

LESSONS AS FIRST RESPONDERS

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Responding to the 2024 Hurricanes

Thursday, June 12, 2025

- 11:00 a.m. - 12:00 p.m. ET
- 10:00 a.m. - 11:00 a.m. CT
- 9:00 a.m. - 10:00 a.m. MT
- 8:00 a.m. - 9:00 a.m. PT



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APWA Proprietary Interest Disclosure Statement

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Today's Program is eligible for .1 Continuing Education Unit (CEU) credits

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Speakers for APWA educational offerings agree to refrain from specific product or services endorsements or promotions during APWA educational offerings.



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A link to the program evaluation will be emailed to you after the program.

To request CEU's - you must correctly answer 80% of the questions.

APWA has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102; (703) 506-3275.



RESOURCE CENTER

ONE PLACE where a member can access:

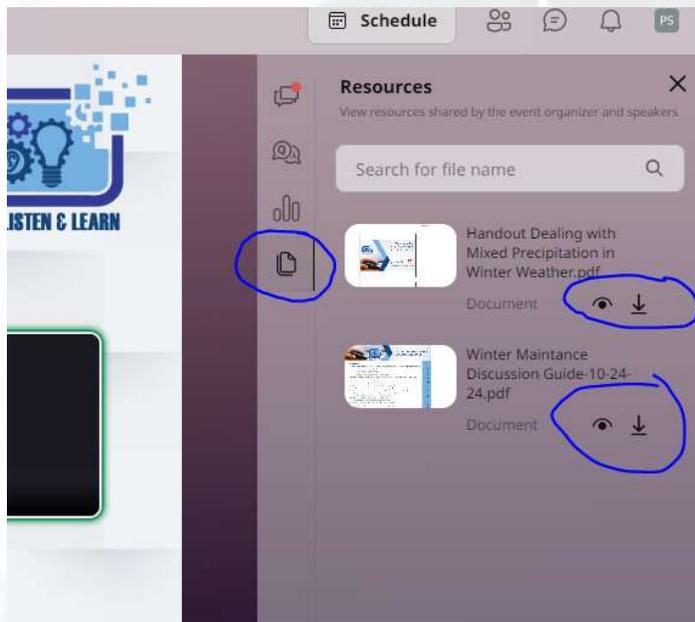
- Past Click, Listen & Learn (CLL) presentations
- Content from past conferences (PWX and Snow)

All searchable by topic. All without any extra fees beyond membership dues! No limits to how often you access or open the items in the Resource Center.

No travel. No scheduling hassles. No delays while waiting for someone else's approval. No waiting for registration payment to be processed.

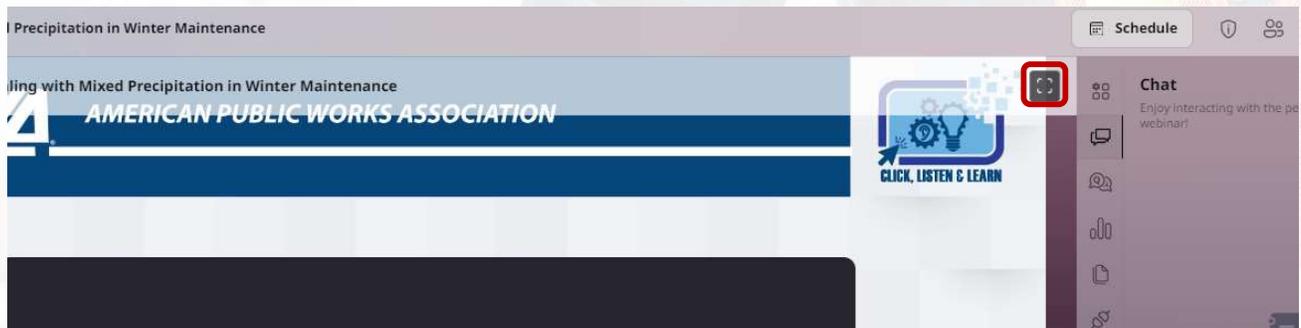
For more information go online to www.apwa.org/resources/resource-center.

