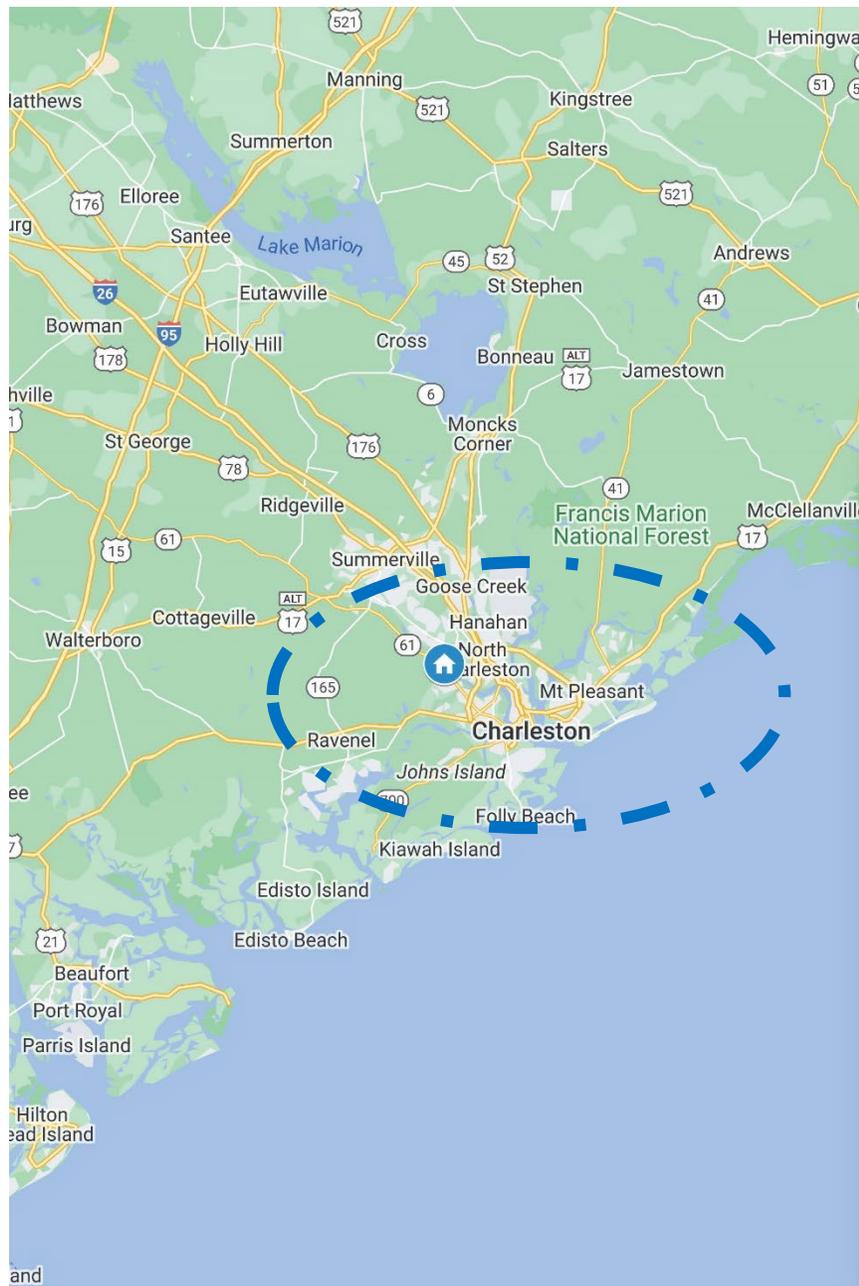




Lessons Learned in Preparedness & Recovery Drayton Hall

Hurricane Matthew, 2016, Washed Out Road at Drayton Hall

Trish Smith, MS
Director of Preservation & Archives
Drayton Hall Preservation Trust

