

# **STATEMENT OF FINDINGS US ARMY ENGINEER DISTRICT, GALVESTON**

## **FINAL TREATMENT PLAN**

### **HUMAN REMAINS AND ARCHEOLOGICAL MATERIALS FROM THE BUCKEYE KNOLL SITE (41VT98)**

#### **INTRODUCTION**

This statement of findings presents a summary of the facts surrounding Section 106 investigations and coordination of the Buckeye Knoll site (also known as site 41VT98) which were considered in reaching a decision on the treatment of human remains and archeological materials removed from the site near Victoria, Texas, by the US Army Engineer District, Galveston (Galveston District). In 2001, Galveston District undertook additional archeological assessment of this National Register-eligible site, as part of the Section 106 review process prior to enlarging the Channel to Victoria, Texas. During the excavation, Galveston District encountered numerous prehistoric burials, and removed the remains of 79 individuals from the site. The site's human remains are considered of exceptional scientific importance and the archeological community has called for their full analysis. The site contains the largest Early Archaic cemetery (ca. 7,000 years old) ever found west of the Mississippi River, and one of the three largest early cemeteries with preserved human remains in all of North America. The site has also yielded the most complete sequence of stratified or layered cultural deposits yet found in southern Texas, a sequence estimated to represent some 10,000 years. Several Native American tribes, however, believe that the remains should not be analyzed but reinterred. Galveston District has carefully and deliberately considered the degree of scientific study to conduct on the human remains in light of the need to respect the concerns of interested Native American tribes. In compliance with 36 CFR 800, Galveston District has consulted with the Advisory Council on Historic Preservation (AHP), the Texas State Historic Preservation Officer (SHPO), Native American tribes, consulting parties representing the professional and avocational archeological

communities, the landowner (DuPont Textiles and Interiors, Victoria Plant) and the general public before reaching the decision described in this document.

## **PROJECT OVERVIEW**

The Channel to Victoria is a Federal project constructed by Galveston District in partnership with two local sponsors, the Victoria County Navigation District and the West Side Calhoun County Navigation District. The channel extends about 35 miles from the Gulf Intracoastal Waterway in Matagorda Bay, Texas through San Antonio Bay to a turning basin 7 miles south of the City of Victoria, Texas. The channel roughly parallels the Guadalupe River, and provides light draft navigation to industries located along the channel. The channel is operated and maintained by Galveston District.

The Channel to Victoria was constructed in 1965, prior to the enactment of the National Historic Preservation Act (NHPA) of 1966. No cultural resource investigations or coordination of the project prior to construction were required and none were conducted.

All cultural resource investigations for the project subsequent to construction have been conducted in compliance with Section 106 of the NHPA. SHPO coordination of the project area pursuant to NHPA implementing regulations (36CFR800) was initiated by Galveston District in the early 1980's. In recognition of the fact that this project is located in an archeologically rich and important area where no investigations or coordination had been conducted, Galveston District initiated a program of extensive surveys, historic and archival research, and site investigations for the Channel to Victoria that continues to the present.

A Programmatic Agreement (PA) was entered into by the Galveston District, SHPO, and ACHP in 1990 in anticipation of new construction on the channel. The PA applies to all Galveston District actions (operation, maintenance, and new construction) for the Channel to Victoria project.

## **CURRENT FEDERAL ACTION**

The project, authorized by the Water Resources Development Act of 1988, provides for improving the existing Channel to Victoria, a tributary navigation channel to the Gulf Intracoastal Waterway (GIWW). The plan of improvement consists of enlarging the existing navigation channel from 9-feet by 100-feet to 12-feet by 125-feet, which is commensurate with the GIWW, and upland disposal of dredged material. Construction of the channel improvements began in late 1996 and dredging required to widen and deepen the Channel to Victoria from the GIWW to the Port of Victoria has recently been completed. As of June, 2003, project activities which remain to be completed are an associated wildlife mitigation feature and the resolution of Section 106 consultation on archeological site 41VT98.

A series of archeological surveys and site investigations was conducted by Galveston District in conjunction with this channel improvement. Both construction impacts of channel widening and designation of new placement areas for dredged material were addressed. In several instances, placement areas were relocated or reconfigured to avoid prehistoric and historic sites along the channel. All of this work is cost-shared by the Federal government and the local sponsors. Routine SHPO coordination of this new construction work has been on-going since 1990 pursuant to 36CFR800 and the PA. The SHPO has reviewed and been provided the opportunity to comment on all scopes of work for survey, archival research, and site investigations, and has reviewed all draft technical reports.

