

Mapping to Safeguard Our Nation's Cultural Assets

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About Us



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Specialist

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DEMA



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Agenda

What is HENTF?

What is DEMA?

Cultural Heritage Definition(s)

Asset Mapping

Why this is important?

Using GIS to map Cultural Institutions

DEMA Involvement

Preparedness, Response & Recovery of Cultural Heritage

Stakeholder Involvement

Using the Data

Challenges

What's Next?

WHAT IS
HENTF?

Project
Background

Heritage Emergency National Task Force

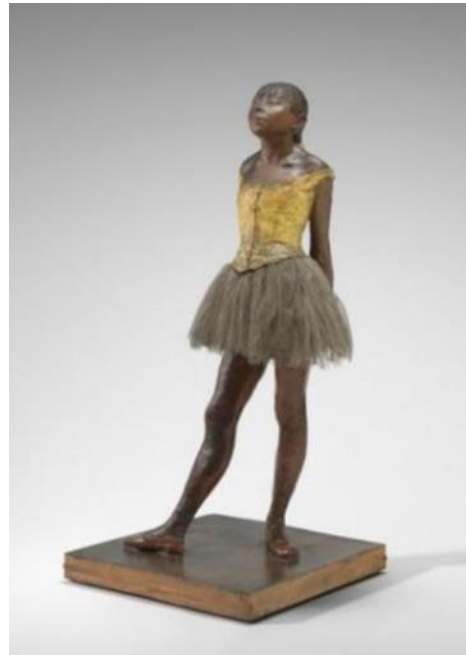
A partnership between FEMA and the Smithsonian Institution that strives to protect the nation's cultural and historic resources from the damaging effects of disasters. In addition to assisting museums and other cultural institutions when their collections are damaged by an event, HENTF helps reduce disaster suffering by assisting the public.

WHAT IS DEMA?

Delaware Emergency Management Agency (DEMA)

The lead state agency for coordination of comprehensive emergency preparedness, training, response, recovery and mitigation services in order to save lives, protect Delaware's economic base and reduce the impact of emergencies.

WHAT IS CULTURAL HERITAGE?



WHERE TO FIND CULTURAL HERITAGE

Arboreta
Archives
Arts
organizations

Historical &
archaeological sites
& properties
Houses of worship

Libraries
Museums
Municipal offices
Zoos



CULTURAL HERITAGE ASSET MAPPING



Experiences that defined the need

HENTF Asset Mapping Working Group

Importance of collaboration

OTHER REASONS TO MAP:

Legal Requirements to Protect Cultural Assets

Section 101 of the 1966 Historic Preservation Act

- Established State Historic Preservation Programs that must conduct a ***comprehensive statewide survey of historic properties and maintain inventories*** of such properties (through coordination with national, state, local governments, private organizations and individuals)

Section 110 of the National Historic Preservation Act of 1966

- Mandates that federal agencies ***assume responsibility for the preservation of historic properties*** under their jurisdiction

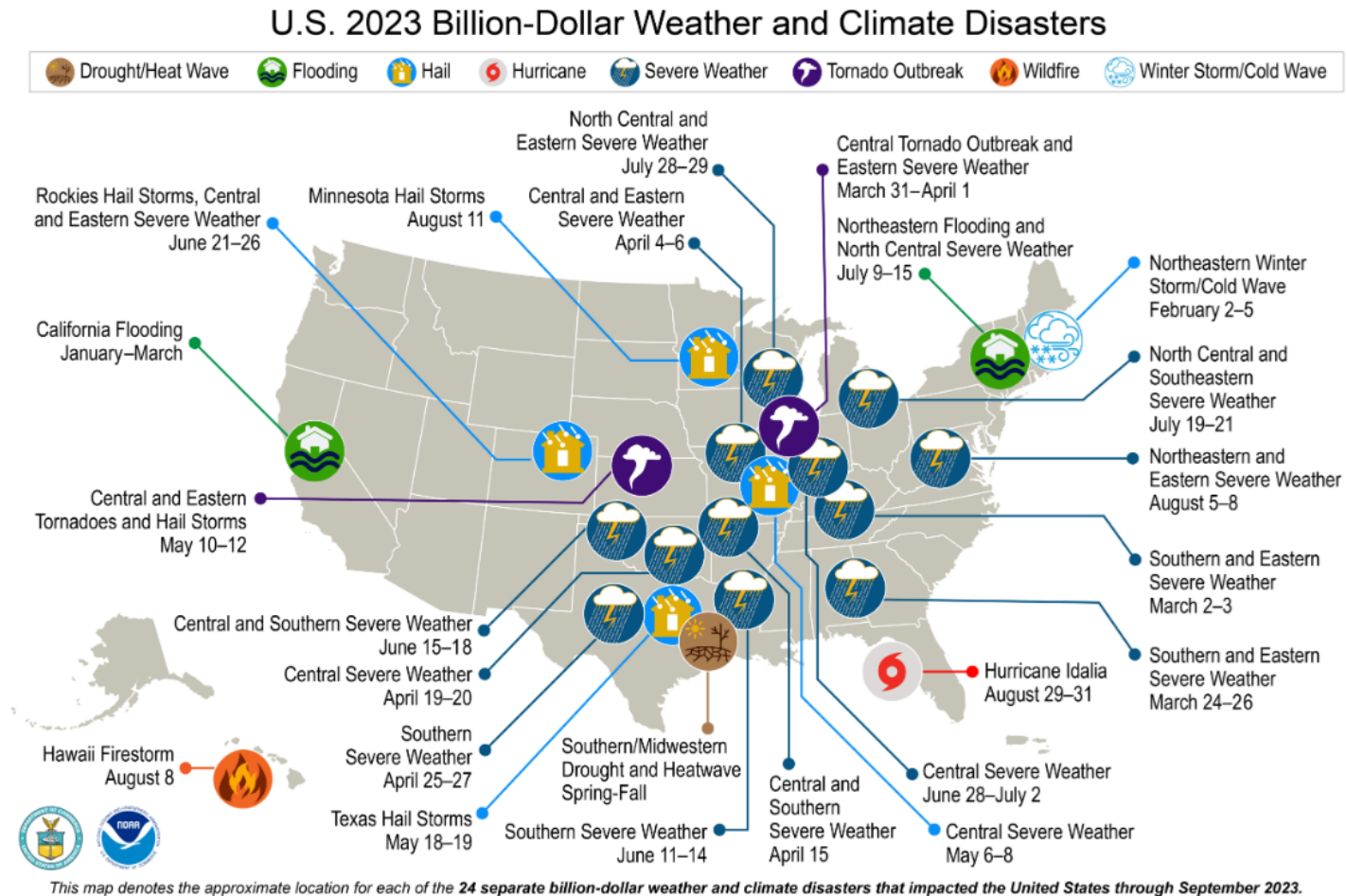
Section 102 of the National Environmental Policy Act of 1969

Section 106 of the National Historic Preservation Act of 1966

- Require that the federal government ***take into account the effect of its actions*** on natural resources and historic properties

