

In Orange County, flooding results from thunderstorms and tropical systems which bring heavy rainfall to the area. Rain ranks third in the order of a hurricane's destructive force. During the average 24-hour period that it normally takes a hurricane to pass over an area, the average rainfall could be between 5 and 10 inches. However, in Florida, there have been hurricane-related rainfalls ranging from 12 to 20 inches. These excessive rains that accompany hurricanes can cause excessive flooding in low lying areas.

This results in riverbank overflow or ponding on the roads near a drainage runoff area. The subsequent inability of a water body to accommodate the added runoff contributes to or causes the flooding. Ponding occurs in low areas that are characterized by either poorly drained or supersaturated soils (i.e., high water table). This type of flooding is prevalent in the East and South end of Orange County where the drainage basins are located.

Flooding Orlando FL
Source: Orlando Sentinel

Incidents of flooding in Orange County include localized flooding near Big Sand Lake and Little Sand Lake that occurred in August 2003 and 2005. During the 2003 occurrence, Central Florida had received an estimated 7.5 inches of rain causing water levels to rise significantly. Record rainfall had caused Big Sand Lake to rise nearly 9 feet in a single year.

Tropical Storm Fay caused localized flooding throughout Central Florida in 2008. Major flooding occurred to the north and east of Orange County in neighboring counties receiving up to 27 inches of rain from the storm. Orange County recorded over 7 inches of rain during this incident causing minor flooding.

The total vulnerability to flooding is considered medium due to the number of people affected and costs associated with flooding. In order to help determine areas prone to flooding for the National Flood Insurance Program, the Federal Emergency Management Agency publishes the Flood Insurance Rate Maps (FIRM). FIRM maps are based on elevations, historical occurrences, and other such data and are the basis for determining flood insurance rates based on the corresponding flood zone. Properties located within the FEMA designated floodplain area are at a higher flooding risk (shown in the FEMA FIRM panels). Figure B-2 includes the 100 and 500 year floodplain and areas outside the floodplain (i.e. Zone X). According to Figure B-2 below, Zones A, AE, AO, and AH, are the most vulnerable areas.

Figure B-2: Flood Insurance Rate Map (FIRM)
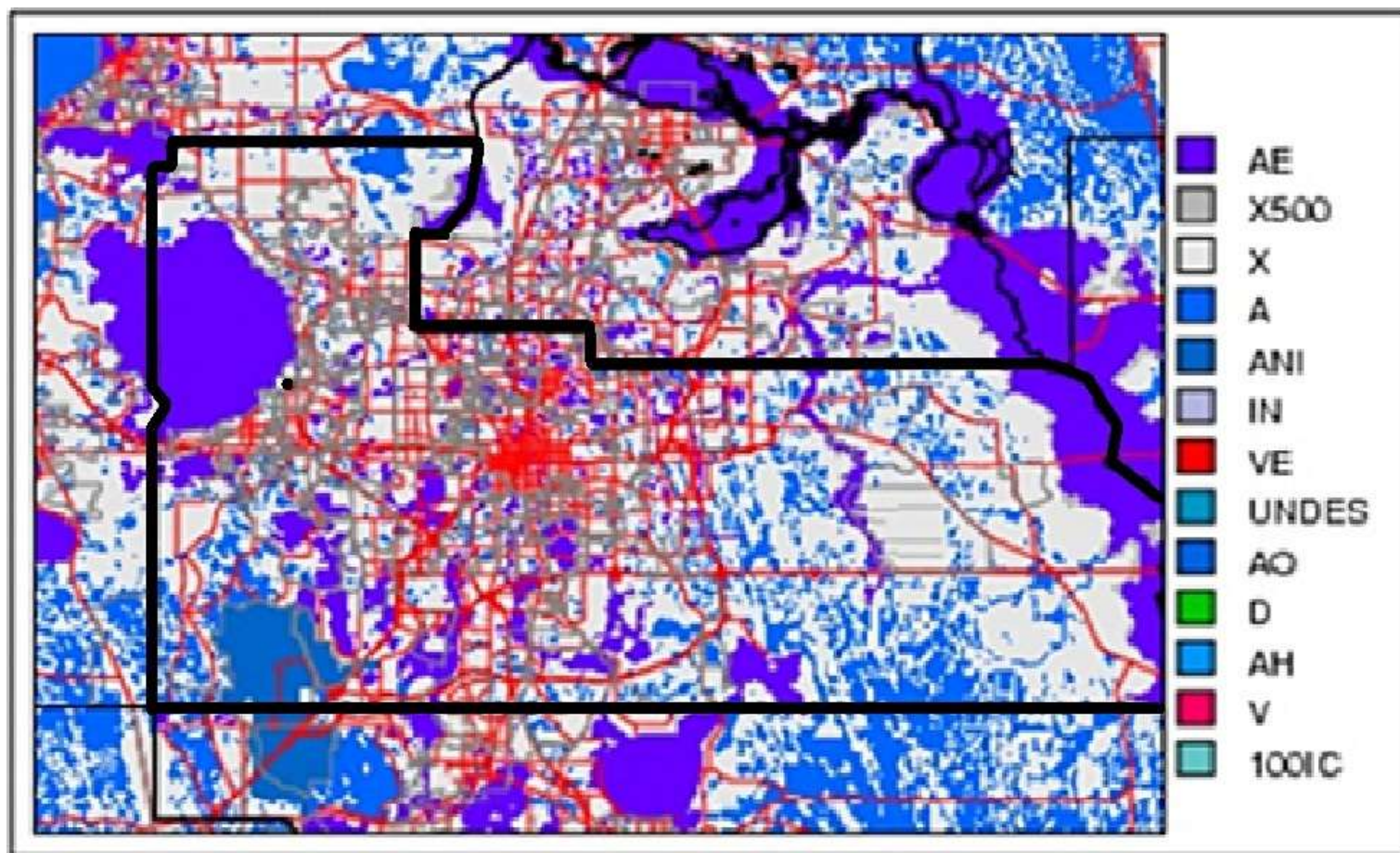
Source: Orange County Post Disaster Redevelopment Plan

Other areas of the County with a chronic history of flood problems, or are more vulnerable based on their location, are:

- City of Belle Isle
- City of Edgewood
- City of Orlando

- Town of Eatonville
- City of Maitland

There are several drainage areas within Orange County which would be similarly affected, including the Big and Little Econlockhatchee Rivers, the St. Johns River, Boggy Creek and Shingle Creek.

Flooding of homes and businesses can result in displaced residents, and can directly affect the financial stability of individuals. Those without flood insurance or underinsured by flood insurance will be most personally affected. The degree of personal and employment loss will determine whether the event will have broader implications and result in a loss to per capita income. This loss is somewhat offset by flood insurance but may not be able to recuperate the total loss.

Homeowners of substantially damaged properties will likely incur additional expenses, as homeowners may be required to bring their property up to the most current local codes and standards. In addition, property values, particularly for repetitive flood structures, may also suffer, as citizens become aware of the financial risk involved in living in unmitigated structures in flood-prone areas.

This hazard could also disrupt government services and businesses, as well as cause major disruptions in critical infrastructure (electrical, telecommunication, roadways, water, wastewater, etc). Typically, disruptions would be limited to a small geographic area. Therefore, the impact of flooding County-wide is ranked as medium.

Table B-5 estimates that over 148,000 people and in excess of 118,000 structures are vulnerable to flooding with an estimated total structure value above $110 Billion in Zones A, AE, AO, and AH,.

Table B-5: Orange County FEMA FIRM Zones

Zone	Description	Total Population at Risk	Total Structures at Risk	Total Value of Structures
AE	100-year floodplain, no Base Flood Elevation (BFE) determined	79,910	36,136	$20.27 Billion
X500	500-year floodplain (0.2% annual chance of flooding)	19,987	3,155	$6.35 Billion
X	Outside 100-year and 500-year floodplain	726,777	225,237	$125.70 Billion
A	100-year floodplain, no BFEs determined	68,685	18,320	$9.89 Billion
ANI	Area Not Included in any flood study	985	2,416	$15.17 Billion
IN	100-year floodplain, no BFEs determined	0	0	$13.06 Billion
UNDES	Possible but undetermined flood hazards	0	1,180	$5.75 Billion
AO	100-year floodplain, with sheet flow, with BFEs determined	0	61,465	$66.11 Billion
D	Possible but undetermined flood hazards	0	4,865	$4.63 Billion
AH	100-year floodplain, with ponding, with BFEs determined	0	2,408	$15.17 Billion
100IC	100-year floodplain, within channel banks, BFEs not shown	0	10,343	$9.29 Billion

Source: Orange County Post Disaster Redevelopment Plan

3. **<u>Hazardous Materials</u>**

There are over 6,000 hazardous chemicals licensed for transport by the U.S. Department of Transportation, many of which may have a disastrous effect if released in an accident. According to E-Plan, a hazardous material database, Orange County currently has over 700 facilities with hazardous chemicals and 200 facilities that use, store, and/or produce extremely hazardous substances.

Facility in Orange County
Source: Orlando Sentinel

Orange County routinely performs a hazardous materials hazard analysis of all identified facilities that are delineated in the Super Fund Amendments and Reauthorization Act (SARA) Title III, Section 302. Coordinating procedures for hazardous materials response may be found in the OCFRD Hazardous Materials Standard Operating Procedure (SOP).

Unfortunately spills and releases of hazardous materials during transport are common in Orange County, and the probability of a hazardous materials transportation incident is high. This will most likely occur during a vehicle accident along one of Orange County's major transportation routes and railroad systems. Vulnerability to a release or spill of a hazardous material is moderate, and depends upon the amount and type of material spilled or released, and the location of the incident. All 13 municipalities in Orange County are equally vulnerable to this hazard. The Orange County Fire Rescue Department (OCFRD) responds to a hazmat call on average once a week, based on 2012 FD responses.

The countywide impact of this hazard is rated as medium due to the number of facilities that produce and store extremely hazardous substances. The majority of the releases at a site are small, affecting only the building of origin and a relatively small number of people. However there are several major transportation routes and railroad tracks crisscross the county which increases the probability to high for this hazard affecting the county's population.

Hazardous materials incidents can also disrupt government services and businesses and cause disruptions in our critical infrastructure (electrical, telecommunication, water, wastewater, etc) but on a very limited basis thus making the economic costs usually low.

4. **Radiological/Nuclear Accidents**

The State of Florida currently has three nuclear power plants. These include:

- Crystal River Nuclear Power Plant

- St. Lucie Nuclear Power Plant

- Turkey Point Nuclear Power Plant

According to the Federal Emergency Management Agency (FEMA), a plume emergency planning zone (EPZ) is for those communities within a 10-mile radius of a nuclear plants plume exposure.

Crystal River Nuclear Power Plant
Source: Nuclear Regulatory Authority

The ingestion exposure pathway is where the population may be vulnerable to the health effects associated with the ingestion of contaminated food and water. An ingestion-planning zone exists for communities within a radius of 50 miles from a nuclear plant. There is a low probability of a radiological accident of this type affecting Orange County is not located within the immediate vulnerable zone of the closest fixed nuclear facility. The St. Lucie Nuclear Power Plant which is over 100 miles away is the closest facility.

At the Kennedy Space Center located in Brevard County, spacecraft being launched hauling Radioisotope Thermoelectric Generators create a low risk for long term exposure here in Orange County. However, during these launches, Orange County has been designated as an ingestion county. Meaning that in the event of a launch emergency, Orange County would be at risk for long-term exposure from the Radioisotope. The probability of this occurring is low due to Kennedy Space Center has limited launches from budget cuts and an excellent record of successful launches.

The Nuclear Regulatory Commission has estimated that 3 million packages of radioactive materials are shipped each year in the United States, either by highway, rail, air, or boat. There are several facilities within Orange County (hospitals, universities) that use small amounts of radioactive substances for medical and research purposes making the vulnerability low to medium. However in the past 10 years, there have been no significant incidents within Orange County.

A radiological/nuclear related incident could have profound effects on the county based on its proximity, size, and intensity. In a worst-case scenario it could contaminate portions of the county and injure and/or kill residents. This hazard would also have a profound impact on our local and statewide economies.

5. **Civil and/or Social Disturbances**

Orange County has a multi-ethnic population originating from countries with widely divergent political systems, religious beliefs, and educational backgrounds. As with any large metropolitan area with diverse cultures, civil disturbances must be anticipated and expected.

This type of hazard refers to riots and/or peaceful or non-peaceful protests. Any of these events can seriously impact the economic well-being and the safety and security of Orange County's citizens and visitors.

Public Protest
Source: Orlando Sentinel

There is always the possibility that such an event could happen in combination with another hazard that reduces available necessities, such as food and water, as in pandemics, hurricanes, or other widespread disasters; however, in Orange County it is probable, but not likely.

Orange County does not have a history of large-scale civil riots occurring, at least during the last 10 years. The County does have a history of non-violent demonstrations. Peaceful rallies/protests in Orange County have occurred primarily in downtown Orlando. The most recent event is the Casey Anthony Trial in 2012.

A civil and/or social disturbance could have a localized or countywide impact. If an incident occurred, it could cause severe disruption to businesses throughout the County. It could also impact vulnerable populations like the homeless who may be living in the area or workers who are working in the area. All 13 municipalities are equally vulnerable to this hazard; however it only has the potential to affect a small portion of the county without affecting the entire county. Since this hazard can only affect small segments of the county at a time the vulnerability is considered low. This is based on the probability of the occurrence and the potential economic losses.

6. **Mass Immigration**

A large uncontrolled influx of immigrants has the potential of significantly disrupting the social and economic stability in Orange County by overwhelming the delivery of essential services such as medical response and public safety. The control of immigration into the United States is the responsibility of the United States Department of Homeland Security (DHS). Orange County has developed the County Migration Plan and the Department of Homeland Security has created the operational plan named Vigilant Sentry Plan.

While the federal government has the primary responsibility for assuming control of mass immigration emergencies, Orange County may have to provide humanitarian effort including: shelter, food, water, medical, and other social services.   Mass immigration usually takes place after a major disaster in a third world county located near Florida. During the Haiti earthquake disaster, many Haitians came to the State of Florida and Orange County by plane for disaster relief.

The impact and costs associated with mass immigration is difficult to estimate due to the fact within a year or so of setting foot on U.S. territory – immigrants acquire permanent legal resident status and therefore blend into the larger population, competing for the same jobs and qualifying over time for the same benefits and federal/state entitlements as U.S. citizens.   Due to the infrequency of this occurrence, the vulnerability, probability, and impact to Orange County as a whole, is rated low.

7. **Extreme Temperatures**

Extreme temperatures affect citizens and agriculture crops across all of Orange County.   Since the occurrence of extreme temperatures is frequent in Orange County and the region, due to Florida's subtropical environment, the probability of this hazard as high.

Heat and freezing temperatures, when they do occur, take place in the summer and winter months and are usually anticipated. A heat wave is defined as three or more consecutive days where the maximum shade temperature reached or exceeded 90 F. Cold Nights are declared when the temperature falls below 40 degrees.

The projections, made by the Homeless Services Network of Central Florida, represent a 17 percent increase since 2008, and some experts expect that trend to continue even after the current recession eases.

The homeless tend to congregate in large cities like the City of Orlando, which has approximately 2,224 according to the latest State study.   The analysis of the homeless population in Orange County is largely based on a

Homeless Camp in Orlando
Source: CMF Public Media

single-day count, conducted in January, of emergency shelters, transitional housing, soup kitchens, homeless camps, food pantries, drop-in centers and day-labor pools.

Coalition for the Homeless is the largest provider of homeless services in Central Florida. This non-profit organization works to transform the lives of homeless men, women and children in the community by providing crucial services to end their crisis of homelessness.   On the Coalition's main campus, the Men's Pavilion accommodates over 250 single men on an average night, and the Center for Women and Families houses up to 240 men, women and children seeking shelter from the extreme cold temperatures.

Crops are another vulnerable area in which damage can occur from extreme temperatures.   The extreme cold can damage the orange groves and the agriculture industry as the case in 2010. Anywhere from 6 to 10 percent of the orange and grapefruit crop was lost due to extreme cold temperatures.   Taking in account for these vulnerabilities and the impacts, the severity is ranked as medium.

Orange Grove in Orange County
Source: Bloomberg Media

8. **Wildland Fires**

Orange County's typical fire season is from January through May.   The County's continuing growth of the Wildland/Urban Interface is an issue. A Wildland/Urban Interface is defined by the State of Florida as the geographical point where two diverse systems (wildland and urban) meet, and affect each other, and give rise to conflicts.

In the past 10 years, the Orange County Fire Rescue Department and other municipal fire departments have responded to thousands of wildland fires. Fortunately, only a small percentage of these incidents were significant enough to involve additional agencies and organizations.

Following incident in April and May of 2009, the Orlando-Volusia Wildfire Complex was established, to assist with battling blazes which included over 40 wildfires and burned over 8,000 acres. The wildfires scattered from southern Volusia to southeast Orange County.

Orange County Brush Fire
Source: Orlando Sentinel

The majority of the fires were located in Orange County, covering over 3,000 acres. A DOF Type II Incident Management Team, over 100 forestry firefighters, and numerous pieces of specialized equipment arrived from all over the state in support of the incident.

According to the Orange County PDRP, an estimated 177,385 people and 61,293 structures are considered the most vulnerable (Level 7) and are dispersed throughout Orange County as noted in Table B-6. The total value of these structures is estimated at $34.83 Billion.

Wildland fires are particularly hazardous in more undeveloped portions of the County, including the Christmas/Bithlo area, North and Southwestern Orange County, and the Four Corners area. There have been several areas identified by the Florida Forrest Service as problem areas making the vulnerability high. The following municipalities are vulnerable to this hazard and have the greatest potential of impact based on their location and land-use in the County:

- City of Apopka
- City of Orlando
- City of Lake Buena Vista

- Town of Oakland
- City of Winter Garden
- City of Bay Lake

Table B-6: Wildland Fire Risks

Zone	Total Population at Risk	Total Structures at Risk	Total Value of Structures
Level 1 (Low)	38,894	67,926	$36.14 Billion
Level 2	44,565	37,826	$20.35 Billion
Level 3	104,909	41,842	$20.49 Billion
Level 4	5,858	6,182	$3.16 Billion
Level 5 (Med)	59,199	25,452	$14.26 Billion
Level 6	76,987	21,480	$10.96 Billion
Level 7	177,385	61,293	$34.83 Billion
Level 8	100,863	26,506	$16.00 Billion
Level 9 (High)	38,932	22,888	$13.47 Billion

Source: Orange County Post Disaster Redevelopment Plan

Wildland fires can result in injuries and deaths of both citizens and firefighters and result in thousands or millions of dollars in property damage. Government services, businesses, and critical infrastructure/processes may all be disrupted due to wildfires.

The geographical extent and duration of the disruption is dependent on the extent of the fire, obstacles, and number of fires; however, a wildland fire event is not likely to affect the entire extent of the County and its services at one time making the impact severity medium.

Orange County Brush Fire
Source: Orlando Sentinel

a) Community Wildfire Protection Plan (CWPP)

The Community Wildfire Protection Plan addresses the challenges of fire protection in the Wildland/Urban Interface (WUI) through locally-supported solutions. CWPP are authorized by the Health Forests Restoration Act of 2003 and provide communities with a tremendous opportunity to influence: (1) where and how Wildland fuel management projects are implemented on federally managed lands and (2) how federal funds are distributed for fuel reduction projects on nonfederal lands.

Firewise Communities USA is a unique opportunity available to America's fire prone communities. The goal is to encourage and acknowledge action that minimizes home loss to wildfires by teaching people how to prepare for a fire before it occurs. As a resident of a Firewise Community, it means learning what you can do to protect your family and home when a wildfire is threatening and to have a plan to evacuate, if necessary. Each resident must take responsibility for protecting their family and property during an emergency.

Wedgefield a Firewise Community has now been in existence for 11 years. What makes the Wedgefield community different from the majority of the Firewise Communities is that Wedgefield is led by residents not professionals.

9. **Tornadoes**

While tornadoes can occur at any time during the day or night, they tend to form during the late afternoon and into the evening. The expected tornado size would be approximately 20 yards wide, with a .1 mile path. Most tornadoes are expected to touch down for relatively short periods of time in a bounce type pattern. The occurrence of a tornado touchdown on an annual basis is considered high. Florida experiences the most number of tornadoes per square mile of all 50 States. Florida has averaged 52 tornadoes reported per year since 1961, with an average of two fatalities per year. In Orange County there have been over 50 tornadoes since 1950 according to the National Weather Service.

Funnel Cloud Orange County
Source: Orlando Sentinel

Tornadoes were originally classified by the Fujita Scale, which was developed by T. Theodore Fujita of the University of Chicago. A revised scale, the Enhanced Fujita Scale, Table B-7, was implemented by the National Weather Service in February 2007.

Table B-7: Enhanced Fujita Scale

Scale	Wind Estimate	Typical Damage
EF-0	<73 mph	**Light Damage** Some damage to chimneys; branches broken off trees; shallow-rooted trees pushed over; sign boards damaged
EF-1	73-112 mph	**Moderate Damage** Peels surface off roofs; mobile homes pushed off foundations or overturned; moving autos blown off roads.
EF-2	113-157 mph	**Considerable Damage** Roofs torn off frame houses; mobile homes demolished; boxcars overturned; large trees snapped or uprooted; light-object missiles generated; cars lifted off ground.
EF-3	158-206 mph	**Severe Damage** Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off the ground and thrown.
EF-4	207-260 mph	**Devastating Damage** Well-constructed houses leveled; structures with weak foundations blown away some distance; cars thrown and large missiles generated.
EF-5	261-318 mph	**Incredible Damage** Strong frame houses leveled off foundations and swept away; automobile-sized missiles fly through the air in excess of 100 meters (109 yds); trees debarked; incredible phenomena will occur.

Source: The National Weather Service

According to the PDRP, the most significant tornado to ever impact Orange County occurred on February 22-23, 1998. A total of seven tornadoes struck Osceola, Orange, and Seminole counties killing 42 people and injuring 260 others. Three of these storms were rated as F-3s on the Fujita scale. A total of approximately 3,000 structures were damaged and nearly 700 destroyed.

In 2004 an F-0 or F-1 tornado struck the Deerwood Mobile Home Park damaging 14 manufactured homes. On October 7, 2006 an F-0 tornado caused major damage to 32 homes and minor damage to 28 others; three businesses also suffered damage. This incident resulted in a Disaster Declaration from the Small Business Administration.

Due to the frequency and unpredictable pattern of tornadoes, all of Orange County is vulnerable to induced damages. The probability of occurrence and damage potential is high due to the concentrations of populated areas and the large number of manufactured homes throughout the County. Making the costs associated with an individual event high, based on the event and location.

Tornadoes could also disrupt government services and businesses as well as cause major disruption in our critical infrastructure (electrical, telecommunication, water, wastewater, etc). Typically, the disruptions will be limited to a small geographic area.

All of the municipalities are vulnerable to this hazard, but the following municipalities have greater vulnerability:

- **City of Bay Lake:**
  This municipality consists of several manufactured homes which are more vulnerable to high winds.

- **City of Belle Isle:**
  This municipality has a large number of trees that can be knocked down by high winds.

- **City of Orlando:**
  The city has several manufactured home parks in the county which are particularly vulnerable to this hazard.

- **City of Winter Park:**
  This municipality, because of its position in eastern Orange County, is more vulnerable to high winds than the municipalities in other parts of the county.

A tornado impacting Orange County could result in millions of dollars in property damage and lost revenue. The total population potentially affected is approximately 891,160, with 282,331 structures potentially at risk. The total value of these structures is estimated at $176 Billion.

Similar to hurricanes/tropical storms the impact countywide is dependent on its path and intensity. This hazards impact can be ranked as medium. In the event a tornado touches down, it normally damages select neighborhoods and communities. It seldom has a countywide impact.

a) Thunderstorms / Lightning

Florida leads the nation in lightning-related deaths and injuries. Since 1959, an average of ten people has been killed and 33 injured each year as a result of lightning. The peak month for lightning strikes is July, but June and August have a significant number, and no month is immune from lightning danger.

Lightning Strike Orange County
Source: Orlando Sentinel

Although Orange County has a high incidence of lightning strikes and thunderstorms, there are no significant numbers of people impacted by these events. The economic costs are low, but response costs tend to be high, therefore, the level of vulnerability is high. All areas in the County are considered vulnerable to lightning strikes. All 13 municipalities are equally vulnerable to this hazard. All structures are at high risk from lightning strikes unless they have been hardened by lightning mitigation efforts. The threat is defined in terms of the chances that a thunderstorm or lightning strike will cause economic damage or loss

Thunderstorms impacting Orange County and its municipalities are a regular occurrence, especially during the summer months. This hazard, if it impacts a home, business, or government facility, can result in thousands of dollars in property damage. At times it can disrupt government services, businesses and critical infrastructure. Typically, the disruptions will be limited to a small geographic area.

b) Hail

Thunderstorms in the county may become severe with high winds and hail. These storms usually have thunder and lightning along with rain. When a storm has all the right factors, it can take rain and repeatedly drive it up into the upper levels of the storm, freezing the rain over and over. This process creates the hail, and when the winds can no longer hold the hail aloft they drop, thawing and freezing on the way down. Depending on the amount of rain, the size of the drops, and how many trips it makes it to the upper levels, determines the size of the hail.

According to SHELDUS Data, Orange County has had 18 incidents where hail has caused either property or crop damage dating back to 1965, with the most recent event occurring in 1995. The most costly damage was in 1992 where over 30 million dollars of property damage was reported.

10. **Droughts**

Drought is a persistent and abnormal moisture deficiency having adverse impacts on vegetation, animals or people. There are generally three types of droughts:

- Meteorological drought is usually based on long-term precipitation departures from normal, though high temperatures often play a role.

- Hydrological drought refers to deficiencies in surface and subsurface water supplies.

