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ENVIRONMENTAL ASSESSMENT

ECONOMIC DEVELOPMENT GRANT PROPOSAL FOR BUILDING PAD CONSTRUCTION AT WEST PRENTISS INDUSTRIAL PARK

Prentiss County, Mississippi

PREPARED BY:
TENNESSEE VALLEY AUTHORITY

JUNE 2014

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ENVIRONMENTAL ASSESSMENT

TVA ECONOMIC DEVELOPMENT GRANT PROPOSAL FOR BUILDING PAD CONSTRUCTION AT WEST PRENTISS INDUSTRIAL PARK PRENTISS COUNTY, MISSISSIPPI

TENNESSEE VALLEY AUTHORITY

JUNE 2014

The Proposed Action and Need

The Tennessee Valley Authority (TVA) proposes to provide a grant to the Prentiss County Development Association in Prentiss County, Mississippi, for the construction of a 7.3-acre earthen building pad and associated access road for future industrial and/or commercial opportunities.

An industrial or commercial facility at this site could provide long-term economic growth and development opportunities for Northeast Mississippi by creating a more diverse regional economy and stronger economic base.

TVA provides financial assistance for projects within the TVA area of service for economic development. Counties such as Prentiss, that are located within the Tennessee Valley with the lowest per capita personal income, the highest percentage of residents being below the poverty level, and the highest annual average unemployment rates are considered Special Opportunity Counties (SOC) and eligible for specific economic development funding. The total federal expenditure for the proposed project would be approximately 70 percent of the total project cost, with local public and private funds supplying the remainder.

TVA's action is to make a decision on providing a grant to the Prentiss County Development Association for the construction of a 7.3-acre earthen building pad and associated access road within the Prentiss County Industrial Park. To address the potential environmental impacts of the proposal, TVA has prepared this environmental assessment (EA) in accordance with the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and TVA's procedures for implementing NEPA.

Background

The Prentiss County Board of Supervisors owns the 70-acre West Prentiss Industrial Park, located just northwest of the City of Booneville, and proposes to construct a 7.3 acre earthen building pad and associated access road within (Figure 1). Utility infrastructure (250,000-gallon water tank, 3-phase power, sewer, as well as natural gas and water lines) was installed throughout the Industrial Park during a previous project and is utilized in-part by the existing onsite Corinthian Leather Industrial facility. Even with existing utilities available, however, the lack of a completed building pad or "shovel-ready" site, has been a documented impediment to multiple commercial and industrial opportunities.

The completion of a "shovel-ready" site would provide a competitive advantage with regard to future development prospects within the Industrial Park, serve to enhance an under-utilized industrial asset, and position the County to be a stronger contender for future

commercial and/or industrial opportunities. Both the Prentiss County Board of Supervisors and the Prentiss County Development Association have committed to provide funds for the project. However, TVA funds are needed to fully implement the project.

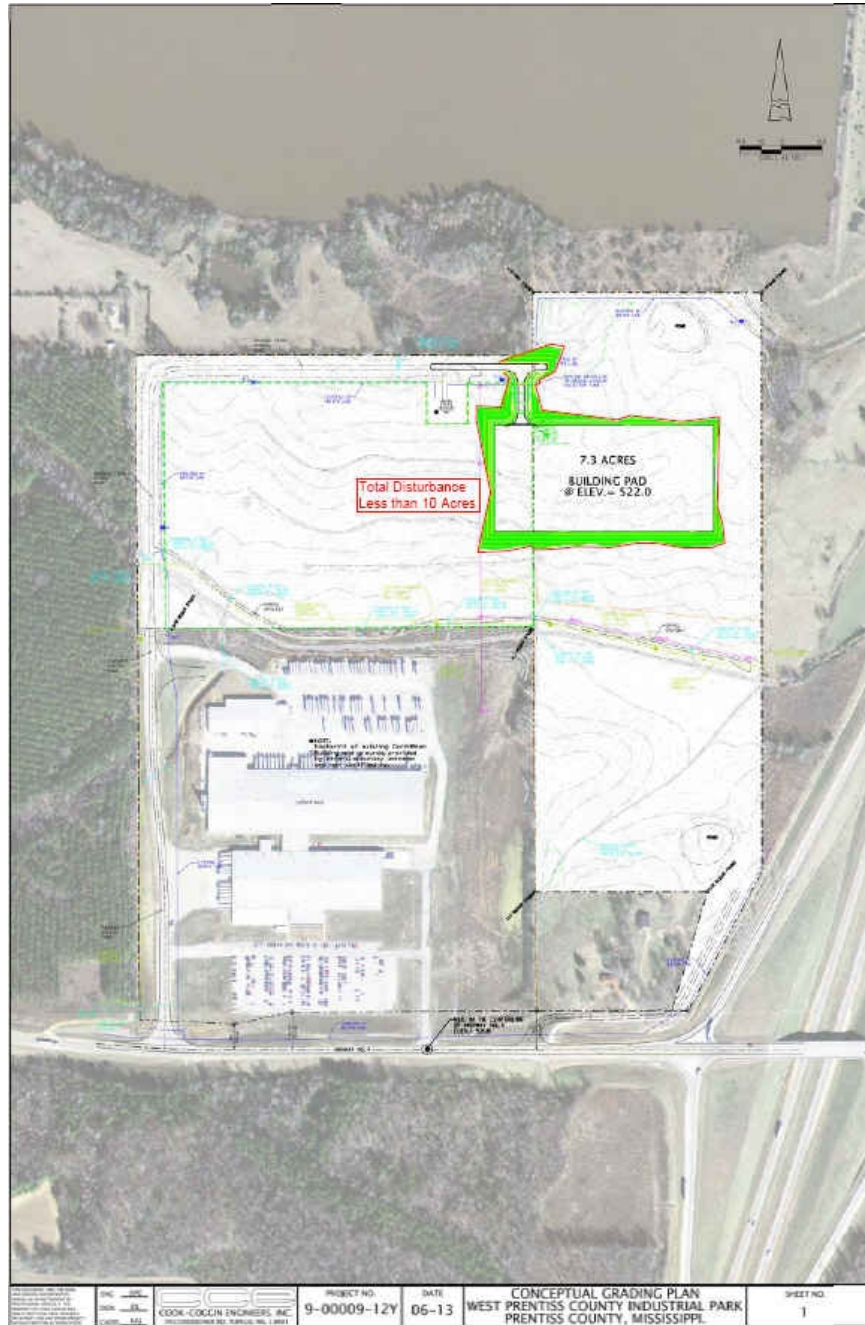


Figure 1 Conceptual Grading Plan for Proposed Building Pad

Alternatives

Scoping by TVA has determined that from the standpoint of NEPA, there are two viable alternatives available: the No Action Alternative and the Action Alternative proposed.

The No Action Alternative

Under the No Action Alternative TVA would not provide grant funding. In this event, the Prentiss County Development Association could seek alternative funding or not complete the project at this time. If the project were not completed, the site would continue to be at a competitive disadvantage for selection by commercial and/or industrial entities. If the Prentiss County Development Association obtained alternative funding the overall environmental consequences would be similar to the Action Alternative.

The Proposed Action Alternative

Under the Action Alternative TVA would provide funding for the project. The site would be prepared and the earthen building pad and associated access road constructed, thereby making the site available for further commercial and/or industrial development. The Prentiss County Development Association would implement best management practices (BMPs), standard and special conditions to minimize or reduce the environmental effects of the proposed project to levels of insignificance or mitigation to offset adverse project impacts.

Future commercial or industrial development of the proposed site may involve facilities, such as manufacturing, service, utility, assembling, and/or warehouses. However, the particular kind of industrial or commercial development that may occur at this site is unknown at this time. Nor is it known at this juncture whether other TVA actions may be necessary for such future development.

Affected Environment and Evaluation of Impacts

Site Description

The proposed project site is in Prentiss County Mississippi, within the West Prentiss Industrial Park, at the intersection of US Highway 45 and US Highway 4/West Chambers Drive. The county is located in north-east Mississippi and is rural with many small communities and much of its area devoted to agriculture and forest.

The proposed project site is located within the north-east quadrant of the 70-acre Industrial Park (Figure 1). The site is currently a moderately sloped fallow field, with no perennial streams or creeks.

Impacts Evaluated

Due to past activities including timber cutting, land leveling, and cattle pasturing the site has had previous disturbance, therefore, the Applicant's proposed actions, subsequent to TVA's selection of the Action Alternative, would have no further impact to several natural resources. These resources are floodplains, prime or unique farmland, navigation, visual resources, recreation, wild and scenic rivers, and natural areas which are either not present on the site or would not be affected by the proposal.

Additionally, Phase I Environmental Assessment documentation provided by the Applicant included several regulatory determinations that excluded other resources, such as wetlands and federally listed endangered and threatened species and their critical habitats from further evaluation in this EA. These resources were therefore not evaluated further in this EA. The Categorical Exclusion Checklist (CEC) attached in Appendix C was used to document resources on which the proposed action has no potential for effects, and are therefore excluded from further analysis in the EA.

Resources that could potentially be affected by the proposed action include: surface water quality, aquatic ecology, vegetation, terrestrial ecology, transportation, socioeconomics and environmental justice, air quality, noise, groundwater, solid waste, and archeological and historic resources.

Potential effects related to global climate change, hazardous waste, and health and safety were considered. Because of the nature of the action, any potential effects to these resources would be minor and insignificant.

Surface Water Quality and Aquatic Ecology

Precipitation in the project area averages 59 inches per year with the wettest month in March at 6.3 inches and the driest month in October at 3.4 inches. The median annual air temperature is 60 degrees Fahrenheit, ranging from a monthly average of 38 degrees Fahrenheit in January to 80 degrees Fahrenheit in July. Stream flow varies with rainfall and averages 21.2 inches of runoff per year or approximately 1.6 cubic feet per second per square mile of drainage area.

The project area drains to Kings Creek, a tributary of the Tuscumbia River of the Mississippi River valley. Kings Creek and the Tuscumbia River are classified by the state (MDEQ) for fish and wildlife.

One unnamed tributary to Kings Creek within the Pollys Creek - Tuscumbia River Canal watersheds and two ephemeral streams occur within the West Prentiss Industrial Park. The two ephemeral streams occur within the building pad site and are likely to be filled during construction. These watercourses only convey surface water during storm events and as such, do not support in-stream aquatic life. The unnamed tributary is outside of the proposed building pad and would not be impacted by the proposed activities. Consequently, impacts to existing aquatic biota would be minimal.

No Action Alternative - Under the No Action Alternative, TVA would not provide the grant and the earthen building pad and associated access road would either not be built at this location or TVA would not be involved in the review process if alternative funding is obtained. If the earthen building pad and associated access road were not constructed, existing surface water quality and aquatic ecology would not be affected. If the earthen building pad and associated access road is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative, TVA would provide the grant and the proposed earthen building pad and associated access road would be constructed. Soil disturbances associated with clearing, grubbing, and grading activities can result in erosion, soil runoff, and potentially, adverse impacts to off-site water quality and aquatic ecology. Soil erosion and sedimentation can clog small streams and threaten aquatic life. Improper use of herbicides to control vegetation could result in runoff to streams and subsequent aquatic impacts.

To minimize these potential impacts, the proposed activities would comply with applicable environmental permits such as the stormwater permit for construction activities, and follow standard BMPs (i.e., silt fence, check dams, sediment traps, and dust suppression for example) designed to control erosion, and runoff of soil, spills, or herbicides into off-site surface water. Any areas requiring chemical treatment would employ USEPA-registered herbicides used in accordance with label directions. Proper implementation of the control

measures identified in applicable environmental permits is expected to result in only minor impacts to surface water and aquatic ecology. No cumulative impacts are anticipated.