Handout for Today's Program can be download from the right-hand chat panel.



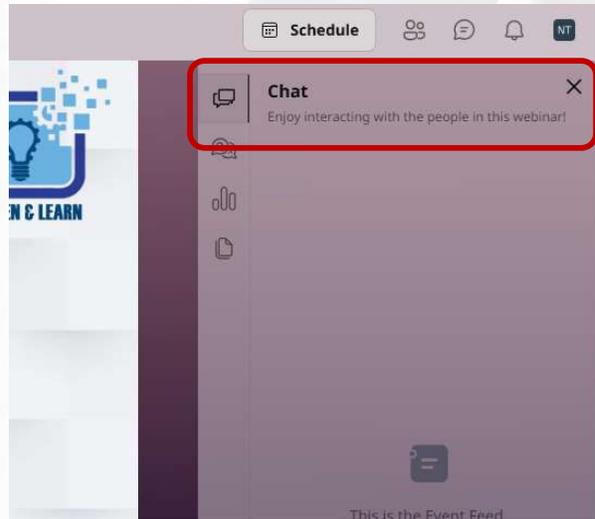
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Viewing the Presentation



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Communication & Engagement Opportunities

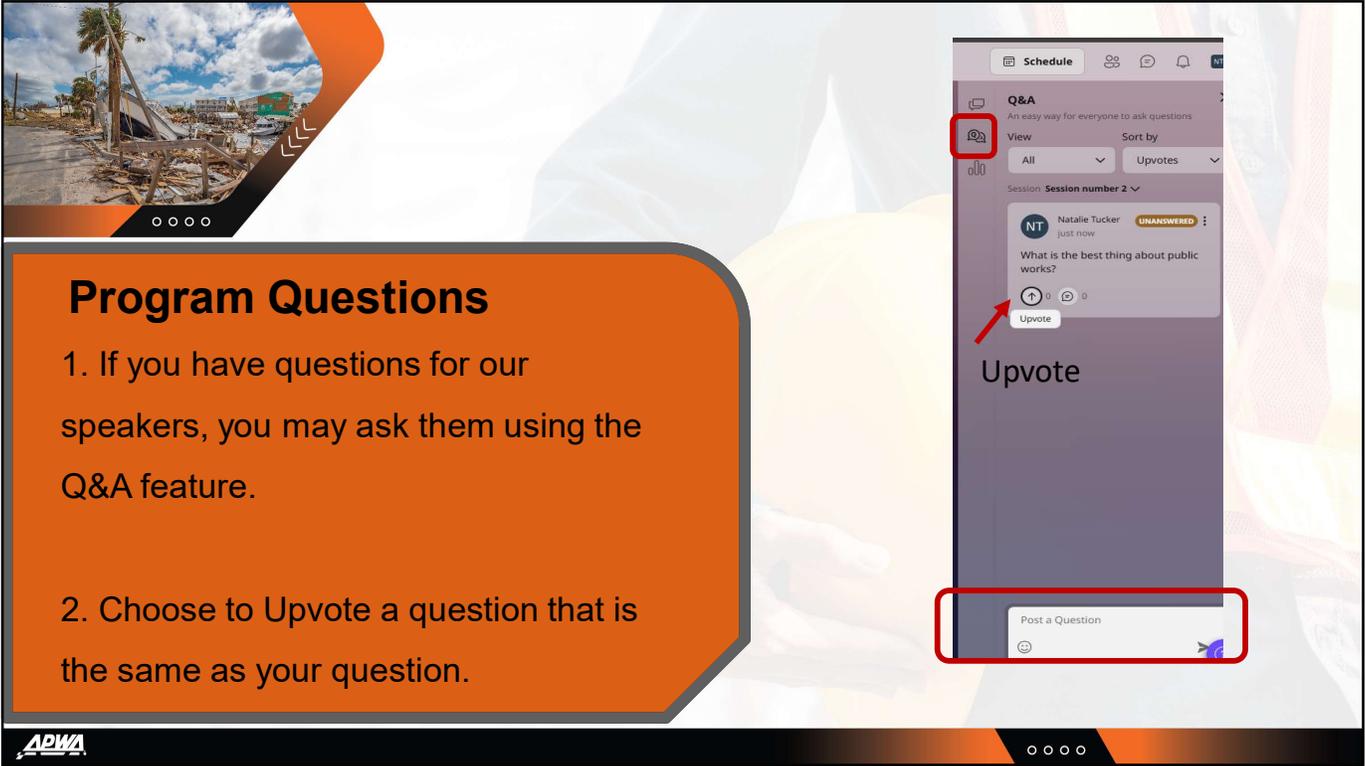


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Reactions



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Program Questions

1. If you have questions for our speakers, you may ask them using the Q&A feature.
2. Choose to Upvote a question that is the same as your question.



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Today's Moderator:



Chris Lightfoot
Public Works
Director
Lynn Haven, Florida

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Learning Objectives

After completing this course, participants will be better able to:

- Explain the key actions emergency management personnel must take to effectively respond to a hurricane.
- Analyze strategies for efficiently integrating outside emergency Management personnel into disaster response efforts.
- Assess the lessons learned from hurricane responses to enhance future preparedness and resilience.



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Get Involved with APWA