## **THE BUCKEYE KNOLL SITE**

The Buckeye Knoll site was recorded by Galveston District archeologists in 1982 during investigations conducted in conjunction with the operating project. A concurrence determination of eligibility for site 41VT98 was obtained from the Texas SHPO in August, 1998. Eligibility was based on very limited test investigations conducted in 1989 by Coastal Environments, Inc. (CEI) under contract to Galveston District. Adverse effects to the site from on-going channel erosion and proposed channel widening and deepening were coordinated by Galveston District with the SHPO in February, 1997 and December, 2000. The SHPO concurred with this effect determination and approved a phased approach to mitigation consisting of an initial phase of

additional assessment excavations, and a follow-on data recovery phase. Additional assessment, proposed because the preliminary site testing was insufficient to fully characterize site extent and contents was initiated by the Galveston District in November 2000. The initial assessment was designed to: 1) address the area of potential construction impacts of channel widening; 2) address operations impacts associated with original channel construction and on-going erosion of the channel banks; 3) better determine the site's vertical and horizontal extent; and 4) obtain sufficient information on the site to develop a mitigation plan. All work for the initial assessment phase was conducted by CEI, under contract to the Galveston District from November 2000 through July 2001. This additional assessment revealed that VT98 is a significant, multi-component prehistoric site containing cultural deposits dating to the Paleoindian through Late Prehistoric Periods (12,000 through 1,000 years ago) with a large prehistoric cemetery dating to around 7000 years ago.

The Buckeye Knoll site is situated on the west bank of the Channel to Victoria. It is bisected from north to south by a flood control levee running parallel to the channel and a prominent knoll is present in the western portion of the site. Excavations determined that the area to be affected by channel widening activities (e.g. the area east of the levee) held no significant site deposits. As a result of this assessment, it was determined that the area of direct construction impacts along the west bank of the channel did not contain any in situ archeological deposits. Original channel construction in 1965 impacted the site to such an extent that no intact archeological deposits remained immediately adjacent to the existing channel. Test excavation of this eastern-most portion of the site included extensive backhoe trenching, excavation of three 2m by 2m units, and a magnetometer survey to identify subsurface features. The SHPO concurred that no additional site testing or data recovery was necessary for this disturbed portion of the Buckeye Knoll site.

Further assessment of the west knoll was conducted to better define the site's spatial and chronological extent. Backhoe trenches and test units confirmed the presence of an extensive midden with discrete cultural components dating from as early as the late Paleo-Indian period (10,000-12,000 yrs before present (BP)) through the Late Prehistoric (1,000 yrs BP), and discovered the prehistoric cemetery. When numerous burials were uncovered and it became obvious that a cemetery was present at the site, Galveston District and the SHPO met to reassess

the situation. The Galveston District and SHPO agreed at a meeting held in May 2001 to: complete excavation of all open units; completely excavate all exposed burials; not expose or excavate additional burials; and not continue opening new block excavation units. This modified work plan was completed by CEI in July 2001 and the human remains and archeological site materials were moved to CEI's laboratory. At the conclusion of excavation, the open units were carefully backfilled and the site was fenced by DuPont. A large portion of the site remains unexcavated and is known to contain additional burials.

The original scope of work for further assessment of the west knoll called for the excavation of 40 2m by 2m blocks. Of these, 36 2m by 2m blocks were excavated and 79 burials were recovered. Accelerated mass spectrometry (AMS) dating of three small human bone samples taken in the field dates the human remains at around 7,000 years old. All artifacts, human remains, and site documentation are housed in an archeological laboratory in Corpus Christi, Texas. The collection was secured and maintained in accordance with current professional standards by CEI under contract to the Galveston District. The remains are stored in a temperature and moisture-controlled environment and are protected from deterioration.

Galveston District arranged for CEI to produce a detailed inventory of the non-mortuary artifacts in the collection, prepare a preliminary inventory of the human remains and associated grave goods based upon field records, and analyze geomorphology and pollen data obtained from off-site areas. Reports from the pollen and geomorphology studies, and the inventories have been completed. In addition, Galveston District arranged for Florida State University to prepare a report addressing the significance of the human remains from the Buckeye Knoll site. This report on the Buckeye Knoll materials determined that the site is the largest Early Archaic cemetery ever found west of the Mississippi River, and one of the 3 largest early cemeteries with preserved human remains in North America. Galveston District suspended all analysis of the recovered archeological materials, and in particular, destructive analysis, until consultation is concluded.

