



STEP 2. IDENTIFY HISTORIC RESOURCES LOCATED IN FLOOD-HAZARD AREAS

PURPOSE

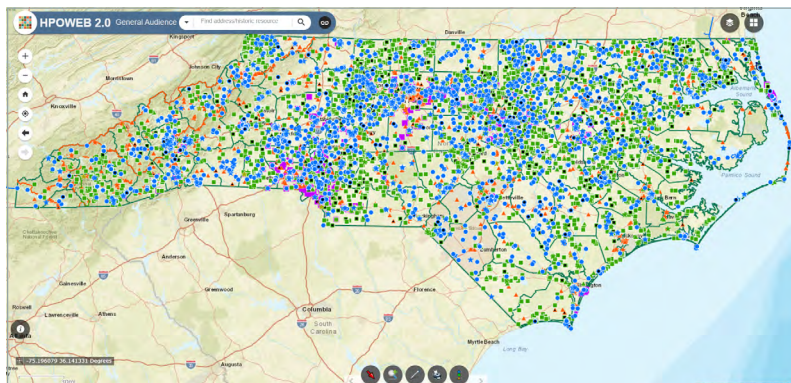
Once the flood-hazard zones have been mapped, it is time to identify the historic resources that are located in these areas. This will provide a list of the historic resources that are most vulnerable to flooding impacts.

PRODUCTS

The primary products of this step are a map and a table showing the historic resources in the community that are located in flood-hazard zones.

ESSENTIAL TASKS

Like Step 1, this step is conducted in-house by project staff, partners, and/or consultants. You will acquire data on the historic resources in your community and overlay it on your map of flood-hazard areas to identify which ones are most vulnerable to flooding.

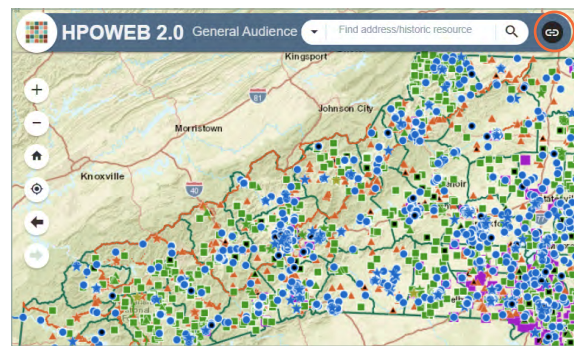


The N.C. Historic Preservation Office's HPOWEB 2.0 online database and mapping tools include a wealth of information about historic sites across North Carolina.



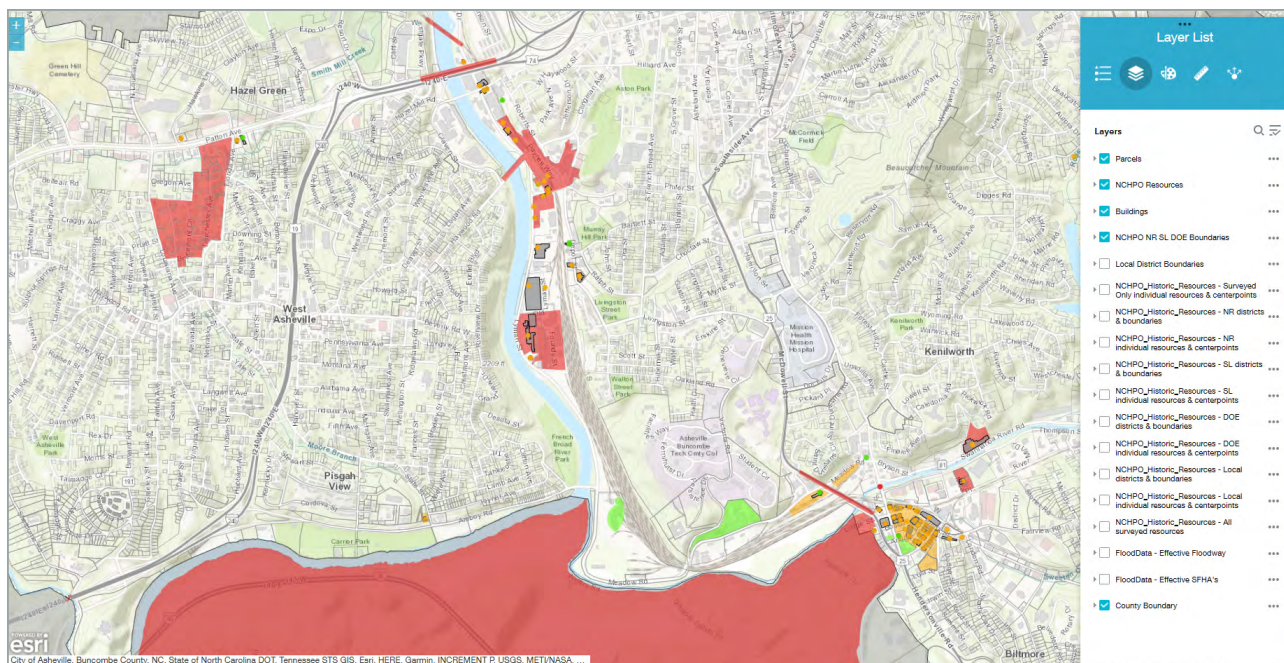
A. Acquire the latest state data on historic resources.