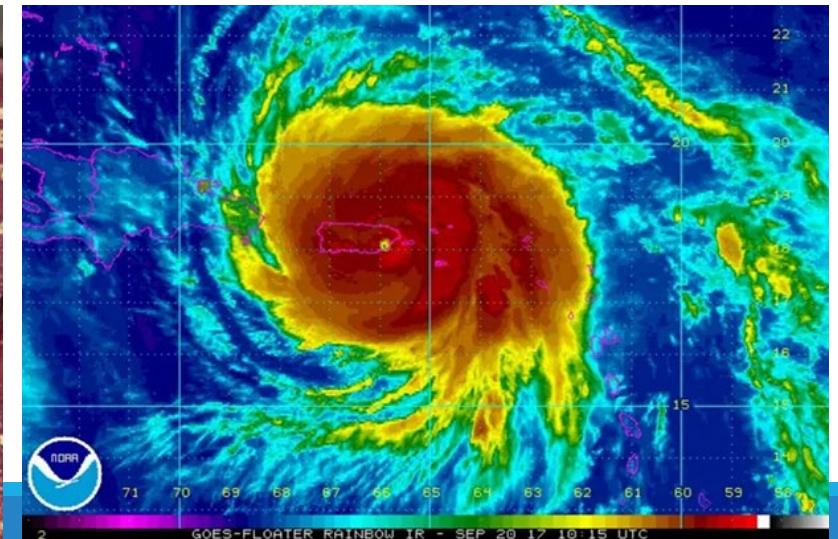
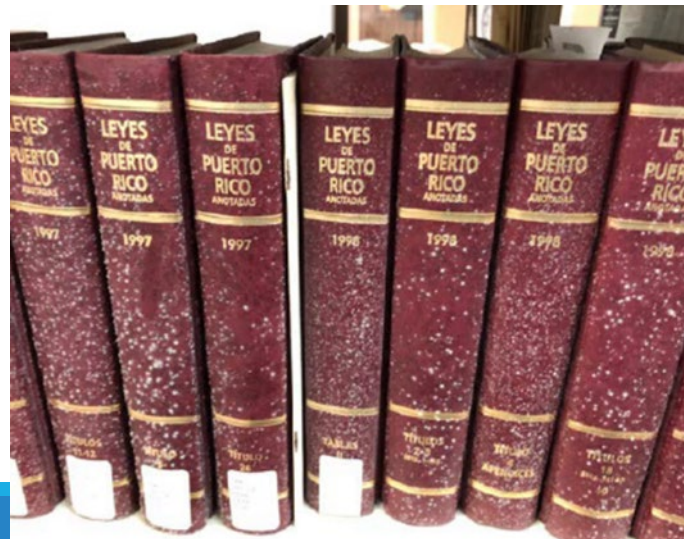
THE NEED

Federal Perspective



HURRICANES IRMA AND MARIA

Puerto Rico | September 2017



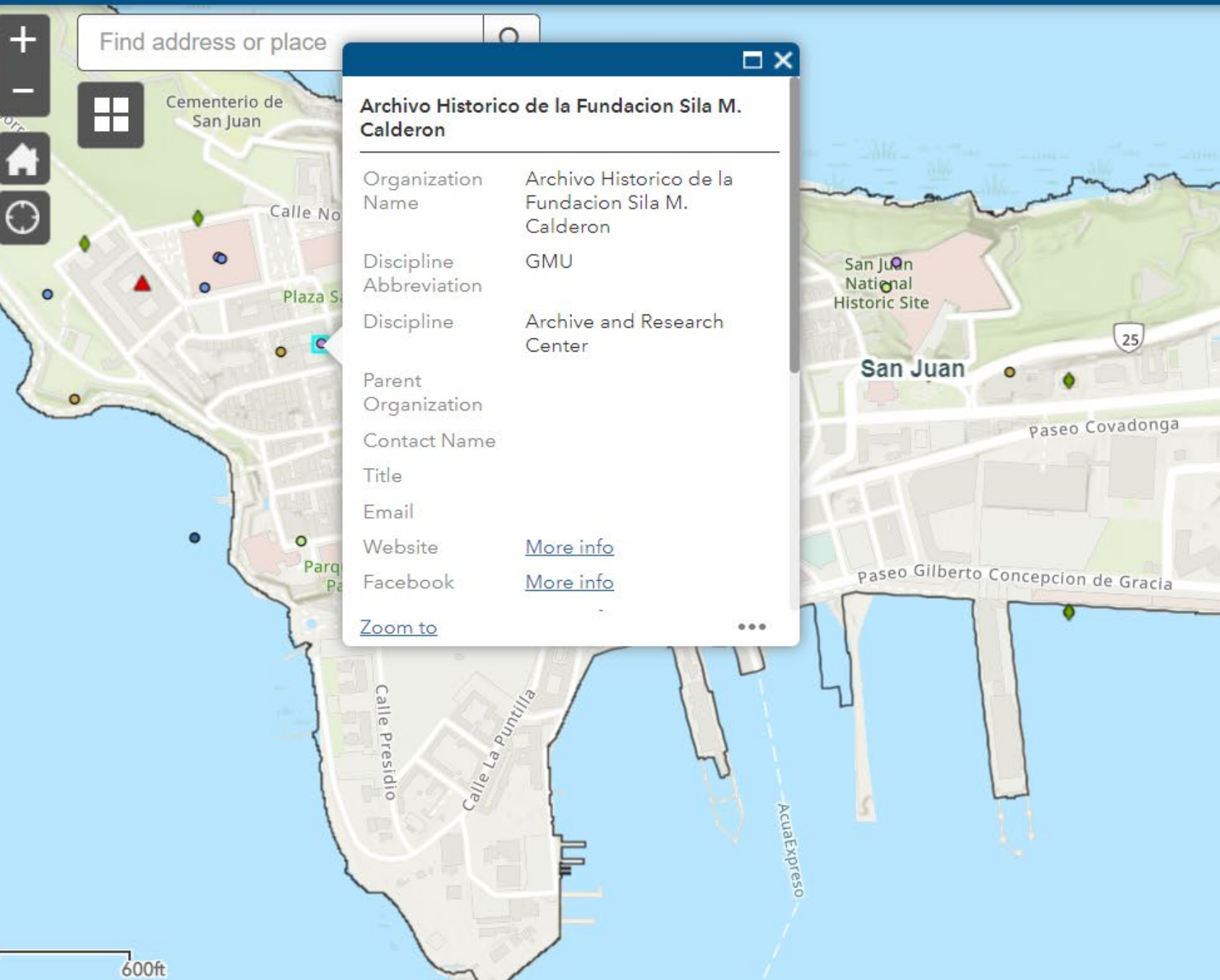
Top and lower left: FEMA. Far right: NOAA

CULTURAL RESOURCE MANAGEMENT PLAN

DIGITAL PLATFORM USES:

- Emergency response and recovery
- Contingency and resiliency planning
- Outreach to cultural resources
- Economic development
- Link arts to tourism activities
- Promote networking in the arts & culture sector
- Connect funding sources to cultural institutions, arts organizations, and artists

