Sound the Alarm! Natural Disasters, Immediate Response, and Preservation Funding

Disaster Planning and Response in Historic Texas Cemeteries
Zoom Webinar Housekeeping

- Trouble with computer audio? Try using your phone instead.
  - 1-346-248-7799  Webinar ID 893 3265 1269
- All attendees are in listen-only mode
- This session is being recorded for later viewing

- Use the **chat box** to
  - Ask for help
  - Make comments during the presentation
  - Share links or tips

- Use the **Q & A box** to
  - Ask the presenters a question
  - We’ll answer them live at the end of the presentation
Online Training Series: Disaster Preparedness & Response for Historic Cemeteries

- **Goal**: Provide cemetery caretakers with the knowledge and skills necessary to build greater resiliency to withstand and recover from future disasters
- **Timeline**: Summer 2021 – Summer 2022
- **Project Team**: Led by Terracon Consultants, Inc.
- **Program**: Six webinars + six stakeholder meetings

*Rockport Cemetery, Aransas County*
Webinar Series Introduction and Overview

Instructional Webinars

1. Lay of the Land: Cemetery Orientation
2. Cemetery Survey and Data Collection
3. Risk Assessment & Pre-Disaster Planning
4. Immediate Response to Natural Disasters, plus Preservation Funding
5. Post-Disaster Recovery & Restoration
6. People’s Choice!

Stakeholder Meetings

• Highly interactive
• Group discussions
• Feedback opportunities
Webinar Series Introduction and Overview

Stay Up to Date!

www.thc.texas.gov/Harvey-cemeteries
Webinar 1
Lay of the Land: Cemetery Components, Cultural Practices, and Materials

- Recognize the physical components of cemeteries beyond grave markers
- Recognize common cultural funerary practices and recognize items located at gravesites may reflect cultural traditions that should be determined prior to removal or disturbance of these features
- Understanding of basic cemetery safety practices.
Webinar 2
Survey and Data Collection

• Historic significance of cemeteries and be able to convey the essential history contained in cemeteries to community stakeholders and potential funding partners.
• Baseline understanding of cemetery documentation methods
• Pre-disaster documentation strategies and data protection methods.
Webinar 3
Risk Assessment and Pre-Disaster Planning

- Potential threats to the cemetery from natural disaster events and identification tools
- Maintenance, landscape, and pre-disaster preparedness plans and mitigation strategies
- Tools for implementing pre-disaster mitigation plans including basic through comprehensive measures
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Disaster Planning and Response in Historic Texas Cemeteries

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Learning Objective 1

• Participants will have tools for identifying appropriate post-disaster response actions.

Kennard Cemetery, Grimes County
Learning Objective 2

- Participants will have tools for identifying funding support and technical assistance.
Learning Objective 3

- Participants will understand unique safety considerations when working in a post-disaster cemetery environment.
Learning Objective 4

• Participants will have an understanding of what is required in post-disaster documentation.
Common threats to historic cemeteries

- Development pressure
- Weathering
- No caretaker or cemetery association
- Theft
- Insufficient mapping
- Lack or loss of records
- Animals
- Natural forces and man-made disasters
What Constitutes a Disaster?

- Tornado
- Fire
- Drought
- Sea level rise
- Hurricane
- Coastal erosion
- Soil condition changes
- Flooding
- Graffiti
- Theft
- Desecration
- Vehicular crashes
Disaster Declarations

- The Stafford Act
- Pre-disaster emergency declaration
- Emergency declarations (federal primary responsibility)
- Major disaster declarations
Post-Disaster Response

**Assess**
- Immediately after event

**Stabilize**
- Once site is accessible

**Mitigate**
- Months following event

**Restore**
- Months to years after event
Step 1

Assess

Stabilize

Mitigate

Restore

Post-Disaster Response
Step 1 - Assess Damage

Respond once it's safe to do so

- Stick to the plan – don’t rush decision making or site cleanup post-disaster
- Don’t get in the way of other emergency services in your community
- Follow local disaster orders and don’t burden infrastructure by going out to the cemetery if conditions are not yet stable

Tivoli Cemetery, Refugio County
Prioritize assessment tasks

- Respecting the remains of those interred is top priority
- **Initial assessment of hazards and conditions**
  - Based on pre-disaster hazard and threat identification
  - Can be limited in scope if access is limited

*Step 1 - Assess Damage*

*Sabine Pass Cemetery, Jefferson County*
Step 2: Stabilize
Coordinate with Local Recovery Efforts

- Contact local/regional Emergency Operations Coordinators
- Contact local funeral homes and gravedigger services
- Pool resources with other cemeteries in your area

Texas Division of Emergency Management Regional Contacts
Top Priorities for Stabilization

1. Life Safety
2. Secure displaced caskets
3. Documentation of post-disaster conditions

San Antonio de Padua, Aransas County
Step 2 – Stabilization (Planning)

Life Safety

- Do not enter or work in the cemetery if there are life safety concerns
  - Downed power lines
  - Standing water
  - Overhead threats
- Mark off hazardous areas
- Stabilize immediate threats

Rockport Cemetery, Aransas County
Casket Displacement

- Contact local professionals immediately
- Secure floating caskets
- Document current locations of displaced caskets
  - Include interred information, if available

Step 2 – Stabilization (Planning)
Casket Displacement

- Assess if human remains have been exposed and disinterred
  - Cover with staked tarps
- Assess if human remains have been exposed and dislocated
  - Cover with staked tarps
  - Determine original location
- Contact qualified individual to assist with reinternment
Step 2 – Stabilization (Planning)

Documentation

- Complete rapid assessment survey form
- Photographs
- Condition assessment narratives
- Statements by professionals involved in post disaster assessment