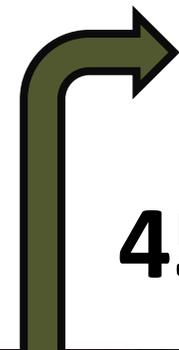
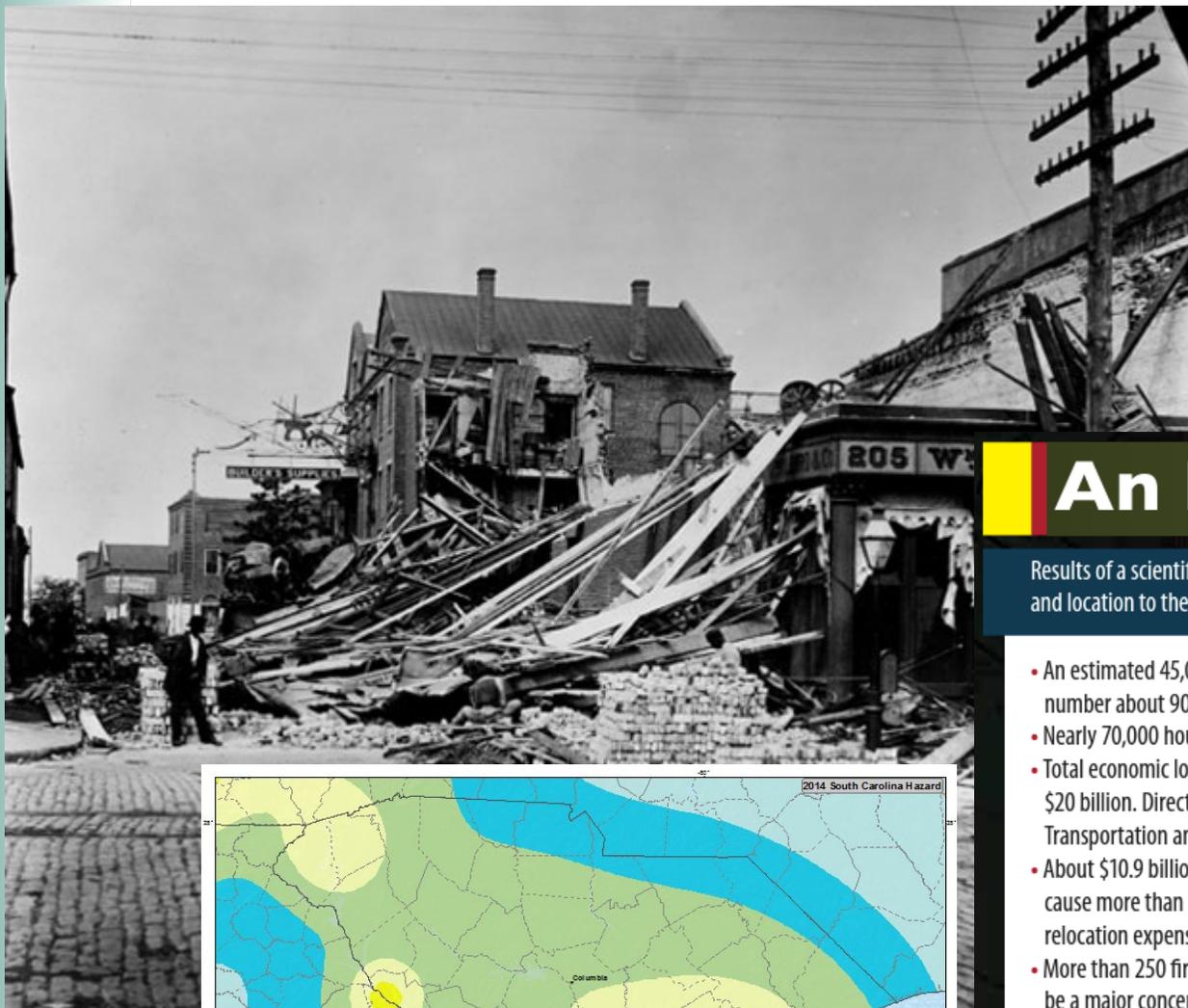


Constructed: 1738-1740s
On Ashley River, 11 miles inland
Owned by NTHP, Operated by DHPT
Remained in Drayton Family until 1974
Never modernized with Electricity, Plumbing, HVAC







