





# Presentation Outline

- Hurricane Overview
- Public Safety & Operational Efforts
- Lessons Learned
- Next Steps
- Debris Report
- Summary

**Orlando Sentinel**  
HURRICANE FRANCES | AFTER THE STORM

## FLORIDA'S ORDEAL

**5 million** People without power—more than hurricanes Charley and Andrew combined

**275 miles** Frances' span—if touched nearly every county on the peninsula

**2.8 million** Floridians ordered to evacuate—the most in state history

**86,000** People who took refuge in shelters

**29** Counties that set mandatory evacuation

### Damage stretches across peninsula

The devastation is expected to reach the Panhandle after Frances strengthens.

### Storm hits beachside areas hard

Water pushes past sea walls and banks to soak roads and sink beams.

### Few storms compare to Frances

From one end of the Sunshine State to the other, residents stand awed by its reach.

**COPING WITH THE STORM | SCHOOLS DECIDING WHEN TO REOPEN | IN LOCAL & STATE**

**WEATHER** 86 INDEX



# Hurricane Overview

	<u>Donna</u>	<u>Charley</u>
<b>Year</b>	<b>1960</b>	<b>2004</b>
<b>Winds at Impact</b>	<b>150 mph</b>	<b>145 mph</b>
<b>Category at Impact</b>	<b>4</b>	<b>4</b>
<b>Metro Orlando Pop.</b>	<b>400,000</b>	<b>1.7M</b>
<b>Death Toll</b>	<b>13</b>	<b>4</b>
<b>Estimated Damage</b>	<b>\$387M (U.S.)</b>	<b>\$11B (FL)</b>

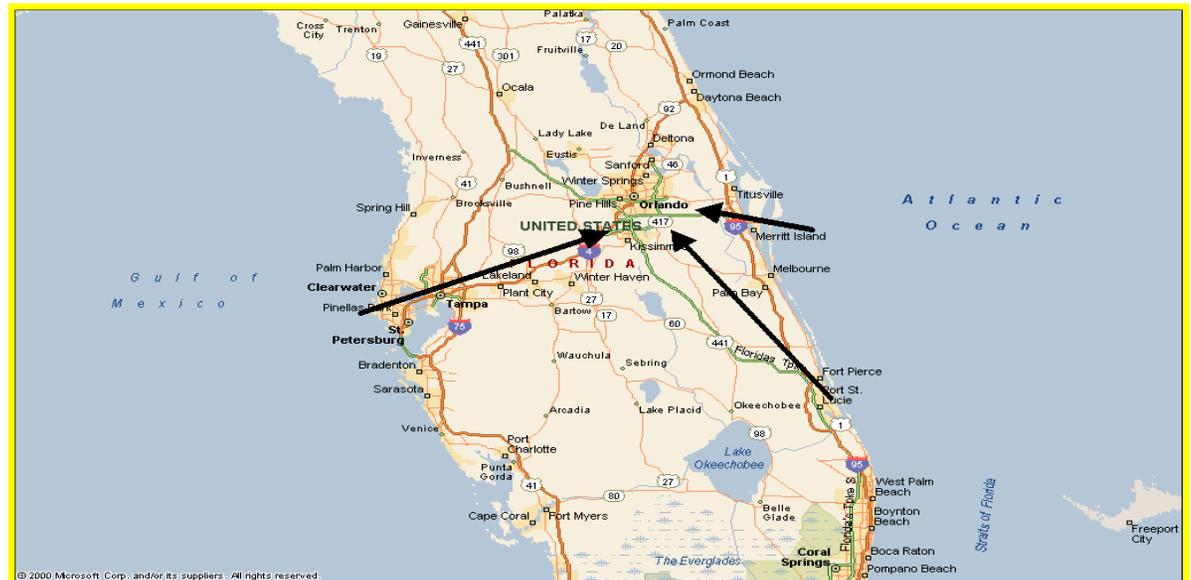
**Note: Cost of a first-class stamp in 1960 - \$0.04**

***Ben-Hur* won the Academy Award for Best Picture**



# Hurricane Overview

- Orange County historically designated as a “host” county
- Provides shelter to coastal counties
- Not since 1964 has Florida been hit by multiple storms

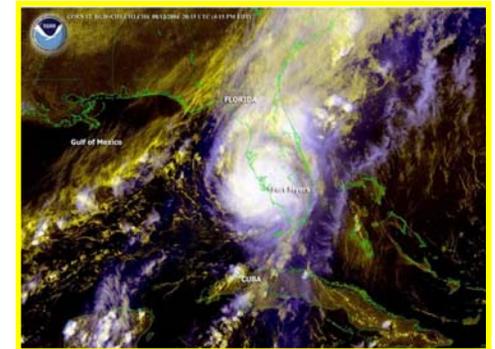




# Hurricane Overview

## 2004 Hurricane Season

- **Hurricane Charley – August 13, 2004**
  - Sustained maximum wind speed 105 mph
  - Length of storm – 7 hours
  - Heavy tree canopy damage
  - Infrastructure/roof damage
- **Hurricane Frances – September 3, 2004**
  - Sustained maximum wind speed up to 75 mph
  - Length of storm – 34 hours
  - Excessive Rainfall – 6.5 inches of rain