Broadway Cemetery, Galveston
Make site accessible

- **Do No Harm**
  - Consider intact historic features and overall character of cemetery

- **Safety first**
  - Qualified professionals present when turning on utilities in case of system failure
  - Fire extinguishers nearby when re-establishing power (risk of fire)

*McGaffey Cemetery, Jefferson County*
Prepare for assistance (volunteer and professional)

- Site Considerations:
  - Ground will be saturated
  - Weak roots and soggy ground contribute to risk of toppling trees and collapsing burials
  - Use caution with heavy machinery
  - Keep vehicular traffic on existing roads
Prepare for assistance (volunteer and professional)

• Volunteer briefings at the beginning of each day or shift change.
  • Personal Protective Equipment provided for each clean-up task

• Mark utility locations

• Mark areas for debris piling

Step 2 – Stabilization (Actions)

*Pinehurst Cemetery, Jacksonville, Florida*
Step 2 – Stabilization (Actions)

Pinehurst Cemetery, Jacksonville, Florida
Priority Clean Up Tasks

• Remove vegetative and trash debris
• Remove damaged trees or hanging limbs
• Detailed condition assessment

Olivewood Cemetery, Harris County
Detailed Condition Assessment

- Use previous surveys as a starting point
- Update copies of existing survey forms and note conditions for cemetery elements
  - General condition of the cemetery
  - Each individual resource
  - Cemetery feature
Post-Disaster Response

Step 3
Mitigate

Assess
Stabilize
Restore
Mitigation Plan Components

- Detailed condition assessment (if not completed earlier, post-disaster).
- Prioritized list of repair actions
- Phased timeline
- Cost estimates

Broadway Cemetery, Galveston
Cemetery Condition Assessment

- 20 markers broken
- 15 markers intact but displaced
- Roof damage to sexton’s office (complete replacement)
- Erosion damage at 5 burial sites
- Erosion damage at pedestrian walkways (1500 linear feet)
- Fence replacement - 500 linear feet
- Fence repair - 2500 linear feet
Repair Projects Timeline

- Stone Conservator - 6 months
- Roof replacement - 2 months
- Sitework to correct erosion and drainage - 6 months
- Fence repair and replacement - 6 month lead-time on replacement components; 2 months to install once on-site
Step 3 - Mitigation

Repair Projects Budget

- Stone Conservator – $150,000 [Estimate 4/12/2022, #12345]
- Roof replacement – $125,000 [Estimate 5/1/2022, #578]
- Sitework to correct erosion and drainage – $250,000 [Fee proposal 4/28/2022]
- Fence repair and replacement – $75,000 [Estimate 4/16/2022 #5789]
- TOTAL – $600,000
Receiving Aid after a Disaster

- If the cemetery has an annual budget, it is recommended that some funding be put aside for disaster mitigation efforts.
- State and Federal aid is highly competitive
- Documentation of pre- and post-disaster conditions is key
- Federal and state funds are often tied to National Register eligibility
Determination of Eligibility (DOE)

- Reference data compiled as part of previous survey report(s)
  - History of the cemetery
  - Clearly labeled current color photographs
  - Current and historic maps and plans
  - Copies of historic photos
- Submit DOE electronically via “DOE Direct” web application
Step 3 - Mitigation

Connect with Certified Local Governments

Within the 41 counties affected by Hurricane Harvey

- **Cities**
  - Corpus Christi
  - Houston
  - Galveston
  - Beaumont
  - Port Arthur

- **Counties**
  - Nueces County
  - Victoria County
  - Matagorda County
  - Jefferson County
Receiving Aid after a Disaster

• Federal-level grants most often go to community infrastructure, restoring essential services, construction of new or repair of existing housing

• Connect with city and county officials
How to Overcome Obstacles to Funding

- Demonstrate need
- Demonstrate significance
  - Determination of Eligibility
- Connect with larger efforts in your community

Step 3 - Mitigation

*Broadway Cemetery, Galveston*
Post-Disaster Response

Assess → Stabilize → Mitigate → Step 4 → Restore
Repair and Rehabilitation of Site Elements

• **Do No Harm**
  • Consider intact historic features and overall character of cemetery
  • Prioritize work based on significance and vulnerability to future threats

*St. Joseph Cemetery No. 1, New Orleans, LA*
Repair and Rehabilitation of Site Elements

- **Displaced or broken items**
  - Document location found and original location
  - Flag and label
  - Store in safe, secure place, such as a lock box

- **Webinar 5**
  - Cleaning
  - Repair and resetting techniques

*Old City Cemetery, Jacksonville, FL*
Contact List

• Refer to pre-disaster plan contact list. Can include:
  • Arborist or forester
  • Architectural conservator
  • Archeologist
  • Mortician
  • Contractor for debris removal
Conclusions

• Reviewed unique safety considerations when working in a post-disaster cemetery environment.

Dory Hill Cemetery - Black Hawk, CO
• Reviewed tools for identifying appropriate post-disaster response actions.

Kennard Cemetery, Grimes County
• Reviewed what is required in post-disaster documentation.
Conclusions

- Identified what is needed for funding support and technical assistance.
Resources and References

Handouts

- NCPTT Rapid Cemetery Assessment
- NCPTT Conditions Survey Form
- Webinar 4 Slides

Resources

- General and Cemetery Preservation
- Pre- and Post-Disaster Response
- Preservation Funding
- Risk Assessment
- Legal/Legislative References
- Landscape Preservation Planning and Maintenance
Thank you!

Questions?

Next time… Post-Disaster Recovery and Restoration of Historic Cemeteries

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a Terracon Pinyon production