Weather Disaster Preparedness and Recovery Seminar

Welcome to FIU FLORIDA INTERNATIONAL UNIVERSITY

Today's Agenda

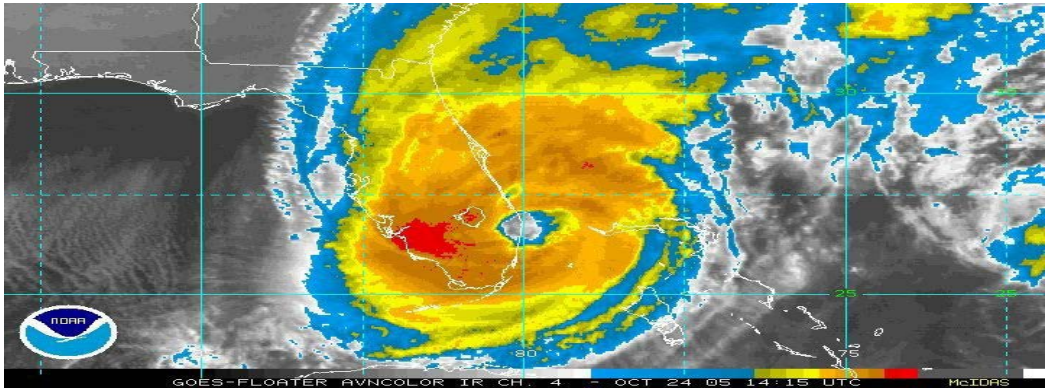
1. Introduction
2. Overview
3. Weather Disaster Preparedness Process
4. Weather Disaster Preparations
5. Disaster Recovery and Mitigation
6. Building Assessment Process
7. Recovery tracking and documentation
8. Important Vendor Information
9. Summary
10. Q&A

Why Are We ALL Here?

Overall Purpose: To restore **"Normal"** University operations ASAP!

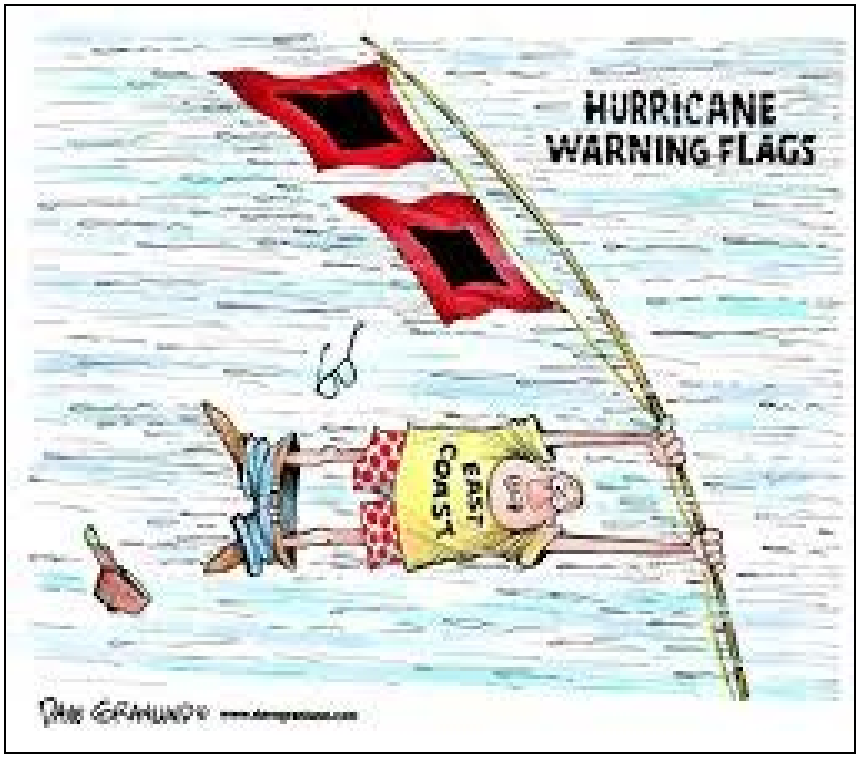
FLASH Back — **Katrina/Wilma '05**

- Caused a combined **$11 million** in damages.
- An estimated **60%** of major campus buildings and infrastructure sustained significant damage.