- Agricultural drought occurs when there isn't enough soil moisture to meet the needs of a particular crop at a particular time.

Droughts can affect parts or most of the County, resulting in reduced rainfall or standing water which can affect fire conditions and/or public or agricultural water consumption in the most catastrophic of scenarios.

Droughts have affected Orange County several times during the last few decades, including: the early 1970s, the early 1980s, 1989-90, 1998-01, and 2007. Between November, 1999 and May, 2001 the water levels in Lake Okeechobee dropped to the lowest recorded levels.

Orange County has a moderate amount of acreage designated for conservation, public lands and agricultural land uses. When this acreage becomes parched during a drought, the area becomes vulnerable to wildfires. The vulnerability is considered low/med due to the number of people impacted by a drought being less significant and the economic impacts are low. All 13 municipalities are equally vulnerable to this hazard. There is no potential dollar loss for droughts on buildings and facilities within Orange County because droughts do not physically affect buildings.

According to the Agricultural Advisory Board, Orange County is the 9th largest agricultural industry in Florida. It is also the 2nd highest sector of the economy at 110,963 jobs, has the 3rd highest total economic value in the County at $8.13 billion, and generated $758 million in indirect business taxes.

11. **Sinkholes**

Sinkholes are common where the rock below the land surface is limestone, carbonate rock, salt beds, or rocks that can naturally be dissolved by ground water circulating through them. As the rock dissolves, spaces and caverns develop underground. Sinkholes are dramatic because the land usually stays intact for a while until the underground spaces just get too big.

Sinkhole Orange County 1981
Source: Orlando Sentinel

As depicted in the photo shown above, Orange County is susceptible to sinkholes ranging from slow-developing small diameter sinkholes to larger sinkholes that can develop with little or no warning. Sinkholes are geologic hazards, sometimes causing extensive damage to structures and roads. Sinkholes may also threaten water supplies by draining unfiltered surface water directly into the aquifer. However the hazard vulnerability and probability is still low/Medium.

Figure B-3 shown below was created by Florida Center for Instructional Technology (FCIT) and represents reported sinkhole events in Orange County based on data gathered by the Florida Geological Survey (FGS) and the Florida Department of Environmental Protection (FDEP). According to FGS there have been approximately 221 sink holes reported in Orange County up to 2008.

The legend below shows the depth of the sinkholes shown on Figure B-3.

- ○ Less than 10ft Deep
- ● 11 – 30ft Deep
- ● 81 – 200ft Deep
- ● Greater than 200ft Deep

Figure B-3: Sinkhole Data from 2008
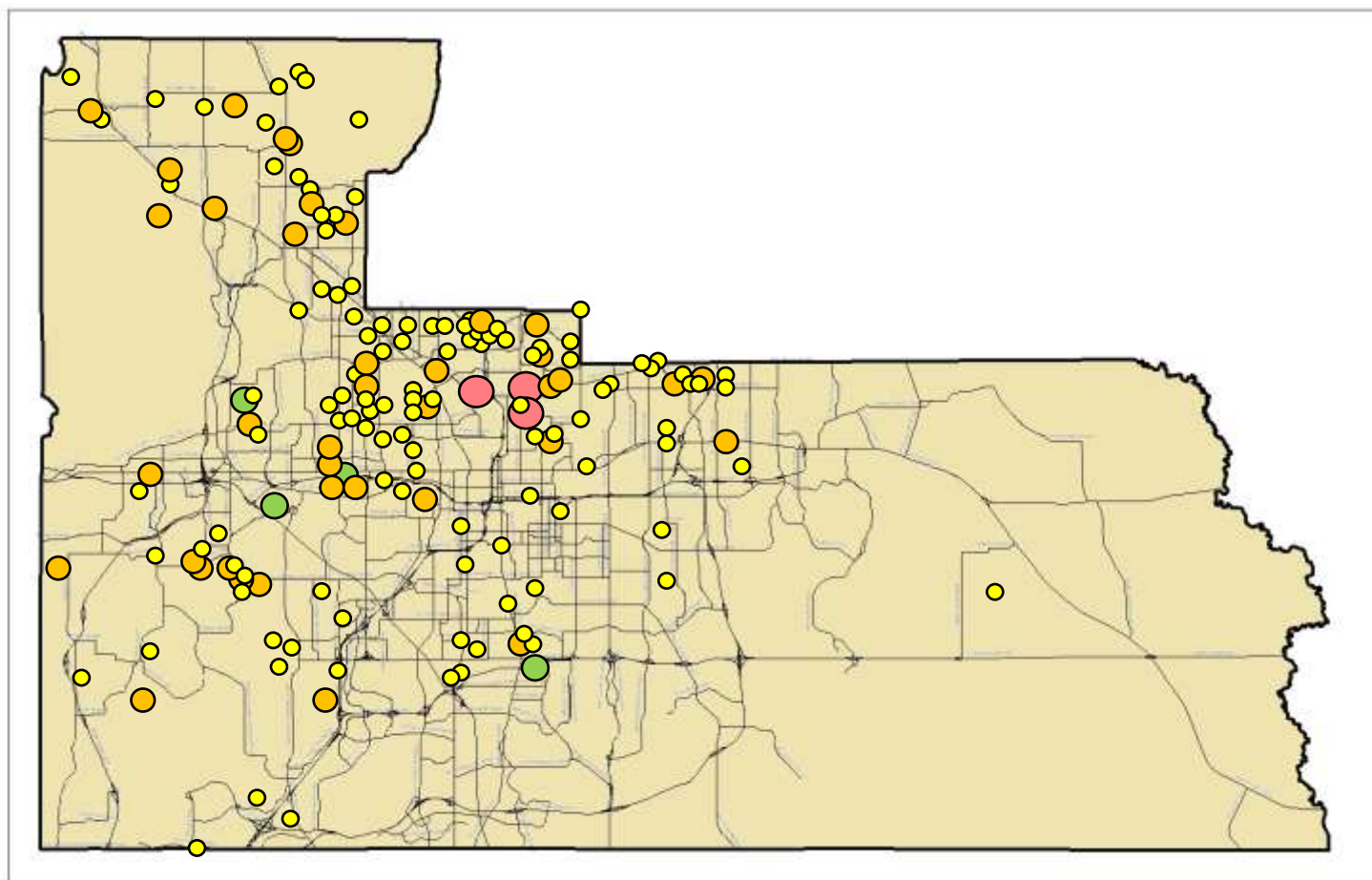
Source: Florida Center for Instructional Technology

There is no potential way to calculate anticipated losses for sinkholes affecting homes, buildings or facilities within Orange County. Most of the sinkholes within Orange County are few, shallow, small diameter and form gradually over time. However, big sinkholes can happen anywhere in the county based on Figure B-8.

12. **Terrorism**

Under the Homeland Security Act of 2002, terrorism is defined as an activity that involves an act dangerous to human life or potentially destructive of critical infrastructure or key resources and is a violation of the criminal laws of the United States or of any State or other subdivision in which it occurs and is intended to intimidate or coerce the civilian population or influence a government or affect the conduct of a government by mass destruction, assassination or kidnapping.

In October 2001 after the terrorist events on September 11, the State of Florida created the comprehensive counter-terrorism strategy. Soon after the Region 5 Domestic Security Task Force was created to mobilize and deploy assistance to quickly establish an effective response organization to assist in managing terror incidents, and disasters caused by terrorism.

The Federal Government divides terrorism into specific groups and/or agendas which include:

- **International:** This refers to terrorist groups that operate outside of the United States. Examples of these groups include the Irish Republican Army, Islamic Jihad, Hezbollah, etc.

- **Trans-National:** This refers to groups who operate throughout the world in various countries. An example of this type is Al Qaeda.

- **State-Sponsored:** This type of terrorist organization is backed and funded by specific Nation-States. Examples of these Nation-States include North Korea, etc.

- **Domestic:** These groups are based and operate within the United States. Examples of these groups include Aryan Nation, Militias, KKK, etc.

- **Special Interest:** These groups are geared towards a specific goal. Generally these groups are domestic based but could be one of the other types as well. Examples include the Earth Liberation Front, etc.

A terrorist attack may use one or more of the following methods:

- **Chemical:** Chemical agents are poisonous gases, liquids or solids that have toxic effects on people, animals or plants.

- **Biological:** Biological agents are organisms or toxins that have illness-producing effects on people, livestock and crops.

- **Radiological:** This threat includes a conventional explosive packed with radiological material (i.e. dirty bomb).

- **Nuclear:** This includes the detonation of a thermonuclear bomb.

- **Explosive:** This type of weapon is the most common and consists of detonating an explosive to injury or kill individuals or groups. Examples include utilizing dynamite and/or C-4.

There has not been a history of terrorist attacks within Orange County. There have been several threats that have occurred over the last 10 years; those threats did not materialize or were stopped before they could be carried out. The history of threats or attacks thwarted before they could have occurred has been documented by the Federal and State governments and the Central Florida Intelligence Exchange (CFIX).

Due to Orange County being a tourist destination with worldwide attention, a terrorist attack could have serious implications to life and property as well as the long-term economic well-being of the County. All 13 municipalities with critical infrastructure or key resource locations are equally vulnerable to this hazard. Therefore, the vulnerability of the County is considered high.

The probability of a terrorist attack happening is low based on law enforcement, intelligence sharing with other local and State agencies. The impact severity is rank is medium due to the fact a terrorist incident can result in serious injuries or deaths, property damage, and significantly impact the County, regardless of the location of the target. This hazard could also disrupt government services and businesses, as well as cause major disruptions in critical infrastructure (electrical, telecommunication, roadways, water, wastewater, etc).

Terrorism can have a financial impact on the County and the State. Tourism is Orange County's biggest economic industry. Tourism brings in an estimated $57 billion in revenue per year according to the Threat and Hazard Identification and Risk Assessment (THIRA). The population of domestic and international visitors in Orange County is approximately 51.4 million a year or 140,000 per day.

13. **Exotic Pests and Diseases**

According the PDRP, Orange County has the 9th largest agricultural industry in Florida. Over 159,556 individuals are employed in the agricultural industry within State of Florida. Orange County is ranked the 19th largest producer of Citrus, 32nd largest producer of Beef Cattle and it has the 3rd highest total economic value in at $8.13 billion. This generated $758 million in indirect business taxes according to the Agricultural Advisory Board.

In 2010 Florida had 47,500 commercial farms which utilize -9.25 million acres across the State. Florida ranks seventh in agricultural exports with $3.1 billion and is the world leaders in phosphate rock production, with an annually production of 65 percent of the U. S supply and 10 percent of the world supply. The agricultural industry is also the 2nd highest sector of Florida's economy at 110,963 jobs.

Based on this a number, a number of diseases can affect the agricultural and livestock industry in Orange County and the State. Examples of these diseases are:

- Hoof and Mouth

    Hoof and mouth disease (FMD) is a severe plague for animal farming, since it is highly infectious and can be spread by infected animals through aerosols, through contact with contaminated farming equipment, vehicles, clothing or feed, and by domestic and wild predators.

Hoof and Mouth Disease (Cow)
Source: Wikipedia

- Citrus Canker

    Citrus canker is a disease affecting citrus species that is caused by the bacteria. Infection causes lesions on the leaves, stems, and fruit of citrus trees, including lime, oranges, and grapefruit. While not harmful to humans, canker significantly affects the vitality of citrus trees, causing leaves and fruit to drop prematurely; a fruit infected with canker is safe to eat but too unsightly to be sold.

Fruit Lesions (Citrus Canker)
Source: Queensland

    The disease, which is believed to have originated in South East Asia, is extremely persistent when it becomes established in an area. Citrus groves have been destroyed in attempts to eradicate the disease. Brazil and the United States are currently suffering from canker outbreaks.

- Mad Cow

    Mad cow disease, is a fatal neurodegenerative disease (Bovine spongiform encephalopathy) in cattle that causes a spongy degeneration in the brain and spinal cord. BSE has a long incubation period, about 30 months to 8 years, usually affecting adult cattle at a peak age onset of four to five years, all breeds being equally susceptible.

    The disease may be most easily transmitted to human beings by eating food contaminated with the brain, spinal cord or digestive tract of infected carcasses. However, it should also be noted that the infectious agent, although most highly concentrated in nervous tissue, can be found in virtually all tissues throughout the body, including blood.

In the past five years there has been no significant plant or animal disease that has affected Orange County.

Commercial growers are extremely vulnerable to financial hardship from exotic pest infestation. Recovery from the destruction of mature trees due to infestation takes years to overcome. The loss of income for multiple years would be financially devastating. The economic cost would be considered high, especially to the agricultural sector. As a result, the vulnerability is considered high. The City of Winter Garden is more directly impacted by plant and animal diseases due to the basis of their economy.

Animal and Plant Diseases can result in thousands or millions of dollars in lost revenue to the agriculture industry in the County. The impact County-wide of plant and animal diseases is ranked as low. While this hazard may affect the small portion of local food supplies, the vast majority comes from outside of the County. However, there is an "eat local" movement growing which could significantly affect the impact of plant and animal diseases.

The following municipalities have a greater potential to be impacted by plant and animal diseases due to the use of locally grown food:

- City of Apopka

- Town of Oakland

- City of Winter Garden

14. **Disease and Pandemic Outbreaks**

Illnesses are caused by a number of different influenza viruses. The Flu for instance can cause a range of symptoms and effects, from mild to lethal. Two strains of flu, seasonal flu, and the H1N1 (Swine) flu are currently circulating in the United States. A third, highly lethal H5N1 (Bird) flu is being closely tracked overseas. Most healthy people recover from the flu without problems, but certain people are at high risk for serious complications.

According to the Orange County Health Department there are a variety of diseases and viruses that can inflict individuals in Orange County. Some of the diseases or viruses that could impact Orange County include:

- Botulism
- Hepatitis A, B, and C
- Salmonellosis
- West Nile Virus

- E. Coli
- Meningitis (Bacterial & Mycotic)
- Tuberculosis
- Influenza

Pandemics have always been a continuing risk for Orange County and the State of Florida. Pandemic refers to the global spread of a disease, while an epidemic is localized to a geographic region. An influenza pandemic occurs when there is a worldwide spread of a new strain of influenza. Pandemic flu has the potential to kill people regardless of age or health status.

The most likely pandemic will be from a strain of Influenza. This type of pandemic would occur when a new influenza virus emerges for which there is little or no immunity for humans. This new virus then begins to cause serious illness, and spreads easily from person-to-person worldwide. There have not been any significant human diseases or epidemics within Florida in the last five years making the probability low. However, Orange County has occasionally experienced small-scale health related incidents such as a heightened threat to the H1N1 Influenza virus in 2009.

Orange County is vulnerable due to the large annual influx of seasonal residents and tourists. Rapid spread of these diseases would result in significant numbers of people being affected and high economic costs involved with replacement of livestock making the vulnerability medium. All areas of the County are considered vulnerable to a disease outbreak. All of the municipalities are equally vulnerable to human diseases or viruses.

Human Diseases, especially when they reach an epidemic or pandemic phase, can result in thousands or even millions of people ill or dying and billions of dollars in lost revenue. This hazard could also disrupt government services and businesses, as well as cause major disruption in our critical infrastructure (electrical, telecommunication, roadways, water, wastewater, etc) through the absence of the individuals who maintain these systems and operations. Typically, these disruptions can include the entire County. Thus making the impact to human diseases countywide ranked as high.

These diseases do not acknowledge political boundaries and can have an impact on the individuals who run the services and systems of County wide infrastructure, businesses, and government services.

15. **Critical Infrastructure Disruptions**

Critical infrastructure refers to those assets, systems, and functions so vital to Orange County that their disruption or destruction would have a debilitating effect on the economy, governance, public health and safety, and morale. Critical infrastructure refers to transportation, energy systems, banking, and financial assets, water supplies, chemical plants, food and agricultural resources, police and fire departments, hospitals and public health systems, information systems, and government offices.

These disruptions can be caused by a number of events to include but not limited to:

- Natural or Technological Disasters
- Sabotage
- Equipment Failures

Orange County has a medium vulnerability in experiencing a critical infrastructure disruption to some degree each year, usually with the loss of power to part of the grid due to a thunderstorm; however these incidents are usually rectified quickly. The probability of encountering this hazard is low.

It is important to determine the vulnerability of critical facilities and infrastructure for emergency response efforts and long-term redevelopment strategies. Critical Infrastructure disruption could arise in conjunction with another hazard, such as a terrorist event, hurricane, tornado, ice storm, drought, or other hazards. Disruption in any particular one for a short period does not necessarily indicate a disaster, however it will likely warrant a swift response by the owner, agency or a combination of entities. Through contingency planning and prompt response at each critical facility, the disruption can be minimized.

Based on the vulnerability assessment of a disruption or destruction of critical infrastructure having a debilitating effect on the economy, the estimated and anticipated losses could be $10,000 to over $100,000 or more.

16. **Special Events**

Special events occur every year within Orange County making it a major tourist destination. These community events involve congregations of large numbers of people, and are typically supported by the presence of local emergency services, such as fire, emergency medical services, and law

Citrus Bowl Orlando, FL
Source: Orlando Sentinel

enforcement. Events include visiting dignitaries, holiday parades, and festivals, sporting events, conventions or conferences.

These events are normally cause for celebration, however the presence of large number of people may create an increased vulnerability potential for casualties or loss, if an accidental or intentional incident occurs at the event.

With the event being geographically isolated, the probability of encountering such a situation is low to medium. This is based on the fact there have been no instances recently of this threat in Orange County. The financial impact to the county makes the impact severity a medium as the County could lose over $100,000 or more in tax revenue if an incident happened at a special event with the potential loss of casualties.

17. **Major Transportation Incidents**

Major transportation incidents can happen at any time. These incidents can involve a plane, rail, automobile, bus or tractor trailer. Orange County has an increased vulnerability for major transportation incidents based on its population density, traffic patterns, weather conditions and other unknown hazards.

Orange County has an International Airport, Regional Airport, Railroads, the Florida Turnpike, Interstate 4, and toll roads 528, 429, 417, 414, 408 located throughout the County. Interstate 4 and the Florida Toll Roads are all major thoroughfares for businesses, corporations, and citizens. Tourists also use these highways to visit the major tourist attractions in Orange County.

According to Florida Department of Transportation (FDOT) Orange County has 2,539 miles of paved roads. A number of serious injuries and fatalities have occurred on Orange County Roads. Figure B-4 shows a graph of accidents where drivers suffered serious injuries and or death from 2008 to 2010.

Figure B-4: Injuries and Fatalities in Orange County
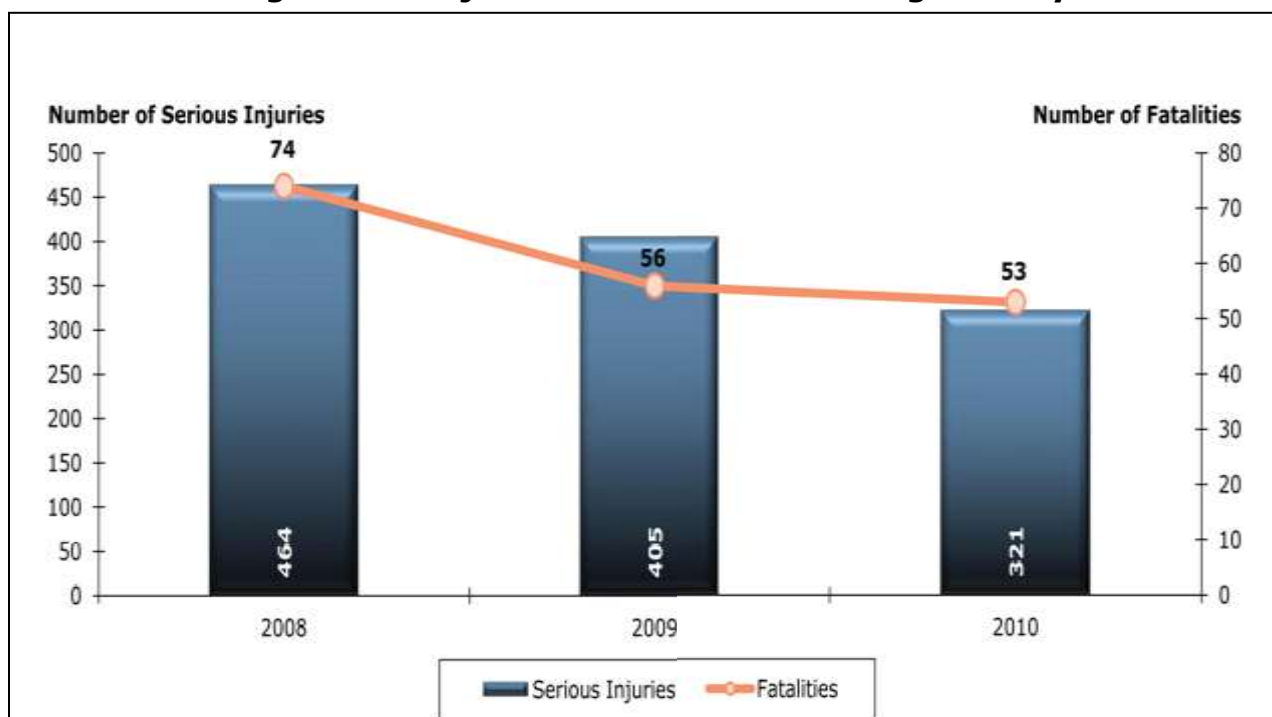
Source: Florida Department of Transportation (FDOT)

a) Orlando International Airport (OIA)

OIA has four parallel runways, two which are 12,000 feet long, one that is 10,000 feet and the other is 9,000 feet, allowing simultaneous operation.

In 2011 Orlando International Airport handled 35,426,006 passengers, making it the 13th busiest airport in the U.S. and the 30th busiest in the world. On average Orlando International Airport departs 361 flights daily serving the Continental United States, Mexico, Europe and Canada.

Orlando International Airport
Source: Orlando Sentinel

b) Orlando Executive Airport (OEA)

OEA is situated on 1,056 acres owned by the City of Orlando. The airport has two parallel runways, one is 6,004 feet long and the other is 4,625 feet long. In 2009 Orlando Executive's aircraft operations totaled more than 108,000.

Orlando Executive Airport
Source: Orlando Sentinel

c) Railroads

Orange County railroads carry freight, hazardous materials as well as passengers on its main rail line, along with several spurs, historically owned and operated by CSX Transportation, Inc. There are two main Amtrak stations located within the County. These are located in the City of Orlando and the City of Winter Park. These rail lines will also share the new SunRail Commuter trains starting in 2013.

Amtrak Station Orlando, FL
Source: Orlando Sentinel

The probability of a major transportation incident is medium to high based on these factors listed above. The bulk of these incidents involve motor vehicles and tractor trailers. However, from time to time Orange County suffers a train derailment, plane crash, toll road closure or an interstate closure.   Orange County is also vulnerable to plane crashes; however most are isolated incidents, where the plane is privately owned and is not a commercial aircraft. However the threat is still there based on the daily flight count at Orlando International Airport.

Geographic Info

1. **Geographic Location and Topography**

   Orange County is located in the East Central region of Florida, located approximately 15 miles from the Atlantic Ocean and about sixty-three (63) miles from the Gulf of Mexico at their closest points. Orange County covers an area of approximately 1,003 square miles. The topography of the county is relatively flat with some gently rolling hills and encompasses the following municipalities:

   - City of Apopka
   - Town of Eatonville
   - City of Maitland
   - City of Ocoee
   - City of Winter Park
   - Town of Windermere
   - Reedy Creek Improvement District (Cities of Bay Lake and Lake Buena Vista)

   - City of Belle Isle
   - City of Edgewood
   - City of Orlando
   - Town of Oakland
   - City of Winter Garden

   Orange County unincorporated land area totals 14,793,711 acres.

2. **Land Use Patterns**

   The one third of land in Orange County is an undeveloped mix of agriculture, forest, and conservation lands. The residential, commercial, and industrial development has occurred mostly in the central and western portions of the County. Figure B-5 is the Future Land Use Map for Orange County located on the next page.