Galveston District entered into an extensive consultation process with the SHPO, interested Federally-recognized Native American tribes and tribal organizations, archeological consulting parties, DuPont Corporation, and the ACHP in an effort to develop a final treatment plan for the

human remains and archeological materials removed from the Buckeye Knoll site. A summary of the consultation record with each of these groups is provided below. During these consultations, Galveston District prepared and distributed for comment two documents – Galveston District's *Draft Proposal* and the *Final Draft Treatment Plan*. The *Draft Proposal* was intended as a non-technical description of the site and its significance. It recommended full non-destructive analyses (metric and non-metric measurements), and limited destructive analyses such as additional AMS radiocarbon dating, stable isotope analyses, and DNA analyses in addition to full analysis of all non-mortuary archeological materials. The *Final Draft Treatment Plan* is a technical restatement of the original draft proposal. It was prepared at the request of the ACHP to provide a better explanation of the value of destructive analyses in the context of explicit and meaningful research questions.

## **APPLICABILITY OF THE NATIVE AMERICAN GRAVES AND REPATRIATION ACT (NAGPRA)**

The Buckeye Knoll site is located on property owned by DuPont Textiles and Interiors Corporation (DuPont). Galveston District has access to DuPont's property through the assignment of a real estate easement to the Victoria County Navigation District that conveys limited rights to Galveston District for activities related to construction and operation of the navigation channel. Galveston District concluded that NAGPRA does not apply to the discovery of prehistoric human remains at Buckeye Knoll for several reasons, but most importantly because it is not located on property owned in fee by the Federal government.

The matter of NAGPRA applicability was referred to the National NAGPRA Program, US Department of Interior, by the Comanche Tribe during the June 2002 meeting of the Review Committee. The Review Committee is an advisory body in DOI with review authority directly granted through statutory language contained in NAGPRA. The National NAGPRA program's Oct 25, 2002 report states that information obtained by their review staff regarding this specific situation indicates that NAGPRA would not apply in this case. Upon review of information provided by Galveston District, the Committee concurred that the terms of the easement agreement do not give the Corps control or possession over sub-surface features of the easement property. Therefore, neither the inadvertent discoveries and intentional excavations, nor the

summary or inventory sections of NAGPRA apply. However, the NAGPRA Review Committee stated that, in their opinion, the summary and inventory sections of NAGPRA would apply if the cultural items are donated to a museum, as defined by NAGPRA.

## **CONSULTING PARTIES COORDINATION**

As part of the extensive Section 106 consultation process regarding the treatment of human remains and archeological materials from the prehistoric cemetery at Buckeye Knoll, Galveston District consulted with the SHPO and the ACHP, Federally-recognized tribes, an organization representing a non-federally-recognized tribe, archeological organizations, and the general public to solicit input in order to obtain a full range of views as prescribed by the 36 CFR 800 regulations.

### *SHPO COORDINATION*

Galveston District coordinated extensively with the SHPO regarding the treatment plan for the Buckeye Knoll Site in accordance with 36 CFR 800.5 and 800.6. The consultation history is summarized in the “Buckeye Knoll Site” section above. In April 2003, the SHPO concurred with the *Final Draft Treatment Plan*.

### *TRIBAL COORDINATION*

Galveston District did not conduct Section 106 tribal coordination before work at Buckeye Knoll began because previous historical and archeological research of the region had found no existing, Federally-recognized tribes with prehistoric ties to the project area, and none of the previously-contacted tribes had expressed an interest in Galveston District projects or collections. When numerous burials were uncovered and it became obvious that a cemetery was present at the site, Galveston District initiated consultation in compliance with 36 CFR 800.2.(c)(2) in an effort to identify tribes which might attach religious and cultural significance to this historic property.

Galveston District contacted 12 Federally-recognized tribes to solicit their comments on the treatment and final disposition of the human remains. Potentially interested tribes were

identified using a Native American cultural affiliation overview that had been prepared for Galveston District. This overview used ethnohistorical and historical information to establish what tribes were present in Texas during the protohistoric and historic time periods, and to delineate their geographic territories. As with previous efforts, no extant, Federally-recognized tribes with prehistoric ties to the central Texas coast were identified.

