**DIGITAL INFORMATION TASK FORCE**
**RECOMMENDATIONS AND ACTION PLAN**

The Advisory Council on Historic Preservation's (ACHP's) Digital Information Task Force focused on formulating recommendations for how the availability of digital and geospatial information about historic properties can be improved to inform federal project planning.

***Background***. On October 4, 2018, the members of the ACHP adopted a resolution requesting Chairman Wayne Donaldson establish a Digital Information Task Force to address the need for more uniformly available digital tools, including but not limited to geographic information systems (GIS), to provide a platform to support improved preservation outcomes in federal agency project planning. When federal agencies, along with their tribal, state and local counterparts, applicants, and consultants, have ready access to accurate, current data about the location and nature of historic properties, they can make project siting and design decisions that take historic properties into account earlier and more effectively. Better access to reliable historic property information can make a significant contribution to current government-wide efforts to improve the efficiency of environmental reviews, including reviews carried out under Section 106 of the National Historic Preservation Act (NHPA), for infrastructure projects, while advancing other ACHP goals such as better engagement of stakeholders and the public in preservation planning. Efforts to identify historic properties and ensure the availability of consistent digital information about them can also better inform and improve federal real property management.

Information about historic places is currently maintained at a variety of levels of government (federal, state, tribal, local) and by some non-profit organizations and private consulting firms. The NHPA tasks State Historic Preservation Offices (SHPOs) with responsibility for compiling and maintaining a statewide inventory of historic properties. Additionally, historic properties data is also collected and maintained by federal agencies, Tribal Historic Preservation Offices (THPOs), Indian tribes and Native Hawaiian organizations, and Certified Local Governments for a variety of purposes related to responsibilities assigned to them by the NHPA and other reasons.

Efforts to expand digital information about historic properties have been pursued for many years. These include the 2006 Preserve America Summit recommendations on developing a nationwide inventory; subsequent studies carried out by the National Park Service (NPS) to assess the state of affairs in electronic information availability and management; NPS subcommittee leadership within the Federal Geographic Data Committee (FGDC) to develop a cultural resources GIS data transfer standard; the Bureau of Land Management's Cultural Resources Data Partnership collaboration between the federal agency and western SHPOs to develop digital information for cultural resources on public lands.[1] These efforts have been encouraged by legislative authorizations, such as the 2015 FAST (Fixing America's Surface Transportation) Act, and Executive Branch initiatives like the Federal Permitting Improvement Steering Council's permitting best practice promoting improved digital tools to support more efficient environmental reviews of infrastructure projects.

[1] Advisory Council on Historic Preservation (ACHP), *In a Spirit of Stewardship: A Report on Federal Historic Property Management* (Washington, DC: ACHP, 2018), 33.

Significant work has also been carried out at the state, tribal, and local levels. Examples include ongoing work by the National Conference of State Historic Preservation Officers (NCSHPO) to improve state databases; NPS's and the National Alliance of Preservation Commissions' (NAPC's) development of the CR Surveyor web-based survey tool; and non-governmental initiatives to collect data on historic properties. SHPO cultural resources GIS programs have innovated in many ways, including through the integration of natural and cultural resource information in a unified mapping platform in Virginia, increased efficiency in responses to Section 106 review-related requests in Washington, and the incorporation of rich planning data in multiple states. State departments of transportation have also contributed to the integration of cultural resources GIS into project planning and have articulated cultural resources GIS database features sought by project planners.[2] Work on this topic has resulted in varying degrees of implementation, and the foregoing studies and collaboration examples serve as a basis upon which the Task Force's recommendations seek to build.

**Task Force Membership**

- Jordan Tannenbaum, Chairman, Citizen Member
- Dorothy Lippert, Expert Member
- Department of the Interior
- Department of Transportation
- Council on Environmental Quality
- National Conference of State Historic Preservation Officers
- National Trust for Historic Preservation
- National Association of Tribal Historic Preservation Officers
- National Alliance of Preservation Commissions

***Issues***. While much work has been done to develop successful and accessible data management tools across sectors involved in cultural resources management, implementation has been varied. The available data is rich in many areas, but inconsistency in data standards and access policies across state lines and agency areas of responsibility often challenges industry, planners of large-scale projects, federal agency staff, and others working in multiple jurisdictions to plan projects with the potential to affect historic properties. Ensuring data is compatible and transferable is further complicated as workflows for federal project planning and environmental reviews shift to multiple online platforms. Not all cultural resources data is suitable for online mapping, such as properties of significance to Indian tribes or information that could expose sensitive archaeological sites to harm. Indian tribes, as managers of their own cultural resources information, approach granting access to that data based on different principles than other data managers, and solutions should therefore acknowledge this important distinction. Data security remains an overarching concern even for cultural resources data appropriate for public viewing. GIS and online databases require significant investments of time, money, and human resources to launch and upgrade as well as sustainable resources to ensure they are updated and managed successfully.