Figure B-5: Future Land Use Map
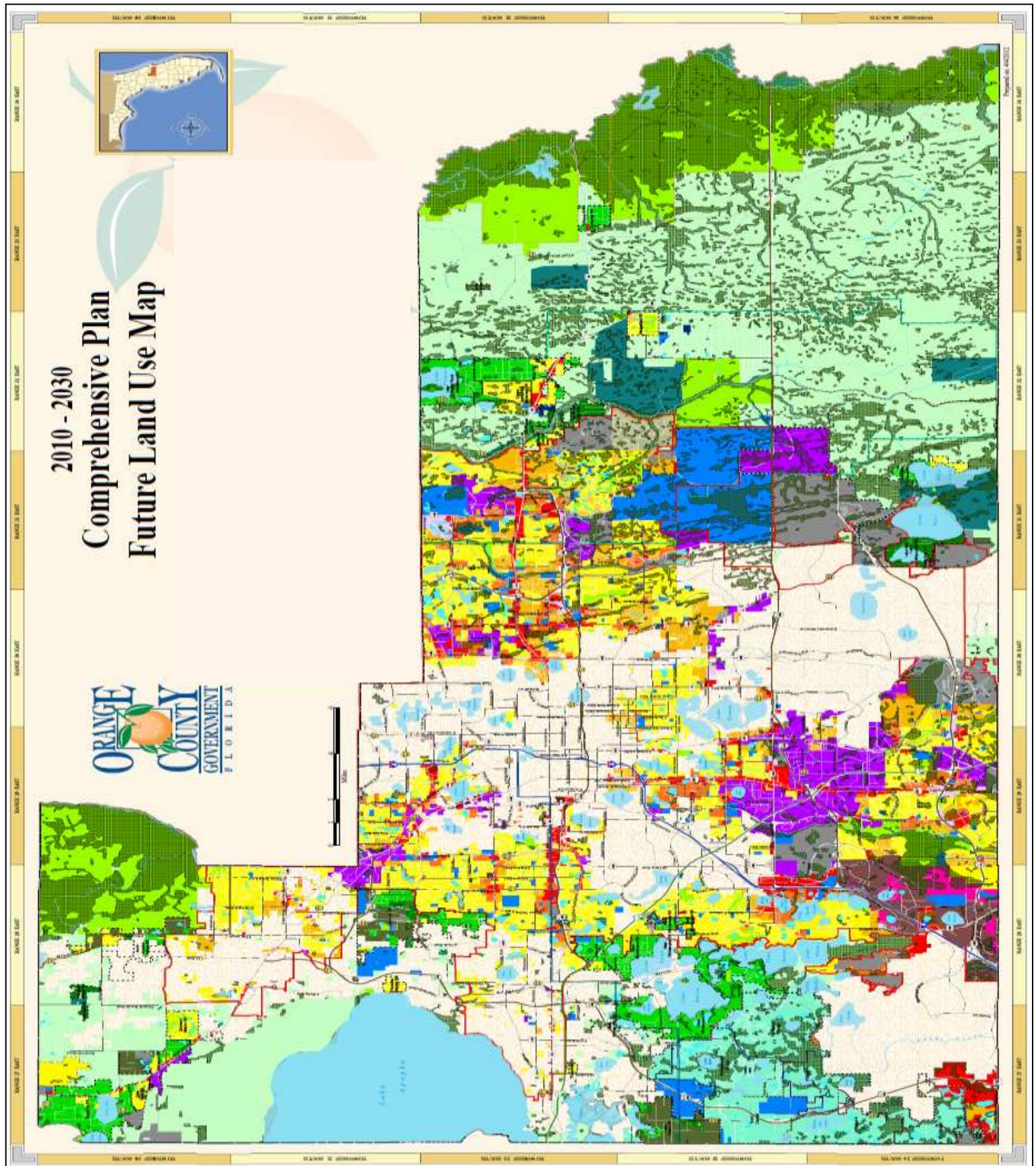
3. **Water Area and Drainage Patterns**

   Orange County's lakes total 97.2 Square Miles of water and lies within two major riverine systems: The northward flowing St. Johns River and the southward flowing Kissimmee River. The St. Johns River and the Kissimmee River systems drain extensive portions of Orange County, in addition to being significant statewide watersheds.

   Within Orange County, these two major watersheds comprise twelve smaller drainage basins. There are seven drainage basins within the St. Johns system and five drainage basins within the Kissimmee River system.

4. **Environmentally Sensitive Areas**

   Orange County has 14,689 acres of environmentally sensitive areas. These sensitive areas are instrumental in providing fish and wildlife habitats, protecting water quality, preventing erosion, storing water, and providing flood control. Over the years as development has spread, a natural division and designation of urban and rural wetlands has occurred.

   Rural wetlands reside in the agricultural and undeveloped sections of the County, some of which experience damage from continued agricultural runoff. Urban wetlands reside in metropolitan areas as preserves or parks in the County.

5. **Flood Prone Areas**

   Orange County currently has 12 water basins that include various lakes and rivers. These basins are:

   - Apopka Basin
   - Little Econlockhatchee Basin
   - Hart Basin
   - Little Wekiva Basin
   - Boggy Creek Basin
   - Cypress Creek Basin
   - Bay Lake
   - Big Econlockhatchee Basin
   - Howell Branch Basin
   - Big Wekiva Basin
   - Reedy Creek Basin
   - Shingle Creek Basin
   - St. John's Basin

   The floodplains of Orange County consist of lowlands adjacent to the streams and lakes.

   Orange County currently uses Federal Emergency Management Agency's Flood Insurance Rate Maps (FIRM) to determine flooding hazards and impacts.

In 2013, the Digital Flood Insurance Rate Maps (DFIRM) will be completed and will replace the FIRMs. The FIRMs and D-FIRM maps use historic, meteorological, and hydraulic data as well as open-space conditions, flood-control works, and development to show areas that are prone to flooding. Figure B-6 shows a map of the major basins in Orange County.

Figure B-6: Major Drainage Basins
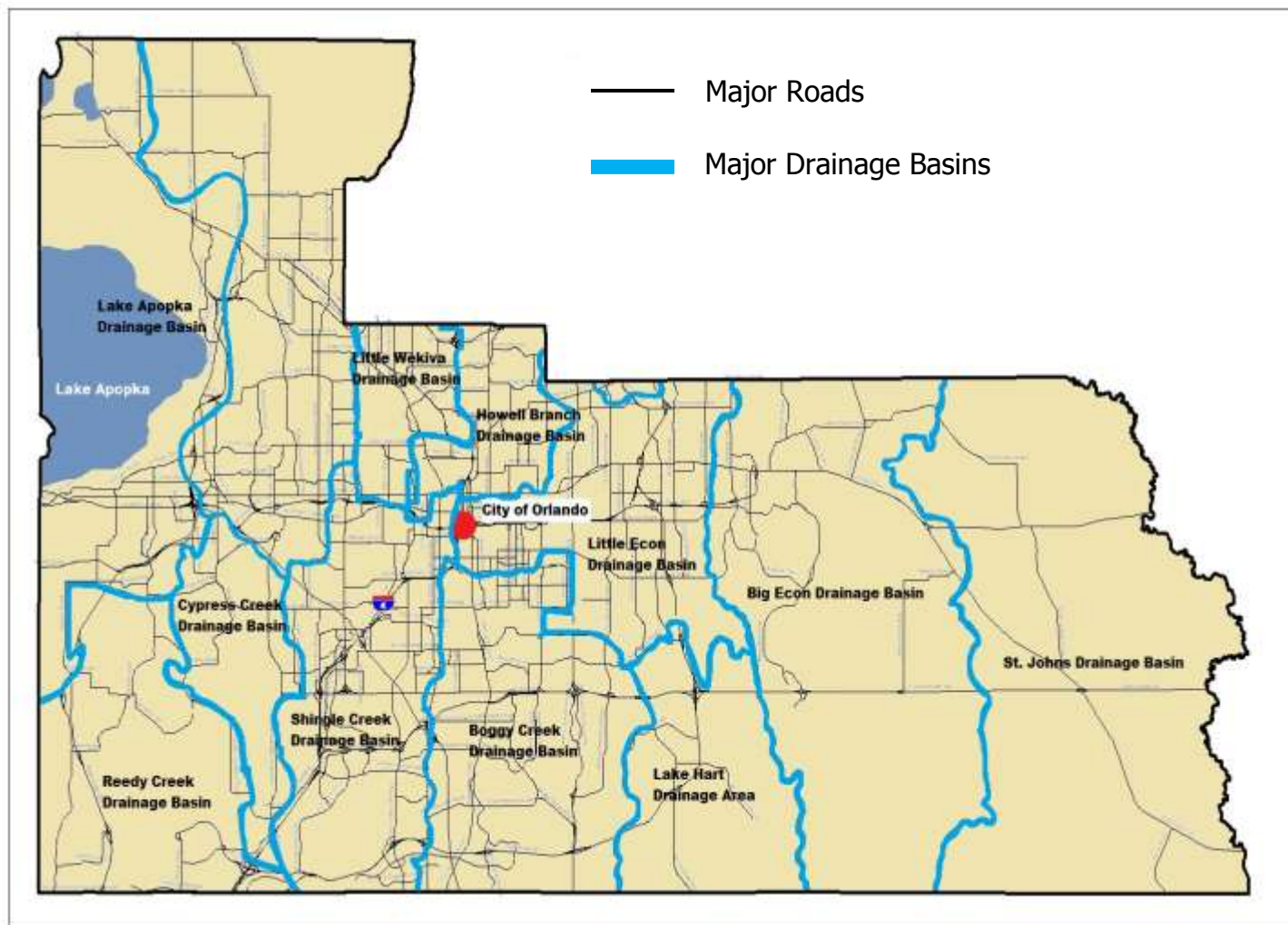
Table B-8 outlines the geographic areas of Orange County expected to suffer the impacts of the hazards identified in the hazard analysis.

Table B-8: Geographical areas in Orange County expected to suffer impacts

City	Apopka	Bay Lake	Belle Isle	Eaton ville	Edge wood	Lake Buena Vista	Maitland	Oakland	Ocoee	Orlando	Winder mere	Winter Garden	Winter Park
Population	41,542	47	5,988	2,159	2,503	10	15,751	2,538	35,579	238,000	2,462	34,568	27,852
Hazards													
Hurricanes	X	X	X	X	X	X	X	X	X	X	X	X	X
Flooding	X	X				X	X		X	X		X	X
Hazardous Materials	X		X	X	X	X	X	X	X	X	X	X	X
Radiological										X			
Civil Disturbances	X								X	X		X	
Mass Immigration										X			
Extreme Temperatures	X	X	X	X	X	X	X	X	X	X	X	X	X
Wildfires	X								X	X	X	X	
Thunderstorms /Tornadoes	X	X	X	X	X	X	X	X	X	X	X	X	X
Drought	X						X			X		X	X
Sinkholes	X					X	X		X	X		X	X
Terrorism	X		X			X	X		X	X		X	X
Exotic Pests Diseases	X								X	X		X	
Pandemic Outbreaks	X	X	X	X	X	X	X	X	X	X	X	X	X
Critical Infrastructure	X						X		X	X	X	X	X
Special Events						X				X			
Major Transportation Incidents	X					X				X		X	X

Demographics

According to the 2010 U.S. Census, Orange County's population was 1,145,956, up nearly 80,000 from the 2007 population of 1,066,113. Population totals are broken down by municipality in Table B-9 below.

Table B-9: Population Totals by Municipality

Municipalities	Population Totals
Apopka	41,542
Bay Lake	47
Belle Isle	5,988
Eatonville	2,159
Edgewood	2,503
Lake Buena Vista	10
Maitland	15,751
Oakland	2,538
Ocoee	35,579
Orlando	238,300
Windermere	2,462
Winter Garden	34,568
Winter Park	27,852
Unincorporated Orange County	735,877

Source: Orange County Post Disaster Redevelopment Plan

According to the 2010 US Census, approximately 26% of Orange County's population is under the age of 18, 65% is between the ages of 18 and 64, and 9% is 65 years and over. The median age of Orange County residents is 34.3 years.

Table B-10 provides a breakdown of the percentages of the different age groups within the County.

Table B-10: Population by Age

Age Group	Number	Percentage
Total Population	1,145,956	100.0
Persons under 5 years	74,185	6.5
Persons 5-9 years	73,754	6.4
Persons 10-14 years	74,975	6.5
Persons 15-19 years	88,367	7.7
Persons 20-24 years	105,821	9.2
Persons 25-29 years	93,559	8.2
Persons 30-34 years	83,558	7.3
Persons 35-39 years	82,569	7.2
Persons 40-44 years	81,899	7.1
Persons 45-49 years	85,292	7.4
Persons 50-54 years	76,767	6.7
Persons 55-59 years	63,029	5.5
Persons 60-64 years	51,262	4.5
Persons 65-69 years	35,805	3.1
Persons 70-74 years	26,206	2.3
Persons 75-79 years	20,415	1.8
Persons 80-84 years	14,997	1.3
Persons 85 and older	13,516	1.2

Source: Orange County Post Disaster Redevelopment Plan

1. **Special Medical Needs Populations**

   In emergency situations the County considers the needs of persons requiring special medical attention and/or those having no personal transportation through the People with Special Needs Program. As of 2012, there were over 3,800 people on the special needs registry. According to the 2010 U.S. Census Bureau American Community Survey (ACS), Orange County had nearly 106,000 individuals with a disability, including: hearing difficulty, physical disabilities, mental disabilities, and/or medical disabilities. Figure B-7 shows the age groups of persons with special medical needs in Orange County.

   Figure B-7: Population by Age of Persons with Special Needs
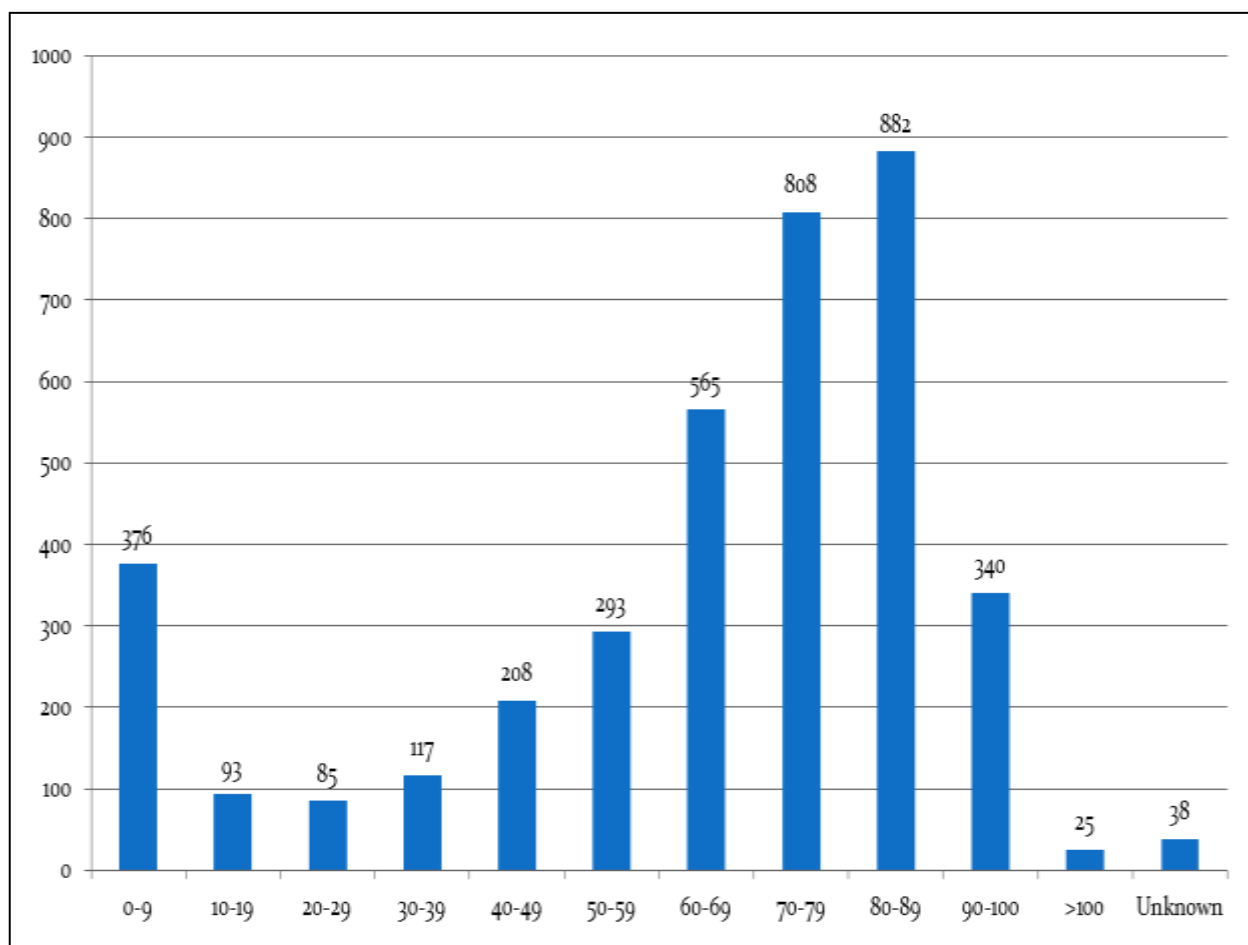
   Source: 2010 US Census Bureau American Community Survey

2. **Disabled Population**

   According to the 2010 US Census Bureau American Community Survey (ACS), Orange County has an estimated 106,000 individuals with a disability. These individuals have various forms of disabilities including:

   - Deaf and/or Hard of Hearing
   - Blind and/or Visually Impaired
   - Physical Disabilities
   - Mental Disabilities
   - Medical Disabilities

3. **Farm Worker Populations**

The Orange County Health Department licenses two permitted labor camps in Orange County. However, in recent years, this has been a declining program in Orange County primarily due to weather freezes and the decline of farming.

4. **Tourism and Seasonal Populations**

In 2010, Orange County hosted 50 million domestic visitors and 3.8 million international visitors. Approximately, 80% of the domestic visitors were here for recreational purposes. To accommodate these visitors Orange County has over 115,000 hotel rooms.

5. **Non-English Speaking**

Orange County is made up of a diverse population that speaks languages other than English. According to the U.S. Census in 2010, 756,330 spoke English as their first language and 382,749 persons spoke a language other than English.

6. **Transient Population**

Orange County's current transient population is estimated at 6,500 individuals. A homeless person is defined by the State as an individual:

- Sleeping in a place not meant for human habitation

- Sleeping in an homeless emergency shelter

- Living in transitional housing having come into that housing from the street or from a homeless emergency shelter

According to the Health Care Center for the Homeless there are 150 transient camps within the county. These are located mainly on the east side of the county (U.S Census 2010).

7. **Housing**

According to the U.S. Census Bureau in 2010 there were a total of 487,839 housing units in Orange County. This includes apartments, houses, mobile homes, boats, recreational vehicles and vans. A breakdown of these figures is shown in Table B-11.

Table B-11: Housing Units in Orange County

Types of Housing	Number	Percentage
Occupied housing units	421,847	86%
Owner - occupied housing units	243,950	50%
Renter - occupied housing units	177,897	36%
Vacant housing units	65,992	14%

Source: 2010 U.S. Census Bureau

8. **Manufactured Home Parks**

According to the U.S. Census Bureau ACS estimates, in 2010, approximately 4% of all occupied housing was mobile homes within Orange County. There are over 100 manufactured home parks within Orange County.

9. **Inmate Population**

The Orange County Jail serves as the County's central correctional facility. This facility is the 3rd largest jail system in the State of Florida with more than 1,700 employees including over 1,000 certified correctional employees. The jail's population stands at over 3,600 inmates.

Economic Profile

Industry employment affects the industries that provide goods or service demands. When considering the potential impact of being "shut down," for two weeks or more, it is important to note the change in employment, population, personal income, and gross domestic product (GDP).

Any emergency and/or disaster can have an impact on the county's economics. Any major or catastrophic disaster could have an initial major disruption on the following sectors:

- Service occupations
- Farming, fishing, and forestry occupations
- Production, transportation, and material moving occupations

A massive hurricane could leave Orange County in distress for more than one month, creating even more devastating impacts. Therefore, Orange County created a strategy for post-disaster redevelopment that begins with implementation pre-disaster.

There are many hazards that pose a potential impact to the citizens and visitors to Orange County. Table B-12 provides the following overview of each hazard based on a rating scale of High, Medium and Low. These scores are determined by the following:

- High:
  This score is assigned when there is a potential for the following: high number of injuries/deaths, significant interruption to the economy of the County and the jurisdiction and/or the hazard can significantly damage the County and/or jurisdictions' environment and/or the hazard can cause damages or losses in the amount of $5 million or more.

- Medium:
This score is assigned when there is a potential for the following: a low number of injuries/deaths, a temporary interruption to the economy, a temporary impact to the environment, and/or the hazard can cause damages or losses in the amount of $100,000 or more.

- Low:
This score is assigned when there is a potential for the following: little or no number of injuries/deaths, there is no interruption to the economy, the hazard does not affect the environment, and/or the hazard can cause damages or losses in the amount of $10,000 or more.

Table B-12: Economic Impacts of Hazards in Orange County

Hazards	Impact Severity	Population at Risk
Hurricanes	High	100%
Flooding	Med	60%
Hazardous Materials	Med	55%
Radiological	Low	< 2%
Civil Disturbances	Low	10%
Mass Immigration	Low	< 2%
Extreme Temperatures	Med	100%
Wildfires	High	75%
Thunderstorms /Tornadoes	High	100%
Drought	Low	25%
Sinkholes	Low	5%
Terrorism	Med	60%
Exotic Pests Diseases	Low	< 2%
Pandemic Outbreaks	High	75%
Critical Infrastructure	Low	25%
Special Events	Med	10%
Major Transportation Incidents	Med	65%

In 2010, 627,702 individuals were in the labor force who were 16 years and over. Of that, 64,213 individuals were unemployed within Orange County. However, the above figures do not account for the 623 persons who were in the Armed Forces as counted during the 2010 Census.

Table B-13 shows Orange County's employment by occupation.

Table B-13: Employment by Occupations

Occupation	Average Employment
Management, business, science, and arts occupations	190,832
Service occupations	116,135
Sales and office occupations	157,780
Natural resources, construction, and maintenance occupations	49,085
Production, transportation, and material moving occupations	49,034
County Total	562,866

Source: 2010 US Census Bureau

The U.S. Census Bureau reports the average property value in 2010 was $211,100 with the average per-capita income $46,897. Table B-14 shows the 2010 owner occupied units in Orange County based on property value.

Table B-14: Owner Occupied Units

Property Value	Estimate	Percent
Less than $50,000	12,620	5.2%
$50,000 to $99,999	26,250	10.8%
$100,000 to $149,999	31,252	12.8%
$150,000 to $199,999	42,942	17.6%
$200,000 to $299,999	66,523	27.3%
$300,000 to $499,999	43,143	17.7%
$500,000 to $999,999	15,567	6.4%
$1,000,000 or more	5,070	2.1%

Source: 2010 US Census Bureau

Table B-15 shows the average income per household in Orange County based on 408,605 households.

Table B-15: Average Income per Household

Total Household	Estimate	Margin of Error
Less than $10,000	27,011	+/- 1,153
$10,000 to $14,999	21,542	+/- 1,110
$15,000 to $24,999	45,078	+/- 1,548
$25,000 to $34,999	48,594	+/- 1,357
$35,000 to $49,999	62,995	+/- 1,640
$50,000 to $74,999	79,751	+/- 1,863
$75,000 to $99,999	46,588	+/- 1,378
$100,000 to $149,999	45,646	+/- 1,532
$150,000 to $199,999	16,049	+/- 767
$200,000 or more	15,351	+/- 815
Median household income (dollars)	49,731	+/- 599
Mean household income (dollars)	68,054	+/- 767

Source: 2010 US Census Bureau

Critical Infrastructure and Emergency Management Support Facilities

These facilities are critical prior to and following an incident to aid in the initial response and recovery of the County. Several categories have been identified in Orange County to include:

- Electric distribution system components
- Communications network components
- Public buildings
- Water distribution/drainage facilities
- Landfill and debris sites
- Hazardous materials storage facilities
- Donations Warehouse
- Pharmaceutical Points of Dispensing
- Disaster Consumables Points of Distributions

- Health/medical facilities
- Transportation networks
- Emergency services facilities
- Historic structures
- Public/private supply centers
- Volunteer Reception Center
- County Staging Area(s)
- Incident Command Posts

This information is often maintained and can be displayed through the County's GIS System. The Orange County Office of Emergency Management coordinates the identification and support to these facilities prior to and following an emergency and/or disaster. Figure B-8: shows critical facilities in Orange County.

Figure B-8: Critical Facilities in Orange County
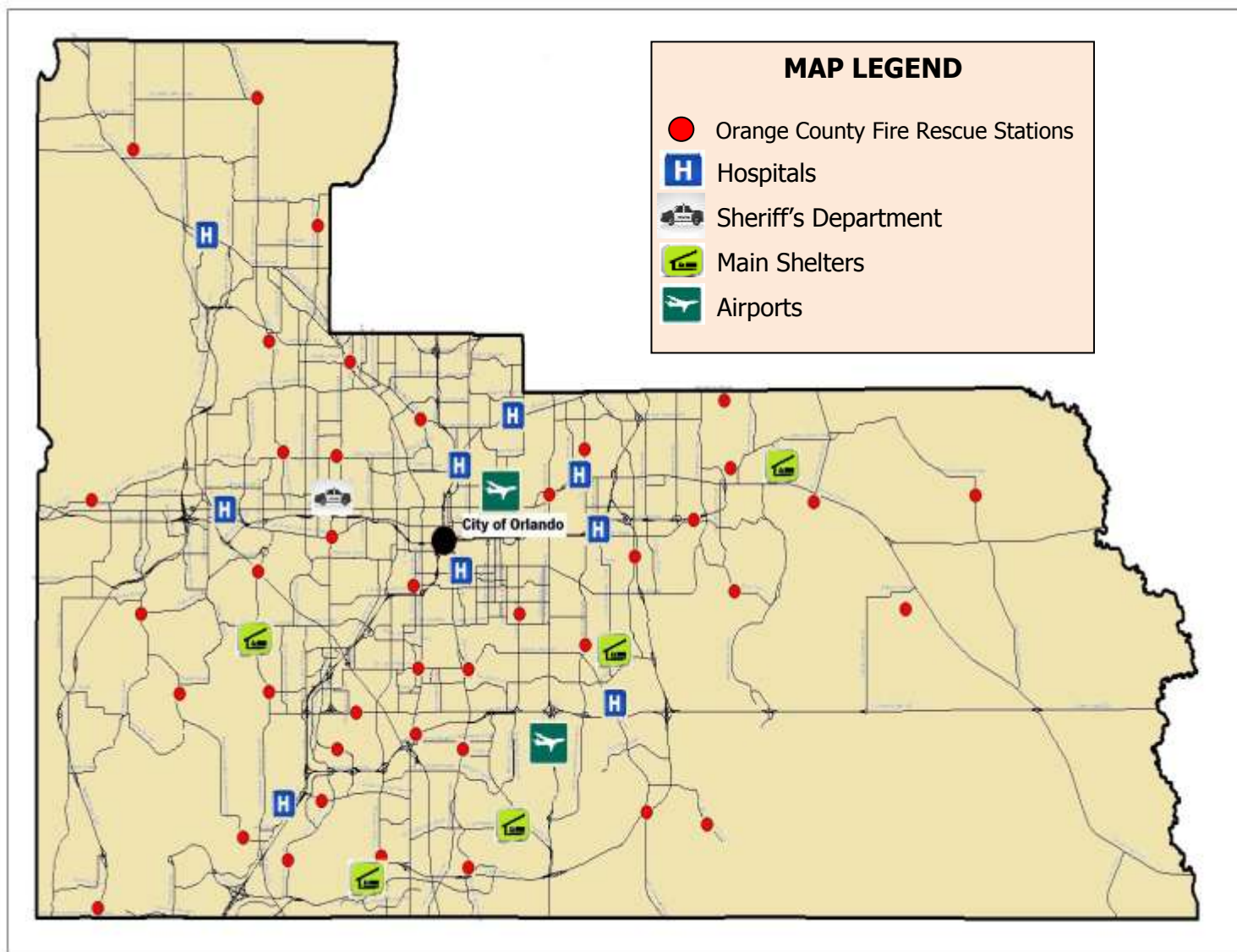
Table B-16 located on page 60 lists the Points of Distribution (POD) sites for Disaster Consumables that have helicopter landing areas. These sites have many roles in the logistical process of delivering consumables. The POD sites serve as a mechanism for distributing consumables to the citizens of Orange County. The landing area serves as a delivery point to get supplies to the POD sites. It also serves as a landing zone for the Rapid Impact Assessment Teams when initiated.