Organization Name	Discipline	Website	Facebook	Twitter	X (long)	Y (lat)	Address	City
Museo Casa Pueblo	ACC	http://casapueblo.org/	https://www.facebook.com/casapueblo	https://twitter.com/casapueblo	-66.722027	18.161307	30 PR-5516	Adjuntas
Municipio de Adjuntas	ACC	http://www.adjuntas.pr/	https://www.facebook.com/municipioadjuntas	None	-66.723398	18.161978	Calle Rius Rivera #6 Esc	Adjuntas
Biblioteca Municipal de Aguada	LIB	http://www.aguada.pr/	https://es-la.facebook.com/municipioaguada	None	-67.185851	18.379207	#174 PR-115	Aguada
Municipio de Aguada	ACC	https://aguada.gov.pr/	https://www.facebook.com/municipioaguada	https://twitter.com/municipioaguada	-67.188655	18.380045	227 Calle Colon	Aguada
Biblioteca Municipal de Aguadilla	LIB	http://www.aguadilla.pr/	None	None				Aguadilla
Museo de Arte de Aguadilla	ACC	https://www.maacagua.org/	https://www.facebook.com/maacagua	None	-67.154745	18.429248	5 Calle Ramon E. Betancur	Aguadilla
Biblioteca Enrique A. Laguerre	LIB	http://www.upr.edu/biblioteca	https://www.facebook.com/BibliotecaEnriqueA.Laguerre	https://twitter.com/BibliotecaEnriqueA.Laguerre	-67.136397	18.499562	Calle Belt, Base Ramey	Aguadilla
Biblioteca Electronica de Aguadilla	LIB	None	https://www.facebook.com/bibliotecaelectronica	None	-67.155072	18.429737	Avenida San Carlos	Aguadilla
Ramey Air Force Base	GMU	https://www.atlanticare.com/	https://www.facebook.com/USCofRamey	None	-67.131466	18.496707	405 Hangar Rd	Aguadilla
Centro de Acceso a la Informacion Intelectual	GMU	http://aguadilla.inter.edu/	https://es-la.facebook.com/InterEduc	https://twitter.com/InterEduc	-67.121721	18.467873	PR 459 Int. PR 463 Bo. C	Aguadilla
Archivo Historico de Aguadilla	ARC	http://archivoaguadilla.org/	None	None				Aguadilla
Centro Cultural Pedro Albizu Campos	HSC	None	None	None	-66.1035	18.255786	Carr 173 Bo Sumidero	Aguas Buenas
Casa Museo Federico Degetau	HSC	None	https://www.facebook.com/tibon	None	-66.265338	18.13723	Calle Federico Degetau	Aibonito
Oficina de Relaciones Publicas, Cultura	ACC	https://www.aibonito.pr/	None	None	-66.265944	18.139486	55 Calle Federico Degetau	Aibonito
Casa Villa Julita	HSC	None	https://www.facebook.com/page	None	-66.257401	18.141798	401 San Jose Ave	Aibonito
Arecibo Observatory: Angel Ramos Fou	SCI	http://outreach.naic.edu/	https://es-la.facebook.com/AreciboObs	https://twitter.com/AreciboObs	-66.75282	18.346405	PR-625 Bo. Esperanza	Arecibo
Casa Ulanga	ACC	http://www.ciudaddearecibo.org/	https://www.facebook.com/page	None	-66.715332	18.471896	Calle Gonzalo Marin	Arecibo
Centro de Acceso a la Informacion Intelectual	LIB	http://www.arecibo.inter.edu/	https://www.facebook.com/pg/AreciboInter	https://twitter.com/AreciboInter	-66.759222	18.474028,	Carretera # 2, Km. 80.4,	Arecibo
Biblioteca, Pontificia Universidad Catolica	LIB	https://arecibo.pucpr.edu/	https://www.facebook.com/pucprarecibo	https://twitter.com/pucprarecibo	-66.679058	18.445832	Carr. 662, km 2.3, Bo. S	Arecibo
Biblioteca, Universidad de Puerto Rico, Arecibo	LIB	https://www.upr.edu/biblioteca	https://www.facebook.com/biblioteca	https://twitter.com/biblioteca	-66.742645	18.468042	Carr. 653 Km. 0.8 Sector	Arecibo
Arecibo Lighthouse and Historical Park	HSC	http://www.arecibolighthouse.org/	https://www.facebook.com/arecibolighthouse	https://twitter.com/arecibolighthouse	-66.698655	18.481118,	655 Carretera Bo. Islote	Arecibo
Biblioteca, National College of Business	LIB	http://www.nuc.edu/commerce	https://www.facebook.com/nationalcollegeofbusiness	https://twitter.com/nationalcollegeofbusiness	-66.71688	18.4689009	Calle Manuel Perez Avila	Arecibo
Museo de la Musica y Radiodifusores	ACC	http://www.ciudaddearecibo.org/	https://www.facebook.com/MuseoDeLaMusica	None	-66.710637	18.4135301,	53 Calle Cristobal Colon	Arecibo



Layer List

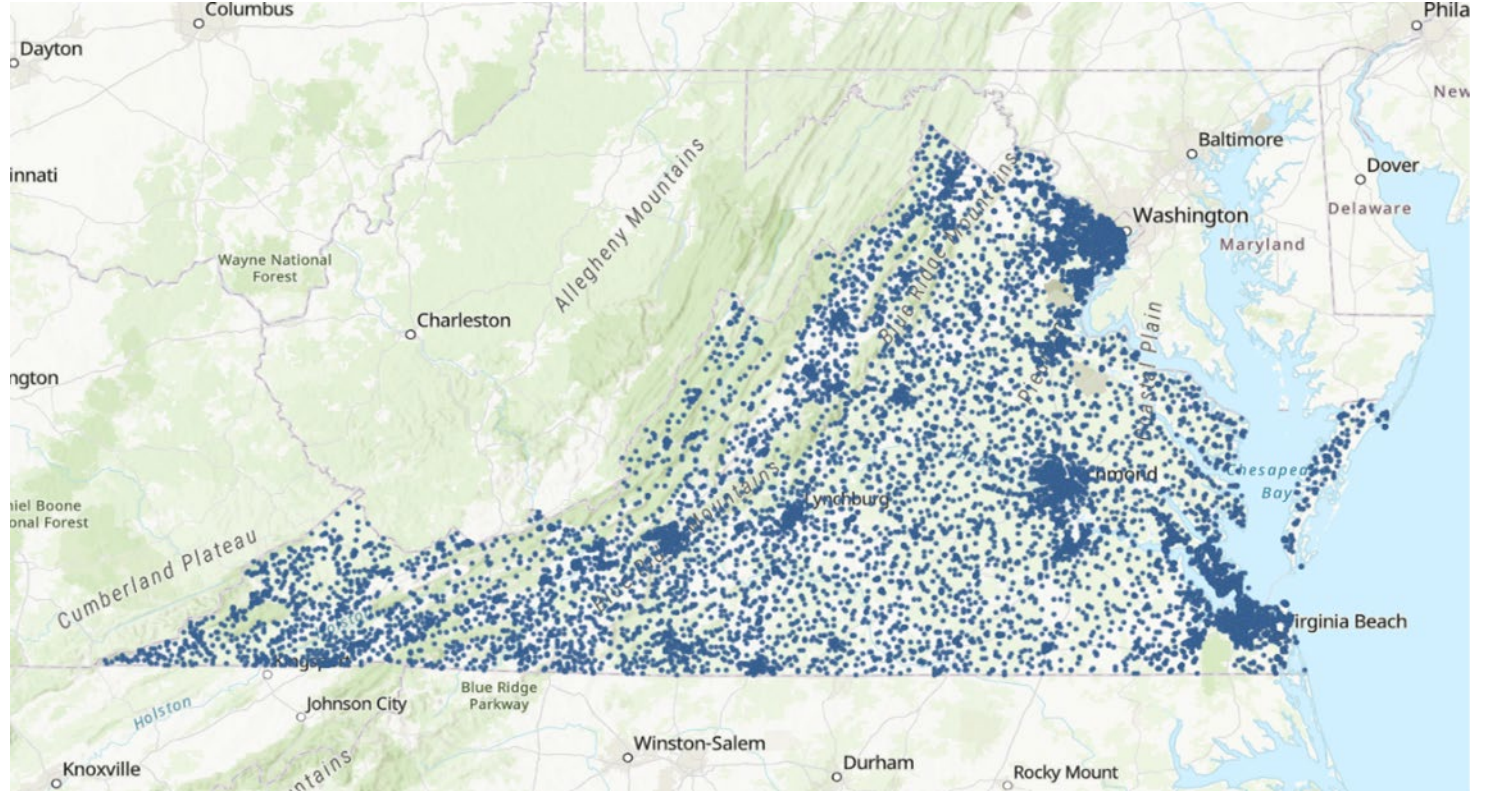
Layers

- ☒ Cultural Institutions
 - Academic Institution
 - Archive and Research Center
 - Arts and Culture Organization
 - Cultural Center
 - Library
 - Museum
 - Institute of Puerto Rican Culture
 - State Historic Preservation Office
 - Other
- ☒ Municipios_PR - copy
- ☒ Municipios_PR

Mapping Cultural and Historic Properties from Existing Sources

OPEN DATA RESOURCES:

- Open Street Maps
- Internal Revenue Service
- U.S. Census Bureau
- Data.gov
- Homeland Infrastructure Foundation-Level Data (HIFLD)
- Geographic Names Information System (GNIS)
- Institute of Museum and Library Services (IMLS) Museum Data Catalog
- National Center for Education Statistics
- Archives RepoData at GitHub



PARTNER CONTACTS:

- HENTF's PNP national service organizations
- State cultural agencies, including state museum, library, archives
- State emergency management agency
- State and regional archives / museum / arts / library associations
- State historical society
- State historical records advisory board
- Municipal clerks association
- Local and state cultural heritage emergency networks

DATA REQUESTS:

- SHPO: archaeological site data
- THPO: archaeological sites & Traditional Cultural Properties (TCPs)

USA Structures



Image: FEMA Geospatial Resource Center

USA Structures

“This feature layer, utilizing Federal Emergency Management Agency (FEMA) data, displays footprints for all structures (buildings) greater than 450 square feet in the United States and its territories, [creating] a shared baseline between various programmatic stakeholders.”

