NATIONAL PARK SERVICE • U.S. DEPARTMENT OF THE INTERIOR

# Foundation Document Overview

## Waco Mammoth National Monument

### Texas

**Contact Information**

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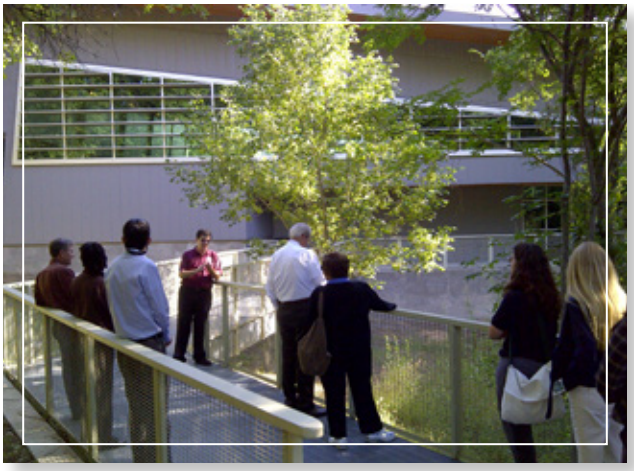
## Purpose



*The purpose of Waco Mammoth National Monument is to protect and conserve the remains of a nursery herd of Pleistocene Columbian mammoths and related resources of scientific importance and to inspire visitors, foster a learning environment, and support ongoing research. Building on the visionary support of the communities of central Texas, the site is managed through continued collaborative partnerships.*



## Significance

Significance statements express why Waco Mammoth National Monument resources and values are important enough to merit national park unit designation. Statements of significance describe why an area is important within a global, national, regional, and systemwide context. These statements are linked to the purpose of the park unit, and are supported by data, research, and consensus. Significance statements describe the distinctive nature of the park and inform management decisions, focusing efforts on preserving and protecting the most important resources and values of the park unit.

1. The paleontological resources of Waco Mammoth National Monument, both in situ and excavated specimens, represent the nation's first and only recorded evidence of a nursery herd of Pleistocene Columbian mammoths. The arrangement of the fossils of adult female and juvenile mammoths provides an exceptional opportunity for the study and interpretation of the behavior and herd structure of this extinct species.

2. The nursery herd of Columbian mammoths discovered at the site is unique and scientifically notable, not only because of a large number of nearly intact mammoth specimens of different ages present, but also due to the indication that the herd perished in a single catastrophic natural event. The discovery of additional mammoth fossils at the site from different points in time suggests that they returned to this site repeatedly over many millennia.

3. Waco Mammoth National Monument maintains high paleontological integrity. The in situ specimens remain in their undisturbed geological context, and are sheltered by a state-of-the-art facility. The collected specimens were excavated and documented by Baylor University and have been placed under the curatorial care of a single nearby institution, Mayborn Museum at Baylor University. The larger site's undisturbed condition provides the potential for continuing scientific study.

4. The environment created by the confluence of the Bosque and Brazos Rivers provided food and water that repeatedly drew mammoths and other Pleistocene fauna to the site, including western camel, saber-toothed cat, dwarf antelope, American alligator, and giant tortoise. By studying faunal and floral remains, researchers are able to construct an important snapshot of the rich diversity of life that existed along the interface of the Great Plains and the Gulf Coastal Plains physiographic provinces during the late Pleistocene.

5. The site provides an exceptional opportunity to foster public understanding of the science of paleontology and the scientific method. Future scientific studies will continue to inform the interpretation of the site for the benefit of the scientific community as well as the visiting public.

6. The culmination of more than 30 years of community efforts and investments led to the 2015 designation of the site as a unit of the national park system. The site will continue to be collaboratively managed by the National Park Service, City of Waco, Baylor University, and the Waco Mammoth Foundation for the benefit of present and future generations.

## Fundamental Resources and Values

Fundamental resources and values are those features, systems, processes, experiences, stories, scenes, sounds, smells, or other attributes determined to merit primary consideration during planning and management processes because they are essential to achieving the purpose of the park and maintaining its significance.

- **Geologic Context of the Discovery Site**
- **In Situ Specimens (Known and Unknown)**
- **Previously Removed Specimens and Associated Documentation**
- **Access to the Site and Its Stories**
- **Past, Ongoing, and Future Scientific Research**
- **Collaborative Partnerships**

## Interpretive Themes

Interpretive themes are often described as the key stories or concepts that visitors should understand after visiting a park—they define the most important ideas or concepts communicated to visitors about a park unit. Themes are derived from—and should reflect—park purpose, significance, resources, and values. The set of interpretive themes is complete when it provides the structure necessary for park staff to develop opportunities for visitors to explore and relate to all of the park significances and fundamental resources and values.

- Waco Mammoth National Monument's paleontological resources, and the potential for more discoveries, inspire us to explore, appreciate, and ponder the mystery and diversity of life on Earth.
- The group dynamics of Waco Mammoth National Monument's nursery herd, dying together in a natural event, provoke exploration of familial and community bonds in times of crisis.
- Building on the visionary support and perseverance of central Texas communities, Waco Mammoth National Monument is the embodiment of successful advocacy and collaboration to preserve and share America's heritage.

# Description

Waco Mammoth National Monument was designated a unit of the national park system on July 10, 2015, an act that brought the National Park Service into partnership with the City of Waco, Texas, and Baylor University. The purpose of this partnership is to preserve and interpret the discovery site of an exceptionally well-preserved herd of Columbian mammoths and other Pleistocene-Epoch animals. The site's designation as a national monument represents a culmination of nearly four decades of scientific research and community support.