- i. Click on the following link for HPOWEB 2.0, the N.C. Historic Preservation Office's online historic-resources database: nc.maps.arcgis.com/home/group.html?id=d56ec9c8aa77423b931f4d359f103ae6&view=list&categories=%5B%22%2FCategories%2FHPOWEB%22%5D#content.
- ii. Click on the "Advanced User" version of HPOWEB 2.0.
- iii. Click on the "link" icon to the right of the HPOWEB 2.0 search box (see graphic) and select "Data Download" from the drop-down menu.
- iv. This will take you to a webpage that explains how to download data from the HPOWEB database (scroll down to find the appropriate instructions and the GIS-data zipped file).
- v. You can only download the complete HPOWEB dataset for all of North Carolina, which is updated monthly.
- vi. Clip the data in GIS based on the flood-hazard areas that you identified in Step 1. If you are unsure of how to do this, ask someone who is familiar with GIS (see the "Finding GIS Mapping Support" sidebar in Step 1).
- vii. Note that the link icon in HPOWEB 2.0 provides access to additional resources, including a tutorial on using the database.



B. Acquire municipal and county data on historic resources.

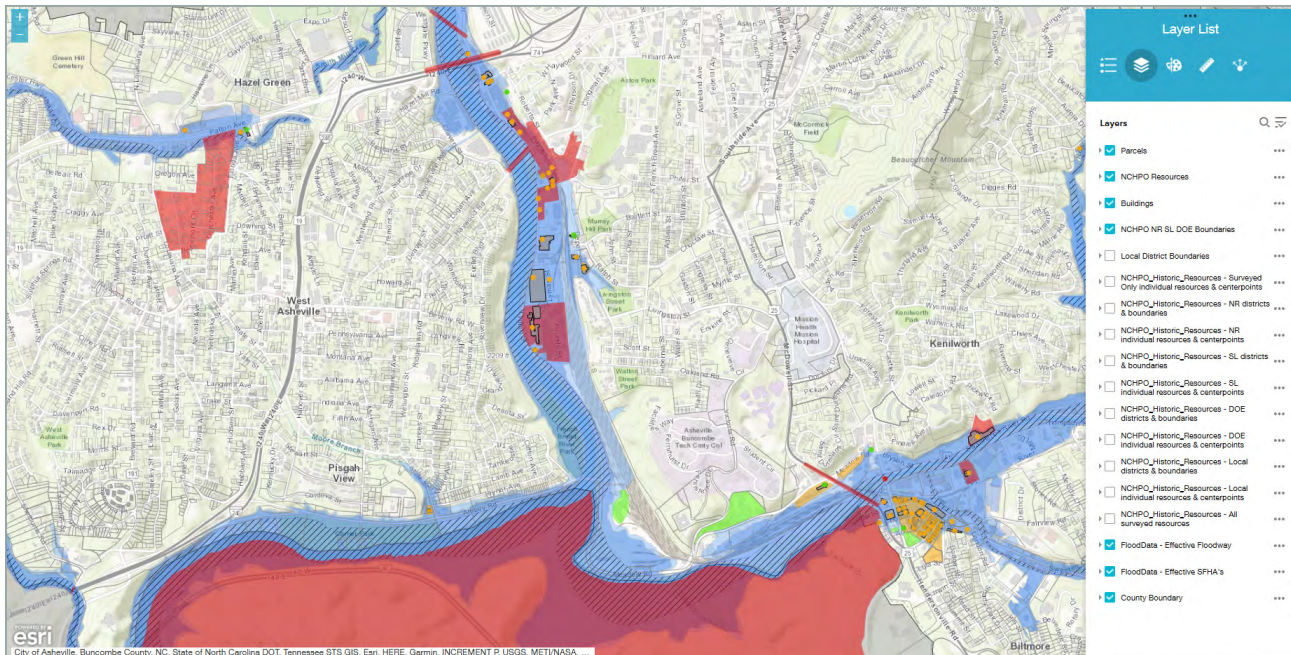
- i. Contact historic preservation and GIS staff in your municipality and/or county to identify additional data on historic resources.
- ii. Seek to identify traditionally under-recognized or underappreciated resources, such as African-American settlement communities, by reaching out to local residents and leaders. See also the African American Heritage & Culture of North Carolina Digital Asset Map developed by the N.C. African American Heritage Commission and the Conservation Trust for North Carolina (nc.maps.arcgis.com/apps/webappviewer/index.html?id=e5684374f26b496eb2202bcb1c1c2c02).
- iii. Add any new information that you find to the dataset you downloaded from HPOWEB 2.0 to create a single data layer of historic resources. If you are unsure of how to do this, ask someone who is familiar with GIS (see the "Finding GIS Mapping Support" sidebar in Step 1).