Nominations to join an APWA knowledge team or subcommittee are considered year-round. Please use the QR code below if you are interested.



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Today's Speakers



Tim Anderson
Division Engineer
NCDOT, Division of Highways



John Elias
Public Works Director
Charlotte County, Florida



Karly Green
Maintenance and Operations Manager
Charlotte County, Florida



Tyler Hill
Infrastructure Project Manager
Boone County, Kentucky



Program Questions

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Stay for the discussion,
please join us in the lounge.

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Lessons as First
Responders:
Responding to the
2024 Hurricanes

**LESSONS AS FIRST
RESPONDERS**

Tim Anderson
Division Engineer
NCDOT/Division of Highways

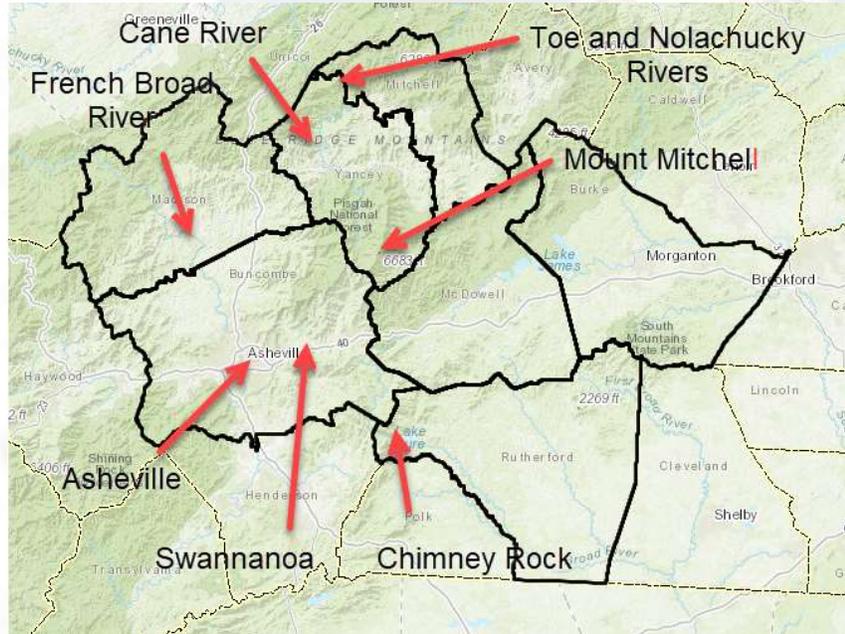
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NCDOT Division 13

- Buncombe County
- Burke County
- Madison County
- McDowell County
- Mitchell County
- Rutherford County
- Yancey County



Major Impacts

Rain- up to 30" over 72 hours
 Wind- Hurricane force gusts
 Tornadoes- multiple reported

Resulting Damage

- Loss of Life
- Loss of property
- Land Slides
- Tree Damage
- Historic Flooding
- Power Outages
- Telephone Service
- Internet Service
- Mobile Service