# Hurricane Overview

## 2004 Hurricane Season

- **Hurricane Jeanne - September 26, 2004**
  - **Sustained maximum wind speed up to 95mph**
  - **Length of storm – 33 hours**





# Hurricane Overview

## Orange County Property Appraiser Hurricane Damage Assessment

- Hurricane Charley - \$262M
- Hurricane Frances - \$72M
- Hurricane Jeanne - \$40M

**TOTAL - \$374M**





# Hurricane Overview

- **Few deaths attributed to the storms**
  - **9 Deaths – All indirect**
    - Hurricane Charley – 4
    - Hurricane Frances – 2
    - Hurricane Jeanne - 3





# Hurricane Overview

## Four Phases of Disaster Management

- Preparedness

- Response

- Recovery

- Mitigation





# Hurricane Overview

- **Preparedness**
- **Statewide Hurricane Exercise**
- **Countywide Table Top Exercises**
- **Joint School Safety Exercises**
- **Senior Officials Planning Workshop**





# Hurricane Overview

- Held debriefing with County Administrator, ESF's & Department Directors – December 1, 2004
- Met with area Meteorologists & received feedback on hurricane response & recovery efforts – February 21, 2005





# Hurricane Preparedness

- **Executive Policy Group meetings prior & during hurricanes**
- **Executive Policy Group Members**
  - **Chairman Crotty**
  - **County Administrator**
  - **Public Safety Director**
  - **Department Directors**
  - **Director of Emergency Management**
- **Countywide Regional Planning Meetings**





# EOC Activation

## County Emergency Operations

- **Local State of Emergency Declaration**
- **Executive Orders Signed**
  - **Mandatory & Voluntary Curfew**
  - **Price Gouging**





# EOC Activation

## Emergency Operations Center (EOC) Activation

- **All 20 ESF's Operational**
  - **Coordination with Cities, State Officials & Power Companies**
- **FOC's Staffed & Operational**
  - **Fire Rescue**
  - **Utilities**
  - **Public Works**
  - **Orange County Sheriff's Office**





# Public Safety Preparedness

## Fire Rescue Department

- Instituted Incident Action Plan (IAP)
- Staffed Additional Units
- Developed Emergency Response Plan
- Staged Urban Search & Rescue Team