FEMA Geospatial Resource Center and USA Structures Living Atlas

[Museum of Work & Culture](#)
[42 South Main Street, Woonsocket RI 02895](#)

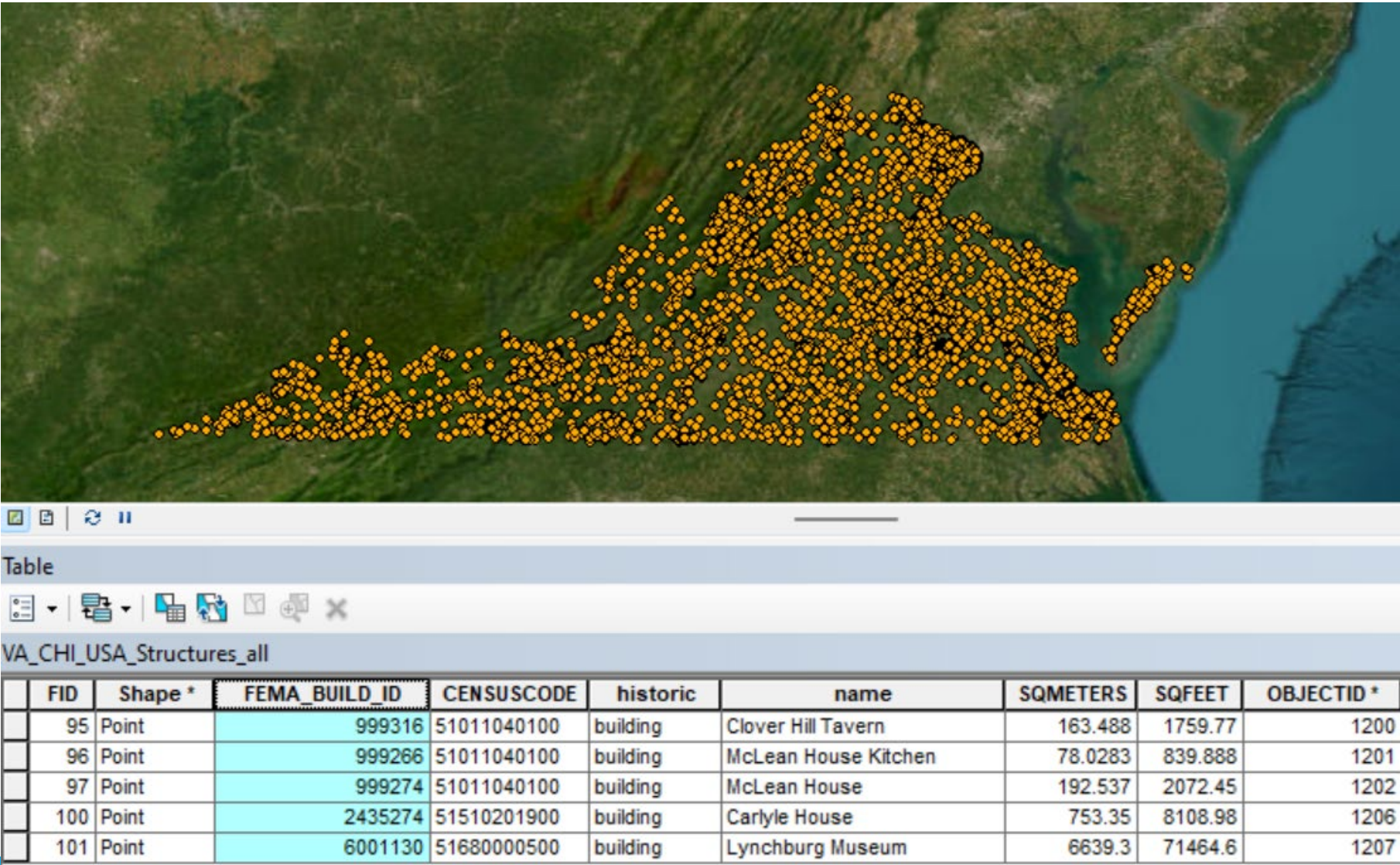
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BUILD_ID	340,908
OCC_CLS	Commercial
PRIM_OCC	Professional/Technical Services
SEC_OCC	
PROP_ADDR	34 SOUTH MAIN STREET
PROP_CITY	
PROP_ST	Rhode Island
PROP_ZIP	02895
OUTBLDG	
HEIGHT	
SQMETERS	1,261.18
SQFEET	13,575.18
H_ADJ_ELEV	
L_ADJ_ELEV	
FIPS	44007
CENSUSCODE	44007018000
PROD_DATE	5/7/2020, 8:00 PM
SOURCE	ORNL
USNG	19T BG 91610 52763
LONGITUDE	-71.52
LATITUDE	42.00
IMAGE_NAME	103001009743F800
IMAGE_DATE	8/8/2019, 8:00 PM
VAL_METHOD	Automated
REMARKS	
UUID	[2b34836e-1fbd-4480-9157-197f93dd61b5]
State FIPS	44

Universal Unique Identifier (UUID)

“In addition to the occupancy type and geometry, each polygon includes a Universally Unique Identifier (UUID), which is a unique ID for each structure across the entire dataset. This allows for connections to individual structures to unique data sources. The data schema is flexible enough to add new data fields and attributes.”

FEMA Geospatial Resource Center

Classification of Cultural Property with USA Structures UUIDs



A pilot study on Virginia found that **12,757 cultural or historic sites** can be immediately scraped from open sources. Of those, **6,637 buildings** can be spatially joined to FEMA’s USA Structures, attaching Universal Unique IDs to cultural/historic properties.