Chimney Rock Village- Rocky Broad River



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Chimney Rock Village- Rocky Broad River

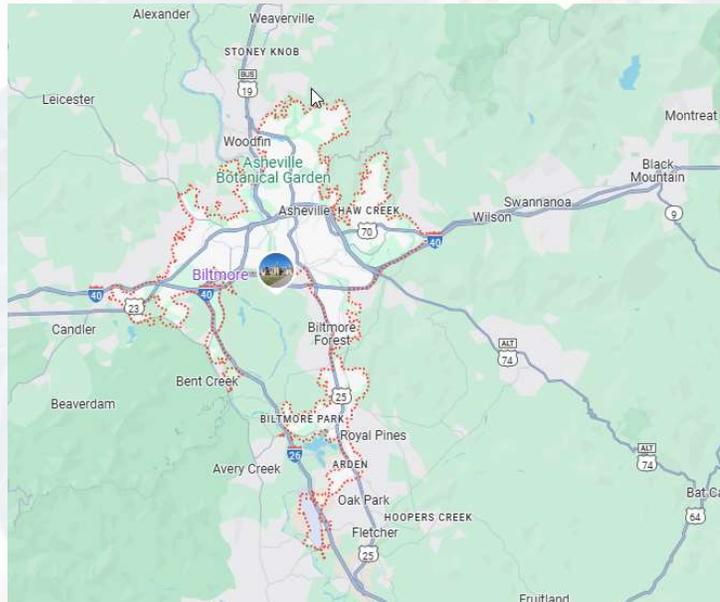


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City of Asheville

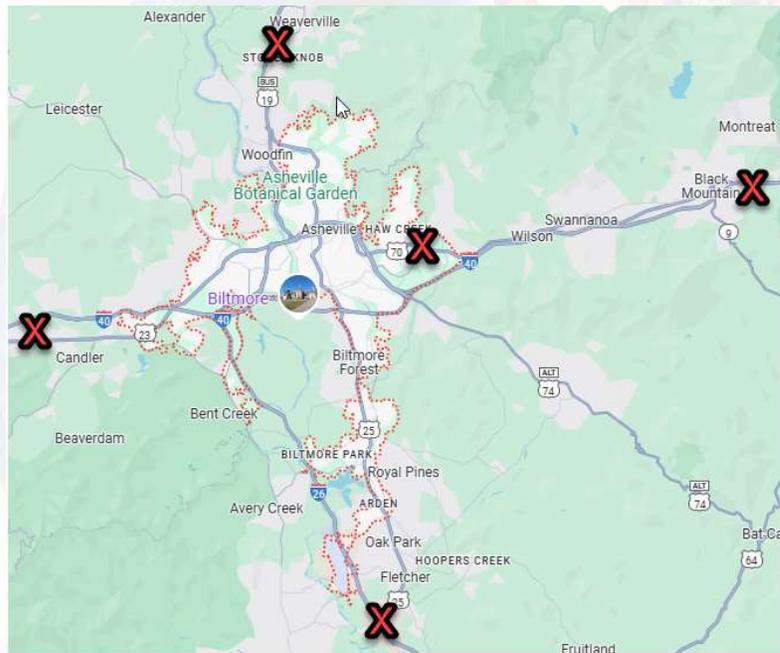
Largest City in Western North Carolina >95,000 population

Surrounded by mountains
 Confluence of two Rivers
 Major routes serving I-40, I-26,
 US 25, US 70



City of Asheville

- I-40 closed West of Asheville to Tennessee
- I-40 flooded at NC 9 and closed with a landslide East of Black Mountain
- US 70 bridge approach lost
- I-26 in Tennessee Bridge Loss
- I-26 Flooded South of Asheville



City of Asheville

- Power Lost across most of the region
- Some sewer damage
- Telephone service lost
- Internet service lost
- Cellular service lost
- Water lines lost from both reservoirs
- Water in reservoirs laden with sediment
- Roads lost to the reservoirs



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Swannanoa River Road 9-26-2024

Minor Flooding from torrential rains before the storm



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Swannanoa River Road after the storm