Vegetation

The proposed project area occurs in the Blackland Prairie Level IV ecoregion. This area is underlain by distinctive chalk, marl, and calcareous clays that give rise to unique prairie-like plant communities which are primarily found in parts of Alabama and Mississippi (Barone 2005; Chapman et al. 2004). However, much of the natural vegetation of the Blackland Prairie ecoregion has been converted to row crop agriculture and pasture leaving only small remnants of the natural plant communities that once dominated the landscape.

Aerial photos of the project area indicate that vegetation on the site is herbaceous in composition. Herbaceous vegetation is characterized by greater than 75 percent cover of forbs and grasses and less than 25 percent cover of other types of vegetation. Vegetation on the site has been heavily managed to maintain its open condition and, as a result, it is likely dominated by non-native pasture and species. Two to three rows of woody vegetation border the perimeter of the project area but do not account for a significant percentage of total vegetative cover. As such, their removal would not represent a substantial conversion of habitat.

Invasive species are nonnative species that invade natural areas, displace native species, and degrade ecological communities or ecosystem processes (Miller 2010). The site is currently dominated by weedy herbaceous vegetation, which reflects the frequency and magnitude of disturbance present on site. Disturbances associated with agriculture, grazing, and mowing prevent tree species from becoming established, but can also encourage invasion and establishment of weedy plants.

Review of the TVA Natural Heritage Database (queried April 2014) indicates that no federally-listed and three state rare plant species have been documented within a five-mile vicinity of the project area (Table 1). No federally-listed plant species are known to occur in Prentiss County, Mississippi; no designated critical habitat for plant species occurs in the project area. Based on the heavily manipulated vegetation currently present on the site, it is highly unlikely that state rare plant species occur there. Federally-listed plant species do not occur on the site.

Table 1. Plant species of conservation concern previously reported from within a 5 mile vicinity of the - West Prentiss, MS Industrial Park EA project area.

Common Name	Scientific Name	Federal Status	MS Status (Rank)
Large-flowered Heartleaf	<i>Hexastylis shuttleworthii</i>	-	SLNS(S1)
Butternut	<i>Juglans cinerea</i>	-	SLNS(S2)
American ginseng	<i>Panax quinquefolius</i>	-	SLNS(S3)

Source: TVA Natural Heritage Database, April 2014.

Status codes: SLNS = Listed by the state of Mississippi, but not assigned a status.

Rank Codes: S1 = Extremely rare and critically imperiled in the state with 5 or fewer occurrences, or very few remaining individuals, or because of some special condition where the species is particularly vulnerable to extirpation; S2 = Very rare and imperiled within the state, 6 to 20 occurrences; S3 = Rare or uncommon with 21 to 100 occurrences.

No Action Alternative - Under the No Action Alternative, if the earthen building pad and associated access road were not constructed the industrial site would remain in its current

condition. Changes to local plant communities resulting from natural ecological processes and human-related disturbance would continue to occur, but the changes would not result from the proposed project. If the earthen building pad and associated access road is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative, the proposed activities would not significantly affect the terrestrial ecology of the region. The herbaceous vegetation currently found on the site does not support native plant communities with conservation value. The permanent conversion of vegetation on the site, which is comprised primarily of non-native plants, would have a negligible impact on the terrestrial ecology of the region.

Terrestrial Zoology

Habitat within the proposed project footprint was assessed and characterized based on review of aerial photography. The project footprint is comprised primarily of pasture. The project area occurs in a landscape surrounded additional pasture, industrial sites, transportation corridors (roadway) fragmented forest, and an impounded lake to the north. Habitat present includes herbaceous field interspersed with a few linear rows of woody vegetation that borders the perimeter of the project area.

Birds commonly observed in early successional and forest-field edge habitat include Carolina wren, tufted titmouse, northern mockingbird, northern cardinal, eastern towhee, eastern bluebird, brown thrasher, field sparrow, and eastern meadowlark. Red-tailed hawk, northern harrier and American kestrel also forage along open fields and road rights-of-way. Mammals frequently observed in this type of habitat include Virginia opossum, eastern cottontail, striped skunk, white-tailed deer, eastern coyote, eastern mole, woodchuck, and rodents such as white-footed mouse and hispid cotton rat. Common reptiles include black racer, black rat snake and eastern garter snake.

No caves or wading bird colonies have been documented within three miles of the project area. No suitable habitat for heron colonies is available within the project footprint. Work activities would not affect caves, heronries or other aggregations of migratory birds.

No Action Alternative - Under the No Action Alternative, the project area would likely remain in its current condition for the foreseeable future. Wildlife and wildlife habitats would not be directly or indirectly affected by any project-related actions. If the earthen building pad and associated access road is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative any terrestrial animal individuals that may be present within the project area may move into surrounding areas during construction activities, but likely would return to the area once construction activities are completed. As such, no cumulative impacts are expected.

Transportation

Trucks going to or from the proposed site would predominately travel to the site via US Highways 45 and 4/West Chambers Drive, turning into the Industrial Park directly off of US Highway 4/West Chambers Drive. US Highway 45 consists of four lanes, two running north and two running south. US Highway 4/West Chambers Drive is a two-lane road running east to west. Both routes have adequate shoulders and serve as significant thoroughfares

within the county. The Mississippi Department of Transportation (MDOT 2012) recorded two traffic counts within approximately one mile north and three miles south of the proposed site along US Highway 45. For 2012, the Annual Average Daily Traffic (AADT) ranged from 9,100 to 11,000 for these two locations. Similarly, US Highway 4/West Chambers Drive has an AADT of 6,500 approximately 1.5 miles east and 3,400 approximately 2.5 miles west of the proposed site.

No Action Alternative - Under the No Action Alternative, existing transportation would not be affected. If the earthen building pad and associated access road is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative, construction is anticipated to take place over a one-month period. There is no need for the transportation of fill material to the proposed site. After the initial mobilization of equipment, traffic to and from the proposed site would consist of a small workforce of operators, laborers, and construction foreman observing a typical eight to ten-hour work day. The minor temporary increase in transportation while the proposed earthen building pad and associated access road is constructed would be insignificant.

Socioeconomics and Environmental Justice

The proposed earthen building pad and associated access road would be located in Prentiss County, Mississippi, Census Tract 9502. The total population of Prentiss County in 2012 was 25,390. The most recent unemployment rate was 8.6 percent, which is higher than the state's rate of 8.0 percent. The minority population share was at 16.8 percent in the county, which is lower than the state (42.4) and national (37) percentages. According to the US Census Bureau, the population below the poverty level at the county level is 24.3 percent and the state and national levels at 22.3 and 14.9 percent, respectively. (<http://quickfacts.census.gov/qfd/states/28/28117.html>)

Per capita personal income in Prentiss County was \$17,546, as of 2012, about 63 percent of the national level of \$28,051 and 85 percent of the state level of \$20,670 (<http://quickfacts.census.gov/qfd/states/00000.html>). Employment in the county is more dependent on manufacturing, transportation, and retail than statewide or nationally, but less dependent on service and professional sectors of the economy.

No Action Alternative - Under the No Action Alternative, socioeconomics or environmental justice would not be affected and current conditions would likely persist. If construction at this location occurs without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative, the proposed development of this site would provide temporary construction jobs. Although the increase in jobs would be minor when compared to the entire county, they would be beneficial to local communities with minor impacts to employment or income likely to occur.

The population of the area around the proposed site is generally dispersed with no nearby population concentrations. Also, except for one home on the southern boundary of the Industrial Park that is more than one-third of a mile away, the immediate vicinity around the proposed site has no residential structures. Minority and low-income populations occur in the county; however, there are no residences directly adjacent to the proposed site.

Therefore, any construction or operation activities related to the proposed facility would be remote from the area's population and not likely to have noticeable impacts on residents. Further, any impacts that might occur would be economically beneficial and not disproportionately affect disadvantaged populations.

Noise, Air Quality, and Solid Waste

The proposed earthen building pad and associated access road would be located in an existing industrial park. The nearest residential receptor is located over one-third of a mile from the proposed site.

No Action Alternative - Under the No Action Alternative, there would no additional construction-related impacts to noise, air quality, or solid waste. If the earthen building pad is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative - Under the Action Alternative, both noise and impacts to air quality (fugitive dust) are expected from equipment used for excavating, grading, and hauling during the approximately one-month building period. Most of the construction activities would occur during weekday, daylight hours; however, construction could occasionally occur during nights and weekends, if necessary. The immediate area would experience temporary noise increases during construction; however, since most activities would be during weekday daylight hours within an existing industrial park removed from the nearest residential receptor, the construction noise is expected to result in minor impacts. Construction of the proposed earthen building pad and associated access road would cause temporary minimal offsite fugitive air emissions, but with the employment of BMPs designed to suppress dust, is expected to result in only minor impacts.

Solid wastes produced during the construction of the proposed building pad and associated access road would consist of general refuse. These materials would be disposed of by a licensed waste management company in a permitted landfill. Therefore, the action alternative would result in only minor or temporary direct, indirect or cumulative effects relative to noise, air quality, and solid waste.

Groundwater Quality

The project area is located in the East Gulf Coastal Plain Section of the Coastal Plain Physiographic Province and is underlain by Cretaceous sedimentary rock which comprise the lower most units of the Mississippi embayment aquifer system. The Black Warrior River aquifer is the principal aquifer in the proposed project area and consists of an interbedded mix of fluvial sand and gravel, deltaic sand, silt and clay, and marginal marine sand, silt, and clay. In Mississippi, the Black Warrior River aquifer includes unnamed water-yielding rocks of Early Cretaceous age and the Tuscaloosa Group, the McShan and the Eutaw Formations, and the Coffee Sand of Late Cretaceous age. The Black Warrior River aquifer is confined by a thick sequence of clay and marl of the Selma Group, which effectively separates it from overlying rocks of the Mississippi embayment aquifer system. (Renken, 1998).

Groundwater is the primary source of water supply for Prentiss County (Environmental Protection Agency, 2013). Based on the information provided in the Phase I Environmental Site Assessment (ESA) completed by Cook, Coggin Engineers, Inc., June 2013, the Federal USGS lists six (6) water wells located within the 1-mile search radius of the subject site and the state database lists twelve (12) water wells within the 1-

mile search radius. Neither data base listed water wells on the subject property and none were located during the site reconnaissance conducted during the Phase I ESA.

No Action Alternative - Under the No Action Alternative, existing ground water quality would not be affected. If the earthen building pad and associated access road is constructed at this location without TVA involvement, the impacts would be much the same as the Action Alternative.

Action Alternative – Under the Action Alternative, the proposed construction activities have the potential to impact groundwater. Site clearing and grading and access roads installation could cause erosion resulting in the movement of sediment into springs or groundwater infiltration zones. To minimize these potential impacts, the proposed activities would comply with storm water permitting requirements and utilize applicable BMPs to minimize and control erosion during construction.

The contractor would implement and utilize control methods to contain and properly dispose of all wastes and accidental spills in order to prevent the discharge of potential contaminants to groundwater.

Herbicides used during clearing and subsequent maintenance activities have the potential to enter groundwater. Although some herbicides break down quickly, others may persist in groundwater. Any areas requiring chemical treatment would employ USEPA-registered herbicides used in accordance with label directions. Proper implementation of the control measures identified in applicable project environmental permits is expected to result in insignificant impacts to groundwater.

Historical and Archaeological Resources

Historic and cultural resources, including archaeological resources, are protected under various federal laws, including the Archaeological Resources Protection Act, the Native American Graves Protection and Repatriation Act, and the National Historic Preservation Act (NHPA). Section 106 of the NHPA requires federal agencies to consult with the respective State Historic Preservation Officer (SHPO) when proposed federal actions could affect these resources.