DEMA INVOLVEMENT

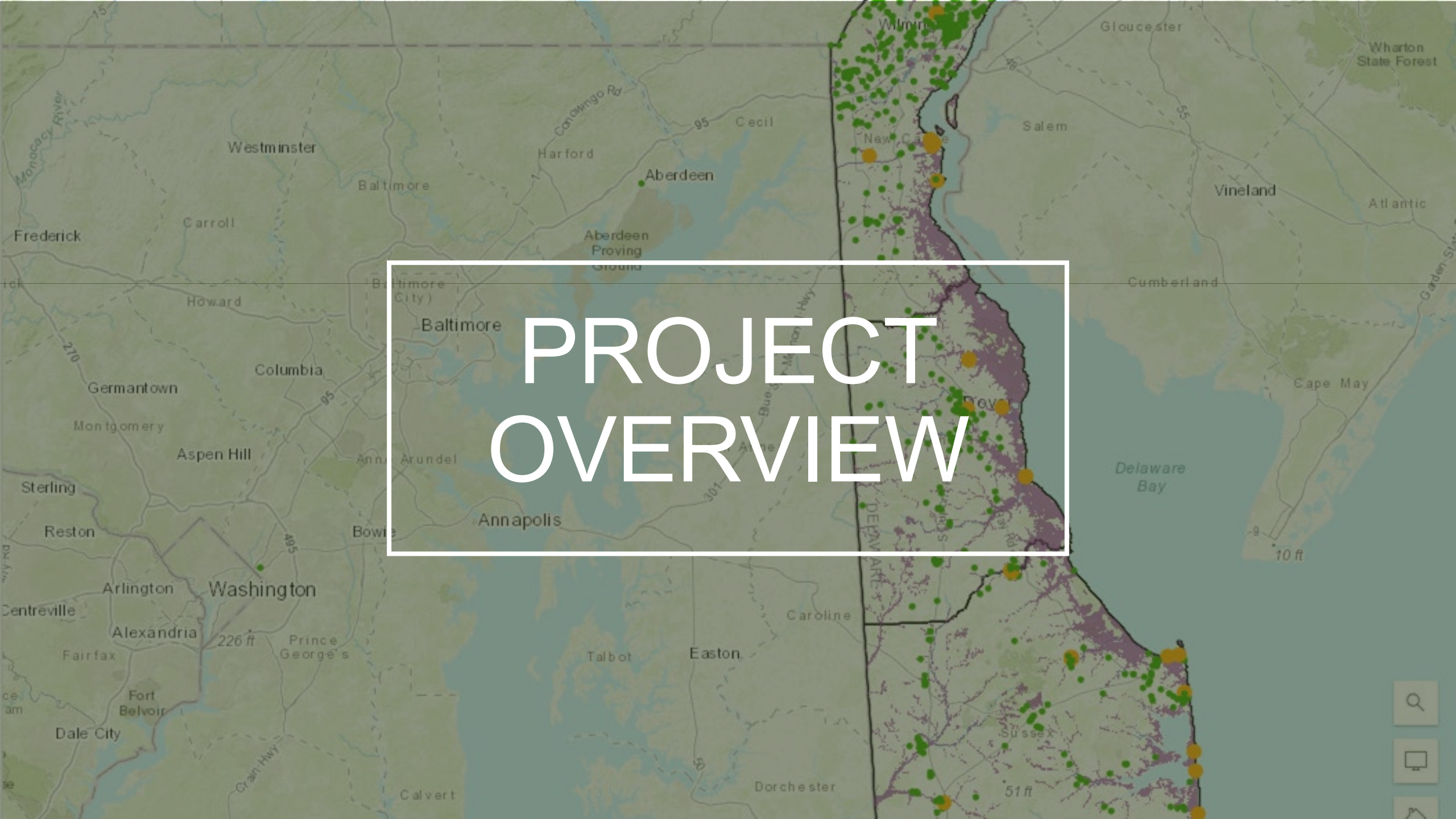


Photo by the Delaware Emergency Management Agency. Defense Day at Historic Fort Miles, Lewes, DE, April 2022

Prior involvement with HENTF

Internal effort to digitize data

Recovery Support Function Planning Project

A map of Maryland showing various counties and cities. Green dots are scattered across the state, with a higher concentration in the eastern part. Orange dots are located in New Castle, Dover, and Sussex. A white rectangular box with a thin border is centered over the map, containing the text "PROJECT OVERVIEW".

PROJECT OVERVIEW

WHY MAP ASSETS?

There is no preparedness standard for cultural assets.

Some know they have a role in disaster response & recovery.

More do not.

State & local emergency managers are the bridge.

An aerial photograph of a coastal town, likely Seaford, Delaware. The image shows a mix of residential and commercial buildings, parking lots, and green spaces. A river or bayou winds through the town, with a bridge crossing it. The background is filled with dense green trees and more buildings. The overall scene is a typical suburban coastal town.

“Because of this arc of experiences and capabilities, working collaboratively between emergency management agencies and cultural institutions to engage in the digital mapping process is a means to begin critical conversations to ensure the survival of our most irreplaceable assets.

Without an initiative such as this, there is often little reason or opportunity for these worlds to collide until it is too late.”

- Paige Fitzgerald, Deputy Director, DEMA

PREPAREDNESS:

ISSUES WITH FAMILIARITY

Local emergency managers are not familiar with the breadth of cultural assets.

Cultural institutions are not familiar with local, state, tribal, territorial, and federal disaster resources.

Relationship building cannot begin at the federal level.



PREPAREDNESS

DATA STANDARDS

Data standards and processes can be developed and socialized among all relevant partners *before* a disaster event.

Cultural institutions can ensure that their record-keeping processes capture data that will assist them in quickly accessing post-disaster resources.

RESPONSE & RECOVERY

What is a disaster?

Community resources are overwhelmed, and outside resources must be strategically placed and managed, with the priority being help to those most in need.



RESPONSE & RECOVERY: FASTER DATA SYNTHESIS

DISASTER INFORMATION

- Location
- Impacts
- Existing assets

DATA SHARING

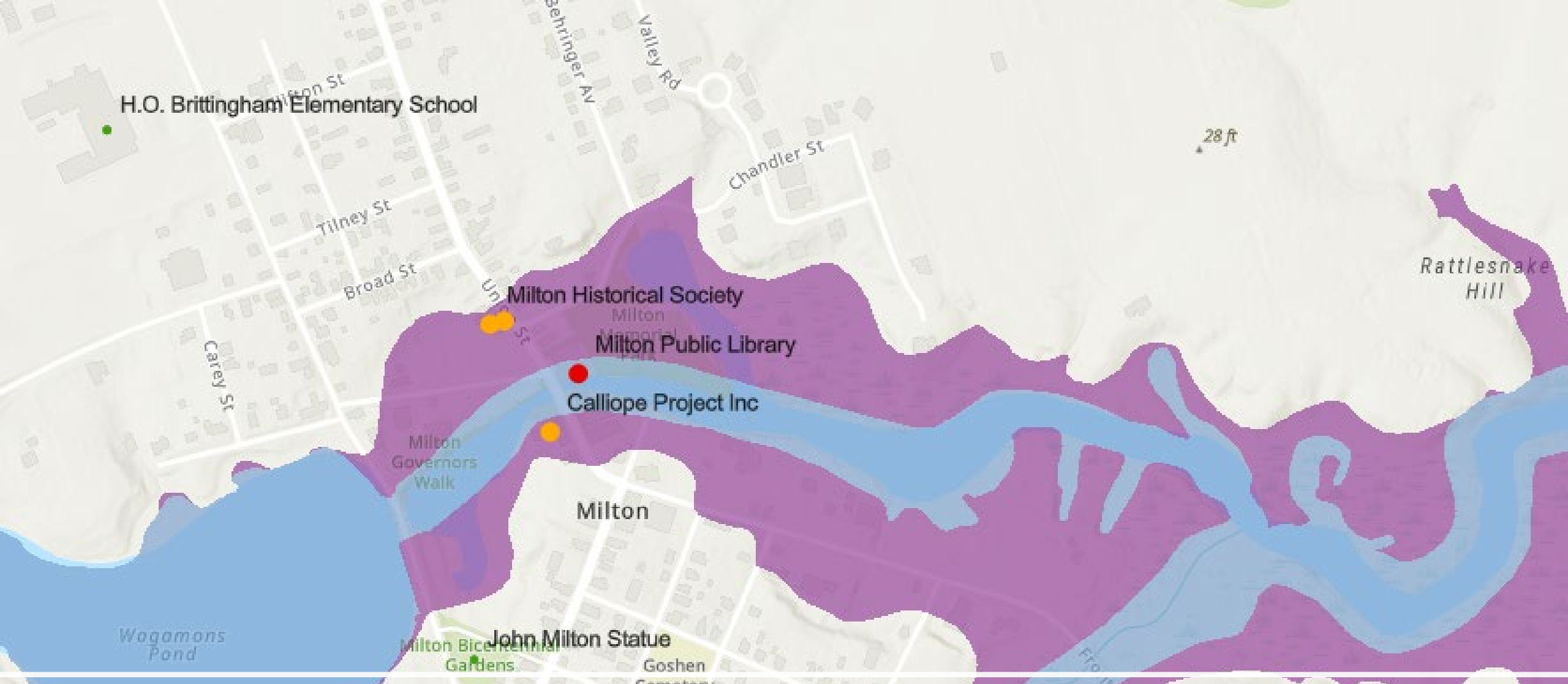
- Agreements
- Protections
- Common platforms