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Biltmore Avenue



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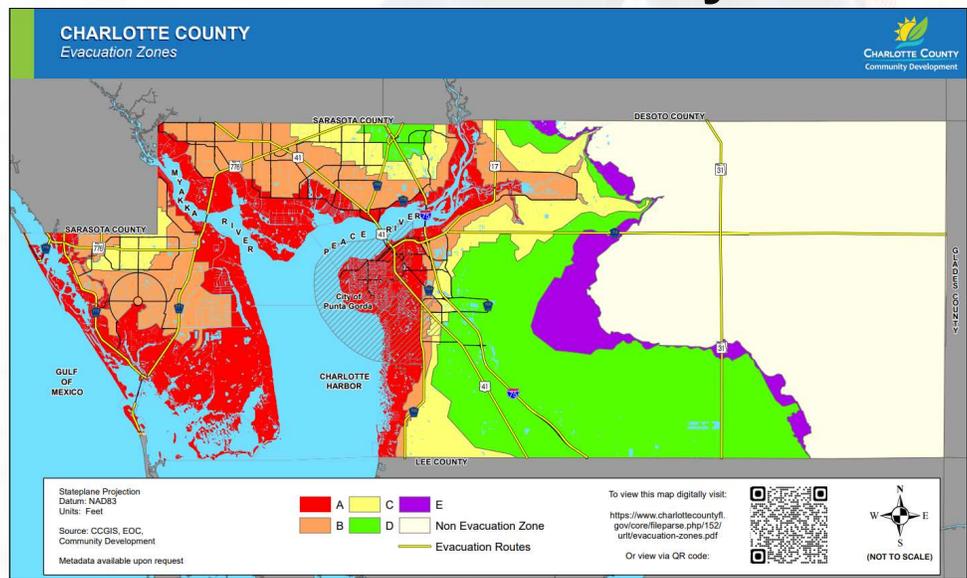


John Elias
Director
Charlotte County Public Works



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Charlotte County



CHARLOTTE COUNTY
Evacuation Zones

CHARLOTTE COUNTY
Community Development

Stateplane Projection
Datum: NAD83
Units: Feet
Source: CCGIS, EDC,
Community Development
Metadata available upon request

■ A ■ C ■ E
■ B ■ D Non Evacuation Zone
— Evacuation Routes

To view this map digitally visit:
<https://www.charlottecountyfl.gov/core/fileparse.php/152/urtr/evacuation-zones.pdf>

Or view via QR code:

