



Waco Mammoth Site Special Resource Study

We are pleased to share with you an update on the progress of the National Park Service's special resource study of the Waco Mammoth Site. This newsletter outlines the study process, summarizes the public comments collected during last October's public and agency scoping meetings, outlines the study schedule, and identifies opportunities for your continued involvement in the process. Your participation is an important component of the special resource study effort. If you have additional thoughts or concerns about the Waco Mammoth Site you would like to share with the study team, please consider using the enclosed response form. We intend to keep you informed about upcoming public meetings and provide you with future updates on the study progress.

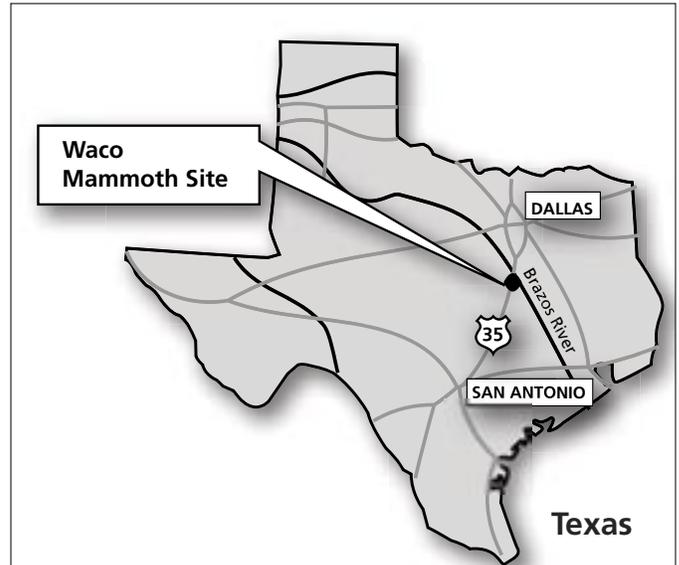
Study Background

On December 16, 2002, Public Law 107-341 was established, which directs the Secretary of the Interior, in consultation with the state of Texas, the city of Waco, and other appropriate organizations, to conduct a special resource study to determine the national significance, suitability, and feasibility of designating the Waco Mammoth Site as a new unit of the national park system.

Congressman Chet Edwards introduced the bill on May 21, 2001, authorizing the study in an effort to recognize the site's significance, provide for educational opportunities, and promote tourism in the Waco area.

The Waco Mammoth Site is in a secluded, wooded ravine between the Bosque and the Brazos rivers, just 4.5 miles north of the city center. Excavations at the site have uncovered a nursery herd of Columbian mammoths ranging from 3 to 55 years of age; all seem to have died approximately 68,000 years ago.

Baylor University has been actively investigating the site since its discovery in 1978 by Paul Barron and Eddie Bufkin. To date, 24 mammoths and one camel skeleton have been discovered in the upper section



of the site. Additional remains at the site indicate the presence of an extinct saber tooth cat and giant tortoise. A majority of the mammoth specimens (17 skeletons), the giant tortoise, and the camel's skull have been removed and are being stored in the University's Mayborn Museum complex.



The in-situ remains, under a 40-foot by 100-foot tent structure in the upper part of the site, include an almost complete skeleton of an adult bull mammoth, parts of a juvenile skeleton, the exposed skull of a female mammoth and its skeleton (which has not been fully exposed), parts of other mammoth skeletons, and the

rest of the camel skeleton. The 24th mammoth was recently discovered while drilling for soil core samples 30 yards from the excavated pit.

Local citizens, Baylor University, and the city of Waco have been actively working together to protect and interpret the Waco Mammoth Site in a number of ways. Collectively, they have acquired more than 100 acres of land in and around the site. Grants secured through the Cooper Foundation have supported a majority of the excavation and research for this effort since 1984. In the early 1990s, a cast was made from a mold of the in-situ bull and juvenile and incorporated into the Waco Mammoth Site Experience exhibit at Baylor University's Mayborn Museum complex.



Volunteers assisting with excavation efforts.

Since 2003, there has been a moratorium on major excavation activities. In 2004, Baylor University initiated a reexamination of the dating of the site. Standard radiocarbon dating conducted 20 years ago identified the site at approximately 28,000 years before present (BP); this date was recently revised to approximately 68,000 BP using more sophisticated dating techniques.

Last spring Baylor University graduate student John Bongino initiated research into whether a single catastrophic event caused the death of the nursery herd. His focus is on reconstructing the paleoenvironment of the site through geomorphologic, sedimentological, pedological, and microstratigraphic analyses. The understanding of the site continues to evolve as additional research uncovers more clues about conditions surrounding the final resting place of the nursery herd.

What Is a Special Resource Study?

Special resource studies are initiated upon the direction of Congress. Studies can evaluate a number of things, with specific focus dictated by the legislation. In the case of the Waco Mammoth Site, Congress specifically requested that a study be conducted by the National Park Service (NPS) to evaluate the site's potential for inclusion as a new unit of the national park system. Such a study requires three major determinations to establish eligibility for inclusion into the system — **significance, suitability, and feasibility**. A summary of requirements for significance, suitability, and feasibility is below.