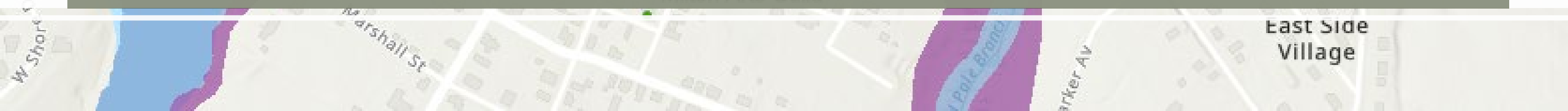
This Photo by Unknown Author is licensed under CC BY-NC

“For many cultural institutions, the difference between receiving help in a matter of days rather than a matter of weeks can be the difference between a collection that is ruined and one that is salvageable.” — Paige Fitzgerald, Deputy Director, DEMA





MITIGATION: PLAN YOUR NEXT PROJECTS





DEMA Staff 2022

OTHER REASONS TO MAP:

Staff Turnover

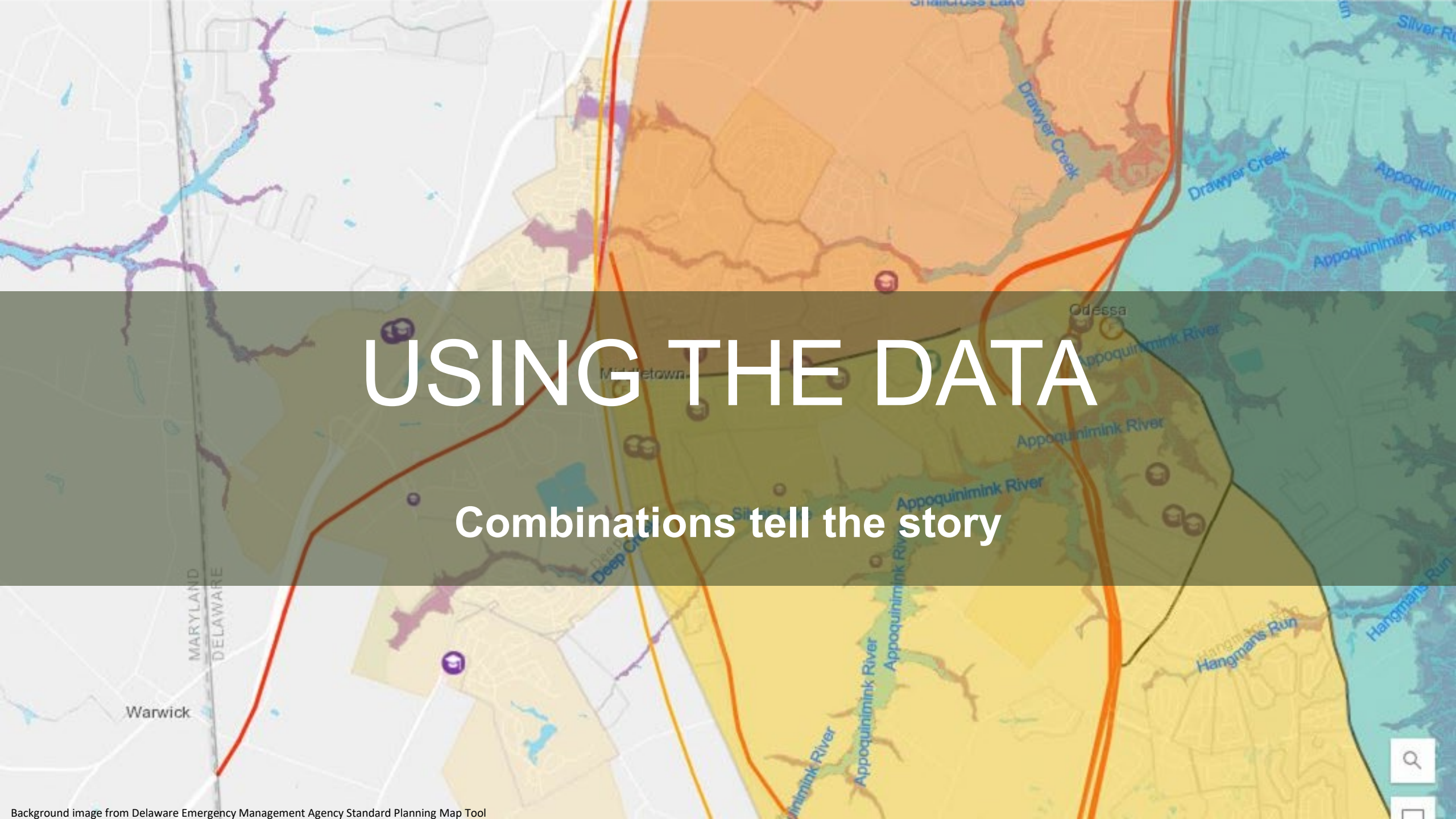


DEMA Staff
2023

GET RELEVANT STAKEHOLDERS IN THE ROOM

Convincing people they
have a role in this
conversation may take
time





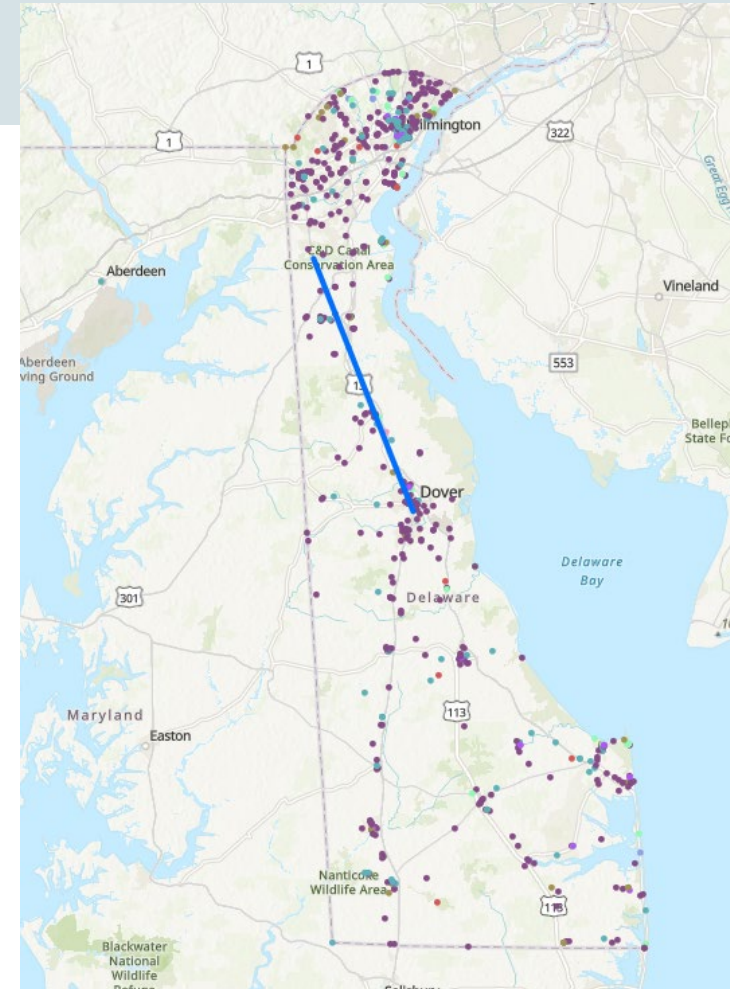
USING THE DATA

Combinations tell the story

RESPONSE & RECOVERY

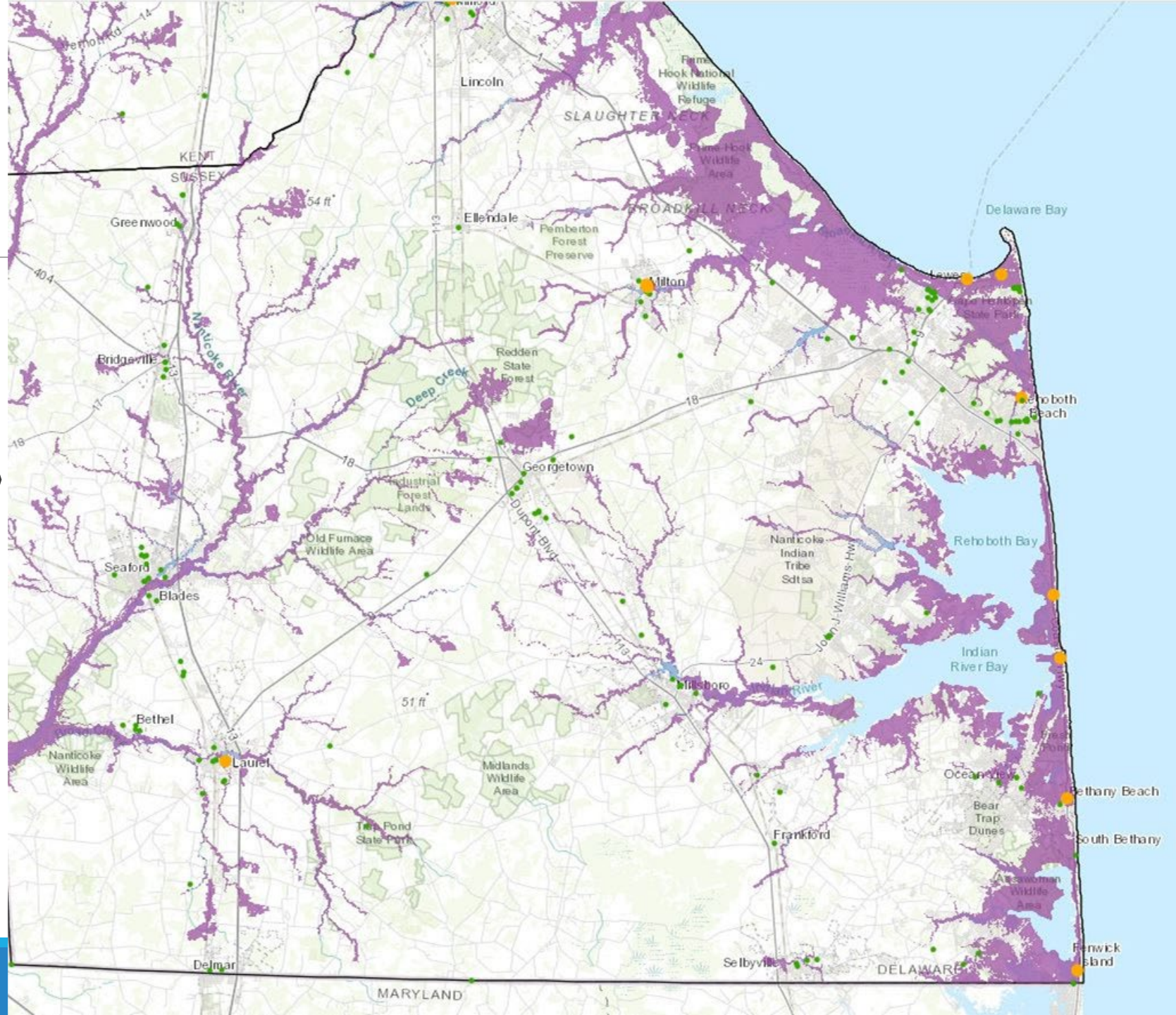
Quickly identify impacted institutions

Storm
Track
Only

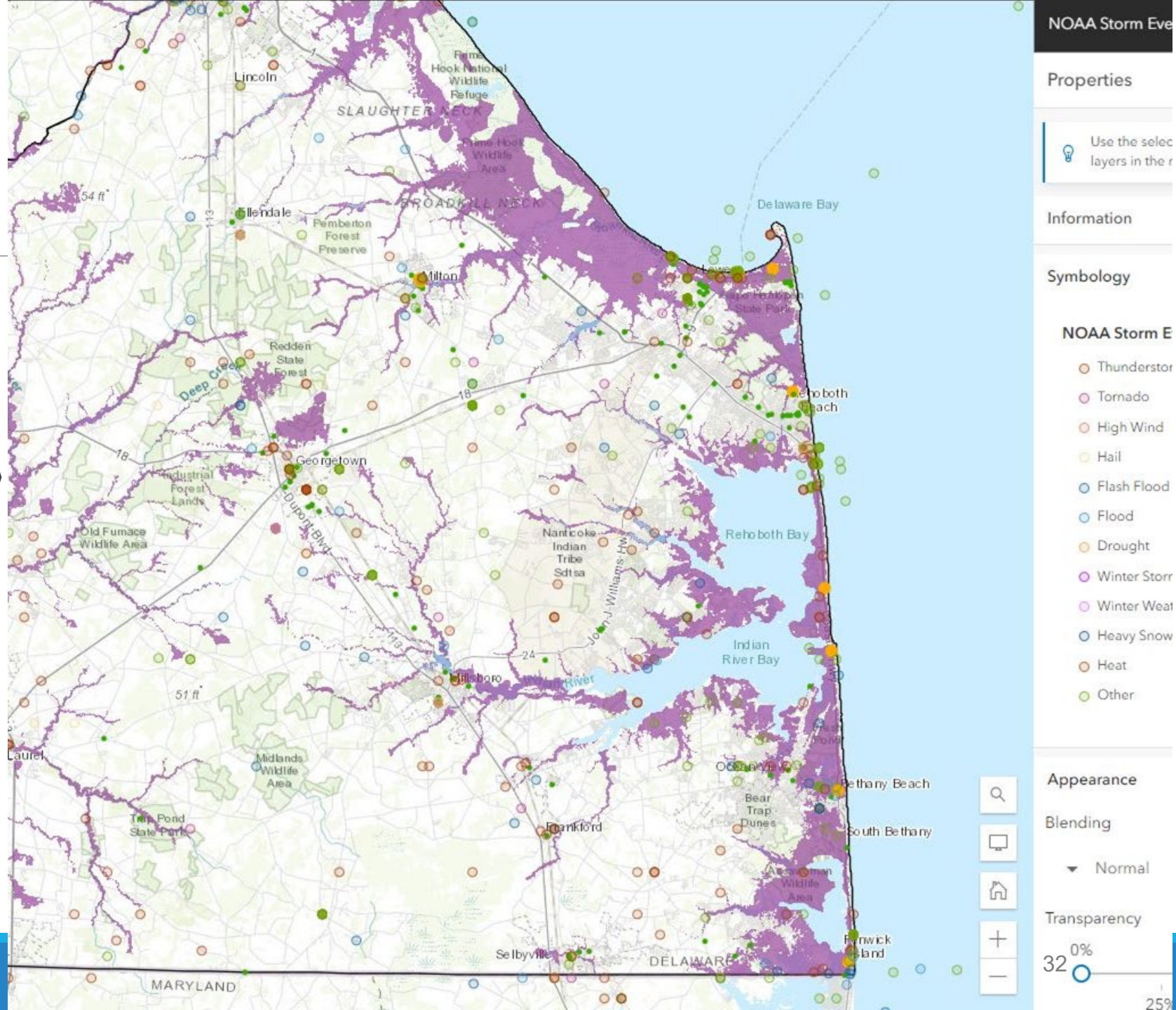


Storm
Track with
Cultural
Data

Flood Data Only



Flood & Past Storm Data Together



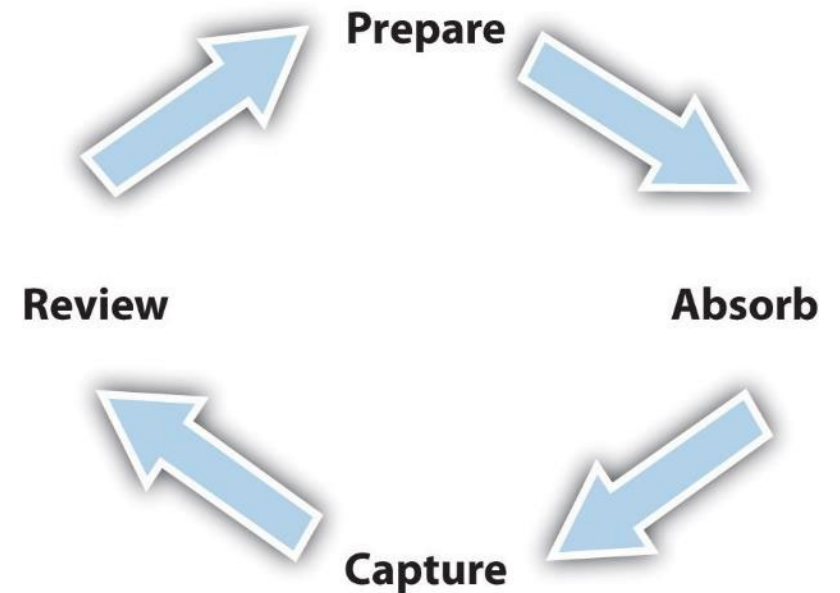
CHALLENGES

Institutions with multiple locations

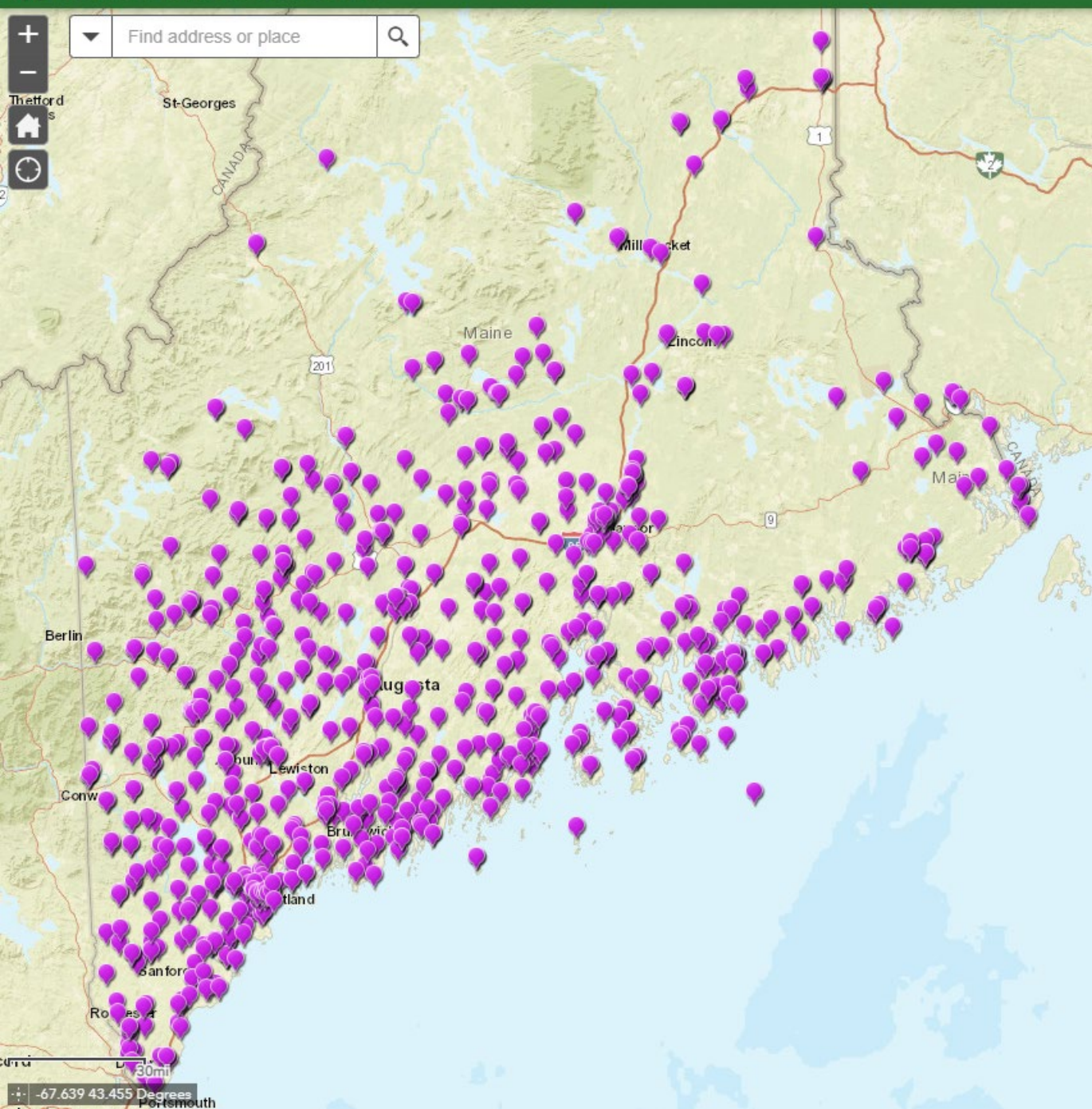


This Photo by Unknown Author is licensed under [CC BY](#)

Keeping the data current



This Photo by Unknown Author is licensed under [CC BY-SA-NC](#)



NEXT STEPS

CONDUCT RESEARCH

Generate data sets

VALIDATE DATA

AI incorporation and elbow grease

EXPLORE NEW USES

Applications for and beyond
