



# Section 3

## Reporting Progress on the Identification, Protection, and Use of Federal Historic Properties

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## Table of Contents

<b>Preface</b> .....	<b>2</b>
<b>Introduction</b> .....	<b>2</b>
<b>Identifying Historic Properties</b> .....	<b>2</b>
<b>Challenges for Public Access to USGS Historical Buildings</b> .....	<b>3</b>
<b>Opportunity for Identifying Historic Properties</b> .....	<b>3</b>
<b>Protecting Historic Properties</b> .....	<b>3</b>
<b>Engaging Indian Tribes to Protect the Environment and Historic Property</b> .....	<b>4</b>
<b>Digitizing Historic Property</b> .....	<b>5</b>
<b>Sustainability Challenges to Preserving Historic Property</b> .....	<b>5</b>

**About the cover:** The satellite image of the Chesapeake Bay was featured in the report: The U.S. Geological Survey, and the Chesapeake Bay – The role of Science in Environmental Restoration. The Survey’s Chesapeake Bay science program has the “critical role in providing unbiased scientific information to be used in helping to formulate, implement and assess the effectiveness of restoration goals in the bay and its watershed.”

## Preface

The USGS Section 3: Reporting Progress on the Identification, Protection, and Use of Federal Historic Property identifies what the program has accomplished since Fiscal Year 2020 and the program’s future challenges and opportunities.

## Introduction

Created by an act of Congress in 1879, the USGS provides science for a changing world, which reflects and responds to society’s continuously evolving needs. As the science arm of the Department of the Interior, the USGS brings an array of earth, water, biological, and mapping data and expertise to bear in support of decision-making on environmental, resource, and public safety issues.

The USGS is a primary Federal source of science-based information on ecosystems, land use, energy and mineral resources, natural hazards, water use and availability, and updated maps and images of the Earth’s features available to the public.

## Identifying Historic Properties

At the USGS, the process of historically evaluating real property remains consistent and is performed by the Federal Preservation Officer through the Comprehensive Condition Assessment Program and through observance of Section 106 and Section 110 of the National Historic Preservation Act (NHPA)

The table below was generated from USGS real property holdings documented in the Federal Real Property Profile from FY 2022.

USGS Real Property Assets (1276)			
	Percentage Historic	NRHP* Listed	NRHP Eligible
Buildings	.2%	1	65
Structures	8.7%	0	112
Sites	0	0	0
Districts*	.08	0	1

\*National Register of Historic Places

There are four Criteria for Evaluation: Event; Person; Design/Construction; Information Potential. Of the four, the three below, most often apply to identifying historic real property assets at USGS.

**Criterion A: Event** Associated with events that have made a significant contribution to the broad patterns of our history. For the USGS, science research has made significant contributions to U.S. history in the areas of Fish Health, Astrogeology, Geomagnetism, Biology, Geology and others.



**Criterion B: Person** Associated with the lives of significant persons in our past. Typically, a scientist who has developed a type of Science Research. For the USGS Eugene Shoemaker, who is considered the founding father of Astrogeology, meets this criterion.



**Criterion C: Design/Construction** Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction. For the USGS the notable architecture of the Solid State Physics lab is Post Modern and the Geomagnetic buildings are constructed of non-ferrous materials.



## Challenges for Public Access to USGS Historical Buildings

Historic properties best serve the public when given the opportunity to tell their story. Historic tourism at some USGS sites is reduced at geographically remote locations, such as Barrow and Shumigan, Alaska. Some USGS historical buildings are not inherently conducive to historical tourism, such as those located on Science Center campuses surrounded by fences for security purposes and to prevent wildlife from entering the sites. Laboratory buildings with their controlled work environments are not ideal for tour groups.

## Opportunity for Identifying Historic Properties

The USGS Federal Preservation Officer (FPO) studied the opportunity and feasibility of starting a Section 106 programmatic agreement for streamgages since there are routine activities USGS hydrologists perform to keep them operational. The first step in working towards that goal will involve evaluating which sites possess a local or national significance theme for each of the eight thousand streamgages. To implement this program, the number of streamgages creates a challenge that will require resources to accomplish, such as time and funding.