Assess Significance: To be considered nationally significant, the Waco site must meet all four of the following standards:

- The site is an outstanding example of a particular type of resource.
- The site possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our Nation's heritage.
- The site offers superlative opportunities for recreation, public use and enjoyment, or scientific study.
- The site retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.

Assess Suitability: To be suitable for inclusion in the national park system, the Waco site must represent a natural or cultural theme or type of recreational resource that is not already adequately represented in the national park system or is not comparably represented and protected for public enjoyment by another land-managing entity. This is determined by comparing and contrasting the study area with the character, quality, quantity, combinations of resources, and opportunities for public enjoyment at similar resource areas.

Assess Feasibility: To be feasible as a new unit of the national park system, the Waco site's natural systems and/or historic settings must be of sufficient size and appropriate configuration to ensure long-term protection of the resources and to accommodate public use. Feasibility factors include landownership, acquisition costs, access, threats to the resource, staff needs, and development requirements.

Once a site is determined eligible, potential management alternatives are considered and evaluated. Based on eligibility, the best management alternatives, and analysis of the environmental impacts, a recommendation is made to Congress as to whether the site should be included in the national park system.

Develop Range of Management Alternatives:

If the site is considered eligible for inclusion, the study team will outline a range of reasonable management alternatives. Alternatives will include distinctly different concepts for how the resource could be managed and who would have primary responsibility. As general concepts, resource protection and access will be considered; however, specific site decisions would be made in future more detailed plans. The alternatives will identify potential partners, identify different ways to avoid land use conflicts, and include cost estimates for the different management alternatives. One alternative will be the continuation of the joint management effort between the city of Waco and Baylor University. This alternative would be used as a baseline for comparison with the other management alternatives generated.

Analyze Impacts of Each Management Alternatives:

The study team will analyze the effects of each alternative on natural and cultural resources, local communities, and visitor use. The impact analysis will focus on those resources and values that would be affected by each alternative.

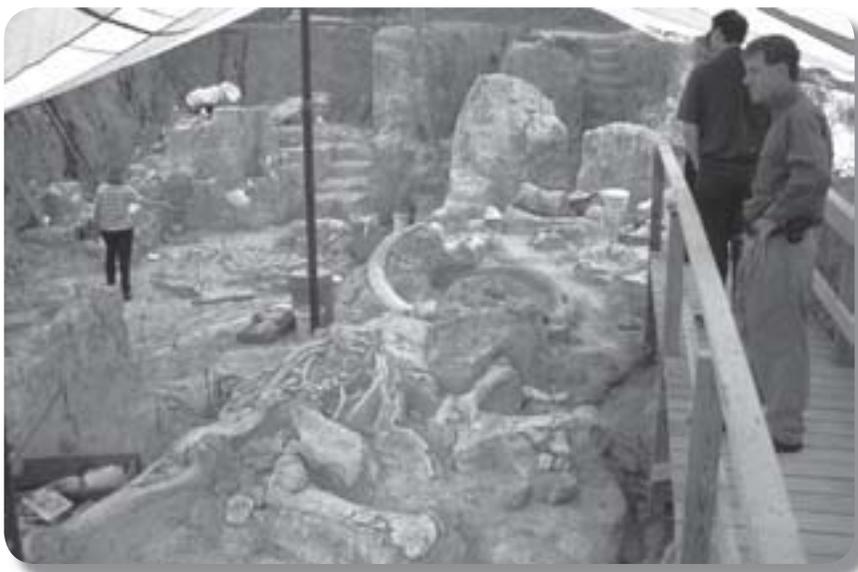
Prepare and Publish Study Report: The study team will prepare a *Special Resource Study*



Dr. Greg McDonald, Senior Curator of Natural History.

Environmental Assessment that includes the determination of significance, suitability, feasibility, management alternatives, environmental assessment, and cost analysis. A preferred alternative will not be identified in the document. After a 30-day public review period, public comments will be collected, analyzed, summarized, and incorporated as appropriate into a preliminary recommendation of the Park Service's preferred alternative.

A legislative package that includes the final study, recommendation, and summary of public comments will be assembled and transmitted to the NPS Washington Office. The National Park Service Director will use the study and the recommendation in formulating an NPS recommendation that will be transmitted to the Secretary of the Interior and Office of Management and Budget. The findings and recommendations of the study will then be submitted to the Committee of Energy and Natural Resources of the United States Senate and the Committee on Resources of the United States House of Representatives. Upon review of the report and recommendation, Congress has the option to pursue initiating legislation establishing a new unit of the national park system or making another designation.



Overlook of upper area of excavation pit.

Special Resource Study Timeline

The Special Resource Study of the Waco Mammoth Site will take approximately 2 years to complete. The key milestones in the effort along with target dates have been outlined below. Opportunities for your continued involvement have also been included. The shaded areas represent the steps the study team is currently undertaking.

The study is nearing completion of the first phase of the project. The goal of this phase is to initiate public outreach and gather information on the resource and the socioeconomic environment. The study team has also moved into the second phase of the effort, a determination of significance, suitability, and feasibility. The team is networking with the paleontological community and others to assist in this effort.