FIU just settled the last Wilma claim on July 2014!

Are YOU Prepared?

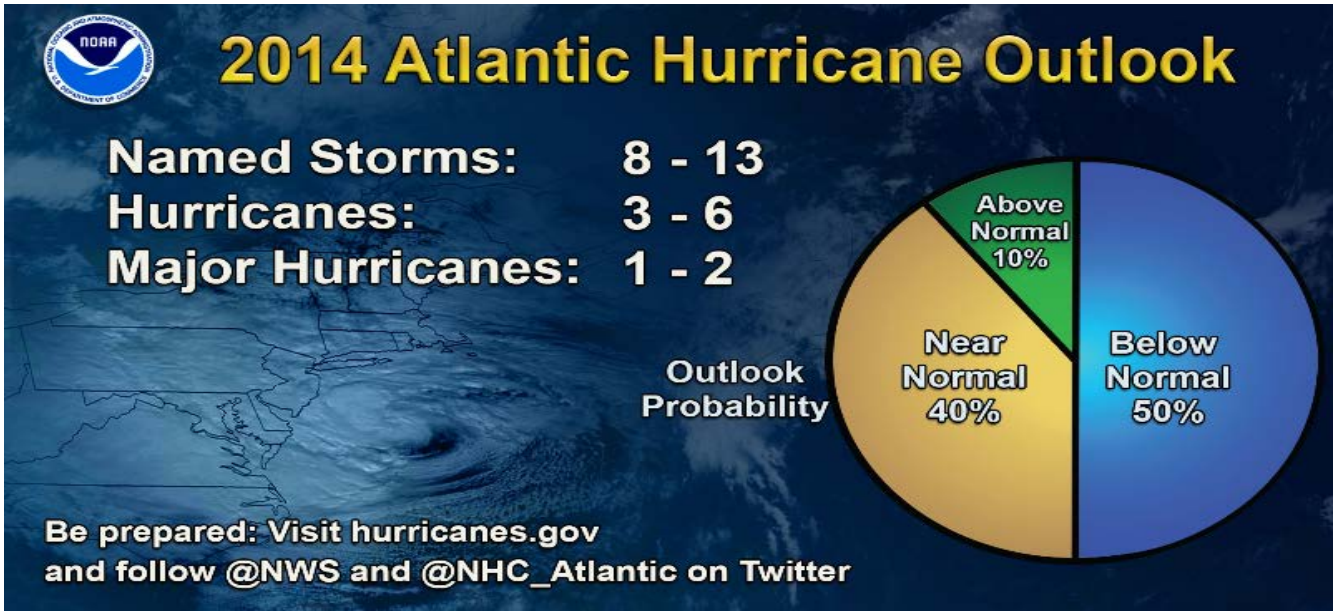


Disaster Resistant University (DRU)

"A DRU is an institution that understands the threat posed by natural hazards to its campus and its mission. It actively implements **policies**, **programs** and **practices** to address its **risks**. It integrates loss reduction into its teaching, research and public service activities. It has the **leadership** and **plans** necessary to reduce risk to the level the campus community believes appropriate." —FEMA