No Action Alternative - Under the No Action Alternative, there would no additional impacts to historic or archaeological resources. If the construction took place at the location without TVA involvement, the impacts would be the same as the Action Alternative.

Action Alternative - Under the Action Alternative, TVA determined the Area of Potential Effects (APE) to be the footprint or the area of disturbance that TVA is funding to be prepared. The APE was subject to a previous archaeological survey by Cobb Institute of Archaeology in 2013 titled *A Phase I Cultural Resources Survey of the Proposed Expansion of the Prentiss County Industrial Park, Prentiss County, Mississippi (Appendix B)*. The survey was conducted as part of a larger industrial parcel planned prior to TVA's involvement. Four archaeological sites were identified during the Phase I survey. One site 22PS610 and a portion of site 22PS611 are located within the current APE. In a letter dated June 18, 2013, Prentiss County's contractor, the Mississippi Department of Archives and History (MDAH) agreed with the report author's recommendations that site 22PS610 and 22PS611 are ineligible for that National Register of Historic Places and that the proposed project would have no effects to historic properties.

Pursuant to regulations (36CFR Part 800) implementing Section 106 of the *National Historic Preservation Act*, TVA consulted with the Mississippi SHPO on TVA findings that no historic properties would be affected by the proposed undertaking. The SHPO had no comment on TVA's no effect finding.

Pursuant to 36CFR§ 800.2 (c)(2)(ii), 800.3 (f)(2), and 800.4 (a)(4)(b), TVA also consulted with federally recognized Indian tribes regarding properties within the proposed project's APE that may be of religious and cultural significance to them and eligible for the NRHP. TVA received one response from the Choctaw Nation stating that the project is located outside of their area of historic interest and deferring consultation to other Tribes.

Cumulative Impacts

Resources that could be cumulatively affected by the administration of the grant and subsequent construction are transportation, socioeconomics, noise, air quality, and solid waste. Transportation, noise, air quality, and solid waste would continue to be affected by general population increases, industrial use, and development growth in the area. Socioeconomics would be beneficially impacted by direct job growth and indirectly by associated services. However, this action would not result in substantial cumulative impacts on a regional or Valley-wide basis. Although it would have a somewhat greater impact than the No Action Alternative, the Action Alternative would result in a minimal impact on the environment and improve local economy when the proposal was completed. Therefore, TVA has determined that cumulative impacts of this action would be insignificant.

Necessary Permits

As the disturbed area would be greater than one acre, a Construction Storm Water Permit from the Mississippi Department of Environmental Quality would be required, pursuant to Section 401 of the Clean Water Act. The Prentiss County Development Association is responsible for obtaining any local, state, or federal permits necessary for this project.

Public and Agency Involvement

The Prentiss County Development Association submitted an application to TVA for the proposed construction of an earthen building pad and associated access road within the West Prentiss Industrial Park on August 1, 2013. The Association's contract engineer, Cook Coggin Engineering, Inc., provided the following correspondence as supporting documentation for the Environmental Assessment:

- A June 3, 2013 request to the Mississippi Department of Archives and History (MDAH) for concurrence that the project would have no adverse effect to cultural resources. MDAH responded June 18, 2013, providing concurrence with the no adverse effect determination.
- A December 2, 2013 request to the U.S. Fish and Wildlife Service (USFWS) for information regarding the potential presence of federally protected species within the project site. USFWS responded on December 13, 2013 that there are no listed species or their habitats within the project vicinity, therefore no species will be impacted by the work activities.
- A December 30, 2013 request to the US Army Corps of Engineers (COE) for a determination of applicable permitting requirements associated with the

project. COE responded January 21, 2014 that there are no permitting requirements associated with the project.

In addition to the Applicant-provided correspondence, TVA contacted the following federal and state officials, as well as federally recognized Native American tribes, concerning the proposed project:

Chickasaw Nation
Choctaw Nation of Oklahoma
Jena Band of Choctaw Indians
Mississippi Band of Choctaw Indians
Mississippi Department of Archives and History
Thlopthlocco Tribal Town

Correspondence received from other agencies related to this review and coordination is contained in Appendix B.

Mitigation Measures

To minimize or reduce the environmental effects of the proposed project, Prentiss County Development Association is to ensure all construction activities are in compliance with storm water permitting requirements and utilize applicable BMPs for herbicide application, and to minimize and control erosion during construction.

Preferred Alternative

TVA's Preferred Alternative is to provide the grant to the Prentiss County Development Association for the construction of a 7.3-acre earthen building pad and associated access road within the Prentiss County Industrial Park. The site would be prepared and the earthen building pad and associated access road constructed, thereby making the site available for future commercial and/or industrial development.

TVA Preparers

Adam Dattilo, Botanist, Biological & Cultural Compliance, Vegetation & Threatened and Endangered Species

Patricia Ezell, Native American Liaison, Biological & Cultural Compliance, Cultural Resources

Michaelyn Harle, Archaeologist, Biological & Cultural Compliance, National Historic Preservation Act Section 106 Compliance

Holly G. LeGrand, Biologist, Natural Resources Compliance Programs, Terrestrial Resources & Threatened and Endangered Species

Carrie Mays, River Operations, Floodplains

Craig L. Phillips, Contract Aquatic Ecologist, Biological & Cultural Compliance, Aquatic Ecology & Threatened and Endangered Species

Richard L. Toennisson, Contract Senior NEPA Specialist, NEPA Compliance and Document Review

Paul Pearman, Manager Environmental Support – Transmission Project Environmental Planning, Document Review

Kim Pilarski, Biologist, Natural Resources Compliance Programs, Wetlands, Natural Areas

Amos Smith, Solid Waste Specialist/Geologist, Waste Permits, Compliance and Monitoring, Geology and Groundwater

Emily Willard, Program Manager, Project Environmental Planning, Transportation, Socioeconomics, Noise, Air Quality, Solid Waste, Document Preparation.

Bill L. Zotto, Economic Development, Project Manager

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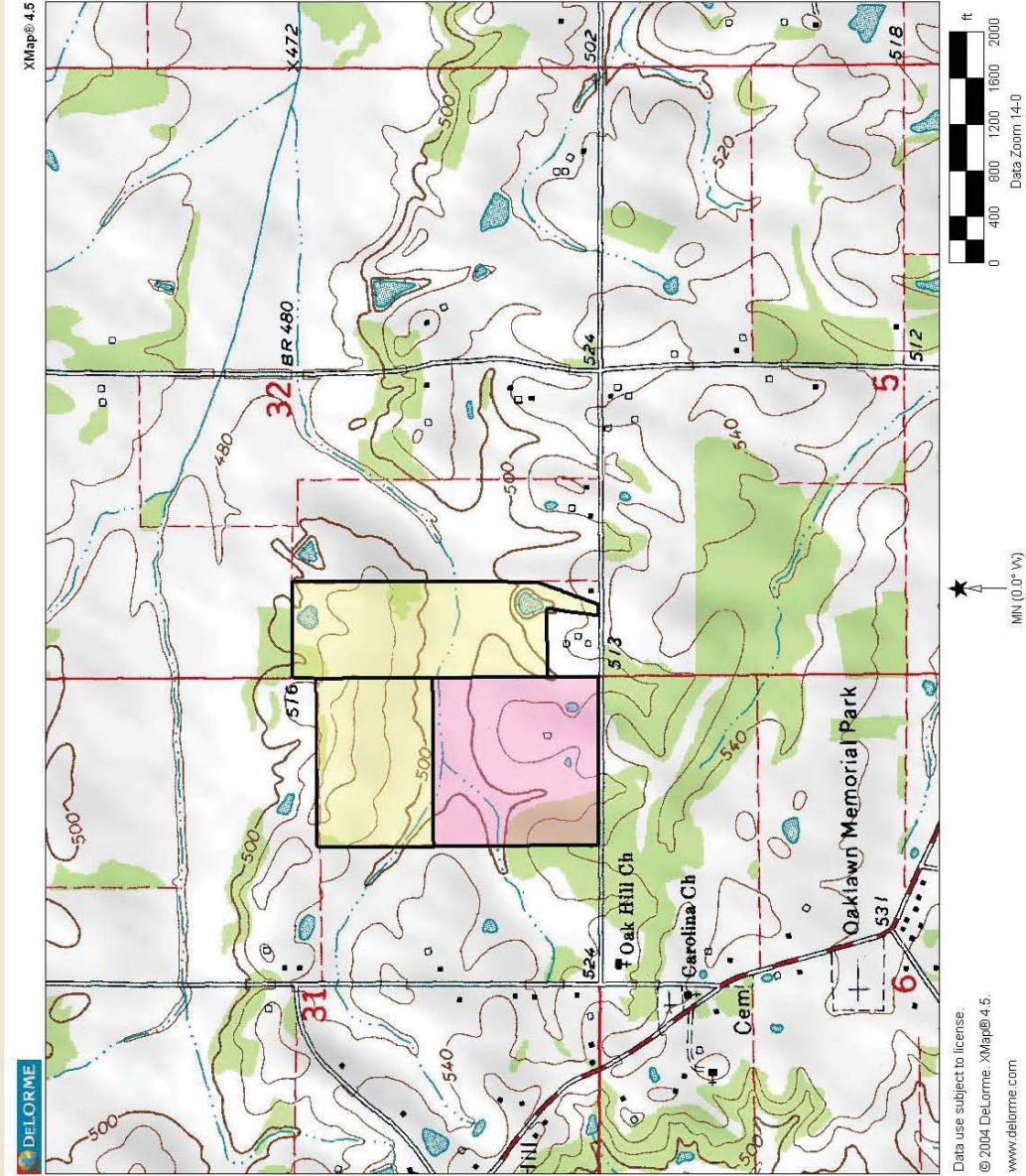
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Appendix A – Site Maps

WEST PRENTISS INDUSTRIAL PARK
70 AVAILABLE ACRES - WILL DIVIDE





Topo Map
 West Prentiss Industrial Park
 Booneville - Prentiss County, Mississippi



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Appendix B –TVA Correspondence



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

April 7, 2014

Mr. Jim Woodrick, Director
Mississippi Department of Archives and History
Historic Preservation Division
Post Office Box 571
Jackson, Mississippi 39205-0521

Dear Mr. Woodrick:

TENNESSEE VALLEY AUTHORITY (TVA), WEST PRENTISS INDUSTRIAL PARK, PRENTISS COUNTY, MISSISSIPPI

The Tennessee Valley Authority proposes to provide funding from [REDACTED] Grant funds for the purpose of providing assistance to the Prentiss County Development Association to construct an approximately 7-acre earthen building pad and associated access road in Prentiss County, Mississippi (Section 31 and 32, Township 4 South, Range 7, East). The area is part of a larger 70-acre West Prentiss Industrial Park. TVA determined that the Area of Potential Effects (APE) to be the footprint or the area of disturbance that TVA is funding (Figures 1 and 2).

The APE was subject to a previous archaeological survey by Cobb Institute of Archaeology in 2013 titled *A Phase I Cultural Resources Survey of the Proposed Expansion of the Prentiss County Industrial Park, Prentiss County, Mississippi* (Report #13-0361). The survey was conducted as part of a larger industrial parcel planned prior to TVA's involvement. Four archaeological sites were identified during the Phase I survey. Site 22PS610 and a portion of site 22PS611 are located within the current APE. In a letter dated June 18, 2013 to Prentiss County's contractor, your office agreed with the report author's recommendations that site 22PS610 and 22PS611 are ineligible for that National Register of Historic Places and that the proposed project would have no effects to historic properties (MDAH PROJECT LOG 06-018-13).