	Planning Activity	Dates	Public Involvement Opportunities
1	Initiate Project: Identify the project scope and issues. Seek public input on process.	Winter 2005-2006	Respond to this newsletter.
2	Determine Significance, Suitability, and Feasibility: The study team will consult with the paleontological community and other subject-matter experts to determine the site's level of significance, uniqueness, and manageability to become a part of the national park system.	Spring 2006	
3	Develop Future Management Alternatives: The planning team will explore a range of management alternatives for the site. A newsletter will be prepared and distributed to the public for their input.	Summer/ Fall 2006	Attend public meeting and respond to newsletter.
4	Publish Study Document and Distribute for Public Review: The study of management options and impacts of each alternative is published with an environmental assessment, which will be distributed for public and agency review.	Spring 2007	Attend public meeting, review study report, and submit your comments.
5	Transmit Study Report and Recommendation to Congress: The study document, summary of public comments, and NPS recommendation will be transmitted to Congress..	Summer/ Fall 2007	

What We've Heard So Far



October 27, 2006 evening in the SBC Auditorium.

Last October, the National Park Service study team was hosted by the gracious staff of Baylor University's Mayborn Museum. A series of meetings with donors, agencies, government representatives, and the general public were scheduled with the study team to collect background information, ideas, issues, and concerns from the community about the Waco Mammoth Site. The evening program almost filled the SBC auditorium!

The ideas and suggestions presented by the community were very encouraging, exciting, and thoughtful, and will be very useful to the study team as they proceed. A summary of the thoughts collected is presented below. Common threads of concern focused on three primary issues: provide visitor access to the site, use the research and educational potential of the site, and balance resource protection with these activities.

Community Support

- The Waco community has been providing continuous support of the site since 1978, through donations of land, funding, and volunteer efforts. There was overwhelming support expressed by the community for the potential of the Waco Mammoth Site becoming a national park system unit; however, there was also strong concern expressed for the lack of progress made towards making the site accessible to the community.

Partnership Opportunities

- The time is right for community long-term visioning and partnering. Many see the development of the Waco Mammoth Site as a part of a larger effort to redevelop/enhance the downtown Waco area. The

site could be an anchor for the redevelopment efforts along the Brazos River Corridor, with the river linking the Waco Mammoth Site and other attractions such as the Mayborn Museum, Cameron Park Zoo, river walk, etc.

- Local school districts should be included in the planning effort.
- The city and Baylor can run the site, but they need help setting up for visitation.
- Volunteers should continue to be used on site.

Visitor Access

- Many folks expressed a strong desire to access the site because they believe this resource is a real treasure worth sharing with others.
- People of all ages and abilities should be able to access the site. Consider accommodating large groups who may be in town for conventions or other special events.
- The large population centers located within a couple hours' drive of the site offer an opportunity for many to experience the site. The site could easily draw visitors from Interstate 35.

Research

- Information regarding ongoing research is dynamic and appealing. The site remains valuable for future research opportunities.
- The original researchers also have some materials.
- Baylor University should involve other departments; it is time for the whole university to embrace the research potential of the site.

Education/Interpretation

- This is an unbelievable educational site. Children in Texas and throughout the United States will be amazed by this site; it will challenge their minds to contemplate what has lived here before us.
- Broadening our understanding of the site, such as what really happened to the mammoths, is a good educational opportunity.
- The site should encourage interest in science and discovery.
- What is the potential for experiential tours? Interpretive materials should include interactive opportunities for children as well as adults.
- Educational opportunities are wanted; however, there is some potential for conflicts between Baylor education and youth/community education, although the Mayborn Museum transcends the age difference.

- Glad to see that some resources remain in place, this is good for interpretation and research.

Resource Protection

- The site should be protected from water and erosion as well as vandalism.
- We need to make sure that what we do is the “right” thing to do — so we do not lose what we have. What is the best way to develop the site if there are more mammoths on site?
- Is there potential for floodwaters on the Brazos to wash away bones?
- Dr. John Fox offered to donate his collection of artifacts and equipment from the initial excavation efforts to the National Park Service.

Socioeconomic Environment

- There is a large population base within 150 miles with transportation (roads) already in place.
- The long-term value of developing the Waco site was noted. This would be a cool park in a great location!
- An economic impact study prepared by Dr. Kelley, Director of Baylor University's Center for Business and Economic Research, projected a positive impact from the development of the Waco Mammoth Site.
- Waco has the potential to become a major tourist destination.
- This effort offers an opportunity to present a different view of Waco, Texas.

Facility Development

- The open land around the core of the excavation site should help with development.
- On-site interpretive facilities, restrooms, parking, gift shop, and picnic grounds are needed.

Planning Process

- What is the approval process? What are the levels of review?
- Does community support benefit the National Park Service designation process?
- Will the study address potential purposes for site? What type of purpose is most commonly approved?
- Does the recommendation for management of the site usually pass easily through the Office of Management and Budget and Congress?
- At any one time how many sites are being studied? How many become national park system units?
- If the site becomes a park unit, what is the timeline for public access?
- Can we initiate the future management of the site now?

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