Galveston District sponsored two tribal consultation conferences to familiarize tribes with the site, and the recovered human remains and cultural materials. One meeting was held near the site in Victoria, the other in Galveston, Texas. Of the 12 tribes contacted, four attended either one or both of the conferences. The Alabama-Coushatta, Comanche, and Kiowa Apache expressed the view that the remains and all archeological materials from the site should be immediately reburied without analysis. The Choctaw representative reserved comment pending consultation with tribal council. All tribes attending the conferences stated that no distinction should be made between mortuary and non-mortuary materials insofar as recommendations for analysis and reburial were concerned. They considered all remains and archeological materials present at the site, no matter how far removed in time, context or apparent function, to be part of a sacred burial precinct. All of the tribes challenged Galveston District's assertion that NAGPRA did not apply, and the Comanche took this question to the NAGPRA Review Committee as indicated above.

Galveston District has continued to contact all 12 tribes with updates on the Section 106 consultation process. All have been asked to provide written comments on Galveston District's *Draft Proposal* and the *Final Draft Treatment Plan*. Early in the consultation process, the Caddo Tribe provided a written response which indicated the tribe was not opposed to analysis. The Alabama-Coushatta, Comanche and Mescalero Apache have submitted letters opposing any analysis and recommending immediate reburial. They stated that Galveston District's activities have desecrated the Buckeye Knoll site and that the proposed analysis of human remains is offensive. The Comanche Tribe continues to assert that NAGPRA applies. The Alabama-Coushatta, Comanche, Mescalero-Apache and Caddo tribes object that tribal consultation was not conducted prior to excavation of the remains. No tribe has responded affirmatively to Galveston District's request for tribal participation in associated historical and ethnographic

studies, or for advisory participation during the analyses phase. However, the Alabama-Coushatta have requested that they be notified of plans for the final disposition and reinterment of the human remains and funerary objects. The Tonkawa provided no written comments on the treatment plan but have urged DuPont to make plans for the long-term preservation of the site.

A non-federally recognized tribal group, the Tap Pilam Coahuiltecan Nation, requested inclusion in the consultations. They were not invited to the nation-to-nation tribal conferences, but Galveston District has consulted with them individually under the “Additional Consulting Parties” section of 36CFR800.2(c)(5), and requested their comment on draft documents. They have submitted no written comments. However, at a meeting with the group’s representatives, concerns similar to those of the federally-recognized tribes were expressed.

#### *ARCHEOLOGICAL CONSULTING PARTIES*

Three archeological organizations requested and were granted consulting party status under the “Additional Consulting Parties” paragraph of 36 CFR 800.2(c)(5). They were approved as consulting parties because they are broadly representative of archeologists in Texas and the nation. The Society for American Archeology (SAA) and the Council of Texas Archeologists (CTA) represent professional archeologists nationally and in the State of Texas. The Texas Archeological Society (TAS) represents avocational archeologists in Texas. The SHPO’s concurrence in the designation of these groups as consulting parties was requested and approved. Two meetings were held with the archeological consulting parties to obtain their recommendations regarding analyses and disposition of the remains and cultural materials. These groups provided technical recommendations regarding the types and extent of analyses they believed should be performed.

Subsequent to the meetings described above, Galveston District has continued to contact these groups with updates on the Section 106 consultation process. They have been asked to provide comments on Galveston District’s *Draft Proposal* and the *Final Draft Treatment Plan*. SAA and CTA submitted comments on the *Draft Proposal* requesting that all possible analyses (including all destructive analyses) should be conducted on 100% of the interments. TAS recommended

that a phased approach be taken in identifying the optimum number of interments to sample. SAA also recommended that Galveston District make an effort to determine the cultural relationship between the consulting tribes and the human remains from Buckeye Knoll. CTA and TAS submitted comments on the *Final Draft Treatment Plan* which were supportive of the analyses and proposed sampling levels. No written comment has been received from the SAA.