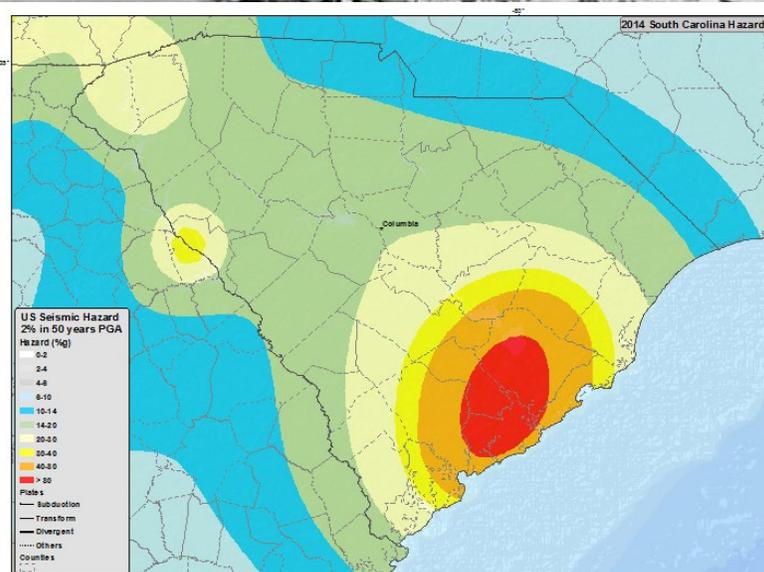


**7.3 magnitude
800 bridges out
45,000 casualties**

An Earthquake Today

Results of a scientific study commissioned by the South Carolina Emergency Management Division indicate that an earthquake today of similar intensity (7.3) and location to the one in 1886 could have the following results:

- An estimated 45,000 casualties, of which approximately 9,000 (about 20 percent) would be major injuries requiring hospitalization; fatalities would number about 900. A daytime event would cause the highest number of casualties.
- Nearly 70,000 households, or about 200,000 people, would be displaced, with an estimated 60,000 people requiring short-term shelter.
- Total economic losses from damage to buildings, direct business interruption losses, and damage to transportation and utility systems would exceed \$20 billion. Direct economic losses due to building damages (without the business interruption losses) are estimated to exceed \$14 billion. Transportation and utility systems' direct economic losses would exceed \$1 billion.
- About \$10.9 billion in economic losses would occur in the tri-county area of Charleston, Berkeley, and Dorchester. The building damages alone would cause more than \$4.2 billion in losses due to direct business interruption in the state. Loss estimates include rental income, business income, wages, and relocation expenses.
- More than 250 fires would burn, primarily in the tri-county area. The lack of operational firefighting equipment and water due to the earthquake would be a major concern.
- About 80 percent of urban households in the affected tri-county area would be deprived of water. It would take weeks, if not months, to restore the water systems to normal operation.
- Hospitals would likely suffer significant building damage that could result in up to 30 hospitals out of the 108 (about 30 percent) being nonfunctional.
- More than 220 schools and more than 160 fire stations would have significant damage. In addition, extensive damage is expected to the large inventory of relocatable school buildings.
- Close to 800 bridges would be damaged beyond use, thus hampering recovery efforts.
- About 63 electric power facilities (51 substations out of 380, and 12 power plants out of 53) would suffer at least moderate damage; about 300,000 households would be without power.
- More than 36 million tons of debris would be generated.





Drayton Hall Emergency & Disaster Manual

Prevention, Response, and Recovery



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For a redacted copy of this manual, email me at:

PSmith@draytonhall.org

Portico Rehabilitation Project by
Bennett Preservation Engineering and
Richard Marks Restorations
2015-2016





Ellis Jacks Installed, 2016
Bennett Preservation Engineering



Archaeologist,
Sarah Stroud
Clarke,
excavates
footer locations



Richard Marks
Restorations,
installing footers
for Ellis Jacks

Stairhall Rehab, 2021
Bennett Preservation Engineering
Richard Marks Restoration



- 2019: Historic Well Develops a Sink Hole
- DH Develops the “Emergency Consults Fund”

← Doing a literal and metaphorical balancing act.





Other ways we fund repairs, retrofits, rehabs, etc...