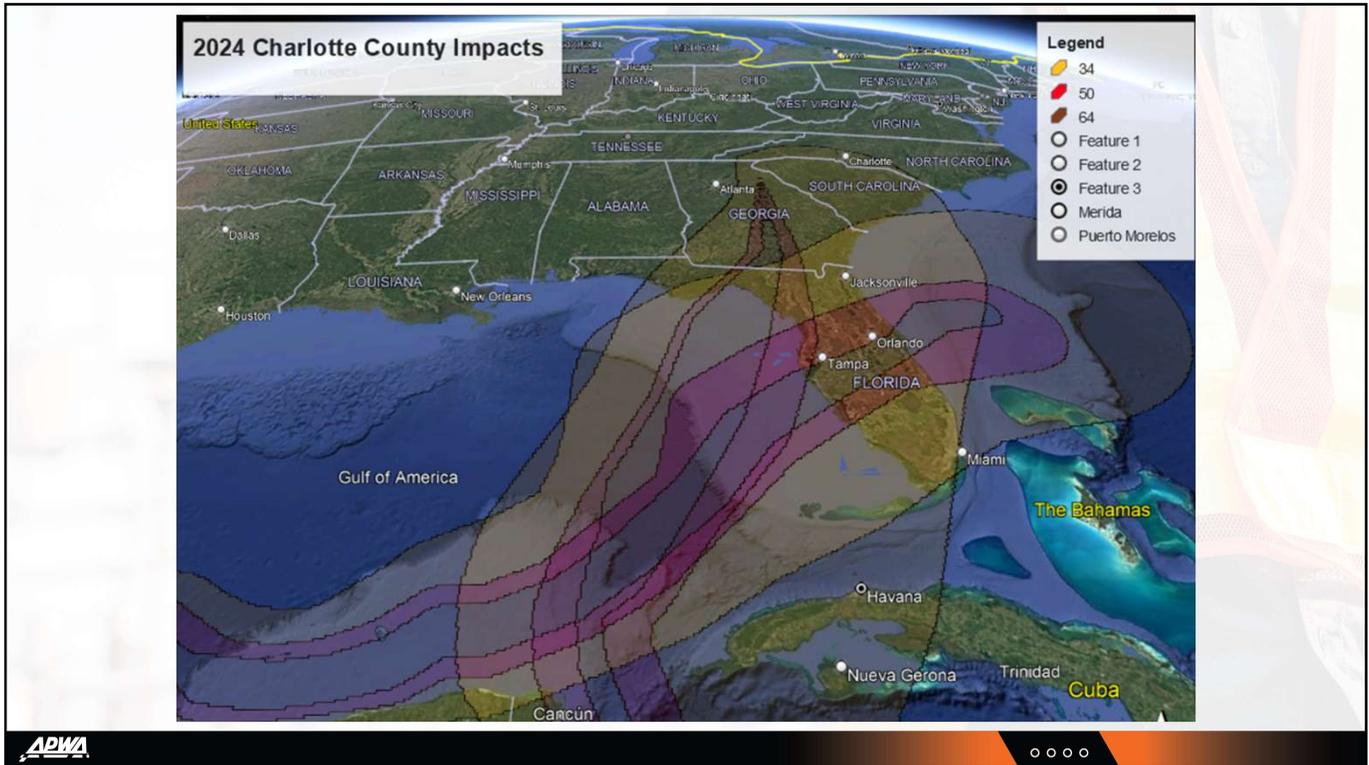



(NOT TO SCALE)



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Emergency Operations Center

- Importance of accurate flood mapping for stormwater inundation analysis
- Familiarity with Emergency Operations Center (EOC) procedures is essential
- WebEOC for mission tracking and response coordination
- Designating a dedicated “scribe” improves mission documentation and communication

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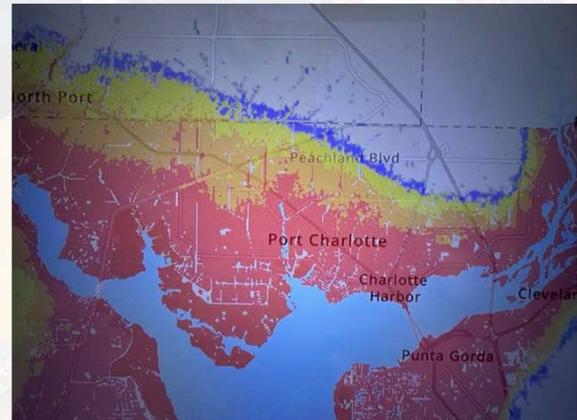
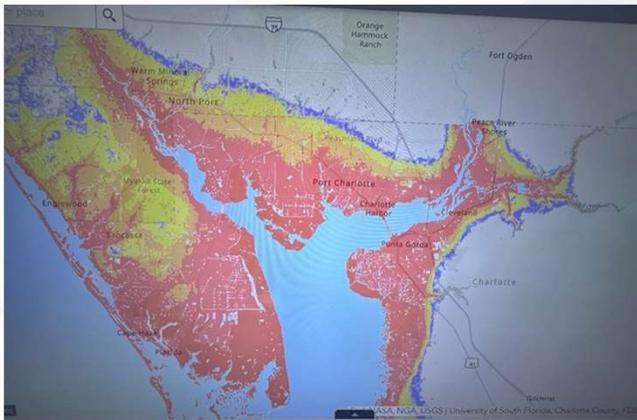
Emergency Operations Center

- Recognizing when and how to appropriately decline requests
- 36 years of experience
 - "Dig the well before you are thirsty"
- Identified the need for increased hands-on experience within the EOC