Current issues of concern to federal agencies in their planning and resource management work point to the importance of improving access to and the accuracy of GIS data about the location of identified historic properties for which the disclosure of location information is appropriate. Efforts to improve the efficiency of the federal government's environmental reviews and authorizations for infrastructure permitting have highlighted how tools to identify environmental concerns, including cultural resources, can help proponents and federal agencies develop better plans in the early project development phase and make the most of early coordination with stakeholders. Disaster preparedness and resiliency planning, wherein information about the location of cultural resources can help agencies protect historic properties

[2] Eric Ingbar, Terry H. Klein, and Melissa Cascella, *NCHRP 25-25, Task 90, Application of Geographic Information Systems (GIS) for Historic Properties* (Prepared for AASHPO Standing Committee on the Environment, September 2015).

and landscapes, can also benefit from geospatial tools. Federal agency stewardship decisions may be supported by geospatial data that allows agencies to manage their land or property with awareness of how management policies, other environmental factors, and project plans overlay the location of historic properties.

The ACHP, as a body with representation from diverse federal preservation program participants, is uniquely positioned to bring together key stakeholders to examine the state of preservation planning data and make recommendations on how it can be leveraged for greater planning efficiency and improved preservation outcomes. The nationwide perspective contributed by the ACHP membership can also inform the important task of framing the resources needed to improve the availability of digital information.

***Recommendations***. The Task Force, with the input of an Advisory Group of technical and policy experts, developed the following issue areas to guide its study and formulation of recommendations.

**1. Make the Administration, Congress, agency officials, and the public aware of how digital information, including GIS, increases the effectiveness and efficiency of project planning and helps avoid harm to historic properties.**

The benefits, including time and cost savings, of improved cultural resources geospatial data accessibility to speeding delivery of important federal and federally assisted projects must be communicated to those who make resource allocation decisions and influence federal agency planning practices. The Geospatial Data Act and Foundations for Evidence-Based Policy Making Act, both passed in 2018, highlight the use of federal agency GIS data for project planning decisions. These laws focus on the need to create, document, and share spatial data more comprehensively, and agencies must report on the use of these data sets to Congress and decision makers with more regularity. Thus, showing how such data can improve the efficiency of infrastructure project delivery, for example, can locate it in a broader government effort to make more effective use of geospatial data. Increased awareness can highlight the roles SHPO, THPO, tribal, and local preservation data managers, along with private consultants, play in maintaining important cultural resources information. It can also help ensure project planning staff are taking full advantage of the digital tools already available. While certain characteristics of cultural resources geospatial information require tailored approaches, examples of how GIS has enabled project planning efficiencies for other categories of resources can provide relatable examples for decision makers.

Recommended actions:

- The ACHP, in collaboration with Federal Preservation Officers, will query federal agency staff, applicants, and consultants about their use of state and local government historic properties databases or GIS layers to document how these tools are being used in preparing information to support project siting and Section 106 reviews and how they might be made more effective. *Spring 2020*.

- The ACHP, in coordination with NPS, NCSHPO, National Association of Tribal Historic Preservation Officers (NATHPO), NAPC, and the National Trust for Historic Preservation (NTHP), will conduct additional research and locate relevant examples of how improved digital information has increased the efficiency of Section 106 reviews by reducing time and effort in locating information on previously identified historic properties; saving travel, time, or records search and management costs; and/or supporting comprehensive management strategies for historic properties on federal lands and property. *Spring 2020*.