# Public Safety Preparedness

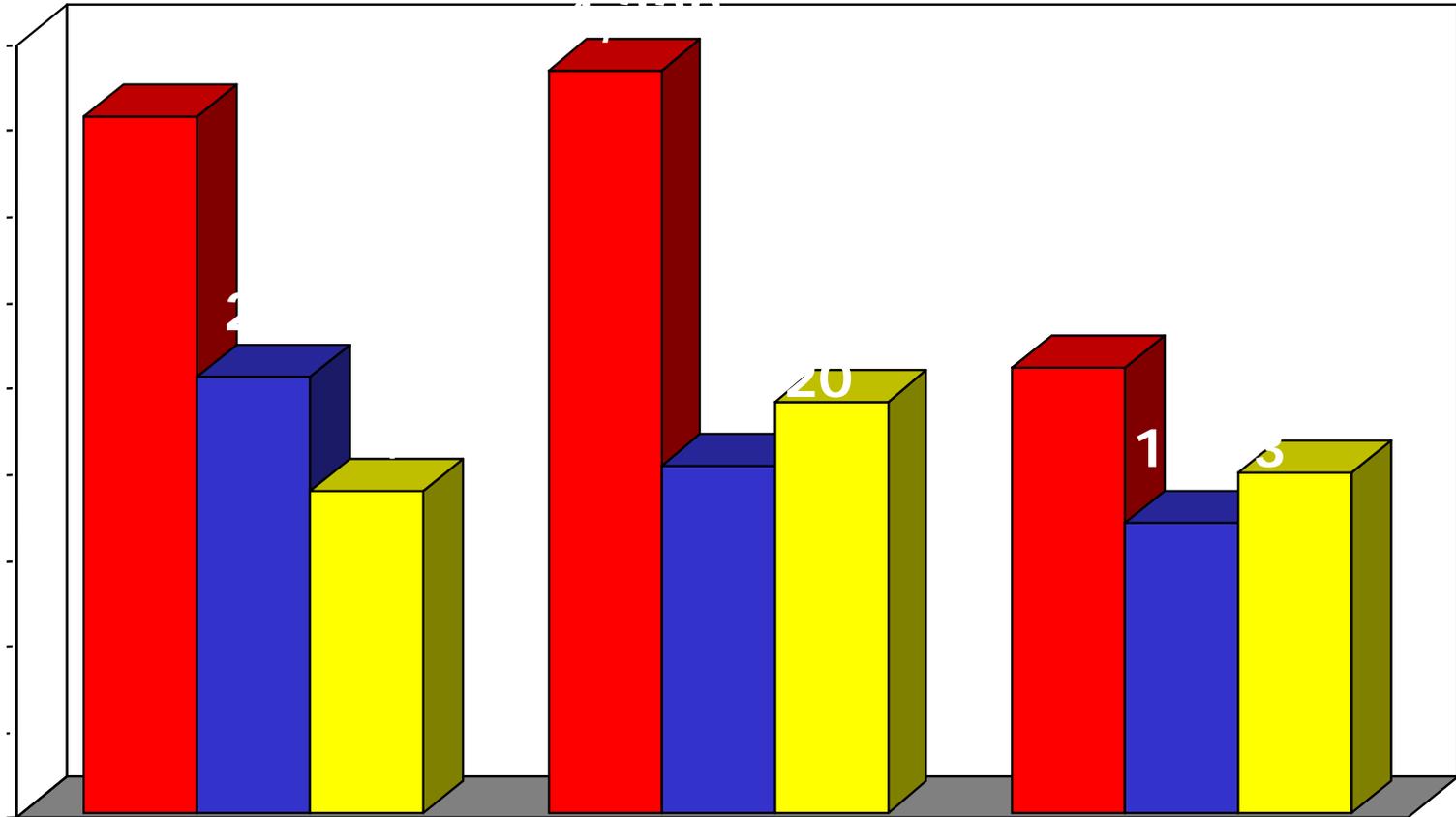
## Law Enforcement Activities

- Additional Deputies 900 – 1000
  - Traffic Control
  - Manning Command Posts
  - Patrol & Enforcement
- Preventing Looters & Arresting Violators





# 9-1-1 Emergency Calls Snapshot



**■ Hurricane Charley ■ Hurricane Frances ■ Hurricane Jeanne**

**Normal Call Volume – 1,600 Calls Per Day**



# 9-1-1 Types of Calls

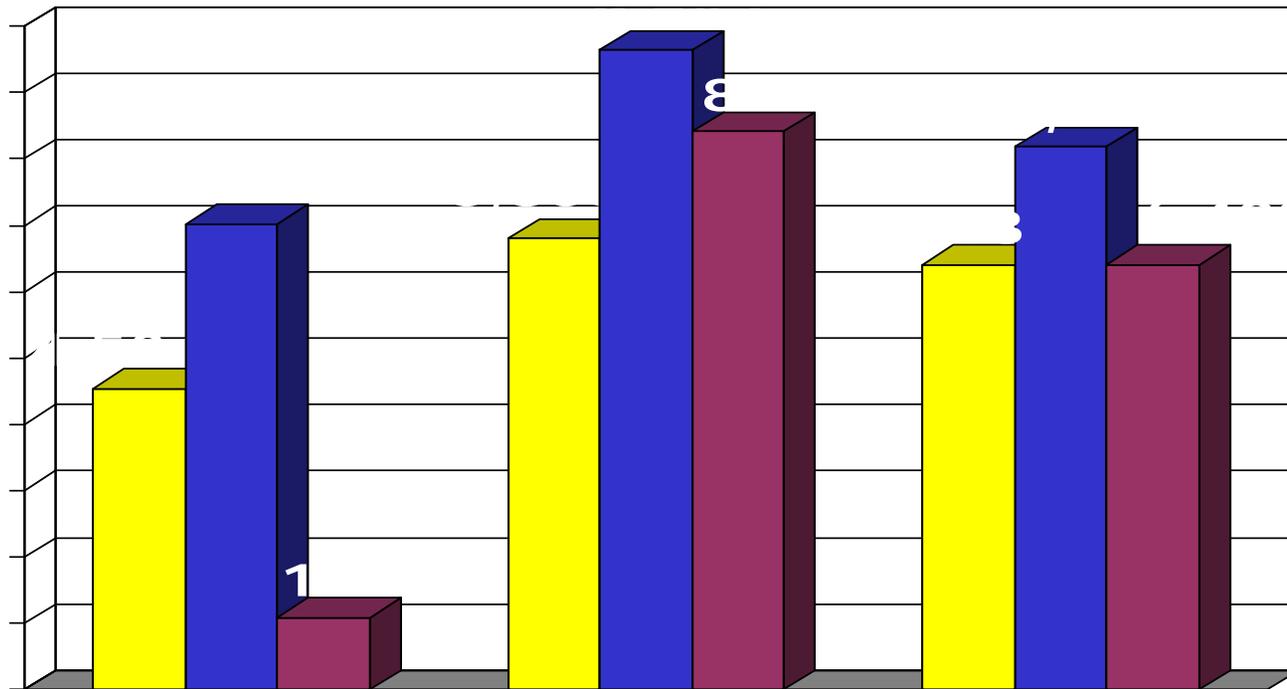
## Types of Calls

- **Wires & Trees Down**
- **Transformer Fires**
- **Ceiling Collapse**
- **Electrical Checks**
- **EMS Calls**
  - **Oxygen**
  - **Injury from Repairs**
  - **Heat Exhaustion**