To identify vulnerable historic resources, historic preservation and GIS staff from the City of Asheville prepared the above map of local historic properties, clipped to the flood-prone areas.

C. Overlay the historic-resources data on the flood-hazard-areas data.

- i. Using GIS, overlay your historic-resources data layer on your flood-hazard-areas data layer to identify the resources that are located in flood-prone areas. If you are unsure of how to do this, ask someone who is familiar with GIS (see the “Finding GIS Mapping Support” sidebar in Step 1).
- ii. The location of the symbols for each historic resource in HPOWEB 2.0 do not correspond to the full area covered by historic structures on the ground. For a more precise analysis, use your community’s planimetric data showing building footprints to see which structures may be at increased risk from flooding.
- iii. In addition to identifying which historic structures are located in flood-hazard areas, you should also identify which historic *districts* are located in those areas.
- iv. We recommend removing highly maintained infrastructure resources such as bridges and water features such as lakes from your list of vulnerable historic resources, since these resources are generally designed to be less vulnerable to flooding.
- v. Finally, we recommend also removing any data without information value, such as historic resources that no longer exist. Sometimes these records are still listed in the state or local dataset. The remaining information will constitute your historic-resources dataset.



To assess the vulnerability of each property, the City of Asheville staff overlaid the historic resources on the flood-hazard areas and scored them based on the severity of flood exposure.

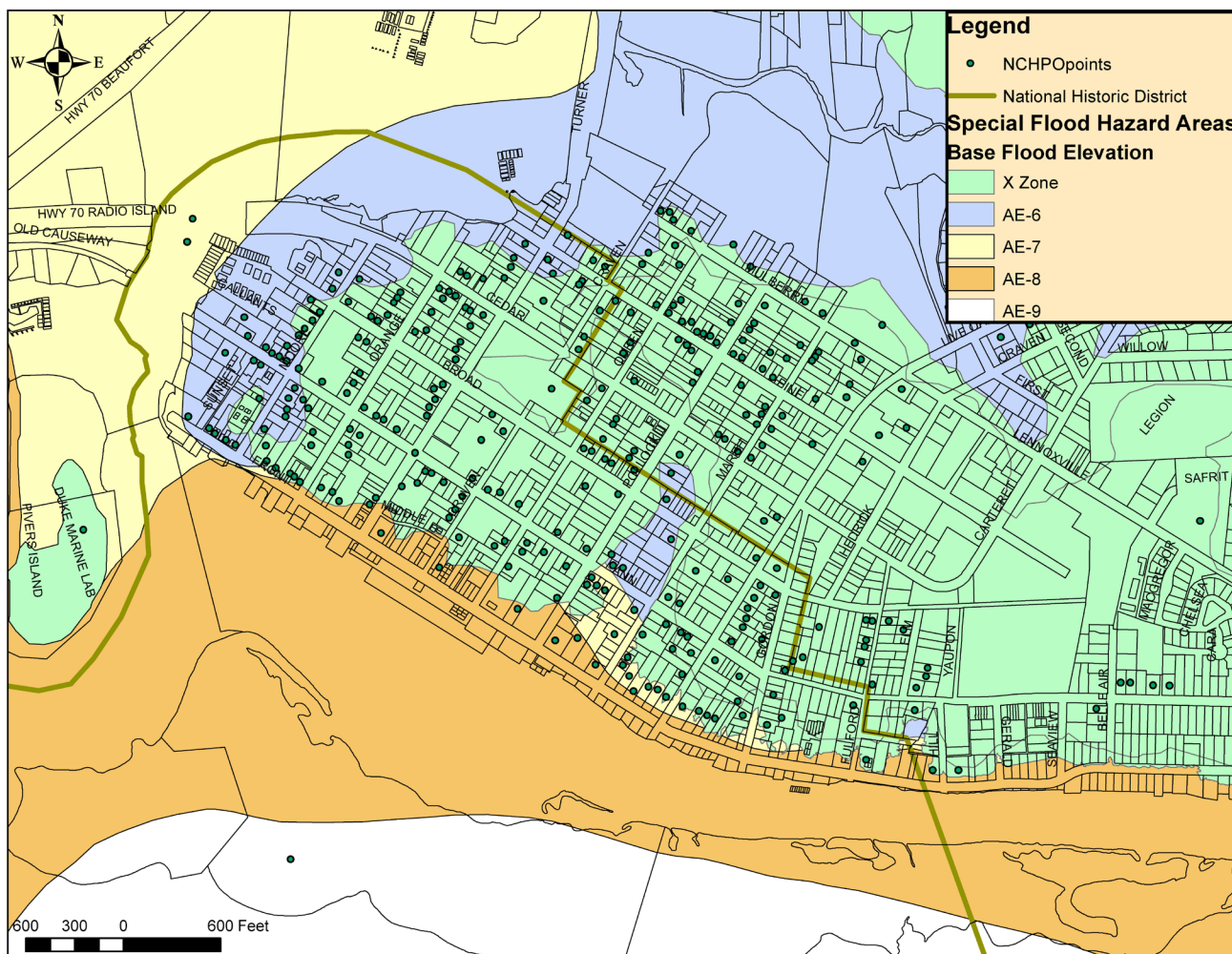
D. Use GIS to score the vulnerability of each historic resource.