1. State & Federal Grants

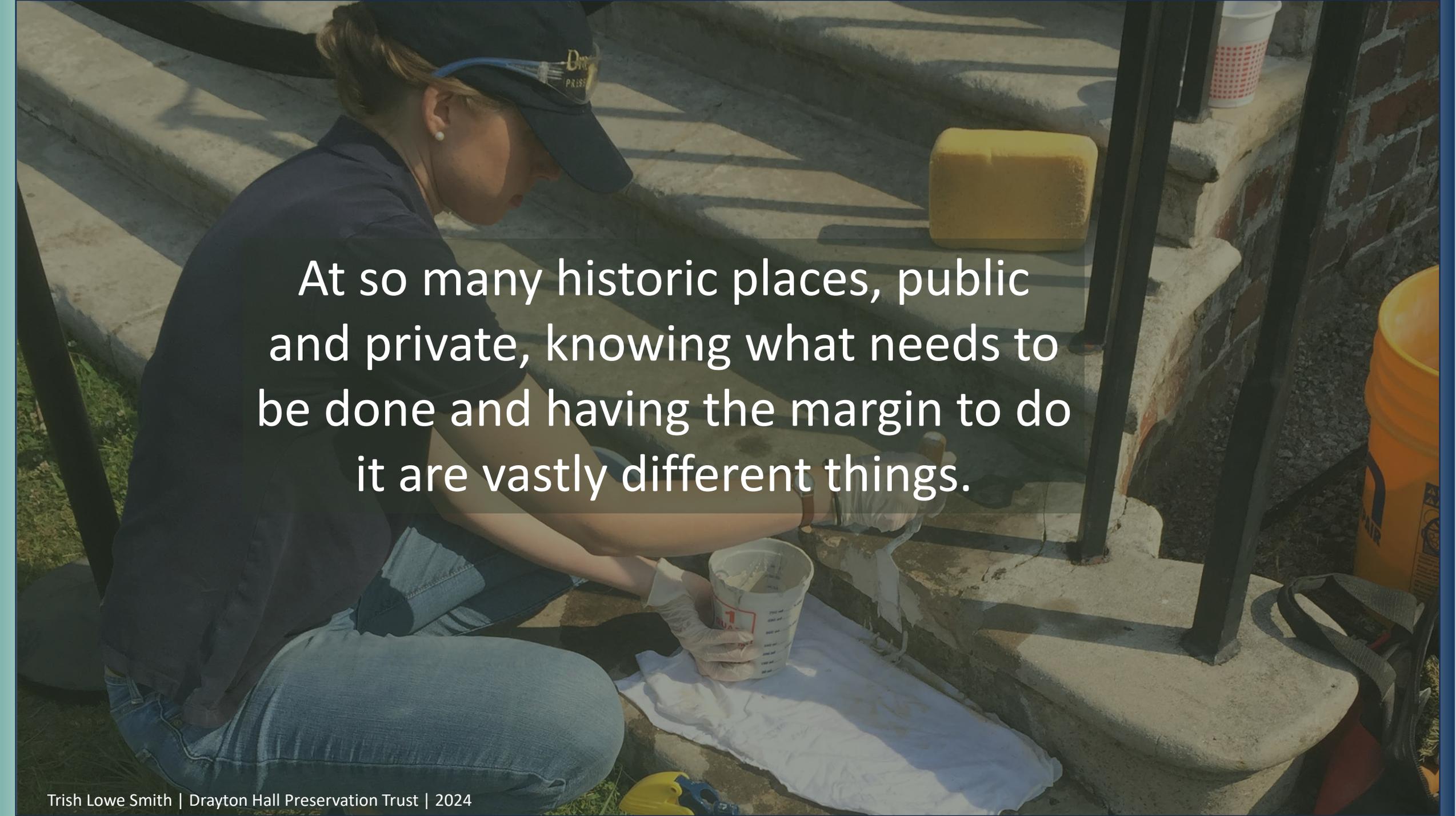
1. Applying and waiting for news takes several months.
2. These grants are almost always a matching grant, often requiring a 1:1 match.
3. In the case of storm damage, we have to make our case for support and front our own money.

2. Donors

1. Donor funds are often used to match grant funds.
2. Building and maintaining relationships with donors takes time.
3. Donor fatigue is a very real thing.

Things that complicate our “asks”...

1. It takes money to know how much money it will take.
2. If a gift isn't restricted, it may get diverted to another project.



At so many historic places, public and private, knowing what needs to be done and having the margin to do it are vastly different things.