By this letter TVA is notifying your office of our involvement and that the proposed project is an undertaking subject to Section 106 of the National Historic Preservation Act. TVA has read the Phase I report and agrees with the recommendations of the authors. TVA finds that no historic properties would be affected by the proposed activity. Pursuant to 36 CFR § 800.4, TVA is seeking your concurrence with our findings and recommendations that no historic properties will be affected by TVA's proposed undertaking.

Pursuant to 36 CFR § 800.3(f)(2), TVA is consulting with federally recognized Indian tribes regarding properties that may be of religious and cultural significance and eligible for the

Mr. Jim Woodrick, Director Page Two
April 7, 2014

National Register of Historic Places (NRHP). If you have any questions or comments, please contact Michaelyn Harle in Knoxville, Tennessee, at (865) 632-2248 or by email at mharle@tva.gov.

Sincerely,

A handwritten signature in cursive script, appearing to read "Clinton E. Jones". The signature is fluid and extends to the right with a long horizontal stroke.

Clinton E. Jones
Manager, Biological and Cultural Compliance Environment
WT11D-K

Enclosures

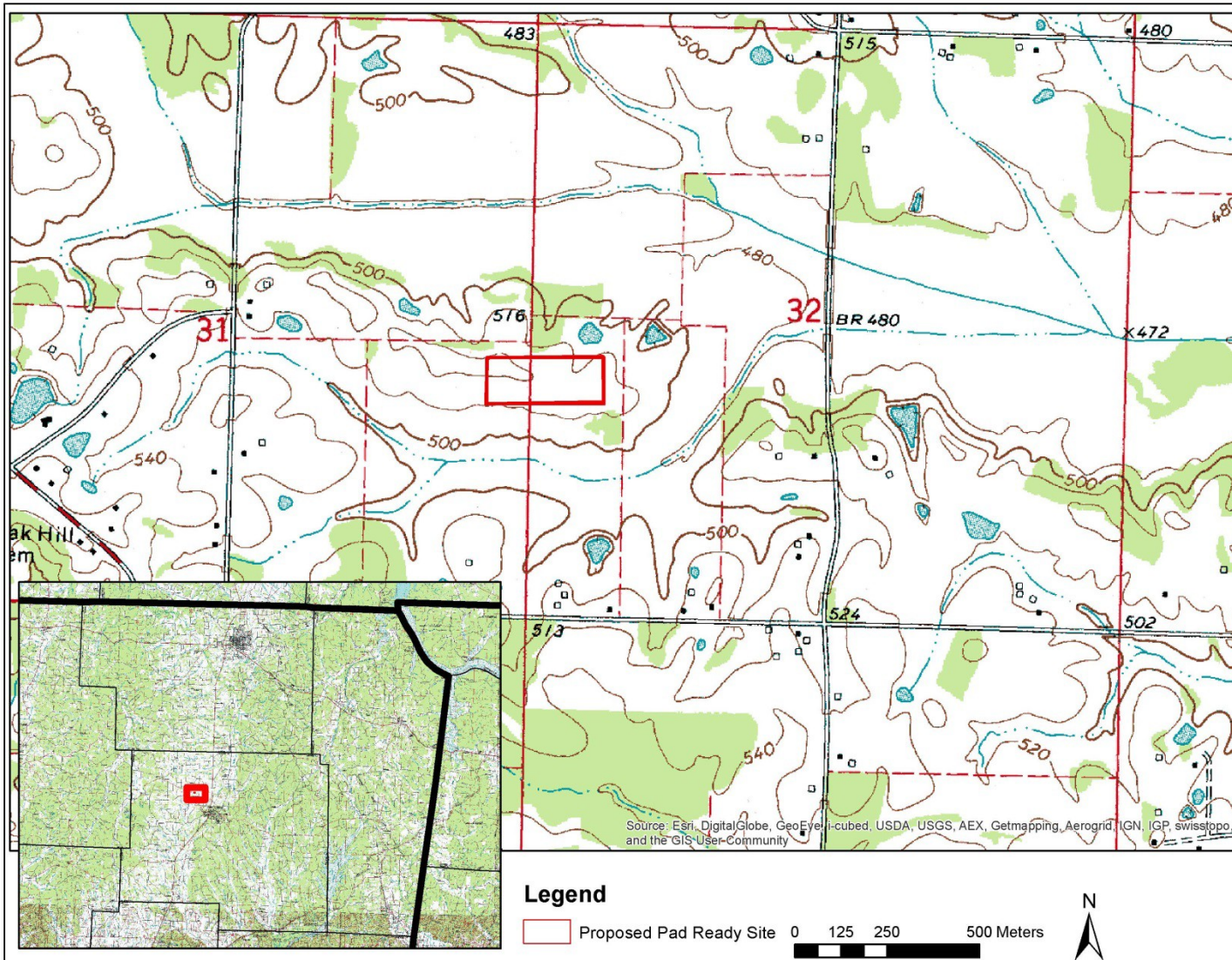


Figure 1: 7.5' Booneville, MS quadrangle depicting the APE

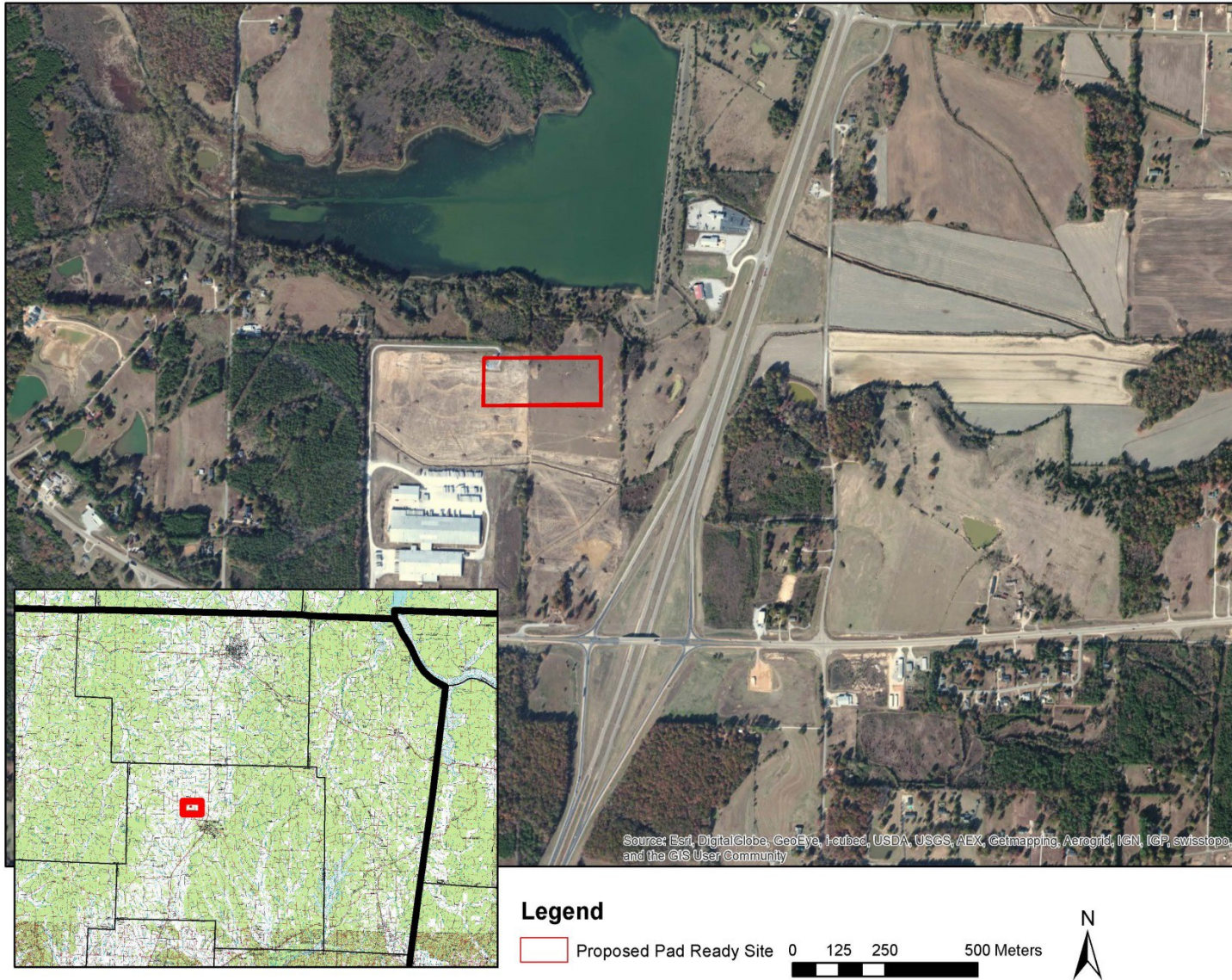


Figure 2: Aerial depicting APE

Dudley, Cynthia S

From: Ezzell, Patricia Bernard
Sent: Tuesday, April 08, 2014 5:54 PM
To: 'HPO@chickasaw.net'; 'Ian Thompson (ithompson@choctawnation.com)'; 'kcarleton@choctaw.org'; 'danammasters@aol.com'
Subject: TVA, WEST PRENTISS INDUSTRIAL PARK, PRENTISS COUNTY, MS
Attachments: West Prentiss Industrial Site MS thpo EPW comments.pdf; West Prentiss graphs.pdf; Archeology Report.pdf

Good Afternoon,

I hope this email message finds you well. By this email message, I am transmitting the attached letter regarding TVA's proposal to provide funding from [REDACTED] Grant funds for the purpose of providing assistance to the Prentiss County Development Association to construct an approximately 7-acre earthen building pad and associated access road in Prentiss County, Mississippi (Section 31 and 32, Township 4 South, Range 7, East). The area is part of a larger 70-acre West Prentiss Industrial Park. TVA determined that the Area of Potential Effects (APE) to be the footprint or the area of disturbance that TVA is funding (Figures 1 and 2).

The referenced materials are attached to this email message. As always, please do not hesitate to contact me if you have any questions. Please respond by May 8, 2014, if you would like to provide comments.

Thank you.

Sincerely, Pat

Pat Bernard Ezzell Senior
Program Manager
Native American Tribal Relations and Corporate Historian
Public Relations and Corporate Information
Communications
Tennessee Valley Authority
400 W. Summit Hill Drive 460
WT 7D-K
Knoxville, Tennessee 37902
Office Phone: (865) 632-6461
Cell phone: 865-304-9251 E-mail: pbezzell@tva.gov



Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, TN 37902

April 8, 2014

To Those Listed:

TENNESSEE VALLEY AUTHORITY (TVA), WEST PRENTISS INDUSTRIAL PARK, PRENTISS COUNTY, MISSISSIPPI

The Tennessee Valley Authority proposes to provide funding from [REDACTED] Grant funds for the purpose of providing assistance to the Prentiss County Development Association to construct an approximately 7-acre earthen building pad and associated access road in Prentiss County, Mississippi (Section 31 and 32, Township 4 South, Range 7, East). The area is part of a larger 70-acre West Prentiss Industrial Park. TVA determined that the Area of Potential Effects (APE) to be the footprint or the area of disturbance that TVA is funding (Figures 1 and 2).

The APE was subject to a previous archaeological survey by Cobb Institute of Archaeology in 2013 titled *A Phase I Cultural Resources Survey of the Proposed Expansion of the Prentiss County Industrial Park, Prentiss County, Mississippi* (see enclosure). The survey was conducted as part of a larger industrial parcel planned prior to TVA's involvement. Four archaeological sites were identified during the Phase I survey. Site 22PS610 and a portion of site 22PS611 are located within the current APE. In a letter dated June 18, 2013 to Prentiss County's contractor, the Mississippi State Historic Preservation Officer agreed with the report author's recommendations that site 22PS610 and 22PS611 are ineligible for listing in the National Register of Historic Places (NRHP) and that the proposed project would have no effects to historic properties.