Table B-16: POD Sites with Helicopter Landing Zones

Site Name	Address	Zip Code	GPS Coordinates	GPS Coordinates
3-Points Elementary Schools	4001 S. Goldenrod Rd	32822		
Andover Elementary School	3100 Sanctuary Point Blvd Orlando,	32825	N 28.50900°	W 81.22052 °
Barnett Park	4801 W Colonial Dr. Orlando	32808	N 28.56214°	W 81.44313 °
Bithlo Community Center	18501 Washington Ave Bithlo	32820	N 28.55868°	W 81.10436 °
Discovery Middle School	601 Woodbury Rd Orlando	32828	N 28.54145°	W 81.19373 °
Downey Park	10107 Flowers Avenue Orlando	32825	N 28.56496°	W 81.24224°
East Orange Community Center	12050 E. Colonial Dr. Orlando	32826	N 28.56664°	W 81.20261°
Fort Christmas Park	1300 N. Fort Christmas Rd Christmas	32709	N 28.56102°	W 81.02161°
Garden Ridge	11100 E. Colonial Drive Orlando	32817	N 28.56758°	W 81.22151 °
Lake George Elementary School	4101 Gatlin Ave Orlando	32812	N 28.49615°	W 81.31589°
Mid Florida Tech -built	2900 W. Oakridge Rd	32809		
Orange County Corrections Department	2400 33rd St Orlando	32839		
Orlo Vista Park	1 N. Powers Dr.	32835		
Rose Place Park	8200 Old Winter Garden Rd	32835		
Taft Community Center	9450 S Orange Ave Orlando	32824		
Waterford Town Center	331 N. Alafaya Trail	32828		
West Oaks Mall	9401 W Colonial Dr., Ocoee	34761		
Willow Street Community Center	6565 Willow St, Zellwood	32798		

Concept of Operations

Florida Statute 252.38 requires County government to organize and plan for the protection of life and property from the effects of an emergency or disaster. The organization and operations required by this plan follows the tenants of the National Incident Management System (NIMS) and uses the Incident Command System for operational, resource and support management in the various phases of emergency management.

Orange County provides many emergency services to the citizens on a daily basis. Some of the services overlap into city government jurisdictions. While the cities within the County provide many services to their citizens, they also depend on Orange County for services such as social services, health, sheltering of evacuees, and Emergency Management. The Office of Emergency Management provides normal day to day coordination, direction and control of all phases of emergency management.

County Administration Organization

The County administration is the day to day operations of Orange County. The organization is described and defined as noted in the County Municipal Code.

1. **County Mayor**

   The County Mayor serves as chair of the Board of County Commissioners and manages the operation of all elements of county government under the jurisdiction of the Board.

2. **Board of County Commissioners**

   This is the legislative branch of Orange County and is composed of the County Mayor and the six County Commissioners. The Board is responsible for adopting or enacting, in accordance with the procedures provided by general law, ordinances and resolutions it deems necessary and proper for the good governance of the county.

3. **County Administrator**

   The County Administrator's office provides management support to the Mayor, Board of County Commissioners and other agencies of Orange County Government. The management support function includes: direction and coordination of the nine functional departments of Orange County; implementation of the policies of the Mayor and Board of County Commissioners; and exercising leadership to encourage the employees of Orange County to achieve the highest standards of efficiency, effectiveness, ethics and community involvement.

4. **Order of Succession**

If the Director of Emergency Management (County Mayor) is unavailable to serve, pursuant to Article IX, Section 2-307 of the Orange County Code Ordinance No. 2012-12 enacted June 5, 2012, the county officials in the following order of succession would serve as the Acting Director of Emergency Management:

- County Administrator

- Director of Public Safety

- Deputy County Administrator (in order of date of appointment)

- Director, County Fire Rescue Department

- Director, Public Works Department

- Director, Utilities Department

Any person serving as director of emergency management may designate, by names and in writing, a county officer or employee to act as temporary acting director of emergency management in lieu of the designating authority. Such designation shall be valid for a period of not more than eight (8) hours from the time of such written designation.

The Acting Director of Emergency Management would be able to execute all of the powers reserved for the Director of Emergency Management.

Figure B-9 shows the official organizational structure of Orange County government.

Figure B-9: Organizational Structure of Orange County Government
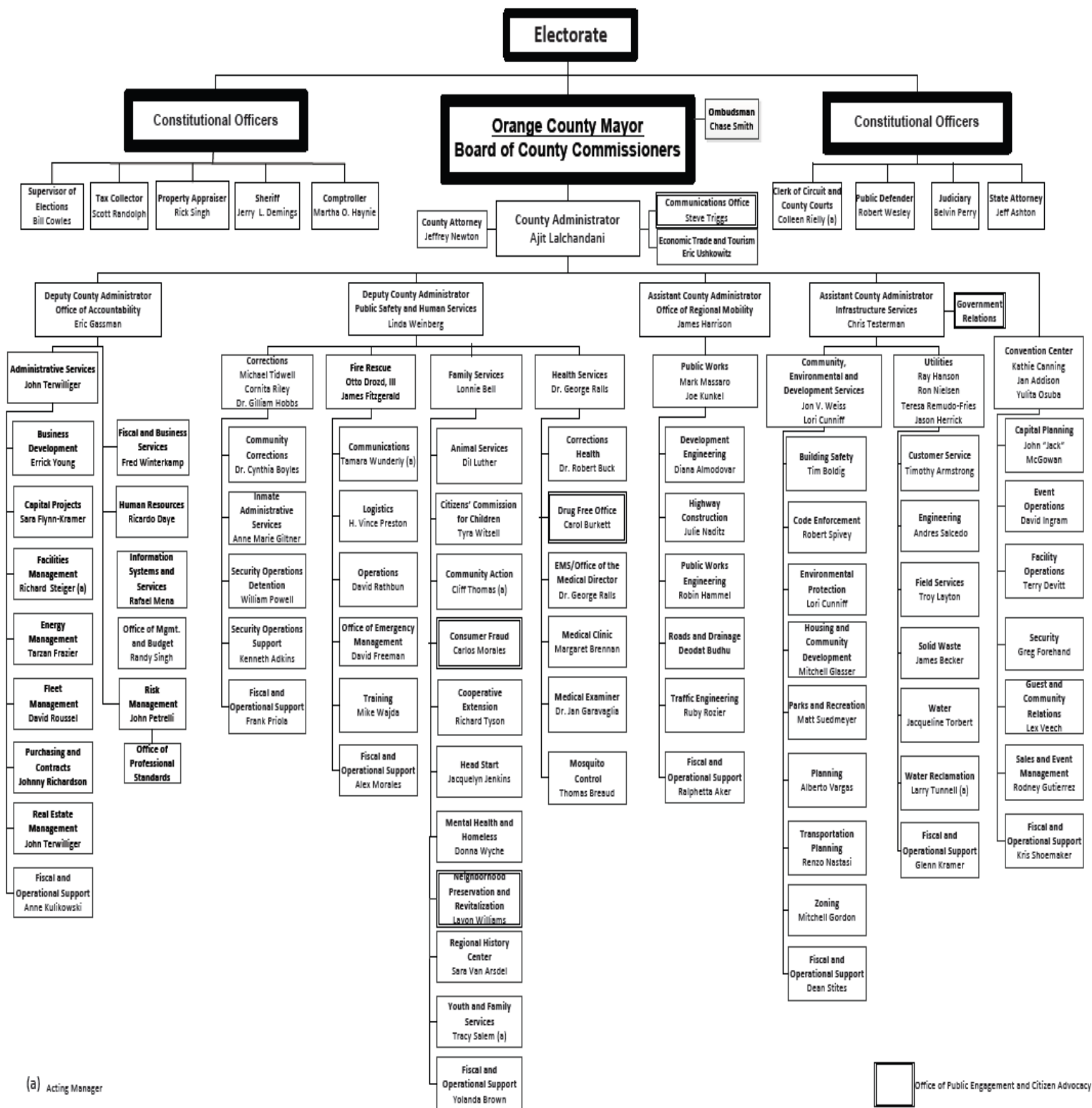
Emergency Management Organization

1. **Response**

   When disaster occurs, Orange County, its partners and municipal agencies respond either as direct assistance to the disaster area or as support agencies to on-scene responders. The response agencies act within their scope of training and call upon outside resources as needed to mitigate further impact and damages. The Orange County Emergency Operations Center coordinates additional resources when called upon to do so.

2. **Recovery**

   After the immediate short-term emergency needs of an area are controlled, the community partners begin a recovery process that may take several days to many months or years. Emergency Management and response agencies determine the community impacts as well as the needs to return the community to pre-disaster conditions. Many times this effort overwhelms the jurisdiction and assistance is required from state and federal government.

3. **Mitigation**

   Through planning, floodplain management and building inspection programs, Orange County uses codes, ordinances and standards to minimize impact on residential and commercial areas. This effort helps prevent sub-standard building construction and other nuisance processes, which can exacerbate disaster impact. Public education about potential disaster effects also prevents injury and death from disasters. Public participation in preparedness exercises also prevents injury and death from disasters. For more information about our mitigation programs, please refer to the Orange County 2009 Local Mitigation Strategy Plan.

   a) Director of Emergency Management

   During a disaster and/or emergency the County Mayor serves as the Director of Emergency Management. The Director of Emergency Management is vested with certain authority with regard to emergency management pursuant to Florida Statute, Chapter 252. His/her powers and responsibilities apply to all of the hazards that may impact Orange County.

   The Director of Emergency Management has the following authorities, pursuant to Florida Statute, Chapter 252 and further expanded in County Ordinances 94-11 and 2000-17 prior to and following an incident:

   - Declare a Local State of Emergency
   - Ordering mandatory and voluntary evacuations
   - Ordering the establishment of curfews
   - Entering into contracts and incurring obligations
   - Employment of permanent and temporary workers

- Overseeing the utilization of volunteer workers

- Authorizing the renting of equipment

- Acquisition and distribution of resources, with or without compensation of supplies, materials and facilities

b) Executive Policy Group

This group acts primarily as an advisory group to the Director of Emergency Management in carrying out his/her powers and authority. This group is composed of the following individuals:

- County Administrator

- Deputy County Administrators

- Assistant County Administrators

- County Department Directors

- Manager of Emergency Management

- County Attorney

- Communications Division Director

- Comptroller

- Orange County Sheriff

- Orange County Public Schools Superintendent

- Orange County Health Department Director (Representation from this individual is dependent on the declaration of a Public Health Advisory, Emergency or a Quarantine Order being imposed in Orange County by the State Health Officer)

- Other individuals as deemed necessary.

c) Office of Emergency Management (OEM)

Emergency management is the managerial function charged with creating the framework within which communities reduce vulnerability to hazards and cope with disasters. OEM also manages the day to day operations of the emergency operations center.

d) Orange County Emergency Operations Center

The EOC serves as the central coordination point and information clearinghouse for the County's response to and recovery from an emergency and/or disaster.

1. **Notification**

   The Office of Emergency Management is responsible for making the initial notification to the OCERT members prior to or following an emergency and/or disaster.

2. **Activation**

   Once notified, the OCERT members should begin making efforts to activate their personnel and/or equipment to respond to and recover from an emergency and/or disaster.

3. **Deactivation**

   Following an emergency and/or disaster the Director of Emergency Management may begin demobilizing resources and personnel.

4. **EOC Activation Levels**

   - Level 3-Monitoring:

     This involves OEM monitoring daily events and notifying members of the OCERT if an emergency and/or disaster require their support or resources.

   - Level 2- Partial Activation:

     This is a partial activation where only the incident-specific members of the OCERT will staff the EOC. The Manager of Emergency Management can activate the EOC to Level 2 in consultation with the Executive Policy Group.

   - Level 1-Full Activation:

     This is full-scale activation. The EOC is fully staffed by the OCERT members. The Director of Emergency Management is responsible for activating the EOC to Level 1.
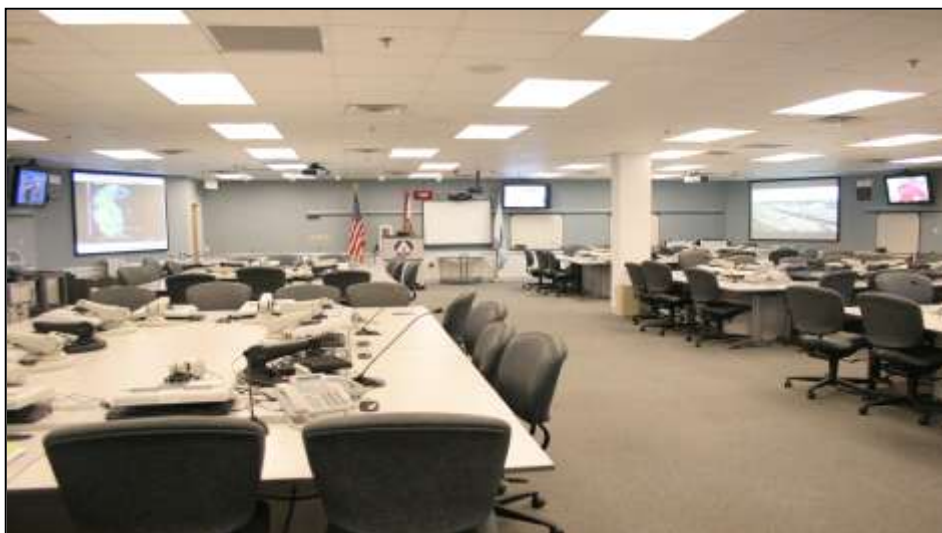
Orange County EOC

e) Orange County Emergency Response Team (OCERT)

This team is composed of County departments, divisions, municipalities, profit and non-profit organizations. Their mission is to safeguard the citizens and visitors by ensuring the rapid response and recovery of the County to a variety of hazards. This team is organized according to the National Incident Management System and serves as the Preparedness Organization for Orange County.

OEM is responsible for coordinating the activities of the OCERT prior to and following an emergency and/or disaster. OCERT is composed of the following groups shown in Figure B-10. These also include the following sections.

Figure B-10: OCERT Organizational Structure
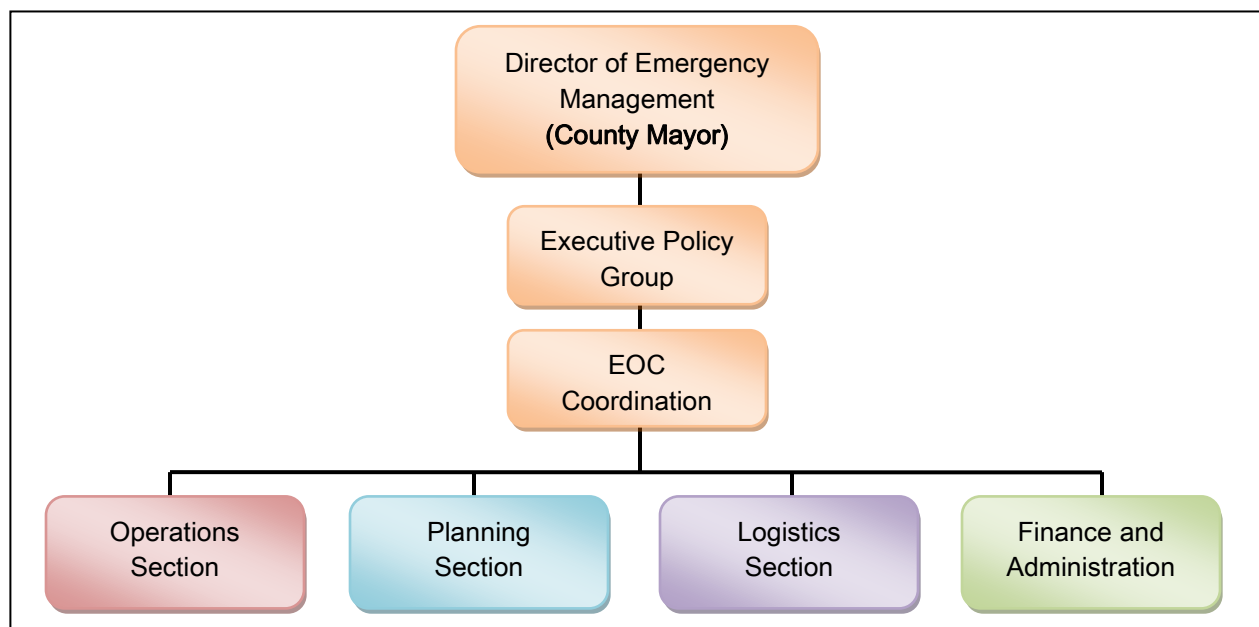
- Operations Section

  This section is responsible for performing emergency response, law enforcement and health/medical operations during an emergency and/or disaster.

- Planning Section

  This section is responsible for gathering, processing and publishing of information that flows into and outside of the EOC.

- Logistics Section

  This section is responsible for the logistical resources needed to support the management of an emergency and/or disaster.

- Finance and Administration Section

  This section is responsible for the financial record keeping that is essential prior to and following an emergency and/or disaster.

f) EOC Coordination

This element is responsible for coordinating the actions of the EOC Sections as directed by the Manager of Emergency Management. The element is composed of:

1. **EOC Supervisor**

    Under the direction of the Manager of Emergency Management this individual is the designated coordinator of the EOC.

2. **EOC Operations Desk**

    The EOC Operations Desk serves as OEMs representative in the EOC. Its primary responsibility is to oversee EOC operations and acts as liaison with the State EOC and Federal Officials.

3. **Call Center**

    Orange County operates one call center prior to and immediately following an emergency and/or disaster. Their responsibility is to receive, route and if possible resolve non-emergency calls from citizens and visitors.

    - Orange County Government Services Center (311 Center)

        The 311 Call Center provides a telephone and web-based service which provides timely information, referrals for Orange County citizens and visitors. During EOC activations, the 311 center functions as Orange County's government's Citizens Information Line**.**

4. **EOC Message Center**

    During EOC activations the mission of this Message Center is to operate as the EOCs 24-Hour Answering Point. Their responsibilities include processing calls and forwarding them to the appropriate OCERT members.

5. **EOC Support Team**

    This team is responsible for the technical needs and maintenance of the EOC. This group operates under the direction of the OEM Communications/Warning Coordinator and consists of the following agencies and vendors:

    - Crisis Management Software Vendors

    - Audio-Visual Vendors

    - Telephone Service Companies

    - Satellite Phone Providers

    - Orange County Radio Services

    - Orange County Information Systems Services

    - ESF #14-Public Information (Social Media and Media Coordination)

6. **<u>Emergency Support Functions (ESFs)</u>**

Orange County has 20 Emergency Support Functions (ESFs). An ESF represents specific response activities that are common to all disasters. Each ESF has a primary agency or agencies and several support agencies, they roles and responsibilities include:

- The Primary agency or agencies responsible for coordinating the missions of the ESF and activities of the support agencies through all five phases of emergency management.

- The Support Agencies are responsible for supporting the activities and missions of the ESF with their own resources and maintaining regular communication with the primary agency.

7. **<u>Emergency Coordinating Officers (ECOs)</u>**

These are agencies; organizations and municipalities that are not part of an ESF and that require coordination prior to, during and following an emergency and/or disaster.

a) <u>Liaison Section</u>

In the Orange County EOC, the ECOs are organized as the Liaison Section. This section is composed of the following types of organizations and entities:

- Municipalities

- Federal, State Governmental Agencies

- Theme parks

- Non-Profit and For-Profit Organizations

- Military Support

- Universities and Colleges

- Orange TV

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Figure B-11 shows the whole organizational structure of the ESF's/ECO's within OCERT

Figure B-11: Organizational Structure of the ESF's
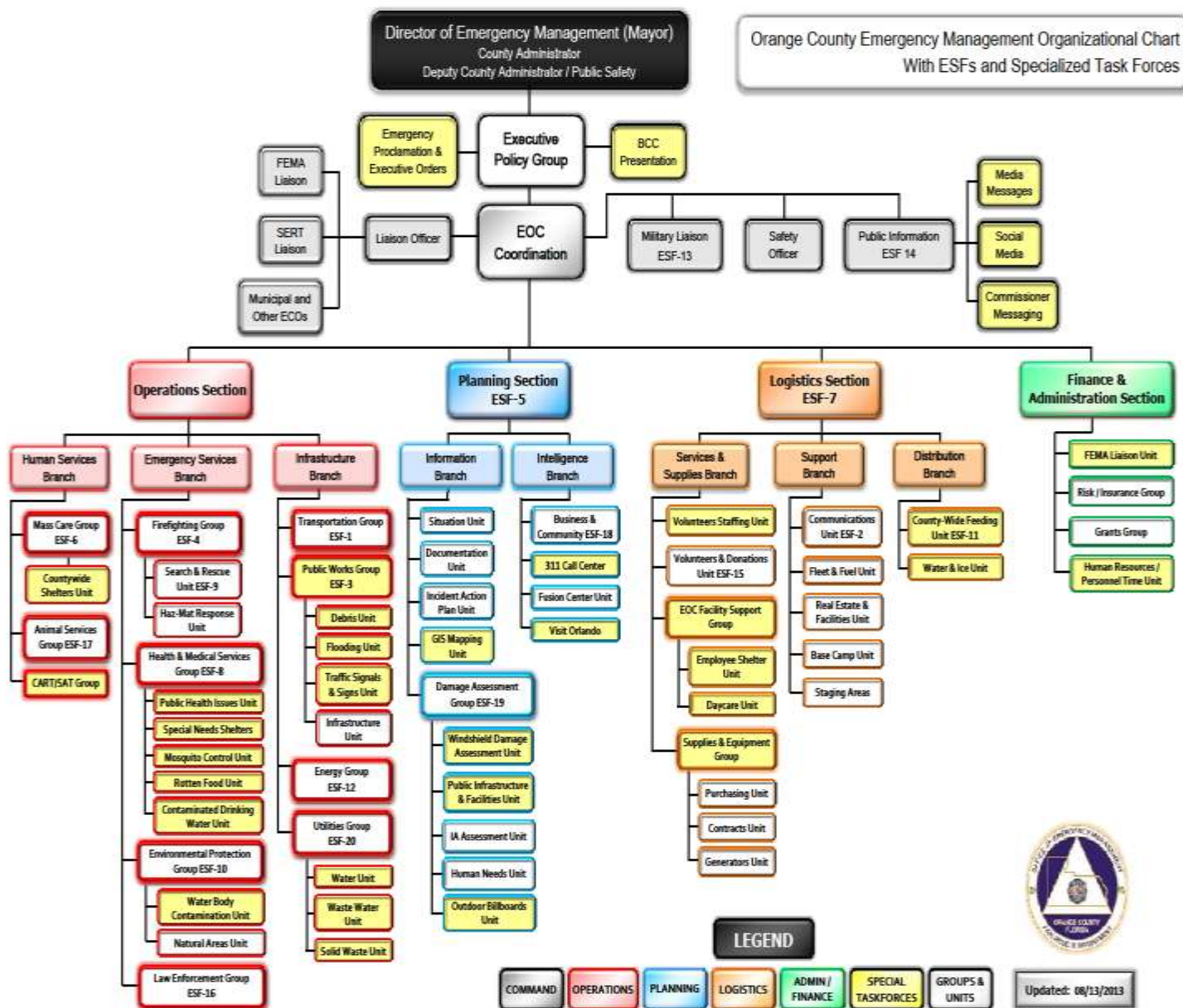
8. **Lead Agencies and Support Functions**

Table B-17 demonstrates the lead agencies in the Emergency Support Function (ESF) organization structure. These ESF's are also illustrated in Figure B-11.