Hurricane Ian A Cautionary Tale



<https://www.pbs.org/newshour/nation/live-map-track-the-path-of-hurricane-ian>





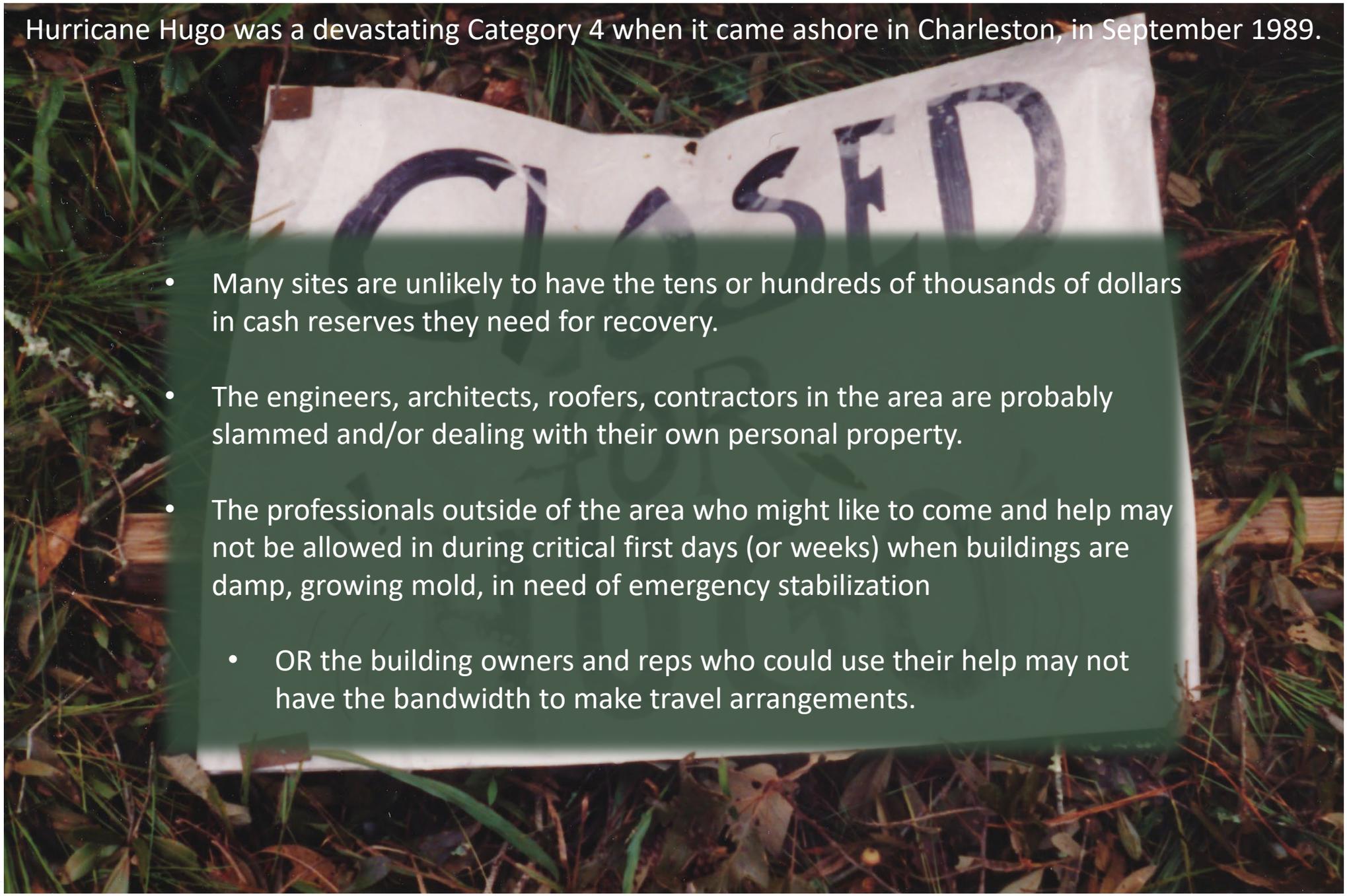


- Sawmill Costs to date: \$12k
- 5,970 Board feet were milled and slabbed

Resolution passed in January 2023, at the Drayton Hall Preservation Trust Board of Trustees Meeting:
“The Joint Committee recommends that the staff take appropriate action to secure temporary off-site storage for the collections and to eliminate pest infestation, as necessary.”



Hurricane Hugo was a devastating Category 4 when it came ashore in Charleston, in September 1989.

- 
- Many sites are unlikely to have the tens or hundreds of thousands of dollars in cash reserves they need for recovery.
 - The engineers, architects, roofers, contractors in the area are probably slammed and/or dealing with their own personal property.
 - The professionals outside of the area who might like to come and help may not be allowed in during critical first days (or weeks) when buildings are damp, growing mold, in need of emergency stabilization
 - OR the building owners and reps who could use their help may not have the bandwidth to make travel arrangements.



This will take you to
APT's Disaster
Response Initiative.