By this letter TVA is notifying your office of our involvement and that the proposed project is an undertaking subject to Section 106 of the National Historic Preservation Act. TVA has read the Phase I report and agrees with the recommendations of the authors. TVA finds that no historic properties would be affected by the proposed activity.

Pursuant to 36 CFR Part 800.3(f)(2), TVA is consulting with the following federally recognized Indian tribes regarding historic properties within the proposed project's APE that may be of religious and cultural significance and eligible for listing in the NRHP: The Chickasaw Nation, Choctaw Nation of Oklahoma, Jena Band of Choctaw Indians, and Mississippi Band of Choctaw Indians.

By this letter, TVA is providing notification of these findings and is seeking your comments regarding this undertaking and any properties that may be of religious and cultural significance and may be eligible for listing in the NRHP pursuant to 36 CFR Part 800.2(c)(2)(ii), 800.3(f)(2), and 800.4(a)(4)(b).

To Those Listed Page
Two
April 8, 2014

Please respond no later than May 8, 2014, if you have any comments on the proposed project. If you have any questions, please contact me at (865) 632-6461 or by email at pbezzell@tva.gov.

Sincerely,

A handwritten signature in black ink that reads "Pat Bernard Ezzell". The signature is written in a cursive, flowing style.

Patricia Bernard Ezzell
Senior Program Manager
Tribal Relations and Corporate Historian
Public Relations and Corporate Information
Communications
WT 7D-K

Enclosures

IDENTICAL LETTER MAILED TO THE FOLLOWING ON APRIL 8, 2014:

Governor Bill Anoatubby
The Chickasaw Nation Post
Office Box 1548
Ada, Oklahoma 72821-1548

Ms. LaDonna Brown
Tribal Historic Preservation Officer
Department of Homeland Affairs
The Chickasaw Nation
Post Office Box 1548
Ada, Oklahoma 72821-1548

Mr. Kenneth Carleton
Tribal Historic Preservation Officer/Archaeologist
Mississippi Band of Choctaw Indians
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Mississippi 39350

Ms. Dana Masters
Tribal Historic Preservation Officer
Jena Band of Choctaw Indians Post
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Mr. Kirk Perry
Administrator
Department of Homeland Affairs
The Chickasaw Nation
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cc: Ms. Virginia (Gingy) Nail
Assistant Tribal Historic Preservation Officer Department of
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The Chickasaw Nation Post
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Ms. Amber Jarrett Preservation &
Repatriation Manager Department of
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The Chickasaw Nation
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Ada, OK 74821-1548

Dr. Ian Thompson
Tribal Historic Preservation Officer
Choctaw Nation of Oklahoma Post
Office Drawer 1210
Durant, Oklahoma 74702

cc: Ms. Caren Johnson
Cultural Resources Office
Choctaw Nation of Oklahoma Post
Office Drawer 1210 Durant, Oklahoma
74702

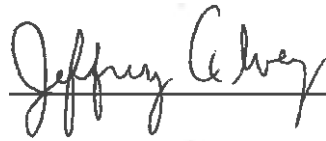
INTERNAL COPIES ONLY, NOT TO BE INCLUDED WITH OUTGOING LETTER:

Brenda Brickhouse, BR 4A-C
Michaelyn Harle, WT11D-K
Kathryn Hodges, WT 7D-K
Clinton Jones, WT11B-K
Khurshid Mehta, WT 6A-K Gail
Rymer, WT 7D-K
Richard Toennisson, WT11D-K Emily
Willard, MR 4G-C
Bill Zotto , OCP 6D-NST
EDMS, WT CA-K

A Phase I Cultural Resources Survey of the Proposed Expansion of the Prentiss
County Industrial Park, Prentiss County, Mississippi

Prepared by:

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and

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of the

Cobb Institute of Archaeology
P.O. Box AR
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Prepared for:

Cook Coggin Engineers, Inc.
703 Crossover Rd.
Tupelo, MS 38801

Contract #4714CI-97

June 3, 2013

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Management Summary

On May 13, 2013, a Phase I cultural resources survey was conducted of a 70 acre area for a possible expansion of the Prentiss County Industrial Park just northwest of the city of Booneville, Mississippi. The Prentiss County Development Association (PCDA) is interested in marketing the industrial site to prospective enterprises interested in locating in Prentiss County. As part of these marketing efforts it was determined that certain studies, including a cultural resources study, should be undertaken of the site. The Cobb Institute of Archaeology, Mississippi State University, was therefore selected to perform this research.

Prior to the survey, a records search at the Mississippi Department of Archives and History revealed that no previously recorded archaeological sites were located within the project boundaries. It was revealed, however, that a portion of the project area had been previously surveyed (Smith 2001).

Shovel testing and visual ground inspection of the proposed project area revealed that the previous survey had failed to identify four archaeological sites (22PS610-613). While a number of these sites would have likely had the potential to contribute to our understanding of the prehistory of the region, widespread and severe erosion throughout the project area has had the effect of greatly diminishing the depositional integrity of these sites leading the authors to characterize all four sites as being ineligible for inclusion on the NRHP.

Introduction

As part of the PCDA's environmental assessment, a cultural resources survey was requested to satisfy any future needs to comply with Section 106 of the National Historic Preservation Act, as amended in 36-CFR-800. One day of cultural resources survey was conducted by Jeffrey Alvey, Helen C. Neal, Bradley Carlock, Jason Shedd, Jesse Morton and Emily Morton of the Cobb Institute of Archaeology, Mississippi State University, at the request of Cook Coggin Engineers, Inc. of Tupelo, Mississippi. The project area is located in Sections 31 and 32, Township 4 South, Range 7 East on the Booneville, MS USGS 7.5 topographic quadrangle map (Figure 1).

Background Research

Prior to commencement of the survey, a search of the Mississippi Department of Archives and History's (MDAH) records revealed that a portion of the CWTent project area had been surveyed in the past (Smith 2001) (Figure 1); however, the survey failed to identify any sites within the project boundary. Additionally, records research revealed that four previously recorded archaeological sites existed within a 1-mile radius of the project area (Table 1).

Table 1. Previously recorded archaeological sites within 1-mile radius

Site Number	Cultural Period	Recorder	Year Recorded
22PS529	Unknown Aborigines	Penman	1975
22PS580	Woodland	Hyatt/Gray	1988
22PS589	Early- Middle Woodland	Hyatt/Gray	1991
22PS608	Late Archaic	Thome	2001

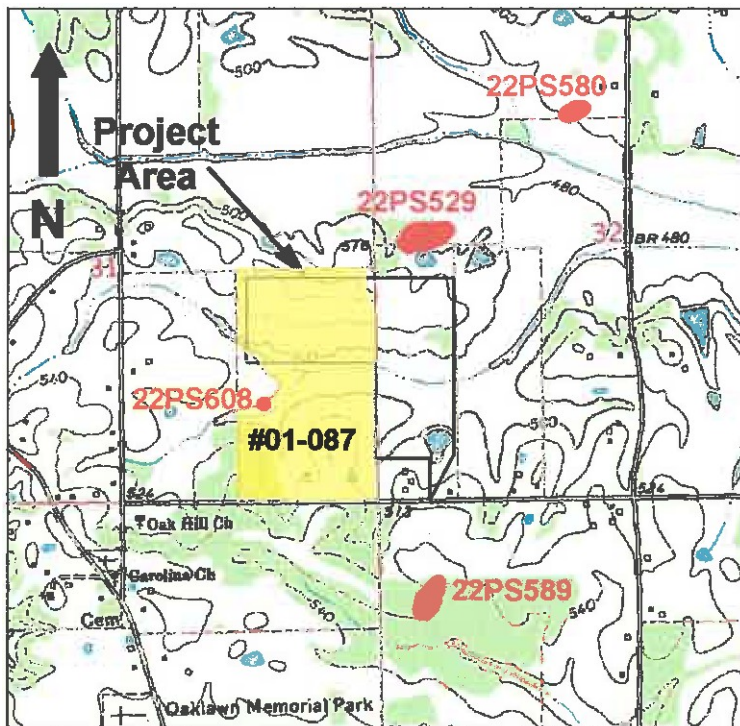


Figure 1. U.S.G.S. 7.5' Booneville, MS (1975) topographic quadrangle showing the location of the survey area (black line), and all previously recorded archaeological sites within approximately 1 mile. Yellow area shows location of previous survey (#01-087). Sections 31 and 32, Township 4 South, Range 7 East.

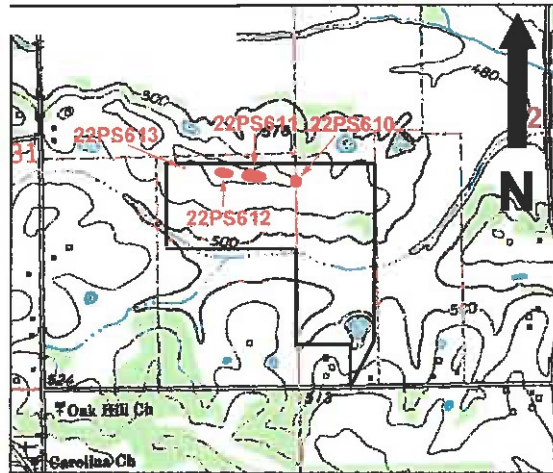


Figure 2. U.S.G.S. 7.5' Booneville, MS (1975) topographic quadrangle showing the location of the survey area (black line), and all newly recorded archaeological sites. Sections 31 and 32, Township 4 South, Range 7 East (1:24,000 scale).

Environmental Setting

The project area is located in Prentiss County just northwest of the city of Booneville in the Black Prairie physiographic region. The area is situated along an east-west oriented ridge that drains towards King's Creek to the north and an unnamed tributary of King's Creek to the south. King's Creek is a tributary of the Tuscumbia River, which lies approximately 4 miles to the east of the project area. Much of the western half of the project area has been previously impacted by timber cutting and land leveling in association with the Prentiss County Industrial Park, which is situated just south of the project area. This area is presently in pasture. The eastern half of the area is presently being used as cattle pasture. The impacts of cattle have greatly diminished grass cover in most areas along the tops of ridges, which has resulted in severe erosion and high ground surface visibility. The southeastern corner of the project area has been severely impacted by the construction, and later dismantling, of a large pond as can be seen in Figures 1 and 2. As shown in Figure 2, a portion of the project area has been impacted by the construction of a water tower.

Vegetation in the survey area consisted primarily of tall grass with sparse hardwood trees. The defining characteristic of the project area's environment is the presence of widespread erosion related to past land-disturbing activities which likely occurred in association with the original purchase of the property for the purpose of developing the Prentiss County Industrial Park. It appears that at this time the area was cleared of timber and with land leveling occurring in some areas. Evidence of past erosion exists not only in shallow soil profiles, but also in the presence of multiple terracing berms constructed along the south facing slope of the main ridge. These conditions have led to very poor preservation in regards to archaeological sites present within the area.

Upland soils in the project area consist primarily of three types: Providence silt loam, 5 to 8 percent slopes (PdC3), Providence silt loam, 8 to 12 percent slopes (Pd.DJ) and Tippah silt loam, 8 to 12 percent slopes (TpD3).

Floodplain soils in the project area are less heterogeneous consisting only of Mantachie fine sandy loam, 0 to 2 percent slopes (Mb). The surface layer is dark yellowish-brown fine sandy loam about 8 inches thick. The upper part of the subsoil is brown fine sandy loam, mottled with grayish brown.