Weather Disaster Outlook

Hurricane Season: June 1st – November 30th

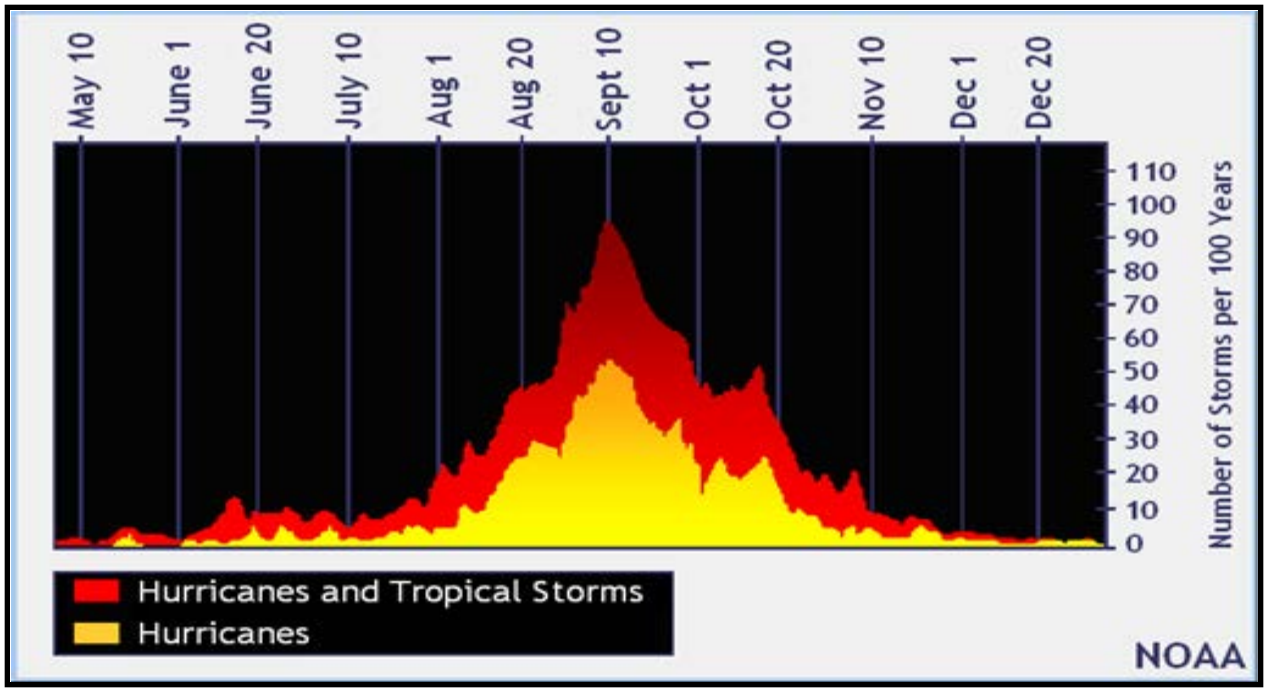


It only takes one!

The outlook calls for a **50%** chance of a **below-normal** season, a **40%** chance of a **near-normal** season, and only a **10%** chance of an **above-normal** season.