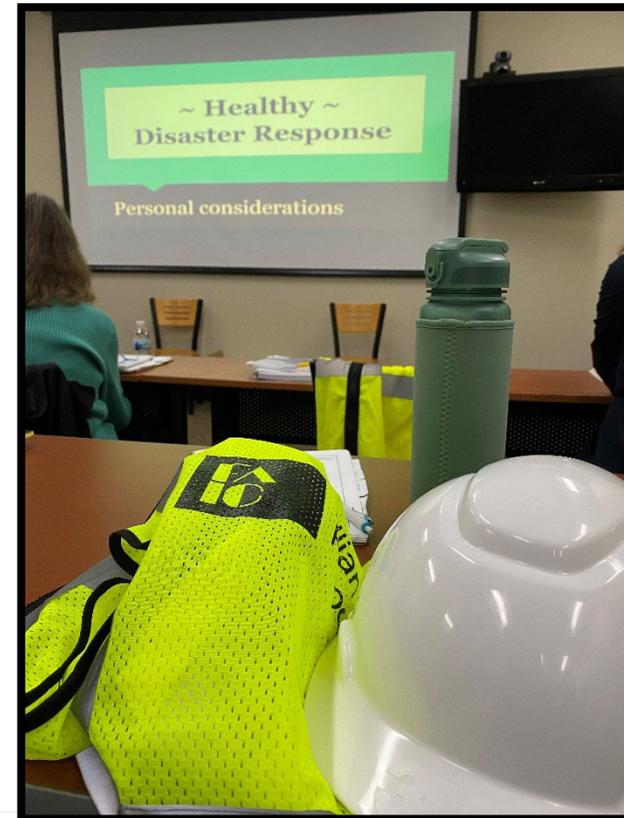
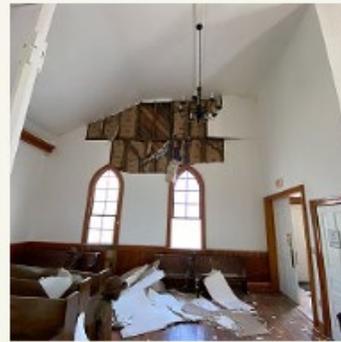
<https://www.apti.org/disaster-response-initiative-task-group>



This will take
you to AIC's
Alliance for
Response page.

<https://www.culturalheritage.org/resources/emergencies/alliance-for-response/networks>

Disaster Response Initiative Task Group (DRI)



The Association for Preservation Technology International
L'Association internationale pour la préservation et ses techniques

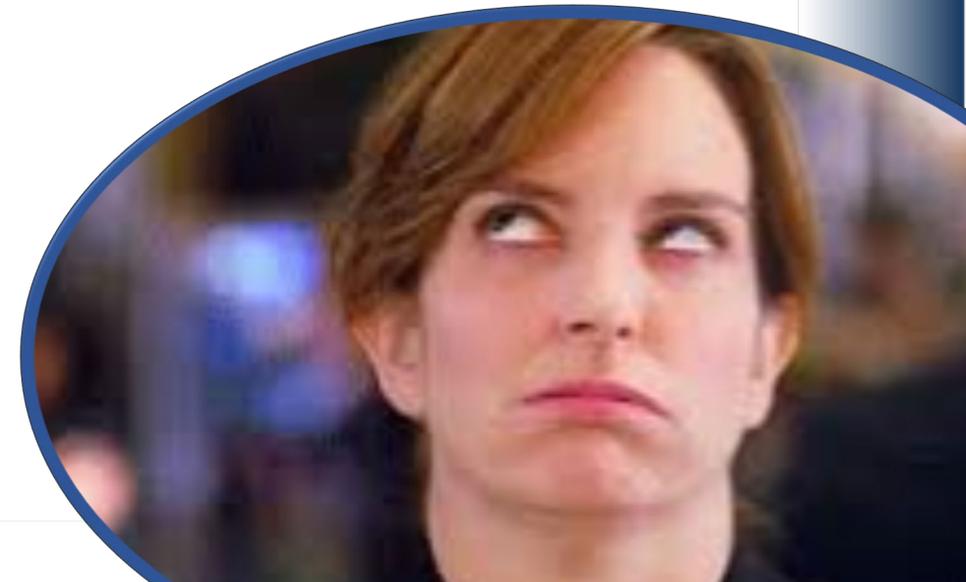
Drayton Hall Emergency & Disaster Manual

Prevention, Response, and Recovery



All staff are required to read the updated version of this manual, annually.