# Government Access Center 836-3111



■ Hurricane Charley ■ Hurricane Frances ■ Hurricane Jeanne

Normal Call Volume – 700 Calls Per Day



# Message Center Types of Calls

- **Types of Calls**

- Debris Removal/Sites
- Sandbag
- Tarps
- Ice & Water Sites



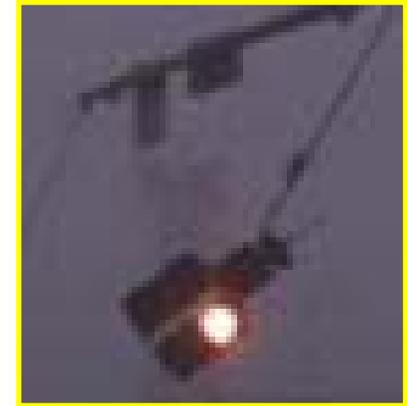
- **Informational Message Boxes**

- Option for Citizens
- Reduced Call Load



# Infrastructure Damage

- **Pump Stations**
  - Out of 626 pump stations, 400 were without power
- **Traffic Signals**
  - Out of approximately 500 signals, 200 were without power
- **Power**
  - Progress Energy & OUC – 85% of residents without power
  - Schools without power
  - Courts closed due to power





# Lessons Learned Preparedness

- County performed well as a result of having plans in place to include Current Comprehensive Emergency Management Plan (CEMP) & Continuity of Operations Plan (COOP)

## Response

- Annual update to emergency plan
- Continued training and exercises



# Lessons Learned Preparedness

- During the First 72 hours of a disaster, local governments manage the crisis - Federal and State response will follow

## Response

- Coordination of regional resources
  - Generators
  - Shelters for Major Equipment
  - People with Special Needs Shelters
  - National Guard Reserves





# Lessons Learned Communications

- **Need for a clearly defined communications plan that provides frequent messages to public via radio, TV and print media**

## Response

- **Media Advisories**
  - **163 Advisories**
  - **25 Press Conferences**
  - **Numerous Radio & TV Interviews – local, national and international news affiliates**





# Lessons Learned Communications

- **Newspaper Ads - Orlando Sentinel**
  - Full page ads Monday - Sunday
  - 230,000 circulation
  - Disaster, Recovery & Debris Site Information
- **Pre-Recorded Messages on Orange TV**
  - Health Professionals
  - Public Safety
  - Traffic Engineering

ORANGE COUNTY GOVERNMENT FLORIDA  
Hurricane Frances  
Recovery Information  
ORANGE COUNTY GOVERNMENT FLORIDA  
Orange County Government

Debris Sites	
West Orange Soccer Park 150 Windemere Road, Winter Garden	Holden Heights Pocket Park 11428 28 <sup>th</sup> Street, Orlando
Magnolia Park 2929 Binion Road, Apopka	Fort Christmas Park 1300 Fort Christmas Road, Christmas
Blanchard Park 2451 North Dean Road, Orlando	Dr. Phillips Park Property Fenton Street Dead End, Off Apopka-Vineland Road, Orlando
Barnett Park 4891 West Colonial Drive, Orlando	Northwest Water Reclamation Facility 701 McCormick Road, Apopka
Cypress Grove Park 280 Holden Avenue, Orlando	South Orange Youth Sports Complex 11800 South Orange Avenue, Orlando





# Lessons Learned Communications

- **Citizen Communication**
  - **Citizen Information Fliers**
    - 220,000 Distributed
    - Fliers in English and Spanish
- **Community Organizations Involvement**
  - Neighborhood Watch
  - Citizens On Patrol
  - Hunter's Creek CERT
  - ACORN
  - FOCUS
  - Community Code Enforcement Organizations
  - Churches & Businesses





# Lessons Learned Communications

- **County Web Page**
  - Daily updates on-line
  - Recovery Services & Debris Locations
  - FEMA & Consumer Hotline Links

ORANGE COUNTY GOVERNMENT, FLORIDA • News, information and services

**Hurricane Updates**

## Internal Communications Plan

- **Created Frequently Asked Questions (FAQ's)**
  - Distributed to all County employees
  - Daily updates on recovery services & assistance available
  - Enhances information flow to citizens

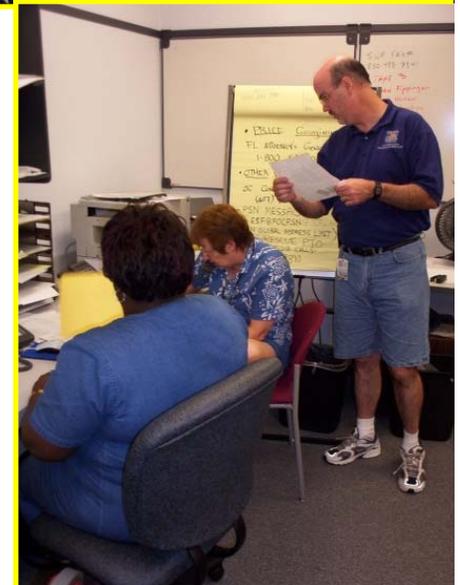


# Lessons Learned Communications

- We experienced an increase in call volume on the 9-1-1 System

## Response

- Plan to fully activate 3-1-1
- Increase call center staffing
- Plan for adequate space for staff during emergency