#### *DUPONT TEXTILES AND INTERIORS CORPORATION*

DuPont requested to be an active participant in the consultation process because of its ownership of the property on which the site is located, and its concern with the respectful treatment of the human remains and associated mortuary artifacts removed from the site. DuPont considers itself to be a steward of the human remains and archeological materials that resulted from site assessment activities, and has remained an active consulting party (as defined by 36CFR800.2(c)(5)) throughout the process. DuPont participated in both tribal conferences and one meeting with the archeological parties. Galveston District has met with DuPont representatives to keep them up-to-date on the progress of the consultations and has requested their comments on the *Draft Proposal* and *Final Draft Treatment Plan*. DuPont has provided written comment stating that it is Galveston District's responsibility to make a final decision on the treatment plan, and that the remains and artifacts should be returned to DuPont for reinterment only after completion of the analyses recommended by the treatment plan. DuPont has also stated support for the recommendations made in the *Final Draft Treatment Plan* and has declared its intent to work with Galveston District in developing a final disposition plan for the artifacts and human remains after the analyses are completed. DuPont has requested that Galveston District form an advisory panel that would review Galveston District actions to ensure proper and respectful treatment of the human remains during analysis, and to monitor progress to ensure that the remains are reinterred as soon as possible.

#### **CONSULTATION WITH THE GENERAL PUBLIC**

In compliance with 36 CFR800.2(d) requirements to obtain public input on undertakings of likely interest to the public, Galveston District held a public meeting in Victoria, Texas, in

February of 2002. The meeting was well attended (over 200 people) by citizens of the local community, members of archeological societies from central and coastal Texas, and Native Americans. A complete transcript of the meeting was prepared and has been posted on the Galveston District website, along with other information about the site and the Section 106 consultation process. Galveston District issued a press release to numerous national newspapers and publications. All requests for interviews from state and local newspapers were granted. Approximately 60 letters were received from the public generally urging full analysis.

A briefing for local government officials was held in Victoria because of interest generated by the first tribal meeting, and because of local sponsor concerns. Officials in Victoria have expressed written support for full analysis and would like to see the site materials curated and displayed in a Victoria museum.

## **ADVISORY COUNCIL CONSULTATION**

In June 2002, the ACHP advised Galveston District of its intent to participate in the Section 106 consultation process for the Buckeye Knoll site. Galveston District welcomed ACHP's participation and provided a full record of all consultation activities to date. In initial coordination, the ACHP referred Galveston District to the Council's 1988 "Policy Statement Regarding Treatment of Human Remains and Grave goods" that was cited in the PA for the Channel to Victoria project. The ACHP was supportive of Galveston District's decision to include in the consultation any tribe which expressed an interest.

After reviewing the *Draft Proposal*, the ACHP advised that any proposal to analyze human remains must be supported by the identification of important research questions that could not be addressed by any other means. The ACHP did not believe that the *Draft Proposal* fully justified the value of proposed destructive analyses in the context of explicit and meaningful research questions. In response to these comments, Galveston District developed a technical restatement of the *Draft Proposal*, entitled the *Final Draft Treatment Plan*. The ACHP approved the *Final Draft Treatment Plan* (which includes both destructive and non-destructive analyses) saying that "The importance of the site, the Early Archaic cemetery, and the artifacts associated with Early

Archaic burials are clearly explained, as is the unique opportunity it provides for research on this period in both Texas and North America.” However, the ACHP advised Galveston District to consult further with the SHPO in developing a sampling plan that minimized the number of samples required while obtaining the sample size necessary for statistically meaningful results. Consultation resulted in the development of an acceptable phased sampling plan which was included by appendix into the *Final Draft Treatment Plan*.

## **DECISION**

Galveston District has faced diverse interests, issues and demands in reaching a decision on the treatment plan and final disposition of human remains and archeological materials from the Buckeye Knoll site. The consultation process prescribed by 36CFR800 has been carefully and deliberately followed to ensure that the views of the ACHP, the SHPO, Native Americans, the archeological community, DuPont and the general public were heard and fully considered in reaching this decision. The Galveston District decision, as reflected in the *Final Treatment Plan*, has balanced the conflicting concerns of the Native Americans and the archeological community to the greatest extent possible. The treatment plan includes standard bioarcheological physical analysis of all the human remains, destructive analyses of a statistically significant sample of the interments, and full analysis of all other Buckeye Knoll archeological materials. Destructive analysis will entail the removal of small samples of human tooth pulp or bone. The amount of bone removed will be closely monitored and managed to ensure the least possible disturbance. At the conclusion of the bioarcheological analyses, but prior to completion of the full study, the human remains and associated mortuary goods will be returned to DuPont in Victoria, Texas. DuPont has agreed to work with Galveston District to develop a final disposition plan for these materials which will include reinterment of the human remains and mortuary goods at the site of origin. Galveston District will also work with DuPont to facilitate tribal coordination of reburial ceremonies. Galveston District anticipates that it will accession the remainder of the Buckeye Knoll collection into a curational facility at the conclusion of all remaining studies on non-mortuary archeological materials, if DuPont so chooses.