Cultural Setting

The archaeology of this region has included investigation of Archaic period midden mounds, Middle Woodland period mound complexes and associated villages, and 18th-century Chickasaw Indian village sites (e.g., Futato 1989; Johnson 1999; Johnson et al. 1989). Much of the work undertaken in the region was done in conjunction with construction of the Tennessee-Tombigbee Waterway. The projects associated with the waterway's construction focused on a number of large Middle to Late Archaic, accretionary or midden mounds. With the exception of the Tennessee-Tombigbee Waterway projects, there has been relatively little site investigation in this area. There have been some research projects undertaken in the area focusing on the nature of Middle Archaic occupation (Alvey 2003; Bruce 2000), and settlement pattern studies have been undertaken using surface collections from Archaic and Woodland sites (Peacock 1988; Rafferty 1994).

The region of Prentiss county has been subjected to very little systematic survey. As a result of this fact, we know very little about what is undoubtedly a very rich archaeological region. Additionally, there have also been few efforts at intensive study of sites in the county, with a notable exception being the work at the Pharr Mounds site, which is comprised of eight prehistoric conical mounds and a domestic habitation area (Bohannon 1972; Karwedksy 1980). The Pharr Mounds are located on the Natchez Trace Parkway which runs through the southeastern corner of Prentiss County.

Methods

The project area was almost exclusively in a pasture setting. In much of the area the grass was very thin, allowing visual inspection of the ground surface in these areas. In areas with dense grass shovel testing was used as the method of investigation. Shovel tests were excavated on a 30 m grid throughout the area, excluding areas of excessive slope. Shovel tests were about 30 cm wide and were dug to a depth of approximately 30 cm or to sterile clay subsoil, whichever came first. The soil from each test was screened through quarter-inch (0.64 cm) mesh. When a positive shovel test was excavated subsequent shovel tests were dug in a cruciform pattern in the cardinal directions, or in a pattern that followed the direction of the landform, with 10 m spacing between tests. Each transect was continued until at least two negative shovel tests were recorded in each of the four directions. Artifacts from each shovel test were bagged and labeled separately (ST-A, ST-B, etc.).

All areas of high ground visibility were systematically walked by crew members who inspected the ground surface for the presence of artifacts. If artifacts were identified a general surface collection was made.

All records and artifacts associated with the project are curated at the Cobb Institute of Archaeology, Mississippi State University.



Figure 3. Aerial photograph showing the project area (red line) and its relation to the Prentiss County Industrial Park, which can be seen just southwest of the area.

Field Results

Cultural resources survey **resulted** in the identification of four previously unrecorded archaeological sites. **These** sites represent a variety of phistoric American Indian occupations and one historic period site that **appears to be** the location of a historic dump. Detailed site descriptions are provided below.

Site Descriptions

State Site Number: 22PS611

Cobb Institute Site Number: PIP-1

UTMs (NAD27): E353706N3839568

USGS Quadrangle: Booneville

Legal Location: Section 31, Township 4 South, Range 7 East Elevation:
540' MSL

Site Size: 3,900 m²

Natural Setting: Upland ridge Vegetation:

Pasture

Soil Type: ProVidence silt loam (PdC3) Diagnostic

Artifacts: Sandtempered pottery Culture Periods:

Woodland

Disturbances: Logging, land leveling, severe erosion

Site 22PS611 is a prehistoric American Indian site whose date of occupation is attributed to the Woodland Period due to the presence of sand-tempered pottery. Due to high ground visibility in the western portion of the site, **artifacts** were recovered from GSC in this area. **Due** to the presence of dense grass in the eastern half of the site this area was shovel tested (Figure 4 and Table 2). Site size is **estimated** at ca. 30 m N/S by 130 m FJW. Land leveling **and** other ground disturbing activities have severely impacted the area of the site. As shown in Figures 3-5, the construction of a water tower **has** impacted a portion of this site.

Due to thin remaining soils resulting from erosion it is unlikely that further testing at the site would be productive, therefore, site 22PS611 is considered to be ineligible for inclusion on the NRHP.

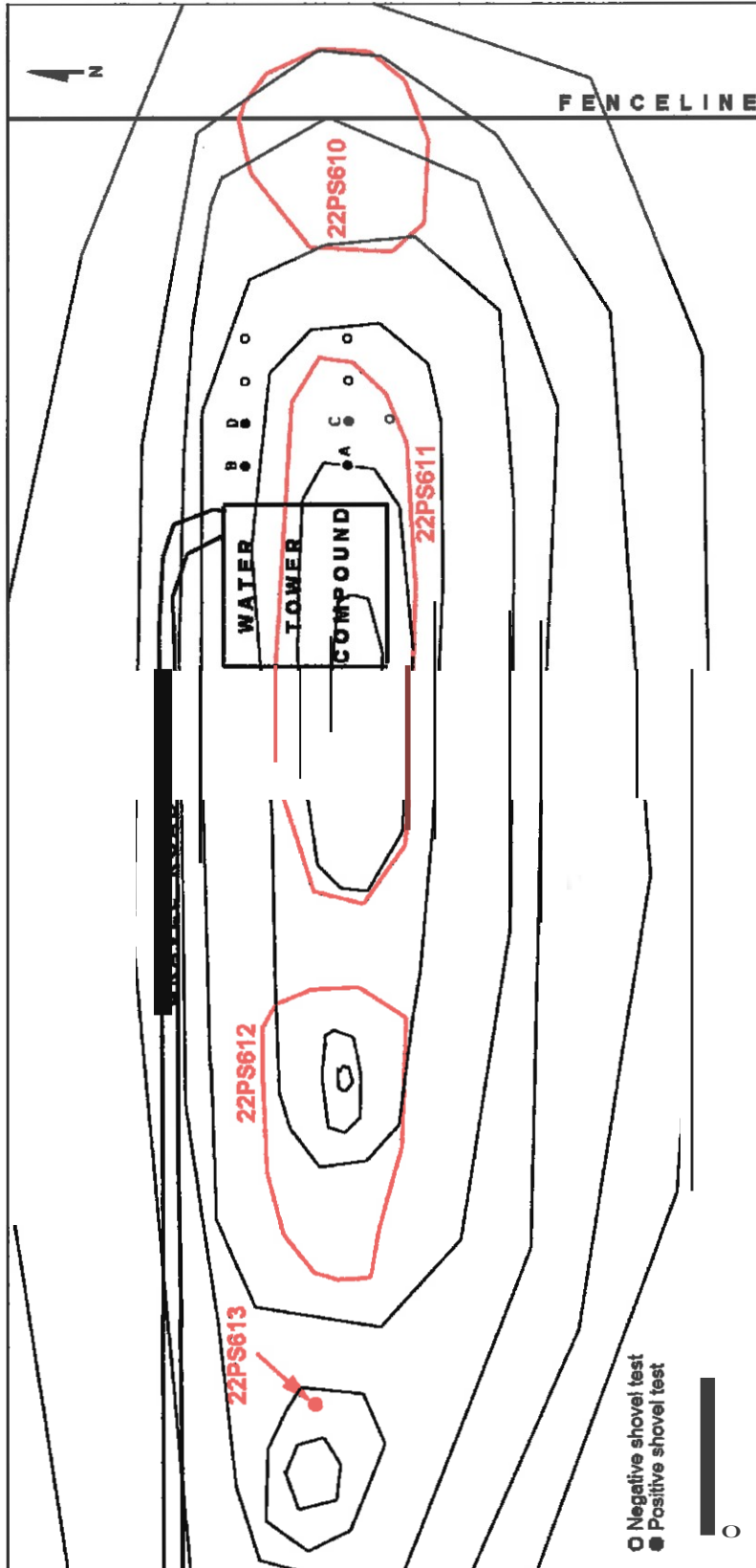


Figure 4. Site map showing the location of all newly recorded sites.

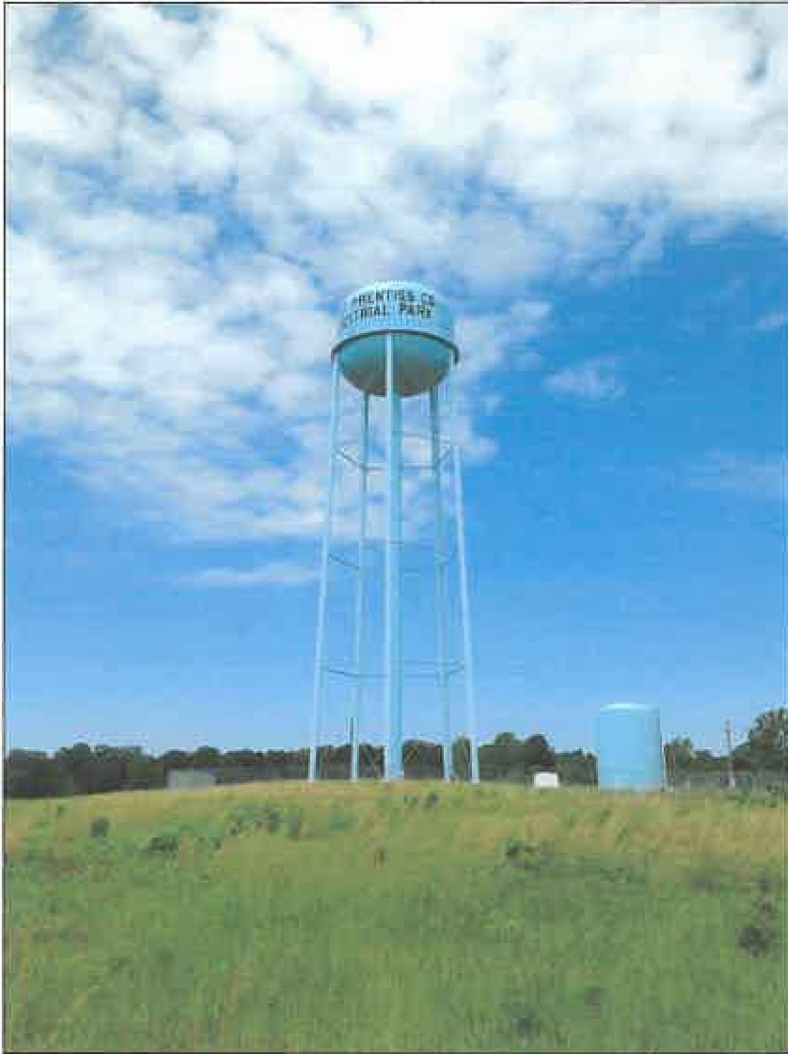


Figure 5. Photograph of site 22PS611 showing the water tower situated on the site. View to the west.

Table 2. Artifacts from site 22AL510.

Provenience	Contents	Count
GSC	Lithic debitage (Tuscaloosa gravel chert)	17
	Plain sand-tempered body sherds	14
	Red-slipped sand-tempered body sherd	1
	Hammerstone fragment (Quartzite)	1
	Fired clay	3
Shovel Test A	Lithic debitage (Gray chert)	1
Shovel Test B	Lithic debitage (Tuscaloosa gravel chert)	1
Shovel Test C	Plain sand-tempered body sherds	2
Shovel Test D	Plain sand-tempered body sherd	1

State Site Number: 22PS612
 Cobb Institute Site Number: PIP-2
 UTM's (NAD27):E353599 N383957 1
 USGS Quadrangle: Booneville
 Legal Location: Section 31, Township 4 South, Range 7 East Elevation:
 540' MSL
 Site Size: 2,100m²
 Natural Setting: Upland ridge
 Vegetation: Pasture
 Soil Type: Providence silt loam (PdC3)
 Diagnostic Artifacts: Little Bear Creek projectile point and sand tempered pottery
 Culture Periods: Late Archaic/Woodland
 Disturbances: Logging, land leveling, severe erosion

Site 22PS612 is a prehistoric American Indian site whose date of occupation is attributed to the Late Archaic and Woodland Periods due to the presence of a Little Bear Creek projectile point and sand-tempered pottery, respectively. The projectile point is manufactured from an unidentifiable type of stone material. All artifacts from the site were recovered by GSC (Table 3). Due to severe soil erosion throughout the site no shovel tests were excavated. Site size is estimated at ca. 30 m N/S by 70 m EIW. Land leveling and other ground disturbing activities have severely impacted the area of the site. Due to thin remaining soils resulting from erosion it is unlikely that further testing at the site would be productive, therefore, site 22PS612 is considered to be ineligible for inclusion on the NRHP.