# Lessons Learned

## Deficient Homeowner Insurance

- Many of our homeowners had inadequate insurance related to hurricane deductibles

### Response

- Board approved and created the Disaster Assistance Program
- \$2M budget from State SHIP funds for Low to Moderate Income Homeowners
- Neighborhood Services - \$1.4M allocated for Hurricane Assistance





# Disaster Assistance Program

- **70% allocated for low income**
  - **\$2,000 per eligible homeowner**
  - **Total funding: \$1.4M**
  
- **30% allocated for moderate income**
  - **\$1,000 per eligible homeowner**
  - **Total funding: \$600,000**



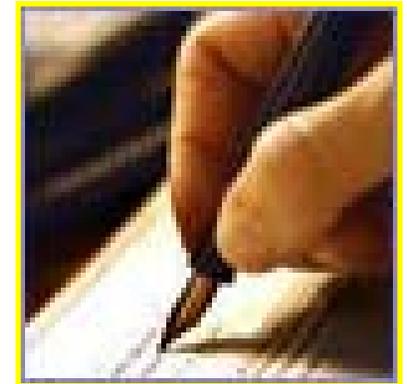
# Disaster Assistance Program

## Program Highlights

- 5,900 applications mailed out
- 953 applications returned
- 610 applications approved for funding
- \$923,000 dollars committed

## Disaster Assistance Deadline

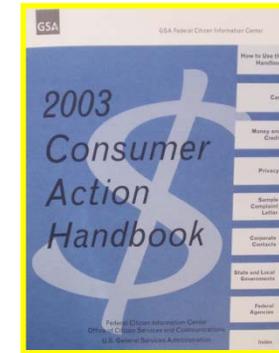
- Orange County - May 31, 2005





# Lessons Learned Consumer Protection

- Increase number of calls relating to consumer complaints



## Response

- Established a Consumer Complaint Hotline
  - Gasoline
  - Lodging
  - Food & Drink
  - Generators
  - Roofing

**1-800-646-0444**



# Lessons Learned Infrastructure

- Major power outages resulted in pump station failure – out of 626 pump stations, 400 were without power

## Response

- Collaborative effort in Central Florida to share generators
- Issued boil water notices to affected areas





# Lessons Learned Infrastructure

- **With the loss of power & multiple storms, we experienced significant damage to our traffic signals**

## Response

- **Working with FDOT to convert signals to mast arms at major county/state intersections**
- **Plan to implement four way stops at major intersections during storms**

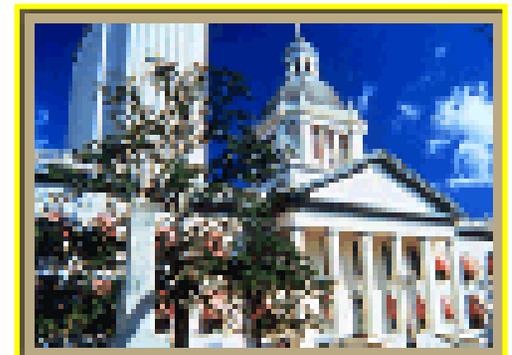




# Lessons Learned Infrastructure

## Response

- **Preparing emergency contract for repair of traffic signals**
  - **Generators to run signals during power failure**
  
- **Requesting legislative support - \$2M to convert signals to mast arms**
  - **Top 15 locations identified**





# Lessons Learned Recovery Efforts

- **With the loss of power, ice & water becomes critical in response efforts**

## Response

- **Establish ice & water distribution locations throughout county**
  - **Parks, Schools & Fire Stations**
- **Purchased 925 tons of ice**
- **Received 189 tons of ice from State**





# Lessons Learned Recovery Efforts

- **With the loss of power & damage, many restaurants & food establishments were closed for business**

## Response

- **Plan in future disasters to provide meals for people with special needs**
- **73,000 meals were distributed**
- **Only provided meals during Hurricanes Charley & Frances**





# Lessons Learned Recovery Efforts

- **Need to coordinate announcements relating to opening & closing of shelters & available hotel space**

## Response

- **Coordinate efforts between Red Cross, School District & County on designating shelters**
- **Work with Social Service organizations & County staff to provide shelter management**
- **Update shelter management agreements**





# Lessons Learned Recovery Efforts

- **Recognized that senior citizens & those impacted in heavily damaged areas need special assistance**



## Response

- **Created Community Action Response Teams & Senior Assistance Teams**
- **Services Provided**
  - **Removed Debris**
  - **Installed Tarps for damaged roofs**