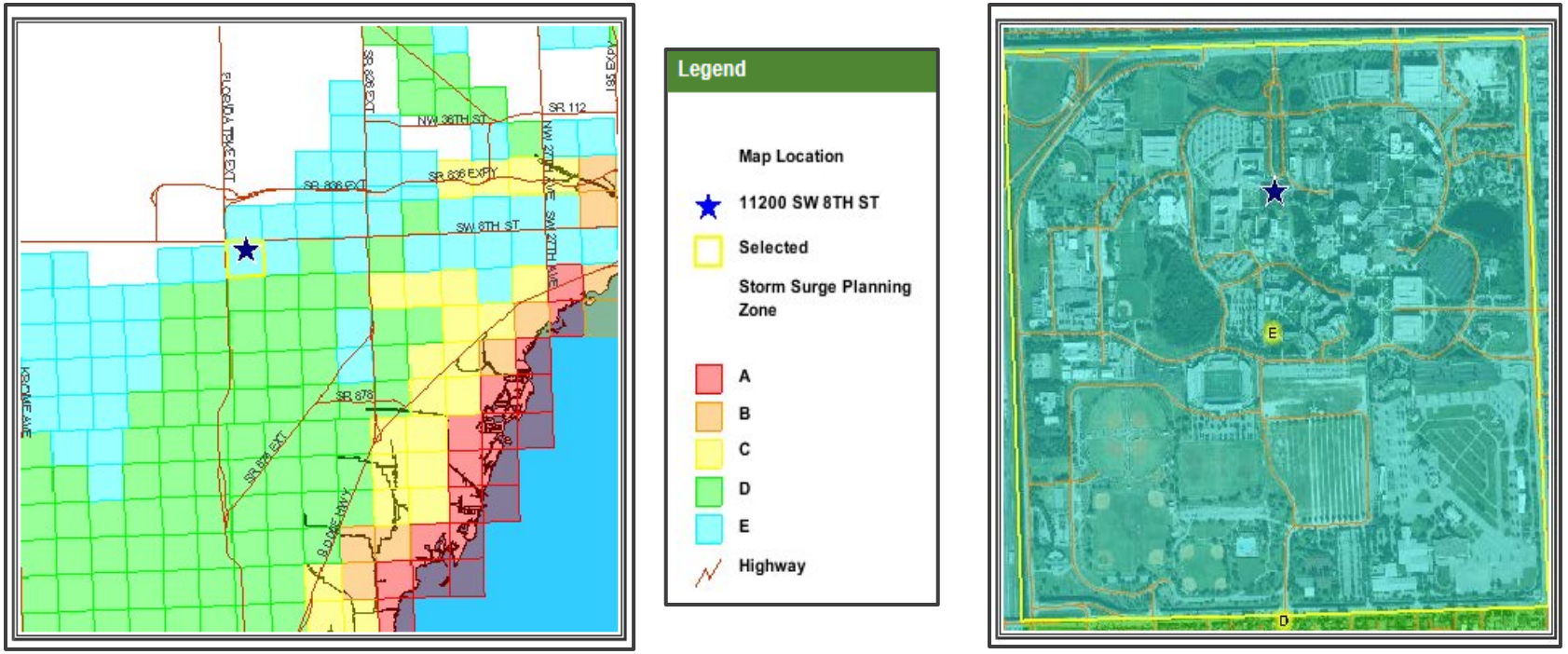
Hurricane Season Peak

Mid-August to Late October



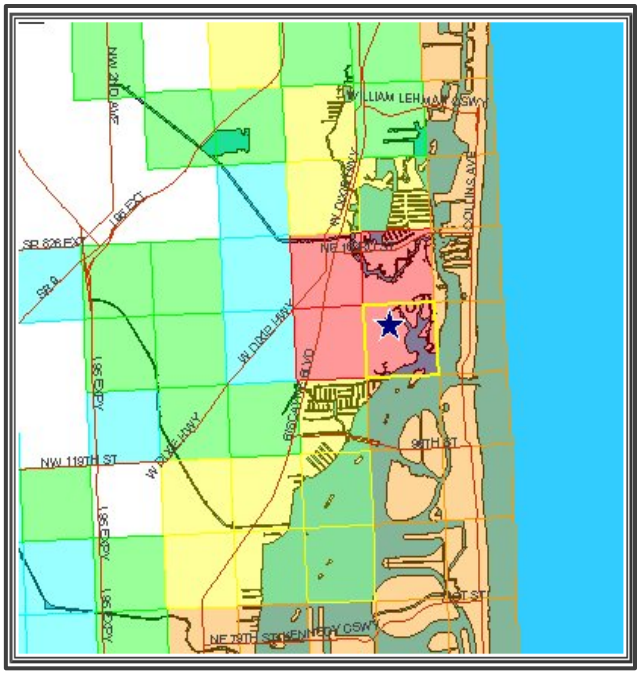
Storm Surge Planning Zones

FIU's **Modesto Maidique Campus** is categorized under Zone E, which is at the lowest risk for storm surge from Category 5 storms.



Storm Surge Planning Zones

FIU's **Biscayne Bay Campus** is categorized under Zone A, which is at the greatest risk for storm surge for Category 1 and higher storms.