Table 3. Artifacts from site 22PS612.

Provenience	Contents	Count
GSC	Lithic debitage (Tuscaloosa chert)	2
	Lithic debitage (White chert)	2
	Lithic debitage (Novaculite)	1
	Little Bear Creek projectile point	1
	Plain sand-tempered pottery	4



Figure 6. Photograph of site 22PS612. Arrow shows location of knoll upon which artifacts were located.



Figure 7. Photograph of Little Bear Creek Point (A) from site 22PS612 and Dalton point (B) from site 22PS613.

State Site Number: 22PS613
Cobb Institute Site Number: PIP-3
UTMs (NAD27): £353479 N3839598
USGS Quadrangle: Booneville
Legal Location: Section 31, Township 4 South, Range 7 East
Elevation: 540' MSL
Site Size: Single artifact Natural
Setting: Upland ridge
Vegetation: Pasture
Soil Type: Providence silt loam (PdC3)
Diagnostic Artifacts: Dalton projectile point
Culture Periods: Late Paleoindian
Disturbances: Logging, land leveling, severe erosion

Site 22PS613 represents the location of a single Dalton projectile point base, which dates to the late Paleoindian period (Figure 7). The point was manufactured from gray chert and shows evidence of basal grinding, which is common to Dalton points. Approximately one-third of the base has been broken off. The point was located on a small knoll just west of site 22PS612. The knoll was in thin grass allowing the point to be identified lying on the ground surface. As with all sites in this area, the soils have been severely impacted by past land-disturbing activities.

Due to thin remaining soils resulting from erosion it is unlikely that further testing at the site would be productive, therefore, site 22PS613 is considered to be ineligible for inclusion on the NRHP.

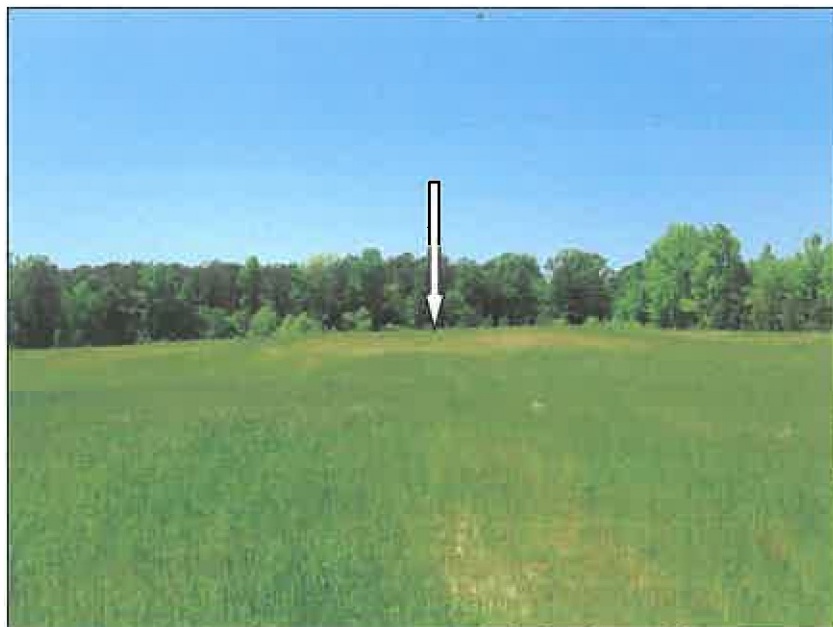


Figure 8. Photograph of site 22PS613. Arrow shows location of knoll. View to the west.

State Site Number: 22PS610
Cobb Institute Site Number: PIP-4
UTMs (NAD17): E353837 N3839572
USGS Quadrangle: Booneville
Legal Location: Sections 31 and 32, Township 4 South, Range 7 East
Elevation: 540' MSL
Site Size: 1,600 m²
Natural Setting: Upland ridge
Vegetation: Pasture
Soil Type: Providence silt loam (PdC3)
Diagnostic Artifacts: Big Sandy projectile point, Alexander pottery, solarized amethyst glass, wire nails, Albany-Bristol slip
Culture Periods: Early Archaic, Gulf Formational (Early Woodland), late 19th-mid 20th centuries
Disturbances: Logging, land leveling, severe erosion

Site 22PS610 is a newly recorded site containing occupations dating to the Early Archaic, Gulf Formational/Early Woodland and late 19th-early 20th centuries. Diagnostic artifacts recovered from the site include a Big Sandy projectile point (Early Archaic) manufactured from Tuscaloosa gravel and an Alexander Punctate/Incised potsherd (Gulf-Formational/Early Woodland), as well as a variety of historic artifacts such as solarized amethyst glass, wire nails and ceramics with Albany-Bristol slip. All artifacts were recovered by GSC from a large eroded area with sparse grass (Table 2). The site's size is estimated at ca 40 m N/S by 40 m FJW. Neither the 1908 soil survey map of Prentiss County or the 1975 Booneville, MS USGS topographic quadrangle map show a structure at this location. This suggests that the historic artifacts found here represent the site of a historic dump.

Due to thin remaining soils resulting from erosion it is unlikely that further testing at the site would be productive, therefore, site 22PS610 is considered to be ineligible for inclusion on the NRHP.

Table 4. Artifacts from site 22PS610.

Provenience	Contents	Count
GSC	Lithic debitage (Tuscaloosa chert)	8
	Lithic debitage (Gray chert)	2
	Plain sand-tempered potsherds	7
	Alexander incised/punctate potsherd	1
	Big Sandy projectile point	1
	Brick :fraements	2
	Wire nails	1
	Metal tool fra21D.ent	1
	Colorless eJ.ass	11
	Aqua glass	8
	Brown glass	7
	Cobalt blue !!lass	5
	Opaque white ("milk") 21ass	5
	Solarized amethyst glass	3
	Plain white fine stoneware (ironstone) ceramics	30
	Coarse stoneware brown Jrlaz.ed exterior/interior	1
	Coarse stoneware white Jrlazed exterior/interior	1
	Coarse stoneware brown 21.azed exterior/white glazed interior	3
	Plain white earthenware (whiteware)	9
Plain white porcelain	3	

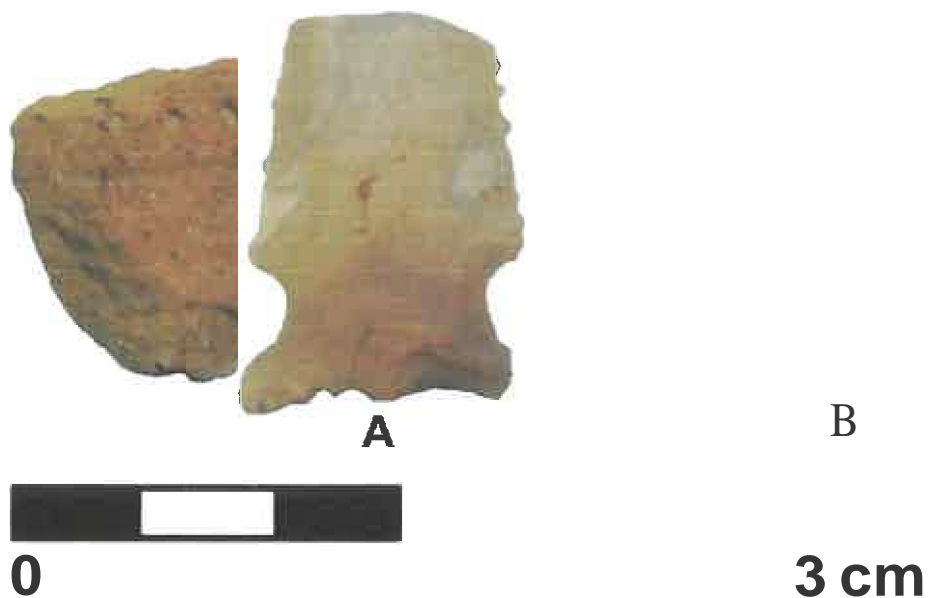


Figure 9. Photograph of Big Sandy projectile point (A) and Alexander potsherd (B) from site 22PS610.



Figure 10. Photograph of site 22PS610. View to the south.

Conclusions and Recommendations

Cultural resources survey within the project area identified the presence of four previously unrecorded archaeological sites. While these sites represent an important part of the region's prehistory it is believed by the authors that due to the state of poor soil preservation and the low integrity of the sites, that further testing at the sites is unwarranted. It is therefore the conclusion of the authors that any future development of this property will not impact any significant cultural resources. The presence of important occupations dating to the Paleoindian and Early Archaic period emphasize the significance of the failure of Smith's (2001) survey to identify these sites prior to the land-disturbing activities following his survey.

There remains the possibility that unrecorded cultural resources may be encountered during construction. Should this occur, the Mississippi Department of Archives and History should be contacted immediately to offer comments in compliance with 36 CFR 800.13

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Peacock, Evan

1988 Benton Settlement Patterns in North-Central Mississippi. *Mississippi Archaeology* 23: 13-33.

Rafferty, Janet

1994 Gradual or Stepwise Change: The Development of Sedentary Settlement Patterns in Northeast Mississippi. *American Antiquity* 59: 405-425.

Smith, Gerald P.

2001 *Cultural Resources Survey of an 80 Acre Tract near US 45 and Mississippi Highway 4, Prentiss County, Mississippi*. Cultural Resource Services, Inc, Memphis, Tennessee.

Smith, G.