Table B-17: Lead Agencies and Support Functions for ESF's

ICS POSITION / FUNCTION	ESF	FUNCTION	PRIMARY AGENCY
COMMAND			
Public Information Officer	14	Coordinates the collection, processing, display, and dissemination of public information	Orange County Communications
OPERATIONS			
Transportation	1	Mobilization and coordination of all transportation services.	Central Florida Regional Transportation Authority (LYNX)
Communications	2	Coordinates the provision of communication resources.	Information System and Services Division (ISS)
Public Works	3	Life-saving support or disaster relief through engineering services, technical evaluation, inspection, infrastructure evaluation, debris clearance and disposal.	Orange County Public Works
Firefighting	4	Provide resources needed for the detection and suppression of urban, rural, and wildland fires.	Orange County Fire and Rescue
Mass Care	6	Coordinates activities with the emergency provision of temporary shelters, emergency mass feeding, and bulk distribution of coordinated relief supplies.	American Red Cross
Health & Medical Services	8	Provide health, medical and behavioral support services to the community and responders during and after the disaster.	Orange County Health Services Department
Search and Rescue	9	Coordinates the responsibilities associated with locating, rescuing, extricating and treating victims.	Orange County Fire and Rescue
Hazardous Materials	10	Provides an overview of roles and responsibilities associated with hazardous materials events to include chemical, biological and radiological.	Orange County Fire and Rescue
Food and Water	11	Identifies food, water and ice needs in the aftermath of a disaster.	Salvation Army
Energy	12	Outlines the policies for transportation fuel shortages, and electrical power outages.	Progress Energy, OUC, TECO Gas
Military	13	Coordinates Military Support (State & Federal)	FL National Guard
Volunteer & Donation Management	15	Manages unsolicited, donated goods and recruits, train and manages unaffiliated volunteers.	Orange County Human Resources
Law Enforcement	16	Outlines the policies for the protection of life and property and maintenance of law and order.	Orange County Sheriff's Office
Animal Care	17	Identifies, manages, and organizes the response needed for the veterinary needs and protection of pets, farm and wild animals.	Orange County Animal Services
Public Utilities	20	Provides public utilities assistance with life-saving protection measures.	Orange County Utilities
PLANNING			
Information and Planning	5	Coordinates the collection, processing, display and dissemination of info.	Orange County Community, Environmental & Development
Community and Business	18	Develops operational concepts to maximize the utilization of locally owned and operating businesses.	Orange County Consumer Fraud
Damage Assessment	19	Responsible for the collection, analysis, and distribution of damage assessment information for public and private buildings, businesses, homes and municipal jurisdictions.	Orange County Property Appraisers Office
LOGISTICS			
Resource Support	7	Provides guidance for logistical support of all response and recovery organizations.	Orange County Purchasing/Contracts
FINANCE & ADMIN			
Office of Management & Budget	N/A	Reviews contracts for county business.	N/A
Orange County Comptroller Office	N/A	Track finances and maintain bills for the county.	N/A

Preparedness Activities

In accordance with the National Incident Management System, the Orange County Office of Emergency Management provides various preparedness activities for personnel expected to operate during a disaster or emergency.

1. **General Issues**

    The Office of Emergency Management is responsible for the development and maintenance of the Orange County Comprehensive Emergency Management Plan (CEMP). These responsibilities include preparation, coordination, publication and distribution.

    The CEMP will be updated and revised in cooperation with all county departments, organizations, corporate partners, and municipalities. The CEMP is a living document and is reviewed, updated and then recorded in the Record of Changes (located on page ii) to reflect the changing situation and hazards that exist within Orange County.

    a) Basic Plan Review

    The Basic Plan within the CEMP is reviewed annually and updated as needed by OEM. It is then submitted for review and for approval to the Florida Division of Emergency Management every four years. The procedures for the plan review process are described below.

    - Initial Planning Meeting

        This meeting is held internally with the Office of Emergency Management. At this meeting the OEM staff conducts a technical review of the plan, annex or appendices currently under review. Their comments are collected and included by the OEM Planner.

    - Consultation Meeting

        This meeting s held with the OCERT Advisory Committee. At this meeting OEM presents the changes of this plan to the OCERT members and asks for their feedback and comments on the plan. The comments received are then incorporated into the plan.

    - Final Approval Meeting

        This meeting is conducted either separately or together with the County Fire Chief and the Public Safety Director. The OEM manager provides these individuals with an overview of their plan and asks for their approval.

- Board of County Commissioners Approval
  Every four years once the State of Florida has approved the CEMP, Basic Plan OEM presents the revised plan to the Board of County Commissioners for their approval through the signing of a county resolution.

- Publication of the CEMP
  Following the approval of the County Fire Chief and Public Safety Director the OCERT Strategic Plan is made public by a number of methods to include:

  o Distributed via e-mail to all OCERT members
  o Forwarded via e-mail to the Florida Division of Emergency Management

b) **Emergency Support Function Review**
The 20 Emergency Support Functions of the CEMP are reviewed annually and updated as needed by the Primary Agency of each of the ESFs.

c) **Persons with Special Needs Program**
The Persons with Special Needs Program (PSN) is coordinated by the Orange County Health Services Department and supported by the Family Services Department and through partnerships with the Orange County Health Department (Florida Department of Health) and other community partners.

The PSN program is a multi-faceted system and includes a registration process, a public education program, transportation coordination, and temporary sheltering services.

Clients are notified in the following manner:

- Advertisement through local media.

- Information distributed through Home Health Care agencies and the Department of Health.

- Orange County Council on aging client contact lists.

- Directly through Orange County Office of Emergency Management.

Florida Statute requires utility companies to notify customers twice annually on the availability of the Special Needs registration program. Notification is to occur in January and again in May. New customers shall receive notification on instituting a new account.

d) **PSN Registration**

The PSN Registry is actively managed with information being provided from home health agencies, visiting nurses agencies and durable medical equipment companies. Registry information is provided through public events. Client information is accumulated year round and stored in a database.

The registry data is provided to emergency response agencies for awareness and for follow up after a disaster.

e) **Public Awareness and Education**

The Office of Emergency Management releases Public Service Announcements throughout the year. These announcements contain information about coming preparedness events as well as specific safety topics such as: hazardous weather, wildfire conditions, hurricane preparedness topics and mitigation issues.

Shelter information is released with specific language directing the public to confirm openings prior to an event.

Media Relations and Public Information

ESF-14 – Orange County Communications Division is the lead agency for communicating with Media and distributing emergency information to the general public. Many methods are employed to disseminate emergency information and instructions to the public:

- OCAlert.Net
- Smartphone Apps
- Social Media
- Media Coordination
- Orange County Government Website
- OCFL Alert
- Orange TV

Public Warning and Notification

1. **Public Warning Systems**

   To alert citizens and visitors to severe weather and other hazards Orange County utilizes a multi-layered system that includes:

   - NOAA Weather Radio
   - OCAlert.Net
   - OCFL Alert Smartphone Apps
   - Media Coordination
   - Orange County Government Website
   - Partners such as 2-1-1
   - Door-to-door Notification by First Responders
   - Code Red (Reverse Dialing)
   - Emergency Alert System
   - Orange County 3-1-1
   - Orange TV
   - Facebook
   - Twitter

   Emergency Actions to be taken, shelter locations and status, evacuation zones and routes are some of the items included in Public Information messaging.
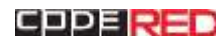
2. **Responsible Agencies**

   The Office of Emergency Management has the overall responsibility for coordinating the County's warning and notification systems. There are two designated communication hubs where warning and notifications are executed on behalf of Orange County:

   a) The Orange County Fire Rescue Communications Center, that serves as the county's 24-hour County Warning Point (CWP).

   b) The Orange County EOC which, during activation, is responsible for coordinating warning messages. This is accomplished primarily through the following OCERT members:

   - ESF-2 - Communications (3-1-1 Center)
   - ESF-5 - Information and Planning
   - ESF-14 - Public Information
   - ESF-18 - Community and Business

3. **Joint Information Center**

   A Joint Information Center (JIC) is a physical location where public affairs professionals from organizations involved in incident management activities can collocate to perform critical emergency information, crisis communications, and public affairs functions collectively. ESF #14 should activate a JIC if multiple disciplines and/or jurisdictions are involved.

Exercise Program

The Office of Emergency Management maintains a comprehensive exercise program designed to discuss, practice, evaluate, and improve emergency plans and procedures for all-hazards. OEM participates in exercises with various agencies, such as the OCERT, the State of Florida, Orange County Public Schools, Orange County Municipalities, Universities, Theme Parks, Hospitals, Community Emergency Response Teams, and volunteers.

1. **Program Coordination**

   OEM Exercise Coordinator will manage this exercise program in accordance with Homeland Security Exercise and Evaluation Program (HSEEP) guidelines. HSEEP is a capabilities and performance-based exercise program that provides a standardized methodology and terminology for exercise design, development, conduct, evaluation, and improvement planning for all exercises. HSEEP was designed to meet all Federal standards that are established in Homeland Security Presidential Decision Directive 8.

   This program is coordinated by two entities:
   - Exercise Coordinator – who's responsible for the county's emergency management preparedness plans and operational procedures and that exercises are regularly plans, scheduled, conducted and evaluated, and that corrective actions are implemented in accordance with HSEEP.

   - Exercise Design Team - is composed of selected OCERT members formed to facilitate communications and cooperation in the development and execution of the exercise program. Exercises require careful planning around clearly identified goals; then designing, developing, conducting, and analyzing the results.

2. **Exercise Schedule**

   OEM selects various areas of preparedness to be exercised each year. This schedule includes exercising the functions and procedures to be used during EOC activations as well as participating in other local, state, and federal exercise scenarios. OEM will ensure that each ESF participates in the annual State Hurricane Exercise held prior to the beginning of Hurricane Season.

OCERT also participates in other scheduled exercises within our jurisdiction/region which include: Federal, State, Municipal, Local Emergency Planning Committee (LEPC), Regional Domestic Security Tasks Force (RDSTF), Urban Area Security Initiative (UASI), and various scenarios exercises, such as with hospitals and airports.

3. **Exercise Format**

The exercise program must meet all standards that address an "All-Hazards" approach which utilizes both the NIMS and HSEEP guidance. Exercises typically focus on the operating procedures of each Emergency Support Function and component, and includes hands-on operational use of the EOC's crisis information management system - E Team. To maintain a certain level of proficiency in emergency response, the exercise program will utilize the following types of exercises:

- Tabletop Exercise
- Drill
- Functional Exercise
- Full-Scale Exercise

The agencies and/or organizations conducting these exercises must abide by the HSEEP in setting up, executing, and conducting the exercises. Figure B-16 shows the operations cycle for exercises. Exercise Design Team members may be used as the controllers and evaluators during the exercise.

4. **Corrective Action Process**
   a) Purpose
      Prior to an actual event or disaster, agencies should review their lessons-learned and implement recommended corrective-actions as indicated in the previous improvement plan (IP). The overall process of identifying, implementing and tracking corrective actions is crucial to the improvement of the emergency preparedness program's readiness.

   b) Documentation Process and Methods
      During the exercise evaluation and improvement process, Exercise Staff, Controllers, and Evaluators will coordinate the collection and consolidation of information from various activity reports and compile After Action Reports and Improvement Plan recommendations for each exercise. The Exercise Design Team should follow the HSEEP published guidance to develop the final improvement plan.

      Prior to an exercise, each participant should review their Emergency Operations Procedures, including the use of all documentation processes, such as:

- Incident Action Plans
- Situation Reports
- E Team Procedures
- Exit interviews or critique forms

- Messages
- Job Aids
- Media Reports
- Hot-washes

Training

This section provides guidance and information for all personnel preparing for major disaster emergency management (EM) operations. The EM training program is administered and coordinated through OEM, who has assigned an EM specialist to coordinate training requirements pertinent to local emergency responders. OEM works closely with Human Resources (HR) who assists with specific instructional training and maintains personnel training credentials. The county publishes a quarterly training calendar for county employees called "Passport to New Horizons" that lists all emergency management responder trainings which provides basic course information, dates, times and locations for employees. For other non-County employees, OEM utilizes State Emergency Response Team Training Resources and Activity Center (SERT TRAC) to distribute training course information.

Orange County Government requires all employees assisting in emergency response to complete prerequisite courses identified by emergency management procedures and other specified trainings required for position based assignments within the OCERT organizational structure. In addition to meeting the National Incident Management System (NIMS) and Incident Command Systems (ICS) compliance, OEM continues to update EM courses identified by Federal, State and local requirements or issues identified in After Action Reports and Improvement Plans.

OEM is responsible for identifying personnel training requirements as part of the emergency phases – preparedness, response, recovery and mitigation. OEM provides additional guidance in the disaster preparedness emergency drills and exercises to test plans, procedures and efficiency. OEM conducts an annual local training needs assessment and consolidates the data to provide input for regional training and exercise planning considerations.

Orange County participates in the State of Florida and Federal EM training programs. Florida Division of Emergency Management (FDEM) maintains a Multi-Year Training and Exercise Plan (MYTEP) for all-hazards training needs in which the county provides annual training input.

1. **Emergency Responder Team Training**
   This program provides position specific training to employees working in the emergency response role and is geared towards preparing personnel to serve in the following positions:

- Points of Distribution Staff
- Shelter Managers
- Call Centers Operators
- Call Forwarders

2. **EOC/FOC Training Program**

This program is geared towards training the EOC staff on procedures and policies that is used during activations.

- Emergency Operation Center and Field Operation Center Workers
- E Team Crisis Management System

3. **Emergency Management Responder Training Courses**

Emergency management training courses were identified from the list of courses made available by FEMA, the FDEM and local courses created for this program. These courses encompass a variety of classes, include mitigation, response, and recovery subjects.   OCERT members are required to meet minimum training requirements as set forth by the County's emergency pay plan for emergency responders or as required by the agency for an individual's job function. The Emergency Training Course Matrix is enclosed in the appendix B.

a) State Training Program

The State's emergency management training bureau provides both State and Federal designated mobile trainings throughout the regions and specific types of training are requested through the State. Courses are offered for regional emergency responder and the County OEM coordinates with the State to host regional training courses.

The FDEM maintains an online training calendar called SERT TRAC; this website is the State's EM training database where individuals upload EM education course credentials and register for upcoming courses. The State recommends any counties hosting local training and exercise events can submit their activities to be listed on SERT TRAC.

b) Federal Training Program

The National Emergency Training Center (NETC) at Emmittsburg, MD serves as the national academy for the development and delivery of emergency management training nationwide. NETC offers a full residential on-campus program and mobile training courses for local delivery training to emergency personnel.

NETC is the home to Emergency Management Institute (EMI) which is responsible for the independent study program for individual training for a vast variety for subject. The main type of training courses offered that's required most through this program includes the following:

- Professional Development Series Courses (PDS)
- Advanced Professional Development Series (APS)
- National Incident Management System / Incident Command System (NIMS/ICS)

Mutual Aid Agreements and Memorandums

Orange County maintains inter-local agreements with the municipal agencies within the County as well as mutual aid agreements with surrounding counties. Day-to-day mutual aid requests and delivery are coordinated through Orange County Fire Rescue Dispatch and the Emergency Operations Center (EOC)

Orange County is a signatory of the statewide mutual aid agreement, Emergency Management Assistance Compact as coordinated through the state EOC. Requests and delivery are coordinated through the State Warning Point. During a statewide or regional emergency, all requests are coordinated first in the County EOC and then in the SEOC through mission tasking.

- Statewide Mutual Aid Agreement (SMAA)

   The SMAA supersedes other inter-local agreements during major or catastrophic disasters. The SMAA may also be applicable between participating parties in absence of an inter-local agreement during minor disasters. Requests for assistance under the SMAA should be made through the County EOC to the State EOC for mission assignment. The County and all 13 municipalities are signatories to the Statewide Mutual Aid Agreement.

The EOC serves as the central coordination point for all resource requests in the County when activated. Mutual aid will only be requested if Fire Command and or the Emergency Manager deem that local resources are inadequate to handle a situation.

The authorized representative shall transmit all normal mutual aid requests through Orange County Fire Dispatch. If the EOC is activated, the request shall also go through the Logistics Section, in coordination with the Planning Section/Resources Unit in the EOC. The request is then delivered to the responsible OCERT members, which are monitored by the EOC Operations Desk. If for any reason the County cannot fulfill these requests, or services are over whelmed, the County will coordinate with the state ECO.

During activations the Logistics Section shall serve as the contact and coordination point for all mutual aid requests. The Planning Section/Resources Unit will coordinate and track all mutual aid requests.

The following steps will be followed in making requests for resources from other government organizations that have entered into the aforementioned agreement:

a) The County Mayor declares a local state of emergency because a disaster has occurred. A copy of the declaration is then sent to the Florida Division of Emergency Management (FDEM) in Tallahassee.

The authorized representative will make direct contact with the State Watch Office and provide the information listed below. The Planning Section/Resources Unit will follow-up with written confirmation to the EOC Operations Desk and passed along to the State using Florida Department of Emergency Management (FDEM) EM Constellation® System:

- A description of the damage sustained or threatened;

- An identification of the specific Emergency Support Function or Functions for which such assistance is needed;

- A description of the specific type of assistance needed within each Emergency Support Function;

- A description of the types of personnel, equipment, services, and supplies needed for each specific type of assistance, with an estimate of the time each will be needed;

- A description of any public infrastructure for which assistance will be needed;

- A description of any sites or structures outside the territorial jurisdiction of the Requesting Party needed as centers to stage incoming personnel, equipment, supplies, services or other resources;

- The place, date and time for personnel of the Requesting Party to meet and receive the personnel and equipment of the Assisting Party; and A technical description of any communications or telecommunications equipment needed to ensure timely communications between the Requesting Party and any Assisting Parties.

b) When a request is received from FDEM or a Requesting Party to provide assistance, the Office of Emergency Management Manager or the On-Call will immediately contact the appropriate agency head to determine if resources are available.

The following steps will be adhered to in processing the request:

- Convey to the agency head the information received from FDEM or Requesting Party. This information will be provided via voice then entered into the County's E Team® system and the State's tracking system;

- Advise the appropriate agency head that the Statewide Mutual Aid Agreement stipulates that "assisting parties shall render assistance to extent personnel, equipment and resources are available". Also, advise "participating governments agree to render assistance to the fullest extent possible".

  The agency head should be informed that the Requesting Party is responsible for costs incurred, unless there is an agreement between the parties that all or a portion of the costs will be provided on a gratis basis;

- Agency head determines if the resources requested can be provided;

- After the determination has been made, the resource request form will be completed in E Team$^®$.

- OEM will provide a copy of the request to the requesting party and FDEM immediately for verification;

- The Requesting Party/FDEM shall respond by executing and returning a copy to the Assisting Party ASAP. OEM will notify the agency head and provide a copy of the executed documentation;

- If the request was not routed through FDEM, OEM will contact the State Warning Point and advise them of the request and the response to the request as soon as possible. Subsequently keeping FDEM informed if the Requesting Party made the request directly to the Assisting Party.

Financial Management

Coordination Responsibilities

Financial management immediately prior to and following a disaster declaration and/or local state of emergency is the responsibility of each agency and/or organization's fiscal staff. The Orange County Office of Management and Budget, with support from the Comptroller's Office and Fiscal and Business Services Division, provides overall fiscal coordination for all OCERT members during an incident.

Guidance and Training

The Office of Management & Budget (OMB) and the Comptroller's Office share the role of staffing the Finance/Admin Section (FAS) during Emergency Operations Center activations. The FAS provides guidance and evaluation of all financial management components prior to, during, and following a disaster. FAS will also ensure complete and accurate records of emergency expenditures and obligations, including personnel and equipment costs, will be kept in anticipation of potential future reimbursement.

The Office of Management & Budget will ensure that periodic training sessions are conducted to include reporting guidelines and processes involving State and Federal disaster assistance. The Office of Management & Budget coordinates with the Office of Emergency Management in the delivery of such courses.

Documentation and Reimbursement Procedures

Copies of all expenditures, including personnel timesheets, must be kept by all departments, agencies, and municipalities to provide clear and reasonable accountability and justification for potential future reimbursement. Reimbursement for disaster related expenditures are not automatic and require detailed records for authentication by FEMA.

Disaster assistance funding requires specific agreements under CFR 44. These agreements specify performance and reporting responsibilities. The Finance/Admin Section initiates reporting requests to the involved departments and agencies. All involved departments and agencies are expected to cooperate in the timely submission of the necessary reporting information. It is the responsibility of the Emergency Management Director to ensure an accurate and thorough report concerning any disaster assistance funding requests.

Required reports are submitted to the Florida Division of Emergency Management (FDEM), or the Disaster Field Office (DFO), in accordance with guidance provided by FDEM.

Mutual Aid and Billing

At times, Orange County may provide mutual aid to other counties, municipalities, or agencies as an assisting party. In most cases, automatic or established mutual aid agreements will dictate the terms and conditions of assistance and/or when those terms are activated. Other requests for assistance without prior authorization are determined by the activation status of the Orange County Emergency Operations Center. If the EOC is activated to a Level 1, requests for mutual aid will be made to the Emergency Management Director. When the EOC is activated to a Level 2 or 3, requests will be made to the Emergency Manager with further approval from the County Administrator, as appropriate.

The requesting party shall be responsible for reimbursement of all authorized expenses to the assisting party. The assisting party shall bill the requesting party for all expenses after they incurred and as soon as practicable, but not later than sixty (60) days following the period of assistance. The deadline for identifying damage, however, may be extended in accordance with 44 CFR Part 206.

The assisting party shall maintain detailed records for a minimum of three (3) years following project close out. The assisting party shall submit to the requesting party the appropriate FEMA summary forms along with invoices when requesting reimbursement.

Funding Requirements

Funding agreements between Orange County and other legal entities shall be approved by the Board of County Commissioners and signed by the County Mayor. If funding agreements are issued between the State of Florida and the County, the Governor's Authorized Representative, usually the Director of the Florida Division of Emergency Management (FDEM), also signs the agreements for execution. Funding agreements provide supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster-damaged, publicly owned facilities, and the facilities of certain private and/or non-profit organizations.

The Orange County Comptroller is responsible for the overall administration of financial management, including funding agreements. The Comptroller's Office also provides procedures for processing and maintaining records of expenditures and obligations for labor, equipment, and materials during emergency incidents and disaster events. The authority to expend funds for emergency management operations is contained in Florida Statute Chapter 252.

1. **Funding Sources**

    Before, during, and following a disaster, there may be a variety of financial resources available to Orange County to prevent, prepare, mitigate, respond to and recover from a disaster or emergency incident.

a) Public Assistance (PA) Program provides Federal reimbursement funds to State and local governments to quickly respond to and recover from major disasters or emergencies. These supplemental funds are for several purposes, including: repair, replacement, or restoration of public facilities owned and/or operated by a government damaged by the disaster, debris removal, and emergency protective measures. In general, the Federal share for Public Assistance is not less than 75% of the eligible costs. The Florida Division of Emergency Management administers the PA Program and determines how the non-Federal share (up to 25%) is split with the eligible applicants.

b) Hazard Mitigation Grant Program (HMGP) was authorized under Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The program provides grants to states and local government to implement long term hazard mitigation measures after a Presidential disaster declaration. The overall purpose of the HMGP is to reduce the loss of life and property due to disasters and to enable mitigation measures to be implemented during the immediate recovery from a disaster in the affected areas. FEMA can fund up to 75% of the eligible costs of each project. The State or sub-grantee must provide a 25% match, which can be fashioned from a combination of cash and in-kind sources.

c) State Homeland Security Grant Program (SHSGP) Funds from the Department of Homeland Security (DHS) supports the implementation of State Homeland Security Strategies to address the identified planning, organization, equipment, training, and exercise needs to prevent, protect against, mitigate, respond to, and recover from acts of terrorism and other catastrophic events. SHSGP funding is intended to improve the ability of state and local agencies to prevent and respond to terrorist attacks using chemical, biological, radiological, nuclear or explosive weapons.

d) Urban Area Security Initiative (UASI) Funds from DHS's Office of Grants & Training are utilized to address unique planning, equipment, training and exercises needs in high-threat, high-density urban areas. Funds enhance and sustain capability to prevent, respond to and recover from threats or acts of terrorism.

e) Emergency Management Preparedness and Assistance (EMPA) Funds are allocated from the Emergency Management Preparedness and Assistance Trust Fund created by the Florida Legislature in 1993 to implement necessary improvements in the State's emergency preparedness and recovery program and facilities.

f) Emergency Management Performance Grant (EMPG) Funds are designated to the State and Counties to pay for statewide and local disaster prevention, preparedness, mitigation, response, and recovery programs for all hazards.

g) The Hazard Analysis Grant Funds originate from State to the Counties to identify and conduct on-site evaluation of facilities in the community housing hazardous materials that are considered to be Extremely Hazardous Substances (EHS).

h) Metropolitan Medical Response System (MMRS) is funded by the DHS to support the integration of emergency management, health, and medical systems into a coordinated response to mass casualty incidents caused by any hazard.

i) Community Emergency Response Team (CERT) funding is used to educates citizens about disaster preparedness for hazards that may impact their area and trains them in basic disaster response skills, such as fire safety, light search and rescue, team organization, and disaster medical operations.

j) Citizen Corps Grant funds promote volunteer service activities that support homeland security and community safety for several citizen groups. The mission of Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues, and disasters of all kinds

k) Pre-Disaster Mitigation Grant Program (PDM) funds are authorized under Section 203 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act. The program is designed to assist State and local governments in implementing cost effective hazard mitigation activities prior to a disaster event that complement a comprehensive mitigation program.

l) Flood Mitigation Assistance Grant Program (FMA) provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other structures insured under the National Flood Insurance Program (NFIP).

m) Fire Management Assistance Grant Program (FMAGP) is available to States, local and tribal governments, for the mitigation, management, and control of fires on publicly or privately owned forests or grasslands, which threaten such destruction as would constitute a major disaster. The FMAGP provides a 75% Federal cost share and the State pays the remaining 25% for actual costs.

n) Repetitive Flood Claims (RFC) Grant Program, under the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, was included as an amendment to the National Flood Insurance Act of 1968 to include up to $10 million annually for FEMA to provide funds to assist states and communities to reduce flood damages to insured properties that have had one or more claims to the NFIP. FEMA may contribute up to 100% of the total amount approved under the RFC grant award to implement approved activities, as long as the applicant has demonstrated that the proposed activities cannot be funded under the Flood Mitigation Assistance (FMA) program.

o) Severe Repetitive Loss (SRL) Program under the Bunning-Bereuter-Blumenauer Flood Insurance Reform Act of 2004, was included as an amendment to the National Flood Insurance Act of 1968 to provide funding to reduce or eliminate the long-term risk of flood damage to severe repetitive loss structures insured under the NFIP. The SRL provides a 75% Federal cost share with the applicant paying the remaining 25%.   States with FEMA-approved Standard or Enhanced Mitigation Plans that include a strategy for mitigating existing and future SRL properties are eligible to receive up to 90 % Federal cost-share funding for projects approved in states.