Guess how high compliance is...





for a copy of this chart, email me at:

PSmith@draytonhall.org

Employee	Phase I	Phase II - Offices Closed	Phase II - Offices Closed	Phase III - Site Closed								
Carter Hudgins	Communicate regularly with Trish about progress of storm operational phases to staff	Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Check in with Sarah at furniture storage building	Check in with Trish at main house								
Michelle Tyler		Distribute call tree	Create a series of Zoom Check-in Meetings at intervals determined by Carter and distribute to all staff Share EMD hotline with all staff	Move reception and your own phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	move everything off the floor	Cover copier with plastic	(with Michelle J) wrap feet of table in Kennedy Library in plastic and wrap tape around it; cover table in a furniture blanket	place chairs on top of table	Cover bookcase with plastic			
Paula Marion	Call credit card company to ensure credit is available and raise limit if necessary	Back up files with Cantey		Have on site server shut down	Move phone/computer away from windows and cover with trash bags, unplug all electronics	Place credit card and notebook in safe	Cover shelves and filing cabinets					
Michelle Johaneck		Ensure cash is available to purchase recovery supplies post-hurricane	Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Cover filing cabinets with plastic; move everything off the floor	Cover shelves in the workroom with plastic	(With Michelle T) wrap feet of table in Kennedy Library in plastic and wrap tape around it; cover table in a furniture blanket	place chairs on top of table	Cover bookcase with plastic				
Sarah Stroud Clarke	Prepare collections to be moved	Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Move all archival boxes and materials off the top of all shelves	Move the furniture from the storage building in facilities to the first floor Great Hall	Cover furniture with plastic	Move large collections items into the house and cover with plastic	Move trunk (remove from case), walking stick, and rocking chair from Caretaker's House into gallery and place on platform (Lela to help)	Move models from top shelves in Gift Shop to Gallery on top of benches				
Trish Smith		Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Cover architectural fragment shelves with plastic	Move shutters to designated rooms and begin installing them	Install shutters	Properly tie down attic hatch	Lay plastic on attic floor (in front of oculi only) and second floor	Install plywood over fireboxes and brace with stanchions/benches	Move all benches and stanchions inside	Close privy door		
Will Young	Move bins from Str. 18 to designated buildings; Move empty bins from top shelf of storage rack in Str. 18: 3 to the office trailer, 7 to Sarah's office, 4 to gift shop	Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Cover architectural fragment shelves with plastic	Move shutters to designated rooms and begin installing them	Install shutters	Lay plastic on attic floor (in front of oculi only) and second floor	Install plywood over fireboxes and brace with stanchions/benches	Close all doors	Place sandbags at east basement door	Move benches on porch of Caretaker's House inside	Place sandbags outside Kennedy door (bag in lower cabinet)	
Luke Pecoraro		Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Cover all collections cabinets and shelves in Archaeology lab with plastic	Move the furniture from the storage building in facilities to the first floor Great Hall	Report to Trish at main house							
Nicole Houck		Move phone/computer away from windows and cover with trash bags, unplug all electronics, cover shelves/cabinets with plastic	Cover all collections cabinets and shelves in Archaeology lab with plastic; Remove microscope from Sarah's office & put in gallery	Store Archaeology Archive binders and ER forms in empty bins and move to main house; Move all archival boxes and materials off the top of all shelves	Cover all remaining collections on shelves in furniture storage with plastic	Move metals in furniture storage to higher shelves and cover with plastic	Place plastic and sandbags outside 2 emergency exit doors and windows (bags and plastic in empty bins for office)					

Working with First Responders



The "Sudden Catastrophic Failure" Talk



On the Agenda:

- Maps of the site
- As-builts of all buildings
- Names of the buildings as provided to dispatchers by our security service (not always the same as what staff call buildings)
- Location of our Knox Box
- Landscape locations to avoid driving heavy equipment





On the Agenda:

- Maps of the site
- As-builts of all buildings
- Names of the buildings as provided to dispatchers by our security service (not always the same as what staff call buildings)
- Location of our Knox Box
- Landscape locations to avoid driving heavy equipment
- Locations of acetylene tanks and flammable lockers