## *CONSIDERATION OF NATIVE AMERICAN CONCERNS*

Throughout this process, Galveston District was concerned that the human remains be treated with dignity and respect, and that the concerns of the Native Americans regarding their treatment be accommodated to the greatest extent possible. A constant theme expressed by most consulting parties was that the human remains be reintered expeditiously. Given Galveston District's decision to analyze the remains, the treatment plan provides for making the remains and mortuary goods available for reinterment as soon as that phase of analysis is complete. A specific schedule will be established for the analysis and Galveston District, in consultation with interested consulting parties, will ensure that the remains are returned to DuPont in accordance with that schedule. In order to ensure that disturbance to the remains is minimized, the number of interments to be sampled was determined by a statistical optimization analysis. This analysis determined the minimum number of samples necessary to address the most important scientific questions. Furthermore, the amount of bone removed for each sample will be closely monitored and actively managed to ensure the least possible disturbance. One sample will be obtained from a minimum of 20 and a maximum of 30 interments, and this sample will be used for all of the destructive analyses.

Galveston District has asked that Native Americans consider participating in the analysis, to whatever extent they feel appropriate. The treatment plan proposes tribal contributions to historical and ethnographic studies, and to the standard physical analysis of remains, either as direct participants or observers. Galveston District has also encouraged Native Americans to participate in an advisory nature during the analysis to ensure proper and respectful treatment of the remains and to monitor the progress of the analysis. Tribal participation has also been requested during reinterment.

Native American sensitivities regarding the public display of human remains in museums, photographs or reports, will be addressed by restricting the distribution of reports containing

photographs and detailed drawings of the remains to the professional scientific community. Photographs of the remains will not be published in reports or displayed in presentations intended for the general public. Reinterment of the remains after completion of the analysis will ensure that they are not placed on public display.

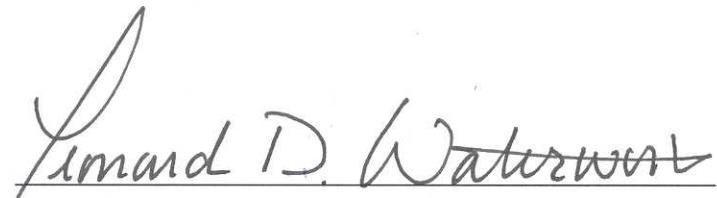
Native Americans have also expressed dismay that information produced by studies such as this are rarely shared with them. Galveston District's treatment plan includes preparation and distribution of a report providing the results of this analysis in a format and language understandable to the general public. This report, along with the technical report if requested, will be distributed to interested Native American tribes.

#### *CONSIDERATION OF ARCHEOLOGICAL COMMUNITY CONCERNS*

In consideration of scientific and archeological concerns regarding the potential loss of information important to understanding the prehistory of this country, Galveston District conducted an in-depth evaluation of the site and its context which demonstrated the exceptional scientific significance of the Buckeye Knoll site. Expert members of the archeological community were consulted to identify important research questions which could be answered by analysis of the Buckeye Knoll materials and to determine what scientific procedures and analyses were required to answer these questions. A statistical optimization analysis was performed to ensure that a statistically meaningful number of samples are obtained for the sensitive destructive analyses. In consideration of the importance of the Buckeye Knoll collection for scientific research, Galveston District has agreed, if DuPont so decides, to accession all non-mortuary archeological materials removed from the site into an appropriate curatorial facility. For the mortuary artifacts which would be reinterred with the remains, Galveston District will prepare museum-quality resin casts that will also be curated. The results of the analysis will be fully documented and made available to the scientific community and the general public in appropriate formats.

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I have reviewed and evaluated the documents concerning the proposed action, and the views of all consulting parties, the Advisory Council on Historic Preservation and the general public. Based upon these considerations and the requirements of the National Historic Preservation Act and its implementing regulations, I conclude that I have balanced the views of all parties to the greatest extent practical and that the public interest is best served by implementing the attached Final Treatment Plan for the human remains and archeological materials from the Buckeye Knoll Site (41VT98).



A handwritten signature in cursive ink, appearing to read "Leonard D. Waterworth".

Leonard D. Waterworth

Colonel, Corps of Engineers  
District Engineer



A handwritten date in cursive ink, appearing to read "15 July 2003".

Date