Processing and Maintaining Records

All County departments, constitutional authorities, and other governmental agencies must ensure protection of their records during disaster situations. All agencies have the potential to receive official records damage from fire, water, wind, vandalism, and other possible threats.   The Office of Accountability, Fiscal and Business Services is responsible for specific measures for protecting records of all expenditures and obligations for equipment resources, materials, and personnel as reflected in each agencies' disaster plan.

Those agencies with vital records, such as the Clerk of Court, Property Appraiser, Health Department, School Board, etc., must take special care to ensure the safety of these records. Off-site storage of duplicate vital records, whenever feasible, is strongly recommended.   All agencies should also have plans that address the recovery of damaged records.

All records, electronic and otherwise for disaster reimbursement will remain the property of the County except in the case of agencies filing direct as an applicant (Sub-grantee).

The Florida Division of Emergency Management provides a Public Assistance Coordinator for more direction and assistance regarding mutual aid record keeping.

Orange County will acquire appropriate volunteer, Incident Management Teams and professional services as required to assist with increased workload. Other departments may be required to loan or reassign employees with expertise related to the needs of the County in a disaster environment.

Municipal Coordination

Municipalities are responsible for communicating their needs to the County in order to determine whether the damage estimates meet the necessary thresholds for assistance. Orange County will coordinate with the State of Florida and the Federal government to distribute information on available funds and reimbursement opportunities with affected municipalities.

The County may use a variety of methods to encourage the municipalities to communicate their requests to the County, such as direct phones calls, incident briefings, the Council of Mayors, etc. Municipalities are advised of these opportunities primarily through the OCERT as Emergency Coordinating Officers (ECOs) during and directly following a disaster. ECOs will then communicate these opportunities to their organization, as applicable. ECOs can make resource requests through E Team ® and situation reports.

References and Authorities

Chapter 252 Florida Statutes for County Government

As mandated by Florida Statue Section 252.38, county governments are responsible for:

- Maintaining a county level comprehensive emergency management program that encompasses all governmental, private and volunteer organizations that has a role in emergency management.

- Preparing a comprehensive emergency management plan that's all-inclusive (i.e. evacuation activities) in preparation for any level of emergencies and catastrophic events.

- Maintaining an emergency management program that is designed to mitigate, prepare for, respond to and recover from a disaster by the enforcement of policies and regulations.

- Coordinating mutual-aid agreements inter-locally and among their surrounding jurisdictions.

- Implementing inter-state mutual aid agreements for assistance and reciprocal emergency aid in the event that the situation is beyond a county's capability.

- Executing educational public awareness programs that are designed for all citizens including those whom are hearing impaired and non-English speaking.

- Maintaining an accurate account the financial expenditures that are associated with disasters (including mobilized resources per mutual-aid agreements).

- Organizing public information throughout an emergency situation.

- Developing procedures to receive and shelter citizens whom reside within your jurisdiction and outside the designated area with assistance from the State.

- Operating and maintaining a 24-hour communication warning point.

Federal Statutory & Administrative Authorities

- The Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 100-707 which amended PL 93-288).

- Public Law 106-390, Disaster Mitigation Act of 2000.

- Post-Katrina Emergency Management Reform Act

- Homeland Security Act of 2002

- Homeland Security Presidential Direction #5

- Homeland Security Presidential Directive #8

- Presidential Decision Directive 39 (U.S. National Policy on Terrorism)

- Public Law 107 - 56 - (USA Patriot Act 2001)

- Public Law 93-234 - (Amended: Flood Disaster Protection Act of 1973)

- Public Law 101-615 - (Hazardous Materials Transportation Uniform Safety Act)

- Public Law 94- 499 - (Governs the planning of hazardous materials)

- Homeland Security Presidential Directive 5 (Management of Domestic Incidents)

- Homeland Security Presidential Directive 7 (Critical Infrastructure Identification, Prioritization, and Protection)

- Homeland Security Presidential Directive 8 (National Preparedness)

- FEMA N.I.M.S Basic: 501 Series

- FEMA National Response Framework

State Statutory & Administrative Authorities

- Florida Statute Chapter 1, Definitions

- Florida Statute Chapter 7, County Boundaries

- Florida Statute Chapter 14, County Boundaries

- Florida Statute Chapter 22, Emergency Continuity of Government

- Florida Statute Chapter 30, Sheriffs

- Florida Statute Chapter 73, Eminent Domain

- Florida Statute Chapter 74, Proceedings Supplemental to Eminent Domain

- Florida Statute Chapter 125, County Government

- Florida Statute Chapter 154, Public Health Facilities

- Florida Statute Chapter 163, Intergovernmental

- Programs, Part III Community Redevelopment

- Florida Statute Chapter 165, Title XII, Municipalities,

- Formation of Local Governments

- Florida Statute Chapter 166, Municipalities

- Florida Statute Chapter 252, Emergency Management

- Florida Statute Chapter 321, Highway Patrol

- Florida Statute Chapter 381, Title XXIX, Public Health

- Florida Statute Chapter 401, Medical Communications and Transportation

- Florida Statute Chapter 403, Environmental Control

- Florida Statute Chapter 404, Radiation

- Florida Statute Chapter 406, Medical Examiners

- Florida Statute Chapter 409, Title XXX, Social Welfare

- Florida Statute Chapter 427, Transportation Services

- Florida Statute 526.143 (Alternate generated power for motor fuel dispensing facilities)

- Florida Administrative Code, Section 27P

- Florida Division of Emergency Management Mass Migration Plan - CEMP Annex 2010

County Statutory & Administrative Authorities

- Orange County Ordinance 94-11, Emergency Management Ordinance
- Orange County Ordinance 2000-17, Emergency Management Ordinance
- Orange County Code Chapter 1, Administration
- Orange County Code Chapter 13, Fire Control and Prevention
- Orange County Code Chapter 21, Medical Examiner
- Orange County Code Chapter 24, Pollution Control
- Orange County Charter, January 1, 1987
- Orange County Administrative Regulations
- Orange County Emergency Operations Center Standard Operating Guidelines
- Orange County Disaster Emergency Purchasing Manual, 2007
- Orange County Local Mitigation Strategy
- Orange County Disaster Housing Plan
- Orange County Points of Distribution Plan
- Orange County Exercise Process Guidelines
- Orange County Logistical Management Strategy
- Orange County Hazard-Specific Guidelines for:
  - High Winds
  - Drought
  - Hazardous Materials Incidents
  - Lightning
  - Telecommunications Disruptions
  - Wildland Fires
  - Hail
  - Flooding
  - Loss of Electric Services
  - Crime/Terrorism

Supplemental Plans

These plans are used in unique situations and supplement the CEMP.

- Greater Orlando Aviation Authority
- Debris Management Plan
- Post Disaster Redevelopment Plan
- Disaster Housing Plan
- Evacuation Traffic Plan
- Community Wildfire Protection Plan
- Temporary Housing Plan
- Traffic Management Plan
- Local Mitigation Strategy
- Regional Terrorism Response Plan
- Regional Inland Evacuation Plan
- Continuity of Operations Plan
- Sheltering Plan

1. **Shelter Management**

Because of its position in the State of Florida, Orange County serves as a host-county for a variety of hazards. Occasionally, the county shelters its own citizens and visitors based upon the hazard and the potential impact(s) to the county.

For more detailed information on sheltering in Orange County, please refer to the Orange County Sheltering Plan.

2. **Shelter Operations**

   a) Impact-County Operations
   This deals with the sheltering of County citizens and/or visitors. This will be facilitated by the use of General, Pet-Friendly and People with Special Needs shelters as well as area hotels and motels.

b) Host-County Operations

Orange County is a potential destination for large numbers of evacuees from the coastal regions or other States. To adequately shelter these evacuees Orange County utilizes General and Pet-Friendly shelters and area hotels and motels.

c) Long-Term Sheltering

In the event that a long-term sheltering solution is needed the members of the OCERT will coordinate with the Federal Government, the State of Florida, and area profit and non-profit groups to meet the demands for sheltering. This type of long-term sheltering is addressed further within the County's Disaster Housing Plan.

3. **Types of Shelters**

a) General Shelters

These strategically placed hardened facilities are used to shelter the general public and include public and private facilities. These shelters are staffed and operated by ESFs 6 and/or 15.

b) People with Special Needs (PSNs) Shelters

These shelters service a particular segment of the population who need additional services prior to and following an incident. These facilities are hardened structures and strategically located throughout the County and are staffed and operated by ESF #8- Health and Medical.

c) Pet-Friendly Shelters

These hardened facilities are strategically placed throughout the county and are designed to shelter humans and pets in the same location. These shelters are staffed and operated by ESF #15 Volunteers and Donations Management.

d) Refuges of Last Resort

The possibility exists in a large-scale evacuation or disaster that traffic routes and/or existing shelters will be overloaded and there will be a need to shelter large numbers of individuals.

Refuges of last resort have been identified within the county. These refuges are or will be designated as official Red Cross public shelters and will have minimal, if any, support available; they will merely serve to shelter motorists and/or individuals.

e) Cold Weather Sheltering

Sheltering against the effects of cold weather is coordinated by the City of Orlando Office of Emergency Management (OEM) as the area's homeless shelters are located within the city limits of Orlando.

When a "Cold Night" is designated the Orange County Office of Emergency Management (OCOEM) will contact Orlando's OEM to establish a liaison role and verify support agency capabilities. A "Cold Night" is the term used when air and/or wind chill temperatures are forecasted to be below 40 degrees Fahrenheit and serves to initiate special sheltering provisions among the area's three main support agencies.

These provisions include suspension of some of the normal admittance rules and regulations and opens up additional sleeping space above the normal "permanent resident" totals. Those support agencies involved include The Coalition for the Homeless, The Salvation Army and The Orlando Union Rescue Mission.

4. **Evacuation Management**

An incident may require evacuations of individuals from within Orange County or outside of the County. These evacuations may take two basic forms:

- Spontaneous Evacuations are unplanned evacuation with little or no warning. This may involve a small number of individuals to an entire community.
- Planned Evacuations occur with advanced warning (i.e. Hurricane evacuations) and will mostly likely involve whole communities to entire regions of the United States.

The county currently has three plans that address evacuation scenarios: The inland evacuation plan, the Traffic Management Plan and the catastrophic evacuation plan.

a) Evacuation Command and Coordination

Evacuations are ultimately managed by the Director of Emergency Management. The Orange County EOC will act as the principal coordination point for any major evacuations within Orange County.

b) Evacuation Routes

Orange County is not within a storm surge evacuation zone. The routes identified within Orange County are designed to funnel evacuees from the coasts to shelters within the County. This process is identified within the Orange County Traffic Operations Manual for Coastal Evacuations.

Contraflow
Source: Orlando Sentinel

The major routes in this plan include:

- Interstate 4
- State Route 50
- U.S. 441
- State Route 528
- John Young Parkway
- Florida Turnpike
- State Route 417

c) Re-Entry

Following an incident, Orange County is responsible for overseeing the safe and efficient re-entry of citizens forced to evacuate. Re-entry will be accomplished through the coordination with surrounding counties and the State of Florida and may require the use of Reentry checkpoints and roadblocks to control reentry. This process will also involve a number of phases, such as:

- First responders will re-enter the affected areas to conduct search and rescue, secure the area, and stabilize the areas affected.
- Utility providers will need to secure affected area(s) and begin the repair of critical infrastructure, as well as conducting damage assessments.
- Once the impacted area(s) are deemed to be safe, Citizens will be allowed to return to their homes to take up residency or to collect personal belongings and begin the recovery process.

There are various ESFs and ECOs that may be involved in Re-entry operations, these include:

- ESF 1 - Transportation
- ESF 2 - Communications
- ESF 3 - Public Works & Engineering
- ESF 4 - Firefighting
- ESF 6 - Mass Care
- ESF 8 - Health & Medical
- ESF 9 - Search & Rescue
- ESF 10 - Hazardous Materials
- ESF 12 - Energy
- ESF 14 - Public Information
- ESF 16 - Law Enforcement
- Affected Municipalities and other ECOs
- ESF 18 - Community & Business
- ESF 19 - Damage Assessment
- ESF 20 - Utilities

Mutual Aid and Memorandum of Understanding Agreements

According to Florida Division of Emergency Management, copies of such agreements must be sent to the FDEM and must be consistent with Florida's CEMP. In time of emergency it shall be the duty of each local emergency management agency to render assistance in accordance with the provisions of each mutual aid agreement.

a) Orange County has Mutual Aid agreements with the following Counties:

- Lake County
- Osceola County
- Polk County
- Seminole County
- Brevard County

b) Orange County has automatic Mutual Aid agreements with the following agencies:

- Greater Orlando Aviation Authority
- Kissimmee Fire Department
- Maitland Fire Department
- Orlando Fire Department
- Oviedo Fire Department
- Reedy Creek Fire Department
- Winter Garden Fire Department
- Winter Park Fire Department
- Apopka Fire Department

c) Other agencies Orange County has Memorandum of Understanding or Mutual Aid with:

- Lynx
- Salvation Army
- American Red Cross
- Progress Energy
- OUC
- TECO Gas

Appendix (A): ESF Acceptance of Responsibility Form

ESF Acceptance of Responsibility Form   ESF # _____

The State of Florida is now mandating in the 2013 Comprehensive Emergency Management Plan (CEMP) an Acceptance of Responsibility form. This form serves as the agreement between the ESF's and Emergency Management.

1. The Orange County Office of Emergency Management (OEM) shall comply with applicable legislation, regulations, directives, and policies. Legal authorities provide flexibility and responsiveness to execute emergency management activities in emergency and non-emergency situations.

2. The intent of assigning County departments and partnering organizations as lead agencies for Emergency Support Functions (ESFs) is to ensure accountability by an agency for certain emergency actions that may occur before, during, and after a major disaster. While a department's preference is always considered, other critical factors affect the final assignment decision, including the current responsibilities of the department, the amount of available resources managed by the department, and the skill set of the department's staff.

   - **Level 3-Monitoring:** This involves OEM monitoring daily events and notifying members of the OCERT if an emergency and/or disaster require their support or resources.

   - **Level 2-Partial Activation:** This is a partial activation where only the incident-specific members of the OCERT will staff the EOC. The Manager of Emergency Management can activate the EOC to Level 2 in consultation with the Executive Policy Group.

   - **Level 1-Full Activation:** This is full-scale activation. The EOC is fully staffed by the OCERT members. The Director of Emergency Management is responsible for activating the EOC to Level 1.

3. ESF Lead Agencies are responsible for adhering to all policies, procedures, and responsibilities notated within the Orange County's Comprehensive Emergency Management Plan. Each ESF Lead and Supporting agency is responsible for reviewing and updating their CEMP ESF Description in the Annex section and Checklist in the EOC Standard Operating Guide book.

4. Agreeing to accept these responsibilities indicates the department agency's willingness to support policies and procedures listed within ESF #____. The CEMP will be updated annually and revised every 4-years.

5. It is incumbent upon each ESF to conduct a thorough review of all ESF responsibilities prior to June 1st each year.

I, _____ have read the above statements and agree to accept and abide by
(Department Director Print Name)

policies and conditions stated herein on behalf of my department/agency, _____.
(Department/Agency)

_____   _____/_____/_____
(Department Director Signature)   (Date)

_____   _____
(Assigned ESF Lead)   (Assigned ESF Alternate Lead)

Appendix (B): Training Course Matrix

ORANGE COUNTY EMERGENCY MANAGEMENT TRAINING COURSES FOR EOC/ICS INTERFACE POSITIONS AND AGENCIES　　Updated: 5-13-12013 M = Mandatory　R = Recommended Training　O = Optional　N = Not Applicable	Executive Policy Group	EOC Coordinators	SERT Liaison	Liaison Officer	Public Information	Safety Officer	Military Liaison	Mass Care	Food and Water	Volunt. & Donation Mgt.	Animal Services	Firefighting	Health & Medical	Search & Rescue	HazMat	Law Enforcement	Transportation	Communications	Public Works	Energy	Utilities	Information & Planning	Community & Business	Damage Assessment	Resource Information	Message Center
Prerequisites (Independent Study)																										
IS-1	O	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
NIMS/ICS (Independent Study)																										
IS700 - National Incident Management System	O	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
IS800B – National Response Framework	O	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
ICS100 Intro to ICS	O	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
ICS200 Basic to ICS	O	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M
ICS300 Intermediate ICS	O	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
ICS 400 – Advanced ICS	O	O	R	R	R	R	O	O	O	O	O	R	O	R	R	R	O	O	O	O	O	O	O	O	O	O
NIMS/ICS Overview for Executives and Senoir Officials G-402	R																									
Local EM Responder Courses																										
Emergency Operations Center (EOC) and/or Field Operations center (FOC) Training (ESF900)	N	M	R	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	O
Emergency Call Center Training (ESF100)	N	O									O															M
Emergency Call Center "REFRESHER" Training (ESF200)	N																									R
Message Center/Call Router Training (ESF400)	N																									R
American Red Cross Shelter Manager Course (ESF107)	N	O						R			R															
Pet Friendly Shelter Manager Animal Behavior Awareness Training (ESF106)	N	O									O															
Points of Distribution (POD) Manager Training (ESF700)	N	O							O	R															R	
PDS (Independent Study)																										
*IS230 Principles of Emergency Management	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS235 Emergency Planning Course	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS240 Leadership and Influence	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS241 Decision Making / Problem Solving	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS242 Effective Communication	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS244 Developing Volunteer Resources	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
*IS247 Decision Making in a Crisis	N	M	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
IS 702 NIMS PIO Joint Information System	N	R			R																					
APS (State Offered)																										
*G120 Exercise Design Course	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G130 Exercise Evaluation Course	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G290 – Basic PIO	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G250.7 Rapid Assessment Planning	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G601 Damage Assessment	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G393 Mitigation for Emergency Managers	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G386 Mass Fatalities	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G360 Hurricane Planning	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G275 EOC Management Operations	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G276 Resource Management	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G385 Disaster Response and Recovery	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G381 Public Assistance Operations	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G250.11 COOP/COG	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G191 ICS/EOC Interface	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
G195 Intermediate	N	R	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
ICS Position Specific Courses																										
Operation Chief	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Planning Chief	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Logistics Chief	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Incident Commander	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Public Information Officer	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Liaison Officer	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
Safety Officer	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
All Hazards Incident Management Team	N	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
EMI Residence Courses																										
E202 Debris Management		O																	R	R						
E273 Managing Floodplain Development		O																	R				R			
E362 Multi-Hazard Safety for Schools		O			R																					
E388 Advanced PIO		O			R																					
E905 IEMC Hurricane Prep. & Response		O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
E906 IEMC Hurricane Recovery & Mitigation		O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O

Annex I: Recovery Functions

Organization and Responsibilities

1. **Primary Agency**

   The Office of Emergency Management is responsible for coordinating all recovery efforts.

2. **Support Agencies**

   Each OCERT member is responsible for conducting recovery activities in Orange County following a disaster. This process will involve a variety of missions for short and long term recovery. It is important to note that the majority of these actions will be the same regardless of a disaster declaration being issued or not.

   a) ESF #1-Transportation

   - Coordinate the transport of vulnerable populations to safer locations.

   - Coordinate the transport of household and service animals of vulnerable populations to safer locations during the evacuation process.

   - Coordinate the transport of life sustaining resources including food, water, ice, and tarps into the impacted areas.

   b) ESF #2-Communication

   - Coordinate communication assets from government, volunteer groups, the telecommunications industry, federal and state agencies, and private vendors to meet all response and recovery communications needs.

   - Ensure communication is established with other governmental agencies, shelters, feeding sites, distribution sites, staging areas, and other vital recovery sites as deemed necessary in support of other ESFs.

   c) ESF #3-Public Works and Engineering

   - Coordinate debris removal on essential transportation routes, public property, waterways, and critical public facilities including emergency clearance (first push), permanent removal, staging, processing, disposal, and debris monitoring of all debris from public property.

   - Prioritize and implement temporary emergency structural repairs at vital public facilities, county roads, bridges, and drainage systems and other vital infrastructure components.

- Ensuring open traffic corridors for the safe and efficient movement of emergency vehicles or for evacuation and reentry of threatened populations.

d) ESFs #4-Firefighting, 9-Urban Search & Rescue, and 10-Hazardous Materials

- Mobilize, manage and coordinate personnel, equipment and supplies in the detection and suppression of fires.
- Coordinate the activities of County and Municipal fire rescue resources during disaster scenarios, in order to accomplish incident objectives.

- Provide for the safety and health of all emergency personnel by providing logistical support, food, shelter and medical care. ESF #4 will interface with ESF #6 Mass Care for shelter and ESF #11 for food and water.
- Establish staging areas and logistical support bases for requested mutual aid resources in coordination will all first response agencies.
- Plan, coordinate, and conduct and implement search and rescue operations in disaster impacted areas in accordance with established procedures based upon life safety and available resources.
- Coordinate with other ESFs for the efficient medical treatment and transportation of victims.
- Detect, identify, respond to, contain, and coordinate disposal of hazardous materials posing a threat to public health.

e) ESF #5-Information and Planning

- Support response and recovery operations through Incident Action Plans, Situation Reports, Emergency Operations Center (EOC) briefings, conference calls, intelligence gathering.
- Coordinate the processing and display of response and recovery information through the use of Geographic Information System (GIS) technology, other audiovisual displays, and other media.
- Consolidate key information into situation and technical data reports, along with documenting overall response activities and operations.

f) ESF #6-Mass Care

- Coordinate and manage all aspects of host and risk sheltering operations for evacuees and disaster victims.
- Conduct disaster assessment surveys in impacted areas.

- Provide Family Services to disaster victims, including casework, counseling, and disbursement of vouchers for emergency housing, food, maintenance, building and repair supplies, household furnishings, medical supplies/medical needs, and occupational supplies and equipment.

- Coordinate the establishment and operation of mass feeding facilities in areas affected by disasters and coordinate with ESF #11 (Food and Water Unit) for the provision of food, water, and ice to disaster victims.

- Coordinate with ESF #8 (Health and Medical Unit) for supplemental disaster health services and emergency first aid.

- Maintain the Family Well-being Inquiry and provide disaster welfare information regarding individuals within the impacted area in order to reunite families.

- Coordinate the provision of emergency aid in shelters, fixed feeding sites, and emergency first aid stations.

g) ESF #7-Resource Support

- Identify, locate, and procure commodities and services as detailed in local emergency purchasing procedures.

- Transport, stage, track, mobilize, document, and demobilize all resources (commodities and services) necessary to support disaster response operations of the Orange County Emergency Response Team.

- Establish areas for staging, storing, and distributing warehoused supplies, goods, medical supplies, or other resources as needed.

- Coordinate maximum use of internal and external personnel, supplies, and equipment.

- Ensure appropriate financial tracking of these materials from the moment the resource is requested through the demobilization phase.

h) ESF #8-Health and Medical

- Address needs of vulnerable populations who live independently at home and people with special needs (PSN) clients, and establish PSN shelters for evacuees during emergency evacuations.

- Procure, store, distribute, dispense, and coordinate delivery of pharmaceutical and durable medical equipment products and services before and after disaster.

- Conduct a medical needs assessment of impacted areas post disaster and monitor health hazards including food and water through available syndromic surveillance systems.

- Provide recommendations for protective actions including quarantine and isolation, decontamination, prophylaxis, vaccination and other disease/health control measures.
- Coordinate provision of medical supplies and medical personnel to the impacted area.
- Coordinate behavioral health assessments and support in conjunction with ESF #6.
- Identify, isolate, decontaminate, transport, autopsy and store human remains.
- Inform the public of health related hazards in the pre, during and post disaster environment and provide safety recommendations.

i) ESF #11-Food and Water

- To provide emergency relief supplies including food, water, and ice to disaster victims utilizing congregate feeding sites, mobile feeding units, and Points of Distribution as determined by the county.
- Support emergency housing/shelter operations by providing logistical support to include food, water, and sanitation as needed.
- Based on incoming information, prioritize the most devastated area first with basic emergency relief supplies.

j) ESF #12-Energy

- Assess damage to energy system and evaluate energy demand and supply.
- Support the rapid restoration of energy system with consideration to priority locations.
- Identify and allocate all local government interim energy sources to support continuation of critical services, countywide restoration efforts, and public buildings.

k) ESF #13-Military Support

- When directed by the Governor or the State Coordinating Officer, the Adjutant General of Florida employs Florida National Guard personnel and equipment, through appropriate commanders, to assist civil authorities.
- Active federal forces used during disaster relief will be under the command of and directly responsible to their military chain of command.
- All mission requests for military resources must be directed to the SEOC upon exhaustion of local resources.

- Military resources (including the Florida National Guard) may be utilized for a variety of mission tasking to assist Emergency Support Functions.
- In coordination with the State of Florida Emergency Operations Center (SEOC), ESF 13 will conduct a rapid impact assessment of the impacted area and disseminate impact assessment data.

l) ESF #14-Public Information

- Provide accurate, timely, and coordinated information to all available media outlets during a disaster event.
- Coordinate response and recovery information from all county government entities to ensure consistency and accuracy.
- Coordinate the establishment of a Joint Information Center in compliance with established procedures.

m) ESF #15-Volunteers and Donations Management

- Serve as the central point of coordination for recruitment, registration, classification, training, and assignment of volunteers' pre and post disaster in support of response and recovery operations and unmet needs projects.
- Coordinate the collection, tracking, consolidation, storage, and distribution of relief supplies and donated goods that arrive in, or are made available to the community wide response and recovery effort.
- Coordinate with existing volunteer and disaster relief agencies serving Orange County to ensure efficient resource utilization and to avoid duplication of services.

n) ESF #16-Law Enforcement and Security

- Establish traffic control points to monitor and manage evacuations and re-entry in conjunction with other law enforcement agencies, and provide security and control access to designated impacted areas.
- Enforce curfews as established by an emergency declaration or executive order.
- Provide security protection at designated response and recovery sites and in support of appropriate response and recovery mission assignments.
- Provide aviation support for response and recovery mission assignments when Aviation Unit becomes available and as prioritized by the Emergency Operations Center (EOC).
- Support temporary morgue operations and provide next of kin notification.