# Next Steps

- **Conduct Senior Officials Workshops**
- **Expand the role of Citizen Corps**
- **Conduct EOC hurricane exercises**





# Next Steps

- Review all emergency management plans
- Work with Social Service organizations on response & recovery efforts
- Improve Government Service Center readiness





# Overview

## Pre-Storm Efforts

- **Contractor Procurement Process**
- **Competitively Bid**
- **Three Contractors Responded**
- **Two Contractors Mobilized**
  - **Crowder-Gulf**
  - **AshBritt**
- **Program Manager**
  - **PBS&J**



# Overview

## Debris Removal Strategy

- Use of County Staff
- Use of Contractors
- Citizen Drop-Off Sites
- Roll-Offs for Urban Environment
- Strategic Use of Landfill





# Overview

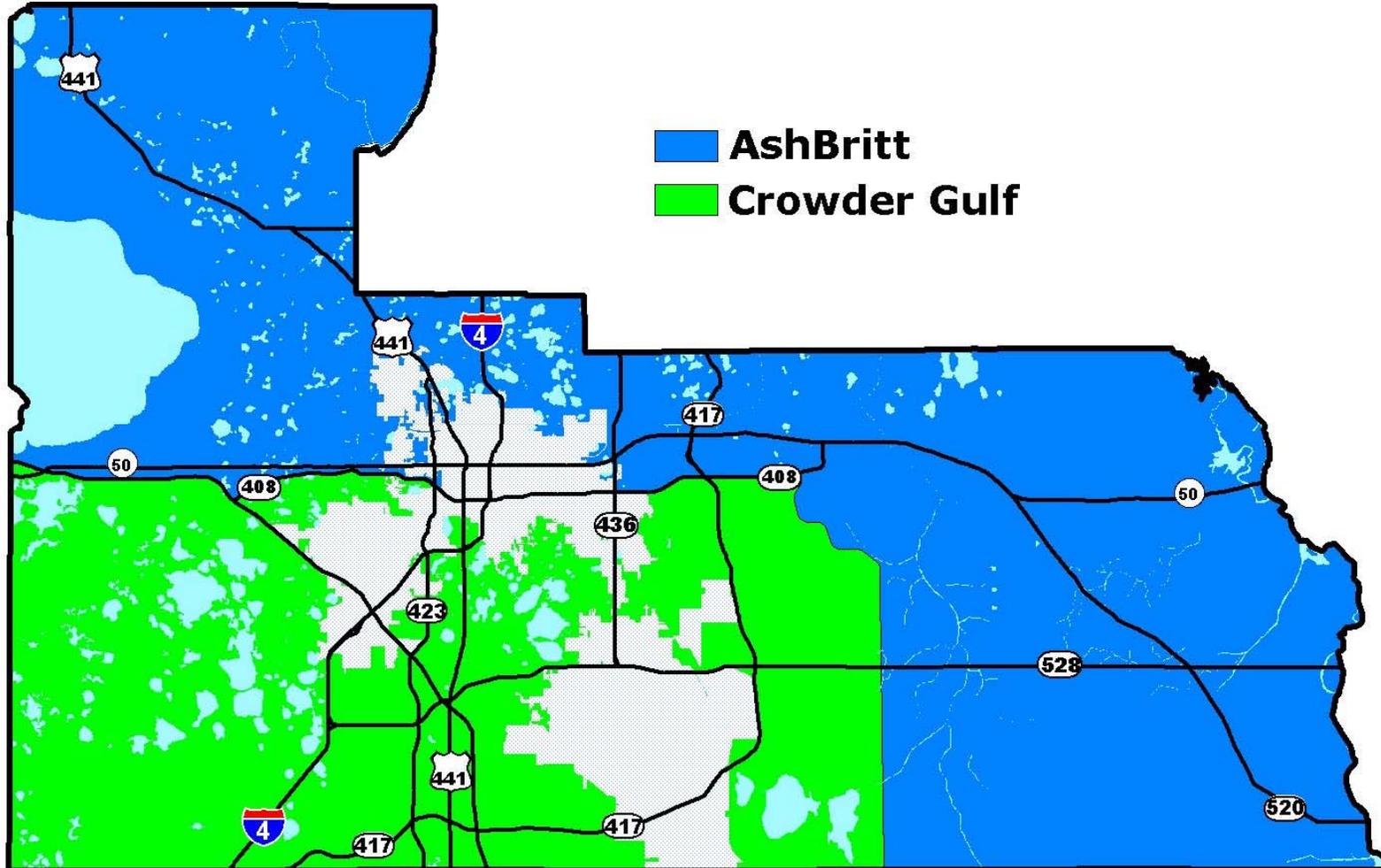
## Contractor Mobilization

- **Pre-Hurricane Charley**
  - **Crowder-Gulf – August 13<sup>th</sup>**
- **Post-Hurricane Charley**
  - **AshBritt – August 20<sup>th</sup>**