- This information will be compiled into an information paper and a fact sheet about the importance of digital information to preservation and how it can help improve the efficiency of infrastructure project planning to demonstrate the efficiency of investments in such technology to potential government and industry funders/decision makers. *Spring-Summer 2020.*

**2. Identify opportunities for funding and resource enhancement.**

SHPOs and Indian tribes rely on various sources of funding to advance their digital information management. Funding constraints and opportunities to create, expand, and maintain SHPO and tribal GIS need to be explored so states and tribes can model successes from their colleagues with the support of preservation partners. The resources required to make GIS a useful tool for the federal project planning process also include human and technological resources. Once systems are in place, states and tribes must also devise sustainable funding models to ensure their ongoing maintenance. Some states have reported recurring costs of up to $250,000 per year when all licenses, staffing, hardware, and other costs are taken into account. Fully implementing digital tools and cultural resources GIS will therefore exceed the kind of funding available to SHPOs and THPOs through the Historic Preservation Fund.

The passage of the Geospatial Data Act in 2018 stipulates that federal agencies must dedicate funding to the creation, management, and dissemination of geospatial data. Regulations and standard operating procedures for the Geospatial Data Act are being developed by the FGDC and the participating federal agencies. The original OMB Circular (A-16), which created the FGDC and defined its role in data standard creation, data dissemination and reduction in data redundancy, is similarly being revised to comply with the Geospatial Data Act. Covered agencies must report annually on how they meet their responsibilities under the legislation, including regarding the allocation of resources to fulfill geospatial data responsibilities.[3]

There continues to be interest in leveraging potential contributions by industry partners who stand to benefit from the availability of geospatial data for project planning, though no mechanism for connecting financial support to the SHPO or tribal managers of such data is readily apparent. This strategy requires further study.

Recommended actions:

- The ACHP should work with agency members to identify possible sources of funding in the Administration's FY 2021 and future budget requests. *Ongoing*.

- The ACHP, in cooperation with Federal Preservation Officers, NCSHPO, and NAPC, should compile a summary of federal, state, and local programs that have been used in the past to support the collection, management, or exchange of GIS information about cultural resources. *Spring-Summer 2020.*

- The ACHP should work with NPS/FGDC cultural resources subcommittee and Federal Preservation Officers to gather information about how property-managing agencies are factoring any cultural resources GIS data they maintain into fulfilling their GDA responsibilities. *Summer 2020*.

- The ACHP should coordinate with NCSHPO's Technology and Survey Strategies Committee to research the maintenance needs of SHPO Cultural Resources Geographic Information System

[3] Peter Folger, *The Geospatial Data Act of 2018* (Washington, DC: Congressional Research Service, October 2018), 8.

(CRGIS) systems to ascertain expected costs to maintain a baseline level of state CRGIS mapping capability to supply adequate information to inform early federal project planning. *Fall 2020.*

- The ACHP, NCSHPO, NTHP, and NAPC should study the feasibility of creating a cultural resources geospatial partnership fund and how such a funding resource might be made available to historic preservation agencies to improve or maintain GIS data availability to certain benchmarks. The ACHP should further coordinate with the Federal Permitting Improvement Steering Council and interested representatives of industry on this topic. These partners should report to the Federal Agencies Programs Committee. *Fall 2020.*

**3. Enable cultural resources GIS data exchange between states, tribes, local governments, and federal agencies.**

The Federal Geographic Data Committee Cultural Resource Subcommittee (chaired by NPS) is close to finishing a federal cultural resources data transfer standard, which will be mandatory for federal agencies. These standards concern the portability of GIS spatial data from one system to the other, documenting the lineage of the spatial data as well as appropriate uses of the data, not the substantive content describing historic properties. SHPOs, THPOs, and tribes set their own data standards but could benefit from certain data sharing relationships with federal agencies and could use the federal standard as a point of reference in developing their own. Data sharing is especially important during emergencies and disaster response scenarios. As more Section 106 workflows move online, transferability of data and reasonable process consistency will help GIS data sets grow at the same time they offer efficiencies in the review process to federal agencies, SHPOs, tribes, and other Section 106 participants.

The passage of the Geospatial Data Act in 2018 will significantly impact the role of the Federal Geographic Data Committee and its associated subcommittees, requiring them to focus on data standard creation, data sharing and reporting on data holdings. NPS is the identified lead for the cultural resource spatial data theme and can help inform and coordinate efforts across state, tribal, local, and federal agencies to improve data exchange. Issues, such as the need to respond to disasters in a timely manner, will become a higher priority. More comprehensive and accurate cultural resource spatial data will become much more critical for federal agencies and their partners. The need to streamline the Section 106 process to take advantage of the spatial data and tools already available will also become a much higher priority for federal agencies to better assist in improved decision making.