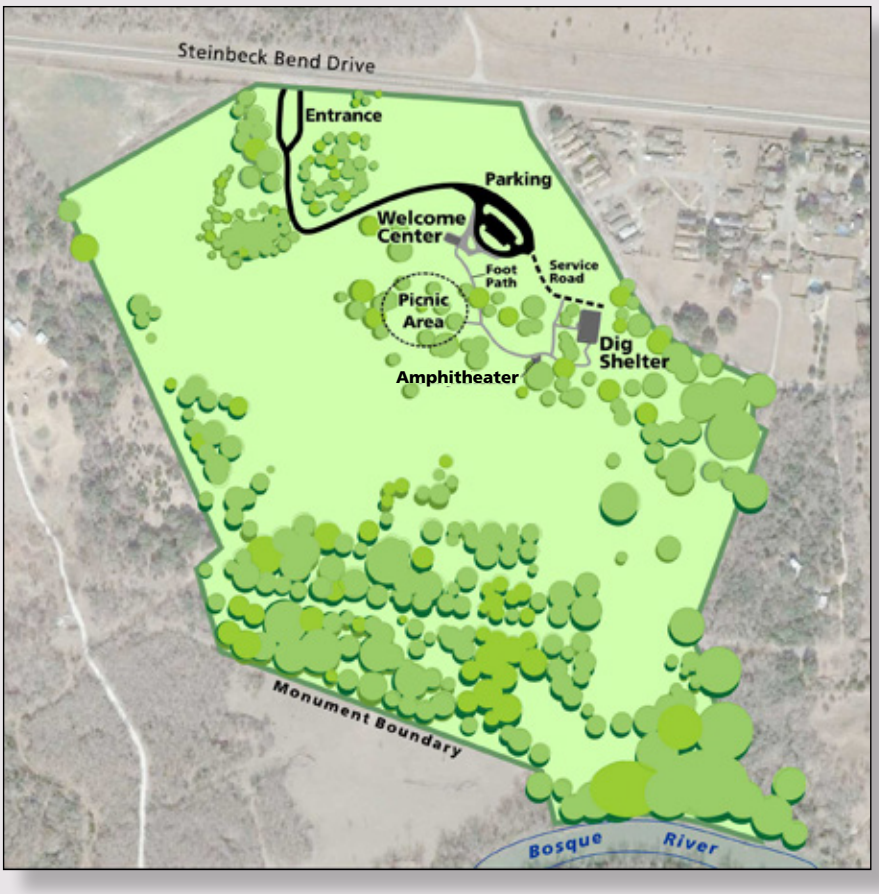
The site is located within the city limits of Waco, Texas, near the confluence of the Brazos and Bosque Rivers. The first mammoth fossils at the site were found in 1978 by two Waco residents, Paul Barron and Eddie Bufkin, who noticed a bone protruding from the sidewall while hiking through a ravine (now within the monument). Scientists at the Strecker Museum at Baylor University examined the bone and identified it as an upper leg bone from a Columbian mammoth (*Mammuthus columbi)*. Subsequent excavations led by Baylor University have identified no fewer than 24 Columbian mammoth individuals, including 19 members of a nursery herd (a herd consisting of female and young mammoths) which is thought to have perished in a catastrophic natural event more than 65,000 years ago.

Mammoths lived in North America during the Pleistocene epoch (more commonly known as the Ice Age) and are thought to have migrated across the Bering Land Bridge from northeastern Siberia approximately 1.7 million years ago. The Columbian mammoth evolved from these ancestral mammoths by the end of the middle Pleistocene, approximately 126,000 years ago. The Columbian mammoth ranged over much of North America, including most of today's contiguous United States and reached as far south as Costa Rica. Standing more than 14 feet tall and weighing up to 20,000 pounds, the Columbian mammoth was the largest of three known mammoth species of that epoch and were larger than modern-day elephants. The Columbian mammoth and all other mammoth species in North America became extinct approximately 10,000 years ago.

The site offers a unique opportunity to view and study both excavated and *in situ* (i.e., still in their original position within the bone bed) fossil specimens of Columbian mammoths and other extinct species. Excavated specimens and associated documentation are curated at Baylor University's Mayborn Museum (formerly the Strecker Museum). The *in situ* specimens at the discovery site are protected by a state-of-the-art dig shelter, constructed by the City of Waco with funding provided by the City of Waco, Baylor University, and the Waco Mammoth Foundation.

Unlike most other fossil discoveries whose specimens have been distributed among many different museums, universities, and research facilities, the fossils discovered within the monument as well as the associated archival records are all located within the city limits of Waco, which will facilitate future scientific research.

The site consists of 108 acres within its authorized boundary, of which a 4.93-acre parcel around the discovery site is owned by the National Park Service. The remaining land is owned by the City of Waco. For the purposes of this document, the 4.93-acre parcel owned by the National Park Service is referred to as the "monument," and the entire 108 acres within the authorized boundary (including the monument) is referred to as "the site." The National Park Service will collaborate with the City of Waco, Baylor University, and the Waco Mammoth Foundation on the protection of the paleontological resources at both the site and the Mayborn Museum, the support of future scientific research, interpretation and the further development of visitor services, educational programs, and exhibits at the site. The site's location within the city limits of Waco allows for easy access to this unique scientific resource for schools, community groups, and residents of the large metropolitan areas to the north (Dallas and Fort Worth) and to the south (Austin and San Antonio).




Cover Photo © Baylor University, Mayborn Museum Complex