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Stormwater Inundation Maps



Blue - Greater than 1ft above ground level

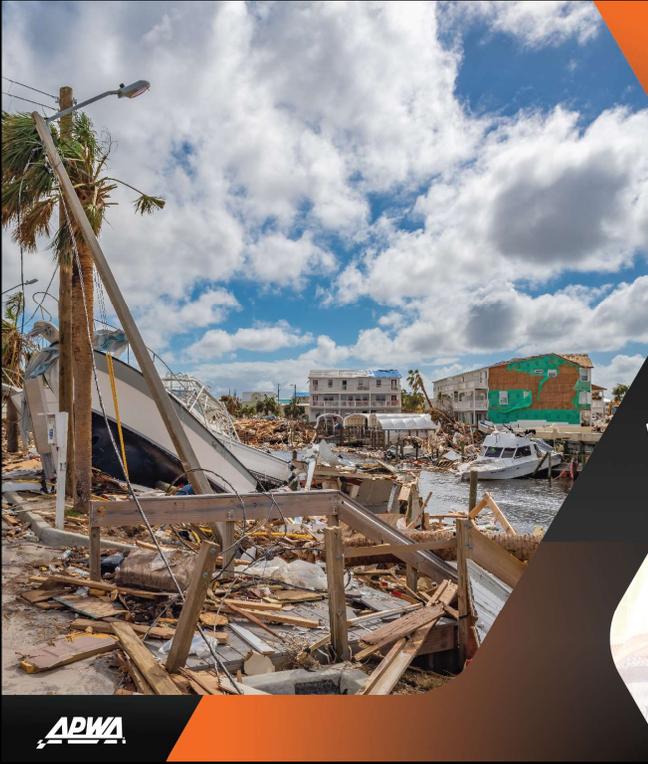
Orange - Greater than 6ft above ground

Yellow - Greater than 3ft above ground level

Red - Greater than 9ft above ground level



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Karly Greene, CPWP-S
Maintenance and Operations Manager
Charlotte County Public Works



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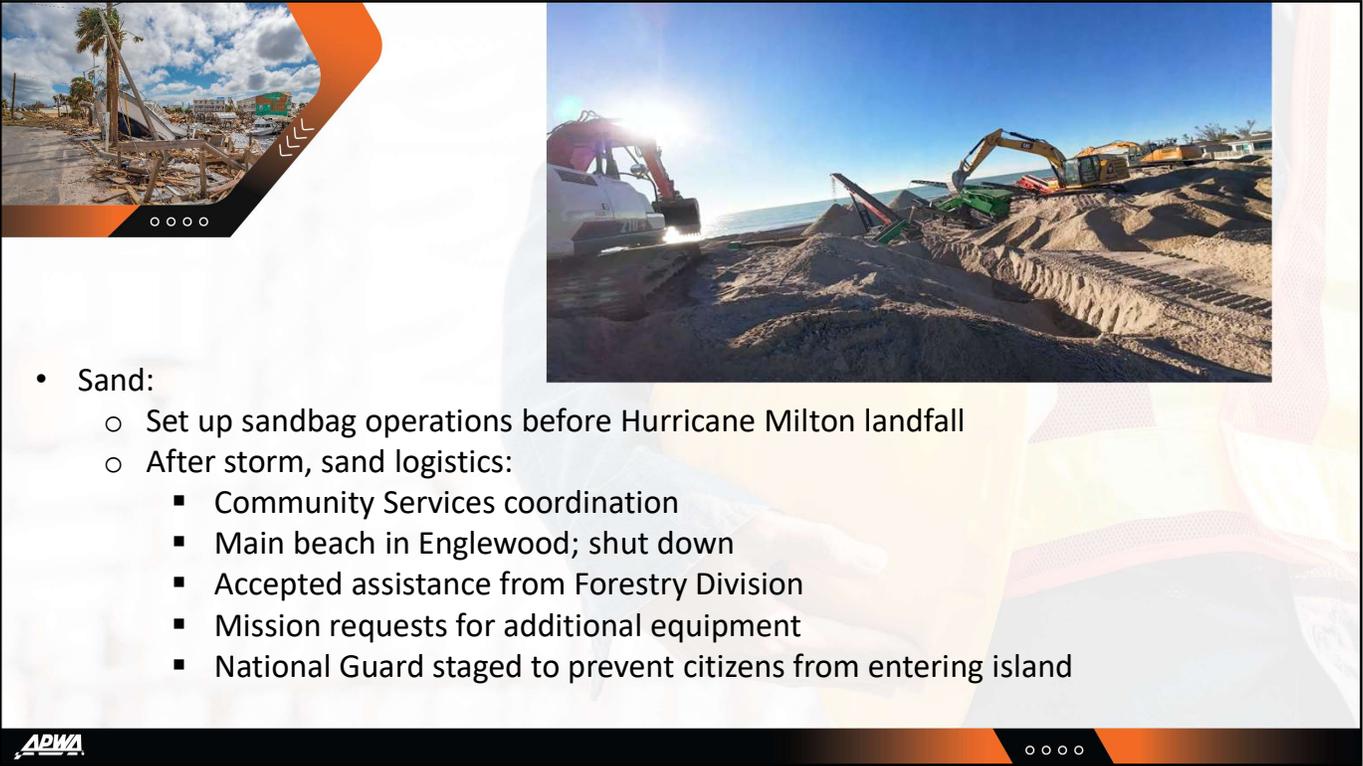