A related concern is the growth in e106 systems, sometimes linked to CRGIS databases, to manage Section 106 workflows. As both agencies and SHPOs develop these, thought should be given to their compatibility and consistency and how the Section 106 documentation standards align with digital forms. Digital data collection systems offer opportunities for generating transferable data at its origin, as in the example of the CR Surveyor app developed by NAPC and the NPS.

Recommended actions:

- The ACHP should keep its membership informed about progress toward completion of the cultural resources data transfer standard and assist the NPS in outreach to key federal and non-federal constituencies about the standard and its benefits for federal project planning once it is completed. *Fall 2020.*

- The ACHP, in coordination with NCSHPO and NATHPO, should convene SHPOs and THPOs, federal agencies, and cultural resources consultants on the topic of e106 workflow systems and the use and transfer of electronic cultural resources data in Section 106 documentation. Results of the meetings should be used to provide a report to the Federal Agency Programs Committee on

how to improve the exchange of data and documents and increase consistency among e106 systems. *Summer 2020-Winter 2021*.

**4. Address data management impediments to increase GIS availability.**

Consistency and technical expertise are improved when cultural resources GIS practitioners have a space to share solutions. SHPOs work within many different organizational structures with varying levels of control over their IT resources and data sets. The NCSHPO Technology and Survey Strategies Committee has formed to support SHPOs in this regard and hosted its first meeting in October 2019. Opportunities for consensus building and innovation around successful data management approaches would help avoid every state or tribe developing its own solutions, potentially at greater expense and less consistency.

Recommended actions:

- The ACHP, in consultation with NCSHPO and its Technology and Survey Strategies Committee, should develop an advised baseline level of state CRGIS mapping capability and funding to supply adequate information to inform early federal project planning. *Fall 2020*.

- The NTHP, in coordination with NCSHPO, should conduct or facilitate additional research into the integration of cultural and natural resources data in state-managed GIS with the understanding that sensitive data may not be open to public disclosure. *Summer 2020*.

- Federal land-managing agencies should ensure cultural resources GIS information management needs are addressed as they plan to fulfill responsibilities under the Geospatial Data Act. *Ongoing*.

**5. Properly manage access and secure sensitive data.**

Controlling access to historic properties data and location information is a major concern in developing GIS tools and offering greater access to these tools, particularly for Indian tribes and in relationship to archaeological sites and the security of some federal facilities. The ACHP recognizes that Indian tribes manage their own cultural resources data and have different principles and approaches for restricting access to that data than other managers of digital cultural resources information. Alternative means of using mapping technology to facilitate contact within the federal project planning process could help ensure prompt communication between federal agencies, applicants, and Indian tribes to lay the groundwork for project consultation.

Participants in the federal preservation program lack best practices for managing digital cultural resources data. The National Geospatial Advisory Committee, Cultural Resource Subcommittee, directly addresses the security of sensitive cultural resource geospatial data, recommending the Federal Geographic Data Committee, Cultural Resource Subcommittee, work toward developing guidelines for federal agencies. These guidelines would include defining cultural resource types covered under these protections, providing examples of data sharing agreements which would protect resource locations, completing the spatial data exchange standards and developing training to inform cultural resource managers as well as agency solicitors and others about the hazards of disseminating sensitive data.

Recommended actions:

- The ACHP, in coordination with its Native American Affairs and Federal Agencies Programs Committees and NATHPO, should seek feedback from Indian Country about how technology can

be used to make communication between tribes and federal agencies in Section 106 review more efficient in ways that avoid disclosure of sensitive site information. *Ongoing*.

- The ACHP should support the recommendations of the National Geospatial Advisory Committee Cultural Resources Subcommittee report on Protecting Federal Cultural and Geospatial Resources (September 2019), including recommendations on developing guidelines for the management, access control, and exchange of geospatial data associated with sensitive cultural and historic resources and data sharing agreements and strategies. The ACHP and its members should also support the work of the FGDC Cultural Resource Subcommittee in advancing these recommendations. *Ongoing*.

*February 27, 2020*