## Protecting Historic Properties

Natural disasters are proving to be a growing threat to USGS Science Centers. In 2022 a sea water incursion made it difficult for USGS employees to reach the USGS Marrowstone Marine Field Station (pictured). The Science Center is a complex of wet laboratories adjacent the Marrowstone Point Light Station that has stood on the tip the Marrowstone Island peninsula since 1918. The USGS owns the lighthouse and occupies it as quarters for visiting scientists. It was historically evaluated and determined eligible for listing on the NRHP. In 2021 the USGS raised the height of a major berm on the site to divert tidal water around the Science Center. The U.S. Army Corps of Engineers and US Coast Guard have restored the shoreline seawall armoring the tip of the peninsula with erosion control features. Another property, the Hawaii Volcano Observatory Office Building was destroyed beyond repair by the Mt. Kilauea Volcano eruption

### Section 3: Reporting Progress on the Identification, Protection, and Use of Federal Historic Property

of 2018. The building was built in 1984. Had the building been over fifty years of age, it would have qualified as historic.

The USGS has science artifacts safely displayed at its Science Centers, where there is public access and space for showcasing products of USGS science research. The lunar “Grover” is parked in the visitor’s lobby of the Flagstaff Science Center, in Flagstaff, Arizona, where Eugene Shoemaker invented Astrogeology and created the classroom environment to teach NASA Apollo Astronauts on how to collect geologic samples (Read [this](#) USGS Article for further information).



In the lobby of the Earth Resources Observation and Science (EROS) Center in Grand Rapids, South Dakota, the USGS displayed the [Landsat 7](#) Enhanced Thematic Mapper Plus (ETM+) instrument. It was transferred to the National Air and Space Museum in Washington DC in March of 2023.

At the J.W. Powell Building, the construction of a diorama was recently completed for the display of rudimentary artifacts that USGS geologists would use during early explorations of the American Southwest.



## Engaging Indian Tribes to Protect the Environment and Historic Property

In accordance with DOI-wide goals, many of the USGS science-related activities are directly relevant to Tribal nations and to Native lands. USGS recognizes that Native knowledge and cultural traditions result in unique Native perspectives that enrich USGS studies. Accordingly, the USGS seeks to increase the sensitivity and openness of its scientists to the breadth of Native knowledge, expanding the information on which its research is based.



USGS’s scientific studies associated with Tribal nations and Native lands include data collection, mapping, natural resource modeling. See [SBSC TRIBAL PARTNERSHIPS | U.S. Geological Survey \(usgs.gov\)](#) for examples of USGS projects with Tribal Partners.

The USGS [Office of Tribal Relations](#) (OTR) represents each USGS region, mission area, and the bureau as a whole, building and strengthening partnerships with other federal agencies, universities, and numerous tribes

throughout the United States. The tribal locator data base helps USGS identify the Tribes through a “good faith effort,” emulated under 36 Code of Federal Regulation §800.2(A), during a Section 106 of the National Historic Preservation Act review of its projects.

## Digitizing Historic Property

The [Strategic Hazard Identification and Risk Assessment \(SHIRA\)](#) was developed by the USGS through request from the Department of the Interior (DOI), Office of Emergency Management (OEM) staff as they were updating the DOI national-level emergency operations plan. The SHIRA was developed to answer, “What hazards should we worry about the most?”

Today, SHIRA data includes approximately 95,000 National Register of Historic Places properties that are buildings, structures, and landmarks in the United States. There are also Federal properties including USGS Science Centers shown on the digital maps of SHIRA. The database identifies natural hazards that are relevant to the search area requested for viewing. Historic preservation managers and Federal employees can evaluate and plan structural improvements and landscaping strategies of the historic properties to improve their survivability to the local hazards identified in SHIRA.

SHIRA tools have been developed by a dedicated team of scientists, computer programmers, tool developers, and emergency management professionals from OEM and USGS. OEM relies on the vast field experience of its employees, and coordination with Department, bureau and office representatives via the Senior Executive Emergency Management Council and the Emergency Management Council to steer the SHIRA project. The USGS leverages the decades of scientific and technical expertise of its employees to improve the emergency preparedness of the Department.

Currently, SHIRA tools and data are available for DOI personnel only. For further information, please view this presentation webinar on its development and capabilities at: [SHIRA 101](#).

## Sustainability Challenges to Preserving Historic Property

The goals of [EO 14057: Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability](#) were implemented to all DOI Bureau master building plans by the DOI Sustainable Buildings Technical Workgroup on May 16, 2023. The USGS is working towards meeting the goals identified in EO 14057 and [OMB Memorandum M-22-06](#). USGS has several new building construction projects in design phases, that will contribute significantly toward the sustainability requirements without effecting historic property. However, the USGS may face future challenges, when its existing inventory of buildings, predominantly over fifty years of age, is anticipated to require deep energy retrofits as one way to meet sustainable building goals. Deep energy retrofits have the greatest potential to affect the exterior design of buildings, which could present an increased challenge with historic property.