- i. Use the scoring system you created in Step 1 to score the vulnerability of each historic resource, basing your score on whether the resource is located in a floodway, a coastal flooding area, a high-risk flood zone (a 100-year floodplain) outside of a floodway, or a moderate-risk flood zone (a 500-year floodplain) outside of a floodway and a high-risk flood zone.
- ii. We recommend that the vulnerability score assigned to each historic resource be based on the most impactful (highest-scoring) floodplain category that touches a historic property. For example, if the corner of a property containing a historic mill extends into a floodway, then, according to our system, the vulnerability score of that historic resource is 3.

Table 2. Sample Vulnerability Scoring Table

RESOURCE NAME	STREET ADDRESS	APPLICABLE HAZARD AREA	VULNERABILITY SCORE (Step 2)	COMMUNITY VALUE SCORE (Step 5)	TOTAL SCORE
<i>Tobacco Barn</i>	27 Elm St.	Floodway	3	4	7
<i>Stengorse House</i>	81 Oak St.	Moderate-Risk Flood Zone	1	5	6
<i>Billings Stables</i>	35 River Rd.	Other	0	3	3

Resource and Address	Flood Zone
Duncan House 105-107 Front St. CR0040	AE-6
Fulford House 115 Front St. CR0151	AE-6
Mason House 117 Front St. CR0081	AE-6
Davis House Hotel 119-125 Front St. CR0036	AE-6
J. Davis House 127 Front St. CR0032	AE-6
First Citizens Bank 411 Front St. CR0077	AE-8
Beaufort Academy 505 Front St. CR0014	AE-6



As part of a pilot initiative to test the seven-step methodology proposed in this handbook, planning staff from the Town of Beaufort, N.C., created the map and table of vulnerable historic resources shown here. Photos by Ben Hitchings.



E. Create a map and table of vulnerable historic resources. Once you have overlaid the historic resources on the flood-prone areas and scored them, make a map showing the most vulnerable historic resources. In addition, prepare a table listing each historic resource and its flood-vulnerability score (see Table 2, above). We will use these materials in future steps to help prioritize the historic resources that need protection.

OPTIONAL TASKS

- If resources permit, consider using your local information on historic resources to conduct an architectural/historic resources survey update for your community or county. Contact the N.C. Historic Preservation Office to find out whether your community might qualify for a matching grant to do this work. Then add the new information to the historic-resources layer in your GIS.
- If time permits, help identify historic resources by reviewing historic maps, prints, photographs, and other documents at your local library, historical society, the N.C. State Archives, UNC's Wilson Library (and its North Carolina Collection), and/or other locations. Then add the new information to the historic-resources layer in your GIS.

KEY CONSIDERATIONS

- Structures are considered historic if they are at least fifty years old. Therefore, don't overlook mid-century modern structures and other more recent historic sites when compiling your list.
- Some county architectural surveys have not been updated recently. If this is the case in your community, consider contacting the N.C. Historic Preservation Office about available grant funds and assistance to update your county's survey (hpo.nc.gov/grants-historic-preservation-projects).

RESOURCES

North Carolina State Archives, archives.ncdcr.gov.

North Carolina State Historic Preservation Office, County Architectural Surveys, hpo.nc.gov/historic-preservation/architectural-surveys (use this link to find your county's survey).

North Carolina State Historic Preservation Office HPOWEB 2.0 Database, nc.maps.arcgis.com/home/item.html?id=79ea671ebdccc45639f0860257d5f5ed7.

University of North Carolina, Wilson Library, North Carolina Collection, library.unc.edu/wilson/ncc.