# Debris Collection Areas





# Overview Site Selection

- **Proximity to Impacted Areas**
- **Access**
- **Drainage**
- **Environmental Assessment**
- **FEMA Requirements**
  - **Property Ownership**
  - **School Board Cooperation**







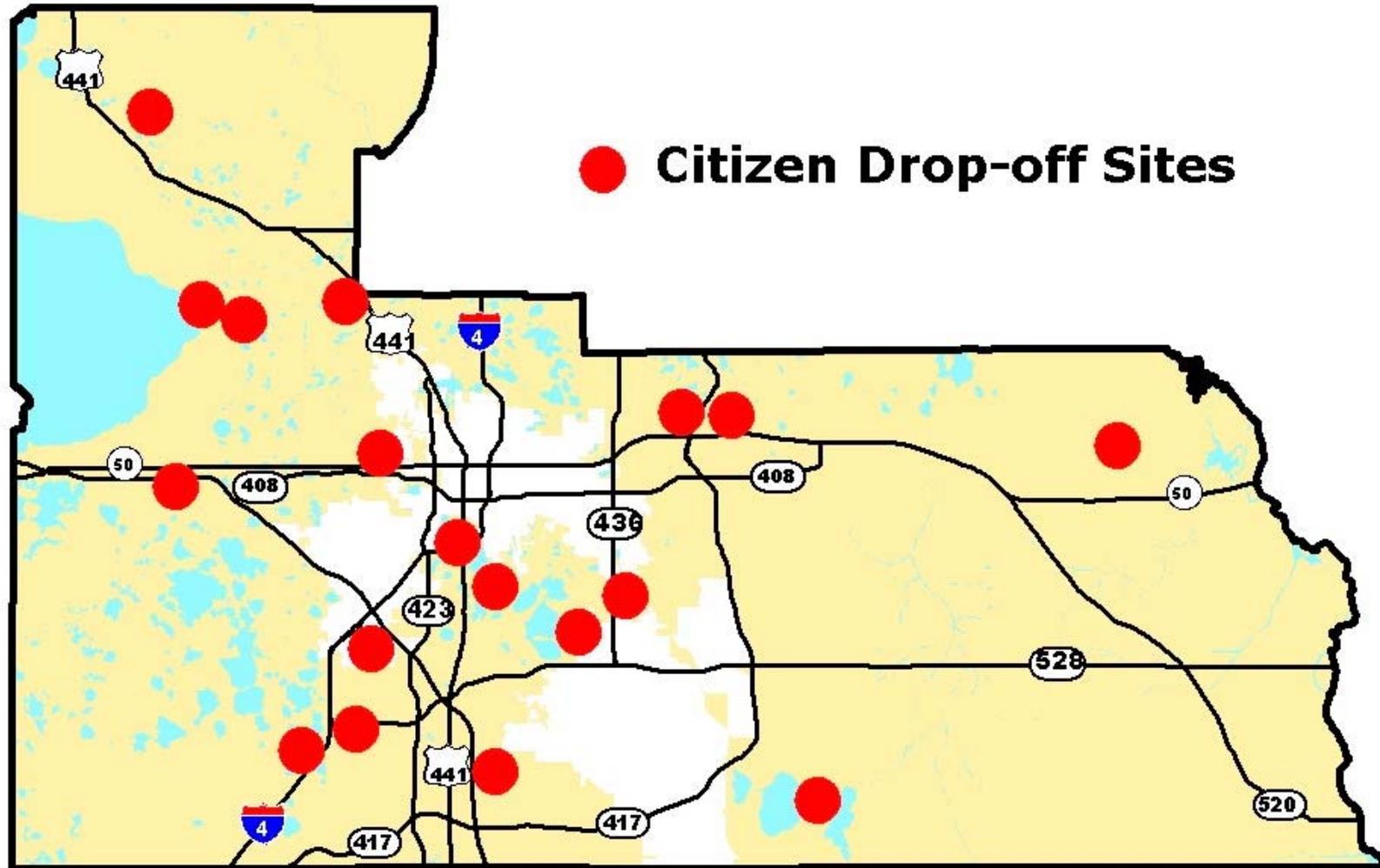
# Overview Contractor Sites

- **8 Locations**
- **Chipping**
- **Burning**
- **Heavy Equipment**
- **Monitoring Tower**





# Citizen Drop-Off Sites





# Overview

## Citizen Drop-Off Sites

- **18 Locations**
- **Open to all County Residents**
- **Open through Nov. 28th**
- **Hours of Operation: 7am – 7pm**
- **Staffed**
- **No Commercial Haulers**