disasters

ENGAGE OLD & NEW PARTNERS

Build & strengthen relationships
between cultural stewards and
emergency managers

Getting Started Connecting With Local Cultural Heritage Institutions

Saving Our Cultural Heritage For this Generation and Those to Come Connecting Emergency Managers with Cultural Heritage and Arts Stewards

What if every museum, gallery, place of worship, and library in the United States disappeared?

A disaster can wipe out years of history and culture in a moment. **Cultural heritage** - our museums, libraries, archives, historical societies, historic sites, community spaces, tribal centers, performing arts organizations, galleries, zoos, and aquariums - are not renewable commodities. In order to safeguard these important assets, it is necessary to combine the skills of emergency managers and cultural heritage stewards. This framework was developed by a collaboration between emergency managers and cultural and arts organizations within the [Heritage Emergency National Task Force \(HENTF\)](#).



ACTIVITY 1:

Identify and locate the cultural heritage and arts institutions in your jurisdiction.



ACTIVITY 2:

Meet with cultural heritage and arts institutions and visit the facilities, if possible.



ACTIVITY 3:

Document contact information and any special considerations for each institution in case of emergency.

Outcomes: Establishment of a relationship between stewards and emergency managers and compilation of information that can be used to implement an emergency response plan. Advance consideration of how the information about cultural heritage and arts institutions, including geospatial data, will be communicated and integrated across emergency management operations.

RESOURCES

For further exploration



Delaware Emergency Management Agency (DEMA).

<https://www.dema.delaware.gov/>

Heritage Emergency National Task Force (HENTF).

<https://culturalrescue.si.edu/hentf/>

Federal Emergency Management Agency (FEMA) HENTF

<https://www.fema.gov/emergency-managers/practitioners/environmental-historic/heritage-task-force>

Held in Trust: Climate Resilience Resources for Cultural

Heritage. <https://www.culturalheritage.org/about-us/foundation/programs/climate-resilience-resources>

HENTF Rapid Damage Assessment Forms.

For cultural institutions:

<https://docs.google.com/forms/d/e/1FAIpQLSdX2xFpCGc5gTq7UKQSO7xNQqpdL2kQMrFYNwx1RDxT-qsO8g/viewform>

For arts organizations: <https://forms.gle/fNAcHzBoUNWiWXY36>

For individual artists and performing groups:

<https://forms.gle/QL5gAYNUeG6fYRWn7>

USA Structures. <https://gis-fema.hub.arcgis.com/pages/usa-structures>

Save Your Family Treasures

<https://www.fema.gov/disaster/recover/save-family-treasures>

THANK YOU!



FEMA

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