- Establish staging areas and logistical support bases for requested mutual aid resources in coordination with all first response agencies.

o) ESF #17-Animal Care

- Provide supplies, equipment and personnel to support pet friendly shelters once they have been activated.

- Assess emergency needs related to animal issues.

- Conduct veterinary care and disaster control to mitigate stray and loose animals in the post disaster environment.

- Coordinate the response to potentially diseased, rabid animals and exposed human populations.

- Maintain emergency animal hospital care capabilities.

- Coordinate the supply of animal food and medicine.

- Secure and identify lost and stray domestic and exotic animals and reunify them with their owners. Collect and dispose of dead animals.

p) ESF #18-Community and Business

- Develop operational procedures and coordination protocols to assess damage and long-term impact to the business community in Orange County.

- Coordinate with local chambers of commerce and business association to establish operational procedures with locally owned and operated business which will expedite business recovery resumption services.

- Define policies to expedite post disaster recovery and redevelopment for the private sector.

- Identify coordination mechanisms to link local businesses to private and public sector sources of financial and recovery solutions.

- Foster contingency plans for innovative methods of re-supply, distribution, communication, and transport.

- Developing operational procedures to reach out to neighborhood organizations through direct contact and conduct impact assessment to identify areas in need of response and recovery assistance.

q) ESF #19-Damage Assessment

- Coordinate damage assessment data for public assistance eligible facilities in compliance with the federal Stafford Act.

- Coordinate damage assessment data and habitability for private homes and businesses in compliance with the federal Stafford Act.

- Coordinate mutual aid assignments.

r) ESF #20-Utilities

- Prioritize impacted areas based upon impact assessment data.
- Restore utility transmission, distribution systems, and treatment and disposal systems.
- Prioritize and implement temporary emergency structural repairs at vital utility facilities.
- Assist municipalities and hospitals in emergency repairs of vital facilities.
- Provide technical advice and evaluations, engineering services, construction management and inspection, operations, and emergency contracting to sustain these activities.

s) State Emergency Response Team Liaison (SERT Liaison)

This position is normally staffed by a Florida Division of Emergency Management employee. During an activation, they are located within the EOC and serve as the County's advocate to the State in acquiring needed supplies and resources.

t) Federal Liaison

The Federal Emergency Management Agency may deploy personnel to the County EOC. This representative would work in concert with the SERT Liaison and//or the Advanced Recovery Liaison the EOC Operations Desk. Their role in the EOC is to act as an advocate and liaison with the Federal government.

3. **Coordinating Recovery Activities**

a) Director of Emergency Management

The Director of Emergency Management has the overall responsibility for overseeing, coordinating, activating and managing the recovery efforts within Orange County. He/she manages the recovery efforts through the County EOC.

b) State Advanced Recovery Liaison

A Florida Division of Emergency Management staff member will fill this position. Their responsibilities include:

- Acts as the liaison between the Disaster Field Office, State recovery staff, and Orange County
- Coordinating with County Emergency Management in on-going State recovery actions
- Assists in the rapid acquisition of Initial/Preliminary Damage Assessment information

- Identifies areas of high impact
- Advises the County of the information and logistical needs of incoming recovery teams

c) Emergency Coordination Officers (ECO)

These are representatives of agencies, organizations, and municipalities that are not part of an ESF. The duties of the liaison positions may include coordination of response and recovery activities prior to, during, and following an emergency and/or disaster. The ECO liaisons represent the following organizations and agencies:

- Municipalities
- County, State, and International Governmental Agencies
- Theme parks
- Hospitals
- Non-Profit and For-Profit Organizations
- Military Support
- Universities and Colleges

d) Community Relations

- Community Relations Coordinator

    The Manager of Emergency Management and/or designee serves as the County's Community Relations Coordinator. In this role he/she will coordinate the dispatch and activities of these teams with the Federal and State governments. He/she is also responsible for coordinating the deployment of these teams with the relevant OCERT members.

- Community Partners

    The county's Community Relations Coordinator will contact key community leaders and organizations, some of these include:

    o Community Places of Worship

    o Orange County OCERT members

    o Orange County Americans with Disabilities Office

    o Orange County Office on Aging

    o Orange County Veteran's Affairs Office

    o First and Second Harvest Food Banks

    o Orange County Neighborhood Preservation and Revitalization Division

- Community Relations Teams

    The Community Relations Teams (CRTs) are composed of Federal, State and county agencies that will identify and serve the needs of citizens impacted by disasters. The CRTs responsibilities and duties include:

    o Informing affected individuals of the assistance programs that are available to them.

    o Identifying the status of community resources and needs (housing, food, running water, etc).

    o Confirming that civilians recovering from disasters are being provided appropriate services (sheltering, food, mental health, etc).

Concept of Operations

1. **Short-Term Recovery**

    The EOC during this phase is structured according to the National Incident Management System. It is composed of several sections and groups, they include:

    - Director of Emergency Management

    - Executive Policy Group

    - EOC Coordinating Element: Composed of the Office of Emergency Management which serves as the primary recovery agency.

    - Operations Section: Consists of ESFs 4, 8, 9, 10 & 16

    - Planning and Information Section: Consists of ESFs 2, 5, 14, 18 & 19

    - Logistics Section: Consists of ESFs 1, 3, 6, 7, 11, 12, 15, 17, 19 & 20

    - Liaison Section: Consists of the Emergency Coordinating Officers, ESF #13, and State Advanced Recovery Liaison

    - Finance Section: Consists of the Orange County Office of Management and Budget and Comptroller's Office

Annex Figure 1: Short-Term Recovery Organization in the EOC
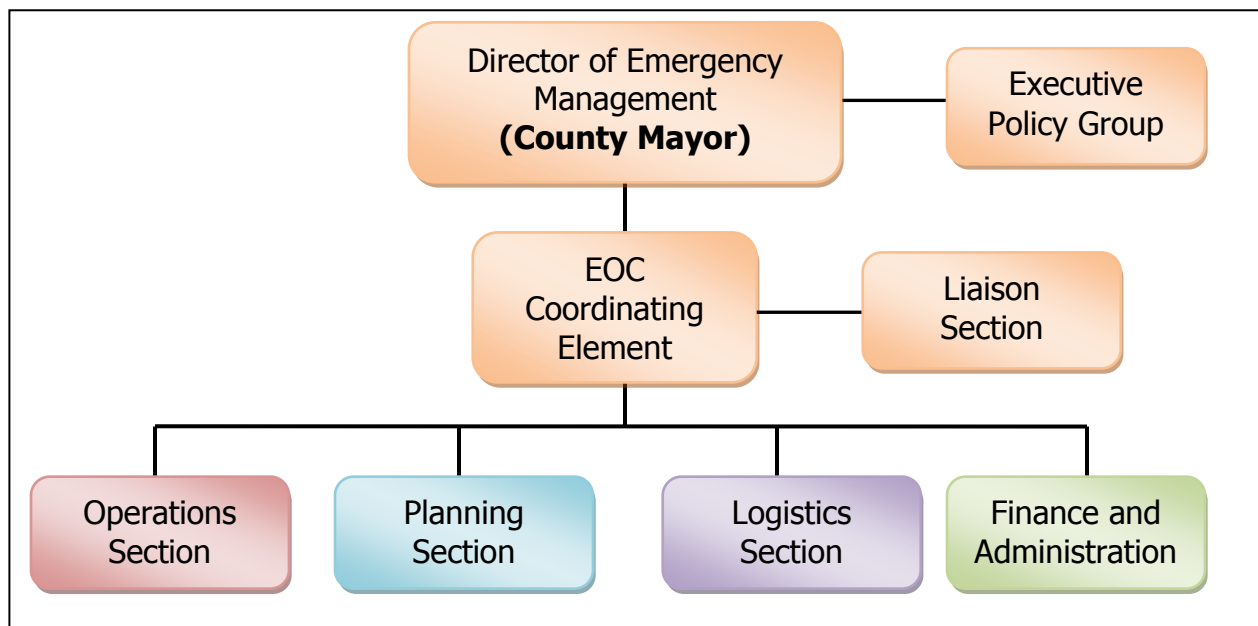
The priorities of the Orange County EOC in this phase include but not limited to:

- Immediate life safety needs of citizens and visitors

- Providing disaster consumables at the county's Points of Distribution

- Restoration of critical infrastructure (electricity, water, gas, etc)

- Providing for the immediate health and medical needs of our citizens

2. **Short-Term Recovery Positions**
   a) Debris Management Coordinator

   The Orange County Public Works Director is responsible for coordinating debris management activities prior to and following an emergency and/or disaster. This individual will serve as the coordinator of Federal/State debris management assistance.

   b) Debris Management Task Force

   This task force is chaired by a Assistant County Administrator for Office of Regional Mobility who oversees Public Works and the Assistant County Administrator Infrastructure Services. It is composed of the following county agencies and positions:

   - Public Works Department

   - Office of Emergency Management

   - Community, Environmental & Development Services Department

   - Planning Division

- Parks and Recreation Division

- Purchasing and Contracts Division

- Intergovernmental Affairs Coordinator

- County Attorney's Office

- Public Utilities Department

- Communications Office

- Code Enforcement Division

- Environmental Protection Division

- Real Estate Management Division

- Office of Management and Budget

This workgroup is responsible for directing the activities of the agencies involved and the debris management contractors prior to and following an emergency and/or disaster.

c) Damage Assessment Coordinator

ESF #19-Damage Assessment serves as the lead OCERT member for conducting the Initial Damage Assessment and supporting the Preliminary Damage Assessment. Their responsibilities include:

- Coordinate the completion of the Initial Damage Assessment

- Assist the State of Florida and the Federal government in completing the Preliminary Damage Assessment

ESF #19s primary agency is the Orange County Property Appraiser's Office. They are responsible for estimating the cost for damaged property. The Orange County Building Safety Division is ESF #19s support agency. They are responsible for assessing post-disaster habitability inspections. In the field these two agencies work in teams to assess cost and habitability in unison.

d) Local Mitigation Strategy Working Group

This workgroup is composed of Orange County government, municipal, non-governmental organization (NGO) and private sector representatives. Under Rule 27P-22 they are responsible for administering the county's Local Mitigation Strategy and overseeing the submittal of projects under the Hazard Mitigation Grant Program (HMGP).

- Steering Committee

    This committee is responsible for selecting projects and prioritizing them for funding under HMGP.

- Planning Committee

  This committee makes recommendations on what is eligible HMGP projects and provides technical review of projects under consideration.

3. **Long-Term Recovery Positions**

   The long-term recovery process takes place after the EOC has returned to Level 3 (Monitoring) phase.

   a) Long-Term Recovery/Unmet Needs Coordinator

      The Manager of the Office of Emergency Management serves in this position. His/her responsibilities include:

      - Coordinating with the Federal and State governments in assistance currently availability and identifying shortfalls
      - Coordinating with the various governmental, private sector and non-governmental organizations that may be involved in the long-term recovery process
      - Overseeing the process to address the unmet needs of our citizens and visitors

   b) Long-Term Recovery/Unmet Needs Organization

      Operation Love functions as the county's long-term recovery and unmet needs organization. This entity is a collaborative effort between the county's social agencies, non-governmental organizations and faith based groups. Their mission is to address the long-term recovery and unmet needs of our citizens following a disaster. This is a standing group coordinated by the Heart of Florida United Way. Some of the members of this group include:

      - American Red Cross of Central Florida
      - Catholic Charities
      - Salvation Army
      - Second Harvest

4. **Lead Agencies**

   Refer to the Basic Plan, Section III., Table B-16 (page 64) for a list of the ESF Lead Agencies describing their roles, duties and responsibilities. Other support agencies can be found in each of the ESF Annexes.

5. **<u>Coordinating Recovery Activities</u>**

Following a disaster many post-disaster concerns will have to be addressed. Resolution of these issues will require a coordinated local, state and federal effort.

The Recovery Annex establishes how Orange County will recover from emergencies and/or disasters in the short and long term. This annex will address:

- Debris Management

- Damage Assessment

- State and Federal Assistance Programs

- Assessing Unmet Needs

We approach this process through several phases of recovery activities:

a) <u>Short-Term Recovery</u>
This phase involves the OCERT members' efforts to restore utilities and address the short-term needs of citizens and visitors. The time frame for short-term recovery is days to weeks after an emergency and/or disaster. Examples of short-term recovery activities include, but are not limited to: debris management, damage assessment, power restoration, provision of essential supplies to citizens, temporary housing, etc.

b) <u>Long-Term Recovery</u>
Long-term recovery can take place weeks, months and years after an emergency and/or disaster or it could begin immediately after an emergency. Long-term recovery includes issues not normally resolved or addressed in the Individual Assistance program, such as: long-term housing, permitting for rebuilding, mental health counseling, unmet needs, etc.

c) <u>Post-Disaster Redevelopment Plan</u>
The goal of post-disaster redevelopment is not just to restore the County to its previous state of better, but to make smarter decisions that will increase resiliency to future hazards and disasters. The plan sets goals and objectives established by the leadership of Orange County; identifies the important considerations to achieve those goals and objectives; and determine the party of parties who can partner in a long-team recovery.

6. **<u>Response/Recovery Transition</u>**

The CEMP Basic Plan addresses the county's activities in the preparedness and responses phases, while the Recovery Annex addresses recovery operations. The transition between response and recovery will be coordinated and directed through the Orange County Emergency Operations Center.

a) Transitional Phase

The response phase of the county's response to an emergency and/or disaster is typically comprised of search and rescue and other life-saving activities, initial sheltering of affected populations and initial debris clearances from major roadways.   Recovery can sometimes begin occurring while response activities are still underway.   Recovery is marked by assessment and restoration of critical infrastructure, additional clearance of debris from affected side streets, evaluating the need for longer term sheltering of affected populations and coordination with the State and Federal governments to distribute needed assistance to citizens.

When coordinating recovery efforts, Orange County will establish a Disaster Field Office (DFO).   A DFO is a temporary local, State, and Federal multiagency coordination center established locally to facilitate field-level domestic incident management activities related to prevention, preparedness, response and recovery when activated. The DFO provides a central location for coordination of Federal, State, local, tribal, nongovernmental and private-sector organizations with primary responsibility for activities associated with threat response and incident support.

b) Obtaining and administering State and Federal Assistance

This process is begun by the Director of Emergency Management when he/she signs an executive order declaring a State of Local Emergency.   Once this is completed the State can offer more assistance to the county and eventually and if needed request a Presidential Disaster Declaration through the Federal Emergency Management Agency, Regional Office.

7. **Recovery Activities**

The activities completed by ESF #5 Information and Planning includes the actions listed below and will Serve as the principal report in which all relevant information will be included.

- Government and School Status

- Status of the transportation infrastructure

- Number of 9-1-1 and 3-1-1 Calls received

- Total Amount of Debris removed

- Amount of Debris Processed

- Location and hours of operation for citizen and contractor debris sites

- Location and hours of operation for Points of Distribution

- Location of Emergency Shelters

- Status of Healthcare facilities

- Location and hours of operation for Feeding and/or Comfort Station Locations

- Power Restoration Status

- Location and hours of operation for Volunteer Reception Centers/Donations Warehouses

- Reports of major business disruption

- Results of the Initial Damage Assessment

- Boil Water Notices in affect

a) INFOMAP Secure

This system is maintained by ESF #5 and serves as the county's Geographic Information System (GIS). All relevant information on the response and recovery to an emergency and/or disaster is included in this system.

Damage Assessment Functions

1. **Damage Assessment**

In all cases, the mission of the local, State and FEMA damage assessment teams is to:

- Assess the extent of damage and habitability to individual homeowners and businesses

- Assess the extent of damage to public facilities

- Assess the extent to which the immediate emergency needs of the public are being met and the need for additional State assistance

a) Initial Damage Assessment

Once emergency conditions subside, ESF #19-Damage Assessment will conduct the Safety and Initial Damage Assessment (IDA) and will be responsible for reporting this information back to the EOC. ESF #19 will be led by the Property Appraiser's Office, with assistance from the County Building Division. Other coordinating agencies may include Fire Rescue, Sheriff's Office, Parks and Recreation, Fleet Management, Utilities, and Facilities Management.

Municipalities will be responsible for conducting their own initial damage assessment and will forward the information to the County Emergency Operations Center.

The IDA will determine if the damages from the disaster meet the thresholds for State and Federal disaster declarations.

b) Data-Collection and State Reporting

- Data-Collection

    Each damage assessment team shall maintain an accurate log indicating the time spent surveying the damaged areas, listing materials, supplies, and equipment used and making estimates of the costs incurred making the investigation. Photographs, maps, site sketches, and other site specific information shall be made a part of each damage report. ESF #19 utilizes FEMAs categories and requirements in collecting damage assessment information. Refer to the ESF #19 Annex for further information on data collection.

- State Reporting

    Once the IDA is completed and finalized, ESF #19 submits the information to the EOC. The EOC is then responsible for submitting this information to the State EOC through EM Constellation, electronic e-mail, SERT Liaison, and/or verbally on the statewide conference calls.

c) Preliminary Damage Assessment

- Once the local state of emergency has been declared, the initial damage assessment is transmitted to the State EOC. A Preliminary Damage Assessment (PDA) will be needed if Federal assistance will be requested. A PDA is conducted by the State and FEMA to verify the severity of the impact and justify the need to pursue a request for Federal assistance. If a PDA is initiated, ESF #19 should be prepared to accompany the Federal/State teams.

- The role of the State and FEMA PDA teams will be to verify the results of the initial damage assessment. Upon arrival, State and FEMA damage assessment teams will meet with local officials and be briefed on the results of the initial damage assessment. Members of Orange County ESF #19 will be needed to accompany the PDA Teams to survey the impacted areas.

- In the event of a catastrophic disaster, a damage assessment can be conducted after the Presidential Disaster Declaration. The assessment would then be used as a tool to guide the overall recovery effort.

- The PDA can be conducted through a number of different methods that can be utilized depending on the situation, these include:

    o Aerial Reconnaissance- This method will be implemented using fixed-wing and rotary aircraft to assess a large area or because access to the affected area is blocked.

- o Windshield Survey- This method involves damage assessments teams driving around the affected area to record the number of homes and businesses damaged or destroyed. It is used to quickly assess the extent of the damage in a relatively short amount of time.

- o Walk-through- This method is the most thorough to assess damages. It will involve the use of damage assessment teams walking through disaster-affected areas and categorizing damages to homes and businesses. This type of assessment is critical before a Federal disaster declaration can be implemented.

d) Economic Impact Assessment

In Orange County, accessing the extent and magnitude of the impact to the business and industrial sector is accomplished through a partnership between ESF #18-Community and Business and ESF #19-Damage Assessment. ESF #18 will serve as the lead in accessing the economic impact to the businesses in the affected area.

e) Municipalities Coordination

Municipalities will be responsible for conducting their own initial damage assessment and will forward the information to the County Emergency Operations Center. If the municipality is unable to perform the damage assessment, then the County will perform the damage assessment.

2. **Planning Assumptions**

We make several planning assumptions including:

- Emergencies and/or disasters will cause significant damage to Orange County and will severely damage homes, businesses and infrastructure.

- A disaster will leave large areas of the county without power, water and wastewater services for long periods of time.

- Following a disaster, surveying the extent of the impact will be hampered by blocked roads and damaged infrastructure.

- State and Federal assistance will not address all of the needs of the community and will require creative solutions with assistance from community and faith based organizations.

- Following a disaster, recovery operations should not be contingent upon whether a disaster is declared or undeclared.

a) Post Disaster Habitability inspections
The Building safety division and code enforcement division collectively assess the habitability of all damaged dwellings throughout the county.

b) Local Public Assistance Coordinator
The Director of the county's Office of Accountability will serve as the local Public Assistance Coordinator (Chief Accountability Officer). In this role he/she has the following responsibilities:

- Implementing and coordinating the PA process within the county
- Provide facilitation services to the county departments/division during the process
- Compiling and verifying all project worksheets before submittal to FEMA

Disaster Recovery Centers

1. **Disaster Recovery Centers**
   Once a Presidential Disaster Declaration has been issued, the Director of Emergency Management, in cooperation with the Executive Policy Group, will request from the State EOC the establishment of DRCs in Orange County.

   The Office of Emergency management coordinates the activation and operation of the DRC's and facilitates cooperation from public and private agencies.

   A Disaster Recovery Center (DRC) will be established in the immediate area to provide immediate "one-stop shopping" for information and tele-registration. The DRC is the Federal government's primary mechanism for delivering disaster assistance information to disaster victims. OEM will provide State and Federal agencies with a list of location that can serve as fixed or mobile DRCs. FEMAs guidelines for determining whether a facility may serve as a DRC include:

   - Minimum of 5,000 square feet of floor space
   - Waiting area capable of accommodating 100 persons
   - Access for the disabled
   - Separate areas for child-care, crisis counseling and first aid
   - Adequate parking
   - Located near public transportation systems
   - Adequate utilities and communications
   - Adequate restrooms and janitorial services

a) Mobilization

The Orange County EOC will request the opening of DRCs from the State EOC. The State of Florida and FEMA will then coordinate the opening of the DRC. DRC hours of operation statewide will be determined jointly by the State and Federal Coordinating Officers.

Once the DRC is activated, OEM will act as the overall coordinator in cooperation with the State and Federal government on the operation and coordination of the DRC. OEM will notify the appropriate agencies/organizations for staffing. These organizations will then be responsible for contacting their respective employees working in the DRC. A public announcement of the location of these centers will be arranged by the County EOC.

b) Demobilization

In cooperation with the Orange County EOC, the State EOC and FEMA will begin demobilize the DRCs. The decision to demobilize is based on the following factors:

- Numbers of individuals utilizing the DRCs

- Guidance and direction from the DFO

- Restoration of the critical infrastructure (water, wastewater, electricity) to the affected areas

c) Management

The DRCs are jointly managed by the State of Florida and FEMA. Individual DRCs are managed by a DRC manager who is either a State employee or a Federal employee.

d) Local Information/Referral Resources

The following agencies and/or organizations may provide local information on the location of DRCs, referral services, or have representatives within the Disaster Recovery Center. This may include:

- Orange County Government Services Center (3-1-1 Center)

- Heart of Florida United Way/2-1-1 Community Resources

- Orange County Health Services Department

- Orange County Family Services Department

- Orange County Community Emergency Response Teams

- Central Florida Community Organizations Active In Disasters (COAD)

- American Red Cross

e) DRC Inventory

Orange County will provide the necessary initial equipment for a DRC establishment. These assets are on located within the County and consist of the following for a DRC operation:

- Computers with LAN connectivity
- Telephone
- Table and chairs
- Assigned Staff Member

Infrastructure / Public Assistance

1. **Local and State Assistance**

   a) Primary Agency

   Orange County Office of Accountability has the primary responsibility within Orange County to coordinate the activities required by the Public Assistance Program.

   b) Support Agencies

   Depending on the disaster there would be a variety of local and county agencies/organizations in the public assistance program: Some of these agencies include:

   - Public Works Department

     Identify and submit necessary paperwork to obtain public assistance funds to repair roads and other county facilities that were damaged.

   - Family Services Department

     Work with the community assistance teams to identify and the short term and long term needs of Orange County.

   - Health Services Department

     Works with the community assistance teams to identify and fund the short term and long term health needs of Orange County.

   - Utilities Department

     Works with the OEM and submits requests for public assistance for damages to the energy distribution infrastructure.

- **Communications Office**

  Services as a point of contact for the media in regards to releasing public assistance information

- **Fiscal and Business Services Division**

  Serves as the coordination body to obtain and assist in distributing public assistance funds to affected. Reports and obtains funding through the available public assistance program to repair the county.

2. **Concept of Operations**

   a) County Assistance

   Orange County is the first source of disaster response and recovery assistance for local municipalities. When local resources are insufficient to cope with the damage, losses or suffering from disasters, State and Federal programs may provide direct assistance to affected local governments and/or individuals.

   Orange County, like most counties, in Florida does not have a fund set aside to provide public or individual assistance in disasters. Orange County depends on the assistance that non-governmental agencies can provide, such as from the Salvation Army and American Red Cross. Orange County will provide the maximum amount of assistance to citizens whether the disasters are declared or undeclared.

   b) State Assistance

   Chapter 93-128, Laws of Florida, establishes the Emergency Management Preparedness and Assistance Trust Fund (Trust Fund) to support State and local emergency management activities. The Trust Fund is funded through an annual surcharge imposed on homeowners and business insurance policies. Twenty percent of this Trust Fund is reserved, by Statute, to provide for State relief assistance for non-Federal declared disasters, including, but not limited to, grants and below-interest rate loans to businesses for uninsured losses resulting from disasters.

   c) Federal Assistance

   The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93-288, as amended by the Disaster Mitigation Act of 2000 (DMA2K) was enacted by the Congress of the United States to supplement the efforts of State and local governments during and after a Presidential Declaration for disasters. The Stafford Act as amended by the DMA2K was not intended to provide 100% reimbursement for all damages incurred during disasters but permits Federal assistance, when the State and local governments have exhausted their resources and capabilities.

There are several forms of Federal disaster assistance not included in the Stafford Act:

- Search and Rescue (U.S. Coast Guard)

- Flood Protection (U.S. Army Corps of Engineers)

- Emergency Food Programs (U.S. Dept. of Agriculture)

- Small Business Administration Loans

3. **Financial Management**

Funding agreements between Orange County and other legal entities shall be approved by the Board of County Commissioners and signed by the County Mayor. If funding agreements are issued between the State of Florida and the County, the Governor's Authorized Representative, usually the Director of the Florida Division of Emergency Management (FDEM), also signs the agreements for execution. Funding agreements provide supplemental Federal disaster grant assistance for the repair, replacement, or restoration of disaster-damaged, publicly owned facilities, and the facilities of certain private and/or non-profit organizations.