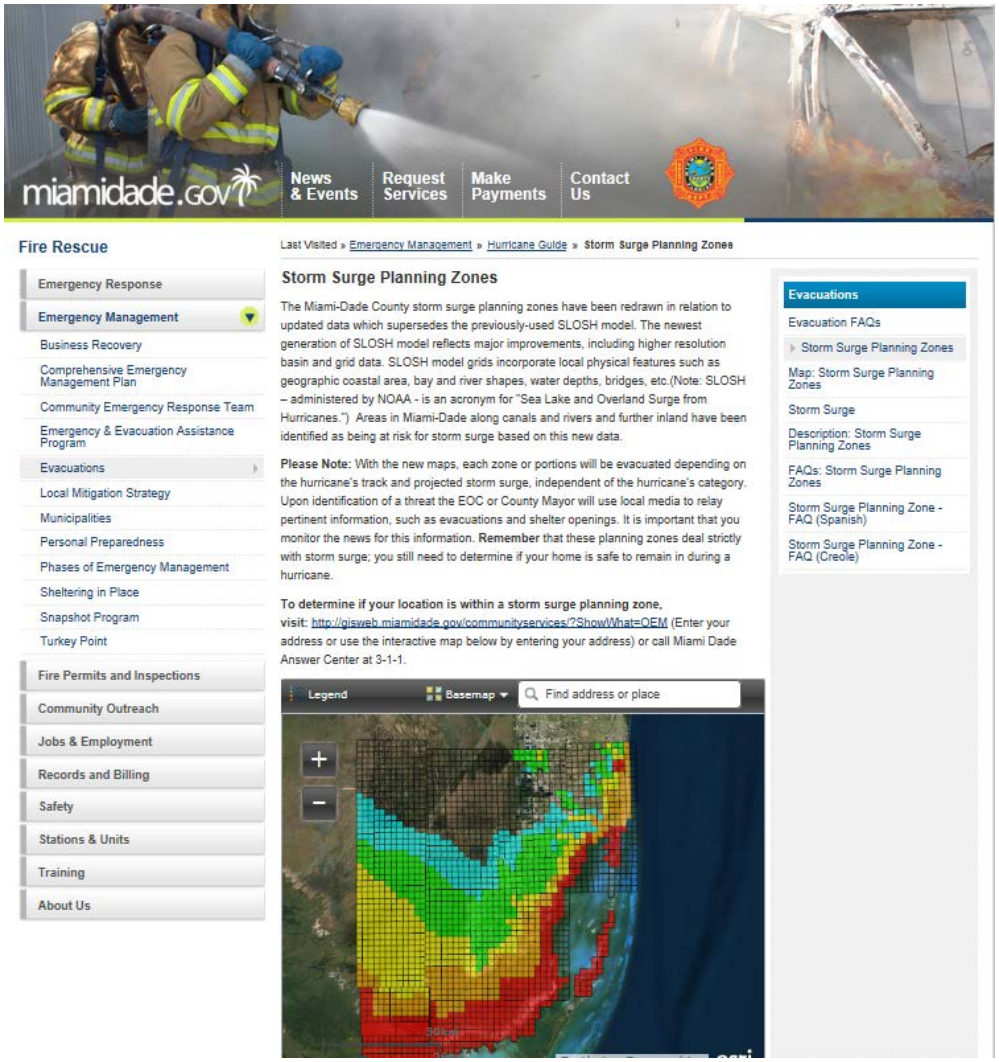


Storm Surge Planning Zones

Address search:

www.miamidade.gov

Storm Surge Planning Zones



Weather Disaster Preparedness Process

- The purpose of this procedure is to **help facilitate building assessments** throughout the university in the aftermath of a weather related disaster.

- Facilities Management's areas of responsibility include assessment of all **campus infrastructure** and **preliminary building damage assessments**.

- Assessment teams will include **key personnel** from Facilities Management such as Construction, Operations, and if available, Police Department and Environmental Health & Safety.

Emergency Management

Four Phases of a Weather Disaster:

- **PRE—Preparedness**
  - Plan of Action: Chain of Command, Communication, Construction, and Operations action plans
  - Evaluation and documentation tools
- **RES—Response**
  - Building Assessment Process
  - Use of contracted Debris Removal Vendors
- **REC—Recovery**
  - Restoration of impacted facilities within a systematic and documentable process
  - Use of continuing service contract professionals and builders
- **MIT—Mitigation**
  - FIU Facility Standards
  - Special needs projects (i.e. Mold, Hazardous Materials, etc.)

Tracking & Monitoring the Storm

Hurricane Warning: 72-hour Confirmation

- Emergency Operations Center (EOC) will be activated
- Mass communication will be sent out via e-mail, posted on FIU's main website: www.fiu.edu, and broadcasted through local media
- Internal preparedness meetings will be held
- Discussion of time frame regarding weather event with essential personnel

General Communications

www.fiu.edu

Weather Disaster Preparations

1. Continuing Contracts - Vendors, CM's, & A/E's

- Pre-position contractors/ protective measures/ Debris Removal contacts.
- Secure availability of continuing service contract Architects and Construction Managers for minor projects prior to event.
- Communicate with Construction Managers to prepare for possible roof damages and immediate recovery/repair efforts to mitigate water intrusion and roof equipment damage.

2. Specialized Work

- Identify and contract with specialized vendors for specific post impact services.

3. Preparation of Building Damage Assessment Binders

- Prepare building damage assessment toolkits.
- Retrieve building floor plans and roof plans to graphically note damages encountered.