- Debris pickup between storms:
 - Grapple attachment to all equipment based on past storms
- Restaging equipment & logistics:
 - School board & school buses
 - ALL equipment including contractors' equipment
 - ALL resources: keys, batteries, etc.



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- Sand:
 - Set up sandbag operations before Hurricane Milton landfall
 - After storm, sand logistics:
 - Community Services coordination
 - Main beach in Englewood; shut down
 - Accepted assistance from Forestry Division
 - Mission requests for additional equipment
 - National Guard staged to prevent citizens from entering island

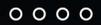




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LESSONS AS FIRST RESPONDERS



Tyler Hill
 Infrastructure Project Manager
 Boone County (KY) Public Works



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Kentucky All Hazards Incident Management Team



- Provides on-scene incident management support during emergencies or disasters to help coordinate response efforts.
- Assists local jurisdictions by filling critical roles within the Incident Command System (ICS), such as Operations, Planning, Logistics, and Finance.
- Supports incident planning by developing Incident Action Plans (IAPs) and managing operational resources.
- Enhances coordination and communication between agencies, ensuring unified command and efficient resource use.
- Offers scalable support for a variety of incidents, from natural disasters to large public events, ensuring continuity of operations.



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All Hazards Training Curriculum



- What is your "Essential Support Function"? (ESF)
- What skills do you bring to the table?
- What does everyone need to know?
- Are you Credentialed?



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Essential Support Functions of Public Works

- ESF 1- Transportation
- ESF 3- Public Works and Engineering
- ESF 12- Utilities
- ESF 14- Recovery



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What skills do you bring with you?

- Problem Solving
- Communication
- Teamwork
- Adaptability
- Safety
- Logistics




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Training for EVERYONE



Incident Command System Courses

- ICS-100: Introduction to Incident Command
- ICS-200: Basic Incident Command for Initial Response
- ICS-300: Intermediate ICS for Expanding Incidents
- ICS-400: Advanced ICS for Complex Incidents
- ICS-700: Intro to National Incident Management System
- ICS-800: Intro to Nation Response Framework



Training for EVERYONE



FEMA Independent Study

- IS- 552: The Public Works Role in Emergency Management
- IS-554: Emergency Planning for Public Works
- IS-556: Damage Assessment For Public Works
- IS-558: Public Works and Disaster Recovery





- The Kentucky Qualification System (KQS) provides a standardized framework for assessing and validating the qualifications, skills, and competencies of emergency management personnel.
- KQS ensures that emergency responders, officials, and volunteers have the necessary expertise to manage a wide range of emergency situations effectively.
- The system outlines a clear process for training and credentialing individuals.
- The ultimate goal is to prepare personnel to serve in roles on Incident Management Teams or Emergency Operations Center Assistance Teams.



Public Works is on the Team





Public Works is on the Team