The Orange County Comptroller is responsible for the overall administration of financial management, including funding agreements. The Comptroller's Office also provides procedures for processing and maintaining records of expenditures and obligations for labor, equipment, and materials during emergency incidents and disaster events. The authority to expend funds for emergency management operations is contained in Florida Statute Chapter 252.

Copies of all expenditures, including personnel timesheets, must be kept by all departments, agencies, and municipalities to provide clear and reasonable accountability and justification for potential future reimbursement. Reimbursement for disaster related expenditures are not automatic and require detailed records for authentication by FEMA.

The Office of Management & Budget (OMB) and the Comptroller's Office share the role of staffing the Finance/Admin Section (FAS) during Emergency Operations Center activations. The FAS provides guidance and evaluation of all financial management components prior to, during, and following a disaster. FAS will also ensure complete and accurate records of emergency expenditures and obligations, including personnel and equipment costs, will be kept in anticipation of potential future reimbursement.

The Office of Management & Budget will ensure that periodic training sessions are conducted to include reporting guidelines and processes involving State and Federal disaster assistance. The Office of Management & Budget coordinates with the Office of Emergency Management in the delivery of such courses.

Procedures for employing temporary staff are located in Office of Management & Budget (OMB) standard operating guidelines and tracked by Finance/Admin Section (FAS) during Emergency Operations Center activations.

During the public assistance process the Finance/Admin Section chief and other staff as identified by the chief is responsible for the implementation of the public assistance process to include project, grant and financial management. There are three programs available to individuals and local and State governments following a Presidential Disaster Declaration, they are:

a) Individual Assistance
   This program assists individuals and families recovering from disasters. The different components of this program are:

   - Small Business Administration loans

   - Temporary Housing

   - Individual and Family Grant Programs

   - Disaster Unemployment Assistance

   - Farm Service Agency Assistance

   - Income Tax Service Assistance

   - Food Coupons

   - Disaster Related Stress Management

b) Public Assistance

   - The cost share for the public assistance program may vary depending on the severity of the disaster.

   - Eligible candidates include State and local agencies/organizations, medical facilities, custodial care facilities, educational facilities, emergency facilities, etc.

   - The public assistance program is a cooperative effort between local, State and Federal officials so inter-agency planning and coordination is critical.

4. **Pre-Identification of Applicants**
   The Office of Accountability pre-identifies applicants using previous disaster history and through county departments/divisions identifying potential applicants using historical data. These potential applicants are then notified verbally, electronically or in writing to determine projects that may be eligible under this program.

a) Process

The Office of Accountability and the eligible agencies and/or organization will take the following steps to identify and fund projects:

- Review the payroll of the agency and/or organization in question and determine what is eligible for reimbursement through this program

- Use the IDA and PDA to determine the level of damage to eligible facilities

- Review the county general fund and other accounts to determine how much funds can be used for the local share of the public assistance program

This program provides supplemental Federal disaster grant assistance for debris removal, emergency protective measures, and the repair, replacement, or restoration of disaster-damaged, publicly owned facilities and the facilities of certain Private Non-Profit (PNP) organizations. The PA Program also encourages protection of these damaged facilities from future events by providing assistance for hazard mitigation measures during the recovery process.

The State of Florida as a grantee is responsible for administering the PA Program. The role of local governments and eligible private nonprofit organizations is to prepare scopes of work and cost estimates for their projects. They will also work with the State and FEMA to provide needed documentation.

Following the President's declaration of a disaster, the Governor's Authorized Representative (GAR) will conduct kickoff meetings for all potential applicants which include an applicant briefing for public disaster assistance. FEMA will assign a Public Assistance Coordinator who will be the overall coordinator of the program. FDEM will assign an Applicant Liaison Officer to assist the individual applicants. OEM will be in attendance to answer all local questions at the kick off meeting as well as the applicant briefing. The Public Assistance Coordinator will act as the administrator for Federal funds in regards to Federal disaster funds.

5. **Funding Identification**

a) Hazard Mitigation Grant Program

The Hazard Mitigation Grant Program is authorized by Section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93-288 as amended). It is a partnership that is designed to assist States, local governments, private non-profit organizations and Indian Tribes in implementing long-term hazard mitigation measures following a major disaster declaration.

The objectives of the Hazard Mitigation Grant Program are:

- To prevent future losses of lives and damage to property due to disasters.
- To implement State or local hazard mitigation plans.
- To enable mitigation measures to be implemented during immediate recovery from a disaster.
- To provide funding for previously identified mitigation measures that benefit the disaster area.

This program is managed by the Florida Division of Emergency Management according to Florida Administrative Code 27P-22.

Working in cooperation with the Office of Management and Budget the county's Local Mitigation Strategy Workgroup will pre-identify applicants by past-disaster history and the county departments/divisions, non-governmental organizations that are assigned responsibility prior to and following an emergency and/or disaster. These agencies are then notified verbally, phone call, electronic mail of whether or not they have any projects that may be eligible under this program.

b) Short and Long-Term Housing Assistance

Short-term and long-term housing will be coordinated through FEMA and Florida DEM. Orange County will assist in this effort as required. More detailed information is contained in the Orange County Temporary Housing Plan.

c) Information Sources

Orange County utilizes a number of different methods to identify unmet needs following a disaster. Some of the information sources utilized include:

- Federal Emergency Management Agency
- Heart of Florida United Way/2-1-1 Community Resources
- American Red Cross
- ESF #18- Community and Business

d) Coordination with Municipalities

The Long-Term Recovery/Unmet Needs Coordinator will coordinate with the affected municipalities based on the following criteria:

- Information is needed from the municipalities as to how many of their citizens have unmet needs

- A Municipality has requested information on the number of individuals with unmet needs within their jurisdiction

- Individuals within their jurisdiction require some assistance from the municipality that can't be met by the long-term recovery/unmet needs organization (i.e. building permit, etc)

Debris Management

1. **Debris Management**

   a) Goals

   Debris removal efforts will focus on clearing major transportation routes to allow for the movement of emergency vehicles, traffic, emergency resources and supplies. After major transportation routes have been cleared, debris will then be removed from secondary roadways, residential streets, public parks and other areas identified by the OCERT members.

   Standard operating procedures for Debris management are addressed in the Public Works Debris Management Plan.

   b) Debris Management Contracts

   These contracts are required by the Federal government. Orange County utilizes two types of contracts, which are:

   - Disaster Debris Monitoring Services: This contract is responsible for monitoring the work of the Disaster Recovery and Debris Removal contractors.

   - Disaster Recovery and Debris Removal: This contract is responsible for the collection, reduction and disposal of the debris created by a disaster.

   The decision to execute these debris management contracts originates from the Director of Emergency Management.

c) Collection and Disposal

1. Collection
The collection of disaster debris is coordinated between ESFs 3, 20 and the Disaster Recovery & Debris Removal Contractors. The following facilities are used to collect this debris:

- Debris Processing Sites: These locations are pre-identified annually and may consist of county owned property, school sites, additional landfills, and private sites with signed agreements, etc. Following a disaster these sites may be operated by Orange County or the Disaster Recovery and Debris Removal contractors.

- Roll-Offs Sites: These are operated by the Disaster Recovery and Debris Removal contractors. They are operated at selected locations which are typically park sites.

2. Disposal
To minimize the impact on remaining landfill capacity, alternative means of disposal will be used whenever possible. Vegetative debris will either be burned or chipped at ESF #3s pre-identified burn sites.

Construction debris should be separated and disposed of accordingly. Appliances, for example, should be stockpiled (rather than taken to a landfill) until necessary arrangements can be made for disposal.

Community Relations

1. **Community Relations Coordinator**
The Director of Family Services and/or designee serves as the County's Community Relations Coordinator. In this role he/she will coordinate the dispatch and activities of these teams with the Federal and State governments. He/she is also responsible for coordinating the deployment of these teams with the relevant OCERT members.

a) Community Partners
The county's Community Relations Coordinator will contact key community leaders and organizations in support of the program to assist in identifying community needs. These include:

- Community places of Worship

- Orange County OCERT members

- Orange County Americans with Disabilities Office

- Orange County Office on Aging

- o Orange County Veteran's Affairs Office

- o Second Harvest Food Bank

- o Orange County Neighborhood Preservation and Revitalization Division

b) <u>Community Relations Coordinator duties</u>

- Plans, organizes and implements community relations goals and objectives; coordinates and integrates all activities toward achievement of established goals and objectives.
- Serves as public information officer and liaison between the City and the citizens, business community, press and news media.
- Creates a wide variety of written materials to ensure the timely release of public information, e.g., newsletters, press releases, reports, brochures.
- Responds to outside requests for informational materials and resources regarding City activities and programs.
- Plans, manages and implements a variety of community relations projects.
- Serves as liaison between the civic groups and business organizations involved in community projects and programs.

<u>Community Relations Teams</u>

The Community Relations Teams (CRTs) are composed of Federal, State and county agencies that will identify and serve the needs of citizens impacted by disasters. The CRTs responsibilities and duties include:

- Informing affected individuals of the assistance programs that are available to them.

- Identifying the status of community resources and needs (housing, food, running water, etc).

- Confirming that civilians recovering from disasters are being provided appropriate services (sheltering, food, mental health, etc).

<u>Special Populations</u>

Special populations in Orange County that may require special outreach include the homeless, immigrant population, the elderly and persons with disabilities.

Unmet Needs Coordination

1. **Unmet Needs Coordinator**

   The Manager of the Office of Emergency Management serves in this position.
   His/her responsibilities include:

   - Coordinating with the Federal and State governments in assistance currently availability and identifying shortfalls
   - Coordinating with the various governmental, private sector and non-governmental organizations that may be involved in the long-term recovery process
   - Overseeing the process to address the unmet needs of our citizens and visitors

   a) Short-Term Recovery/Unmet Needs Organization

   Unmet needs refers to any needs that an individual, family and/or community needs that is normally part of the regular disaster assistance provided by county, State and/or Federal agencies. The types of unmet needs following a disaster might include:

   - Rental assistance
   - Emergency protection, repair, and rebuilding of homes
   - Building supplies
   - Volunteer labor

   b) Long-Term Recovery/Unmet Needs Organization

   Operation Love functions as the county's long-term recovery and unmet needs organization. This entity is a collaborative effort between the county's social agencies, non-governmental organizations and faith based groups. Their mission is to address the long-term recovery and unmet needs of our citizens following a disaster. This is a standing group coordinated by the Heart of Florida United Way. Some of the members of this group include:

   - Mid Florida Chapter of the American Red Cross
   - Catholic Charities
   - Salvation Army
   - Second Harvest

c) Coordination of Unmet Needs with Communities

Coordination and support to the county's 13 municipalities is conducted by the Office of Emergency Management. Each municipality has a designated representative who serves as an ECO in the EOC. During an activation, the ECO can request assistance directly from the ESFs and/or other ECOs.

In the event an ESF/ECO cannot fulfill that request locally, or the municipality requires facilitation assistance to obtain needed supplies/resources, the municipalities can request assistance through the EOC to request further assistance from the State.

2. **Process to meet Unmet Needs**

The following is the process in which citizens are referred to the Long-Term Recovery/Unmet Needs Organization:

- An individual approaches a NGO and/or faith-based group requesting assistance.
- The NGO or faith-based group refers them to either FEMA or handles the case internally.
- The individual if denied by FEMA will be referred back to the NGO or faith-based group that referred them and they will attempt to handle the case internally.
- If for some reason the NGO or faith-based group is not capable of meeting the needs of the individual they will refer the case to the long-term recovery/unmet needs organization.
- This organization will discuss the case amongst its members and match up the appropriate NGO or faith-based group with the case. The organization will facilitate collaboration among its members to meet the needs of the case.

3. **Disaster Housing Coordinator**

The Orange County Housing and Community Development Division acts as the county's disaster housing coordinator. They are responsible for coordinating the placement of disaster victims in short and long term housing solutions following a disaster.

Training and Exercises

1. **Training**

   OEM will coordinate training needs for staff along with their support agencies. Courses at the State level will be coordinated through OEM. Programs may include:

   f) Damage Assessment

   g) Debris Management

   h) Human Needs

   i) Unmet Needs

   j) Federal and State Assistance Process

   k) Disaster Housing

2. **Exercises**

   OEM will develop and coordinate recovery exercises with the OCERT members.

Annex II: Mitigation Functions

Introduction

Mitigation efforts in Orange County include activities, policies, or programs developed and adopted by Orange County Local Mitigation Strategy (LMS) Working Group that are intended to prevent, reduce, or eliminate the impact(s) caused by a disaster or emergency for the purpose of life safety, protection of private property and/or public infrastructure. Pre-disaster planning is required for determining the applicable hazards, vulnerable areas, probability of occurrence and overall risk to an area of the County.

The mitigation projects identified by the LMS Working Group should be effective and cost efficient measures that take an all-hazards approach, such as natural, man-made, and technological hazards. The overall goal of a robust hazard mitigation plan is to ensure that all mitigation activities, initiatives, and outreach programs to citizens and businesses are coordinated in an appropriate manner and provide for the reduction of vulnerability and promote a resilient community, strengthened critical infrastructure, and protect our key resources.

Orange County maintains an all-hazard, multi-jurisdictional LMS that was approved by the State of Florida Division of Emergency Management (DEM) Bureau of Mitigation and the Federal Emergency Management Agency (FEMA). The plan was adopted by the Orange County Board of County Commissioners and will expire on February 26, 2015.

General Information

The Office of Emergency Management is the lead agency for mitigation activities within the county for pre-disaster and post-disaster scenarios. An Emergency Management Specialist is tasked with providing technical support, coordination, and liaison services between the Office of Emergency Management, the Orange County Local Mitigation Strategy Working Group, and the State of Florida Division of Emergency Management Bureau of Mitigation.

Various support agencies and organizations are members of the LMS Working Group and include, but are not limited to: county departments, municipal representatives, regional entities, non-profit organizations, private businesses, and interested members of the public.

The Concept of Operations for mitigation activities provides that the LMS Working Group oversees and maintains the LMS document, as well as the mitigation project priority list of mitigation activities in the County. The Working Group elects a Chair and Vice-Chair from its membership.   There are also two committees to expedite the functions of the Working Group: the Steering Committee and the Planning Committee.

The Steering Committee is responsible for oversight and coordination of all actions and decisions by the LMS Working Group, such as formal actions, release of reports, development of resolutions, and issuance of position papers, as well as subcommittee assignments. The Planning Committee identifies, analyzes, and monitors the hazards threatening Orange County, defines actions to mitigate the impacts of those hazards, and evaluates and ranks mitigation projects submitted to the LMS Working Group for consideration.

The Emergency Management Specialist who serves as the LMS Coordinator is appointed by the Orange County Office of Emergency Management and is responsible for organizing mitigation activities with the LMS Working Group both pre- and post-disaster. The Coordinator provides technical assistance to the Working Group and serves a liaison to the State of Florida Division of Emergency Management, Bureau of Mitigation for all LMS plan updates, annual reports, mitigation activities, and other correspondence. The LMS Coordinator is also responsible for overseeing the routine maintenance of the LMS Working Group, such as updating the mitigation project priority list, scheduling meetings of the Working Group, developing meeting agendas in conjunction with the Chair, keeping the meeting minutes, and revising the membership roster. The Coordinator will maintain a record of projects submitted to the Working Group, their status, and ranking. The LMS Coordinator is the main point of contact for the LMS Working Group on local mitigation activities within the County and to the State.

Currently, there are no formalized inter-local agreements, memorandums of understanding, mutual aid compacts, or other agreements that exist for other local or state government, volunteer, professional organizations or other individuals to assist in post-disaster mitigation activities. However, the Office of Emergency Management works with County Floodplain Managers from the Orange County Public Works Department, Stormwater Management Division to identify damaged structures in designated Special Flood Hazard Areas pre- and post-disaster. Determinations for damage costs are performed post-disaster on a case-by-case basis. The Floodplain Managers receive a list from the National Flood Insurance Program (NFIP) annually with details on historical flood claims. These properties are geo-referenced and added to the County InfoMaps geospatial information system (GIS) platform to determine which properties lay in flood plains and which, if any, properties submitted claims. The Orange County Building Department inspects these properties post-disaster and calculates the amount of loss to the building. The formula used help to make a determination of loss based upon the amount of damage. A substantial loss is 50% of the market value of the property.

Orange County and eleven (11) of its municipalities participate in the National Flood Insurance Program (NFIP). There are only two (2) that do not participate: Bay Lake and Lake Buena Vista (no Special Flood Hazard Area present). Refer to Table 1 on Page 122.

TABLE 1 – Orange County NFIP Participation

Community Name	Community ID #	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Current CRS Class
Apopka, City of	120180	07/19/74	09/29/78	09/25/09	7
Belle Isle, City of	120181	07/19/74	09/15/78	09/25/09	
Eatonville, Town of	120182	07/19/74	12/01/78	09/25/09	
Edgewood, City of	120183	07/19/74	09/29/78	09/25/09	
Maitland, City of	120184	07/19/74	09/05/79	09/25/09	
Oakland, Town of	120663		12/06/00	09/25/09	
Ocoee, City of	120185	08/02/74	11/01/78	09/25/09	
Orange County, Unincorporated	120179	01/30/76	12/01/81	09/25/09	5
Orlando, City of	120186	08/02/74	09/03/80	09/25/09	6
Windermere, Town of	120381	04/22/77	12/18/84	09/25/09	
Winter Garden, City of	120187	07/19/74	09/29/78	09/25/09	
Winter Park, City of	120188	10/18/74	11/15/79	09/25/09	

Orange County's Office of Emergency Management is the lead agency responsible for coordinating mitigation activities in the County. As a result of this role, OEM is well positioned to identify opportunities for future mitigation projects such as shelter hardening, elevation and/or acquisition of repetitively flooded structures, drainage engineering projects, and other enhancement projects to critical infrastructure. OEM also works closely with ESF-19 Damage Assessment and the County Property Appraiser's Office. Following a disaster, ESF-19 organizes the assessment teams in the field and coordinates with the County Building Department for significant loss determinations. The municipalities each have a seat in the EOC as an Emergency Coordinating Officer (ECO) and can identify potential mitigation opportunities that can be submitted to the LMS Working Group for approval later on.

As the lead agency responsible for coordinating mitigation activities in the County, the Office of Emergency Management, with assistance from the LMS Working Group, oversees the implementation of mitigation assistance funds from federal, state, regional, and/or local government(s) that are awarded post-disaster. This funding may take various forms, including: Public Assistance (PA), the Hazard Mitigation Grant Program (HMGP), and/or Emergency Supplemental Community Development Block Grant Disaster Recovery Initiatives, as well as other emergency management grant programs. Other pre-disaster funds, such as Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA) Grant Program, or Residential Construction Mitigation (RCM) Program, may be applied for and managed by another sponsoring agency outside of Emergency Management. Refer to the Financial Management Section of the CEMP for more information on potential funding sources for mitigation. Most emergency management grants have a 75 percent federal, 25 percent local financial contribution. A portion of the local match can be from in-kind sources, such as staff and volunteer time, equipment, storage space use, etc.

Pre-Disaster Hazard Mitigation Activities

Orange County maintains an all-hazard, multi-jurisdictional LMS that was approved by the State of Florida Division of Emergency Management (DEM) Bureau of Mitigation and the Federal Emergency Management Agency (FEMA). The plan was adopted by the Orange County Board of County Commissioners in 2010 and will expire on February 26, 2015.

The LMS Working Group was established to serve as the representative community group to oversee mitigation activities in Orange County. During the most recent update of the LMS, the LMS Planning Team reviewed a number of existing plans, studies, and reports related to mitigation. The result was the incorporation of this information into the 2010 LMS Goals and Objectives (OC LMS, pg. 6-8) and to better reinforce the relationship between the LMS planning process and other County, Regional, and Municipal plans. Examples included growth management, land use, emergency management, etc. (refer to OC LMS, pg. 20 for a complete list of these other plans, studies, and reports).

The Mitigation Initiatives List (OC LMS, Appendix F) covers a list of completed mitigation projects performed since the last update. At the time of adoption in 2010, this list included projects such as: community education programs, disaster planning for businesses and neighborhoods, purchase of emergency generators and other equipment, structural retrofits, drainage and flood control, training classes, vegetative removal, etc. Please refer to the OC LMS Appendix F for the Completed Projects List.

The LMS contains a Hazards Analysis (pg. 25-53) that identifies the various natural and man-made hazards that Orange County is vulnerable, as well as historical occurrences, probability, vulnerability, and severity of their impact.

The Mitigation Initiatives List (OC LMS, Appendix F) also contains a constantly changing list of prioritized mitigation projects to be performed based upon the Hazards Analysis. At the time of adoption in 2010, this list included projects related to: Equipment Modifications, Equipment Purchase, Personnel Training, Policy/Code Development, Property Acquisition, Public Education, Structural Retrofit, Structural, Other Structural, and Other Non-Structural projects (OC LMS, pg. 75-77). Each project addresses an identified hazard in order to reduce or eliminate the threats associated with the hazard. In addition, a list of potential funding sources can be found on page 77. These funding sources include: HMGP, CDBG, FMAP, PDM, RCMP, UASI, etc.

Specific Disaster-Scenario Mitigation Functions

The Office of Emergency Management is the lead agency for providing emergency mitigation assessment within the county. Various support agencies and organizations that are members of the LMS Working Group would comprise the mitigation assessment team. ESF-19 Damage Assessment and the County Property Appraiser's Office will provide the raw data from their assessments conducted in the field. Other agencies with support roles include, but are not limited to: county departments like Public Works, Fire, Community, Environmental & Development Services, Utilities, and Health Services; municipal representatives; regional entities; non-profit organizations; private businesses; and interested members of the public.

As a result of its role, OEM is well positioned to conduct the mitigation assessment with assistance from supporting agencies and members of the LMS Working Group. Following a disaster, OEM will collect information provided by ESF-19 during their damage assessments. Other county departments may be tasked to provide assistance during these evaluations. Depending upon the type of disaster and its magnitude, OEM may conduct mitigation assessments and damage determinations in conjunction with ESF-19, the State DEM Regional Coordinator, and/or the National Weather Service. Supporting agencies and departments, municipalities, regional entities, non-profit organizations, interested members of the public, and/or other Emergency Coordination Officers (ECOs) will also provide damage estimates and report on impacted areas.

At the next regularly scheduled meeting, or following the disaster, this information will be presented to the LMS Working Group for analysis. Stakeholders will be able to submit new mitigation project applications for consideration or revise current projects. The pending initiative(s) will be evaluated by the Planning Committee and prioritized accordingly. The Planning Committee will then make a recommendation for approval of the initiative to the Working Group. Sponsors of these projects will be responsible for submitting applications for mitigation grant funds post-disaster.

During mitigation assessment missions, ESF-19 will coordinate mitigation assessment in the County. Resource needs will be provided by ESF-19 initially; if other resources, material goods, or personnel are required, then ESF-19 will coordinate with ESF-7 Logistics. Supporting agencies will be tasked as appropriate. Mission tracking and

resource requests will require coordination with other aspects of the EOC structure for incident management, such as ESF-5 Planning and ESF-7 Logistics.

The Orange County Property Appraiser's Office is the lead agency for ESF-19 will be responsible for maintaining and updating the mitigation assessment resource inventory list. The ESF-19 Standard Operating Guide (SOG) and the corresponding ESF-19 Annex (updated May 2013) contains further information on the maintenance of the resource inventory and includes information on personnel, data, equipment, and vehicles to be used for damage assessment.

The following list contains some of the planning assumptions considered in the development of damage and mitigation assessment activities. The intention of these assumptions is to identify certain resource limitations, including those of personnel and/or equipment. Other issues are related to access to areas of the County that may be severely damaged and assessments will not be able to be conducted until they are cleared.

1. All resources and equipment under the control of the Board of County Commissioners needed for damage assessment shall be made available to ESF #19 upon implementation of the Comprehensive Emergency Management Plan (CEMP).

2. A disaster and/or emergency may cause significant damage to Orange County businesses, homes, and infrastructure.

3. Damage assessment teams operations may be hampered by blocked roads and damaged infrastructure.

4. Adequate and thorough damage assessment surveys will be needed in order to request and receive State and Federal disaster assistance.

While life safety issues will be addressed immediately, many of the mitigation opportunities that will arise in Orange County may not be fully known for several weeks or months following a disaster. It is important that damage assessment teams be mindful of mitigation concerns that may need to be addressed during the recovery phase of an incident. The training procedures for damage and mitigation assessment teams are listed in the ESF-19 Annex:

1. It is the responsibility of each agency to assess, develop, and implement a training program for all personnel assigned responsibilities in this ESF.

2. It is the responsibility of each agency to coordinate and track compliance with NIMS related training.

3. Each agency must ensure that sufficient personnel are trained to perform their assigned duty on a 24-hour basis and that all key positions have a depth of three persons.

4. Training must be conducted for public, private, non-profit, and volunteer personnel.

Generally speaking, the Manager of Fiscal & Business Services will be responsible for completing and submitting applications for federal and state disaster mitigation funding on behalf of Orange County. Other County and municipal departments and agencies may submit independent applications for mitigation funds. However, it is recommended that these project applications be supported by the Orange County Local Mitigation Strategy Working Group as it is a requirement for many of those funding sources.

ESF-14 Public Information, in coordination with the primary agency of Orange County Communications, will provide citizens with information concerning damage prevention and recovery prior to, during, and following a disaster event. This information may be provided through larger public information systems, such as a Joint Information Center (JIC) or Disaster Recovery Centers. ESF-14 will also provide pertinent information to the media, including television, radio, print, and online outlets, so as to reach the largest population possible in order to help mitigate all of Orange County.