Weather Disaster Preparations

- **Potential Hazardous Conditions –** Work with Environmental Health & Safety for documenting hazardous conditions within specific buildings. Identify hazardous materials, equipment, fumes, chemicals, explosives, radioactive materials, biological waste, etc.

4. Assessment and Documentation of Existing Conditions

- Assessment of pre-event conditions - building assessments & pictures (ie. Multivista)
- Document roofing as well as all roof mounted equipment conditions.
- Projects under construction - record and photo document all work in place prior to event.
- Roof access points secured - doors and roof hatches positively latched and locking mechanisms fully operational and in locked position.
- Roof equipment - all covers secured; no missing latches, bolts and/or screws.
- Remove any roof debris and/or loose materials or equipment.
- Storm shutters operational and lock-down capable.

Weather Disaster Preparations

5. Designation of FMD Command Center

- FMD's Control Center: **Campus Support Complex** (CSC Building), **Room: # 1123**. Assembly and information point for all facilities related assignments; Point of contact for all Vendors and Construction Managers.
- Emergency Generator - space fed by emergency electrical power for lighting, HVAC (air cooled units), and charging cell phones, radios, laptops.
- Secure computers, printers, and communication devices to be operational on emergency power.

Construction Site Preparations

- Secure all **files**, **drawings**, **office computers**, and any **other equipment** from jobsite that is at risk of water damage.
- Obtain **pictures** and/or **video** of jobsite and surrounding areas.
- Protect all building **windows**, **shafts**, **chases**, and **roof openings**.
- Secure building **materials** and remove all **debris** and **loose lumber**.
- All interior and exterior areas should be broom swept and **free of debris**.
- Disconnect all **electrical equipment** from power source.
- Remove all **signage** from fence lines.
- Lower and secure all **cranes** to the ground in a remote area.
- Ensure **dumpsters** are emptied or covered with tarps.
- Secure all **hazardous materials** to prevent chemical spills.

During a Weather Disaster

No one is allowed on campus premises!

FIU's **Emergency Operations Center** will be actively tracking the weather event and provide further information when possible.

Disaster Recovery and Mitigation

- **Two MAIN priorities:**

  - ✓ Safety

    - No one should report to campus until the **"all clear"** is given to safely drive on the roadways and instructed by your supervisor
    - All FIU essential personnel will be required to present their **FIU One Card** in order to be allowed onto campus premises

  - ✓ Communication

    - Direct contact with Supervisor or Co-workers
    - Landline (**primary source** *if available*), cell phones, and/or FIU radios

Building Assessment Process

- **FMD Command Center**
  - ✓ Designated essential personnel will report directly to CSC 1123 (*unless otherwise specified*) after arriving safely onto campus premises.
  - ✓ All essential personnel will be required to sign-in and wait for instructions to be given.
  - ✓ Assessment teams will be formed and organized depending on necessary job function:

    → ***Teams of 3 to 5 people***
    - Building Manager (Point of Contact- POC)
    - Project Manager
    - Administrative Support
    - Police Department (*if available*)
    - Environmental Health & Safety (*if available*)
  - ✓ Teams will assess all FIU MMC & BBC campus buildings.
  - ✓ Complete all “Building and Site Condition” assessments.
  - ✓ All information will be organized and consolidated.
  - ✓ Assessment information will be shared with the Emergency Operations Center (EOC).
  - ✓ FMD will provide recommendations and action strategies regarding restoration of damages.
  - ✓ Additional assistance will be provided by the Debris Removal Vendors, Metric Engineering, and Custodial Services; will be on call for immediate assistance.

Building Assessment Process, cont.

Initial 72 Hour Building Damage Assessment

- Organize and capture preliminary information after a weather related event.
- Infrastructure Occupancy Status:

C	Cleared for Occupancy
CO	Conditional Occupancy Limited Safety Issues/Hazards
UN	Unsafe Conditions Present; **Occupancy Date: TBD**

- Categorize Level of Damage:
  - **C:** Light Damage- Debris Cleanup, Minor Leaks (Windows/Doors)
  - **CO:** Limited Roof & Equipment Damage/Leaks (Water Extraction)
  - **UN:** Extensive Roof & Bldg Envelope Damage/Flooded Areas
- Execute immediate mitigation to prevent further damage (i.e. Tarp, Roof Cover, Board, etc.).
- Provide immediate recommendations to EOC.