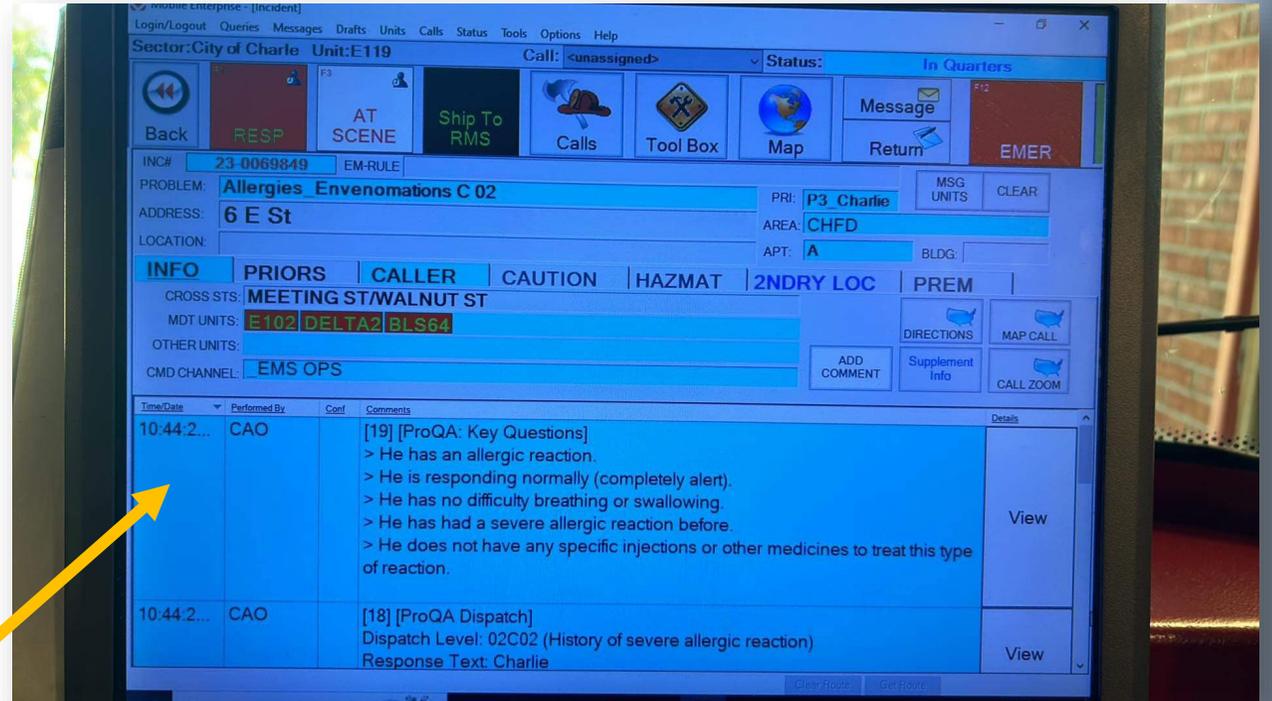


Computer Aided Dispatch



Mobile
Data
Terminal

VisiNet
Mobile
Client,
by TriTech
Software
Systems



DRAYTON HALL PRESERVATION TRUST



DRAYTON HALL
PRESERVATION TRUST

OFFICIAL VEHICLE



This will take you to
Charleston EMD
Dash Pass
Registration.

<https://www.charlestoncounty.org/departments/emergency-management/dashpass.php>

Charleston County Emergency
Management Department

Dash Pass Program

THE DRIVER AND OCCUPANTS OF THIS VEHICLE ARE AUTHORIZED TO PASS THROUGH LAW ENFORCEMENT AND FIRE RESTRAINING LINES IN CONNECTION WITH EMERGENCY MANAGEMENT BUSINESS.

CARD NO: 6

EXPIRES: 9/2024

ISSUED TO: Patricia Smith, Director of Preservation

Carter Hudgins, President
and CEO

843-693-7271
Company Official Phone

THIS CARD IS TO BE DISPLAYED ONLY WHILE VEHICLE IS BEING USED ON OFFICIAL BUSINESS IN EMERGENCY/DISASTER AREAS.

IF VEHICLE IS CHALLENGED HAVE OFFICER CONTACT THE COUNTY EMERGENCY OPERATIONS CENTER IMMEDIATELY.



Trish Lowe Smith | Drayton Hall Preservation Trust | 2024





Thank You!

PSmith@draytonhall.org

Hurricane Matthew, 2016, Washed Out Road at Drayton Hall

Trish Smith, MS
Director of Preservation & Archives
Drayton Hall Preservation Trust

**SC Historic Preservation
Conference 2024**