# Overview

## Site Restoration





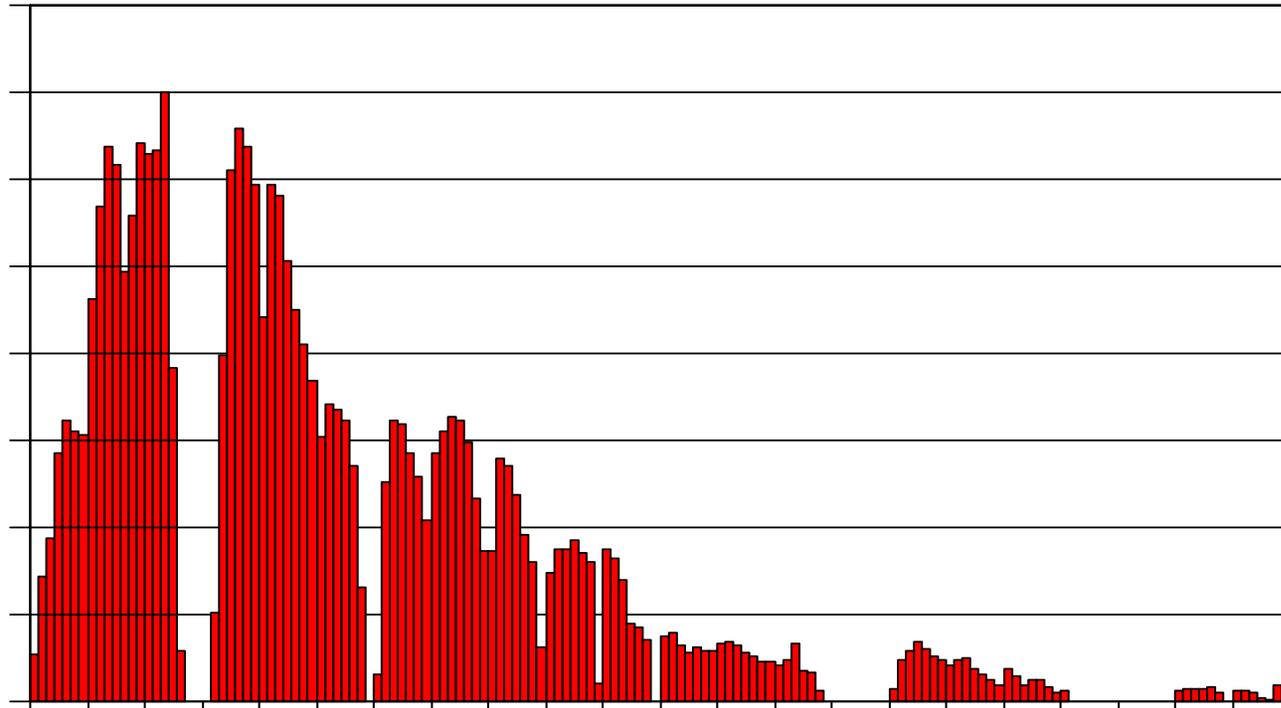
# Overview

## Site Restoration





# Overview Debris Collection



**Total Debris Collected – 2.4 Million Cubic Yards**



# Overview

## Debris Collection



**CITRUS BOWL**

**EMPIRE STATE BUILDING**



# Lessons Learned Contractor Procurement

- **Flexibility to mobilize additional manpower when necessary**
- **Response**
  - **New RFP will select multiple contractors**
  - **Minimum production rates established for debris removal**



# Lessons Learned Site Selection

- **Additional contractor sites required during the operation**
- **Response**
  - **Sites selected in advance**
  - **New RFP gives contractor option to identify additional locations**
  - **Continued School Board Cooperation**





# Lessons Learned Contractor Operations

- **Subcontractors perceived as “cherry-picking” debris**
- **Response**
  - **New RFP defines minimum crew size and equipment requirements**
  - **Each crew will be able to handle large/heavy debris**





# Lessons Learned Gated Communities

- **Removal of debris from private property – ineligible for FEMA reimbursement**
- **Response**
  - **Coordination of debris on County right-of-way with Public Works**
  - **Use of Roll-off Containers**



# Lessons Learned Garbage/Yard Waste

- **Regular collections delayed due to significantly increased demand**
- **Response: Supplemental Saturday collections initiated**





# Lessons Learned

## Maintenance of Right-of-Way

- **Increased incidence of dumping along arterial roadways**
- **Response**
  - **“No Dumping” signs installed**
  - **Code Enforcement presence established along these corridors**





# Next Steps

- **Ensure Debris Removal Contracts are in place**
- **Ensure Debris Monitoring Contracts**



# Summary

- **2.4 million cubic yards collected**
- **Lessons learned utilized to prepare for future hurricane season**
- **New RFP's for Debris Removal**
- **Debris Monitoring were issued**



# Summary

- **\$374M of property damage**
- **Collected 2.4M cubic yards of debris countywide**
- **\$85M projected cost to Orange County related to Hurricanes**





# Summary

## Citizen Survey Results

- **87% of citizens were satisfied with County's response to hurricanes**
- **85.5% said they received adequate information prior to each storm**
- **85.5% said they received adequate information concerning recovery efforts post storm**



# Summary

- **91.7% believe the County did a satisfactory job ensuring the safety of its citizens during and after the storms**
- **75.2% said the County was doing a good job regarding debris removal**
- **88.3% said the County reacted quickly in responding to the effects of the hurricanes**