Disaster Recovery

- Only **Vendors** with debris removal contracts and **Construction Managers** (CM) with active construction projects will be allowed on campus.
- Other Vendors will be contacted by designated **Project Manager** (PM), as needed.
- Work will be assigned on an as needed basis depending on the severity of the event.

METRIC ENGINEERING
WHY THINGS WORK®

Project Objectives

- Metric Engineering will support FIU on **damage assessment**, **recovery**, and potential **reimbursements**.
- In case of an event, the company will provide **full service debris monitoring staff** including collection and disposal site monitors, permitting and environmental specialists, administrative staff, and state-of-the art technology necessary to successfully complete the debris disposal operation.
- Also, will monitor contractor operations for proper truck certification and load eligibility for FEMA and NRCS reimbursement and continuously strive to find operational and innovative ways to **control costs**, **reduce waste**, **eliminate fraud**, and **maximize reimbursement**.

METRIC ENGINEERING
WHY THINGS WORK®

Meeting the Objectives

Work Plan:

- Prior to Event
- During the Event
- First 70 Hours – Initial Push
- After the first 70 Hours
- Hangers, Leaners, & Stumps
- Load Tickets
- Communications

METRIC ENGINEERING
WHY THINGS WORK®

Debris Load Ticket

METRIC ENGINEERING, INC. DEBRIS LOAD TICKET

No. 00000

Applicant:		Date:
Contractor:		
Placard No.:	Capacity:	CY
Loading Site: *Street or Intersection*		*City* / *County*
When Using GPS Coordinates use Decimal Degrees (N xx.xxxxx)		
GPS	N	W

Road Classification	Pass Classification
☐ FHWA ON ☐ FEMA (Local)	☐ First Pass
☐ FHWA OFF ☐ Private Property	☐ Subsequent Pass _____

Load Classification: *(check one)* ☐ C & D ☐ White Goods ☐ HHW ☐ Vegetative/Woody ☐ Mixed ☐ Other (specify):

Driver's Name *(print)*			
Departure Time:	AM PM	Odometer:	
Load Monitor (Print)		Signature:	
Disposal Site Location:			
Arrival Time:	AM PM	Date:	Odometer:
Capacity (CY)	x	% Loaded	= Volume Hauled (CY)
	x		=
Total Weight (Ton)	Tare Weight (Ton)		Load Weight (Ton)
Disposal Monitor (Print)		Signature:	
Contractor Monitor (Print)		Signature:	
Notes:			

White	Canary & Blue	Pink	Green	Gold	Tan
Agency	*Contractor*	*Metric*	*Driver*	*DMS*	*Loading Site Monitor*

Important for Vendors

- Be prepared to verify **actual** work completed vs. **original** project worksheet descriptions.
- **Challenges/Realities:**
  - Post-event mobilization/transportation
  - On the spot proposals/approvals
  - Maintain record of all e-mail transactions for submittal process for reimbursement requests

Presentation Highlights

- Hurricane Season Peak → **Aug./Sept./Oct.**
- Pre-Weather Disaster
  - General Communication
  - Construction Site Preparations
- During a Weather Disaster
  - **No one** allowed on campus premises!
- Post-Weather Disaster
  - Command Center for FMD: **CSC 1123**
  - First 72 hours **only**:
    - Debris Removal
    - Capital Project CMs
  - Other Vendors will be contacted, as needed
- Metric Engineering
  - Maximize reimbursement for FIU
  - Timely Pay for Vendors
  - Efficient and Safe Operation
- Vendor Information
  - Maintain updated information in FIU database
  - Insurance Requirements

Contact Information

Facilities Management Point of Contacts:

- **John Cal:** Associate VP Facilities Mgmt.
  (305) 323.1488
- **Nicholas DiCiacco:** Director of Physical Plant
  (954) 651.8972
- **Danny Paan:** *Interim* Director of Facilities Construction
  (305) 812.2052
- **Marco Benitez:** Director of Analysis, Assessment & Risk Mgmt.
  (954) 261.4059

http://facilities.fiu.edu/AARM/aarm.htm

Questions/Feedback

From Everyone here at

Thank You!