2002 Cultural Resources Survey of Proposed Wastewater Facilities Improvement for FY 2002-2003.

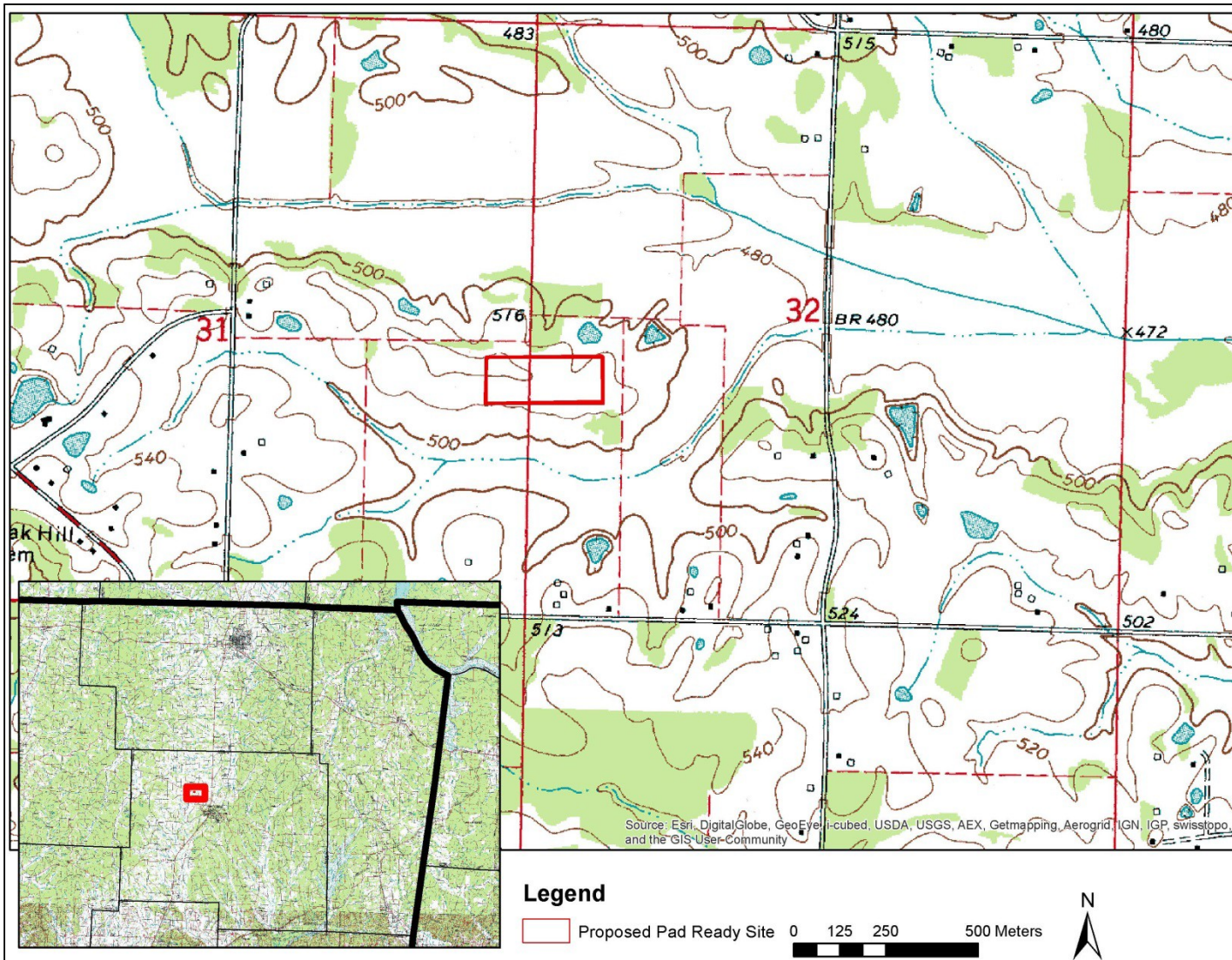


Figure 1: 7.5' Booneville, MS quadrangle depicting the APE

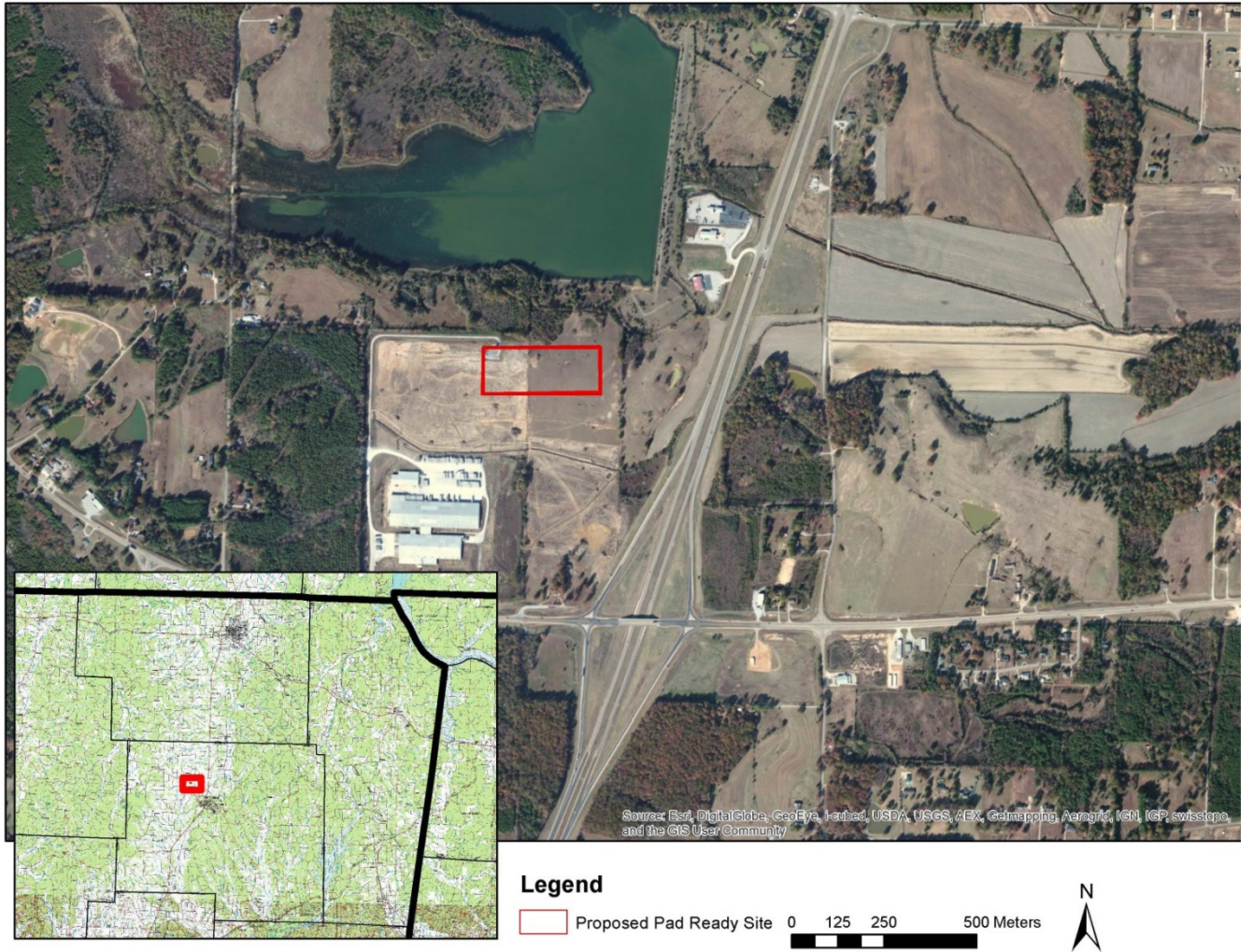


Figure 2: Aerial depicting APE

Appendix C – Categorical Exclusion Checklist

Used for Exclusion of Resources

Categorical Exclusion Checklist for Proposed TVA Actions

Categorical Exclusion Number Claimed Organization ID Number

Tracking Number *(NEPA Administration Use Only)*
29783

Form Preparer
Emily P Willard

Project Initiator/Manager
Bill L Zotto

Business Unit ED - Economic Development

Project Title

Hydrologic Unit Code

Financial Assistant to Prentiss County, Mississippi Development Association for Pad Construction at

Description of Proposed Action *(Include Anticipated Dates of Implementation)* Continued on Page 3 *(if more than one line)*
See attached Project Description

Initiating TVA Facility or Office

TVA Business Units Involved in Project

Location *(City, County, State)*

Prentiss, MS, 2100 West Chambers Drive in Booneville, Mississippi See attached map.

Parts 1 through 4 verify that there are no extraordinary circumstances associated with this action:

Part 1. Project Characteristics

Is there evidence that the proposed action...	No	Yes	Information Source for Insignificance
1. Is major in scope?	X		Willard, Emily P. 01/21/2014
2. Is part of a larger project proposal involving other TVA actions or other federal agencies?	X		Willard, Emily P. 01/21/2014
* 3. Involves non-routine mitigation to avoid adverse impacts?	X		Willard, Emily P. 01/21/2014
4. Is opposed by another federal, state, or local government agency?	X		Willard, Emily P. 01/21/2014
* 5. Has environmental effects which are controversial?	X		Willard, Emily P. 01/21/2014
* 6. Is one of many actions that will affect the same resources?	X		Willard, Emily P. 01/21/2014
7. Involves more than minor amount of land?	X		Willard, Emily P. 01/21/2014

*If "yes" is marked for any of the above boxes, consult with NEPA Administration on the suitability of this project for a categorical exclusion.

Part 2. Natural and Cultural Features Affected

Would the proposed action...	No	Yes	Per-mit	Commitment	Information Source for Insignificance
1. Potentially affect endangered, threatened, or special status species?	X		No	No	For comments see attachments
2. Potentially affect historic structures, historic sites, Native American religious or cultural properties, or archaeological sites?	X		No	No	For comments see attachments
3. Potentially take prime or unique farmland out of production?	X		No	No	For comments see attachments
4. Potentially affect Wild and Scenic Rivers or their tributaries?	X		No	No	Willard, Emily P. 04/15/2014
5. Potentially affect a stream on the Nationwide Rivers Inventory?	X		No	No	Willard, Emily P. 04/30/2014
6. Potentially affect wetlands, water flow, or stream channels?	X		No	No	For comments see attachments
7. Potentially affect the 100-year floodplain?	X		No	No	For comments see attachments
8. Potentially affect ecologically critical areas, federal, state, or local park lands, national or state forests, wilderness areas, scenic areas, wildlife management areas, recreational areas, greenways, or trails?	X		No	No	For comments see attachments
9. Contribute to the spread of exotic or invasive species?	X		No	No	Willard, Emily P. 01/24/2014
10. Potentially affect migratory bird populations?	X		No	No	Willard, Emily P. 04/30/2014
11. Involve water withdrawal of a magnitude that may affect aquatic life or involve interbasin transfer of water?	X		No	No	Willard, Emily P. 01/24/2014
12. Potentially affect surface water?		X	No	No	For comments see attachments
13. Potentially affect drinking water supply?	X		No	No	For comments see attachments

14.Potentially affect groundwater?		X	No	No	For comments see attachments
15.Potentially affect unique or important terrestrial habitat?	X		No	No	For comments see attachments
16.Potentially affect unique or important aquatic habitat?	X		No	No	For comments see attachments

Part 3. Potential Pollutant Generation

Would the proposed action potentially (including accidental or unplanned)...	No	Yes	Per-mit	Commitment	Information Source for Insignificance
1.Release air pollutants?	X		No	No	Willard, Emily P. 01/24/2014
2.Generate water pollutants?		X	No	No	For comments see attachments
3.Generate wastewater streams?	X		No	No	Willard, Emily P. 01/24/2014
4.Cause soil erosion?		X	Yes	No	For comments see attachments
5.Discharge dredged or fill materials?	X		No	No	Willard, Emily P. 01/24/2014
6.Generate large amounts of solid waste or waste not ordinarily generated?	X		No	No	Willard, Emily P. 01/24/2014
7.Generate or release hazardous waste (RCRA)?	X		No	No	Willard, Emily P. 01/24/2014
8.Generate or release universal or special waste, or used oil?	X		No	No	Willard, Emily P. 01/24/2014
9.Generate or release toxic substances (CERCLA, TSCA)?	X		No	No	Willard, Emily P. 01/24/2014
10.Involve materials such as PCBs, solvents, asbestos, sandblasting material, mercury, lead, or paints?	X		No	No	Willard, Emily P. 01/24/2014
11.Involve disturbance of pre-existing contamination?	X		No	No	For comments see attachments
12.Generate noise levels with off-site impacts?	X		No	No	Willard, Emily P. 01/24/2014
13.Generate odor with off-site impacts?	X		No	No	Willard, Emily P. 01/24/2014
14.Produce light which causes disturbance?	X		No	No	For comments see attachments
15.Release of radioactive materials?	X		No	No	Willard, Emily P. 01/24/2014
16.Involve underground or above-ground storage tanks or bulk storage?	X		No	No	For comments see attachments
17.Involve materials that require special handling?	X		No	No	Willard, Emily P. 01/24/2014

Part 4. Social and Economic Effects

Would the proposed action...	No	Yes	Commitment	Information Source for Insignificance
1.Potentially cause public health effects?	X		No	Willard, Emily P. 01/21/2014
2.Increase the potential for accidents affecting the public?	X		No	Willard, Emily P. 01/21/2014
3.Cause the displacement or relocation of businesses, residences, cemeteries, or farms?	X		No	Willard, Emily P. 01/21/2014
4.Contrast with existing land use, or potentially affect resources described as unique or significant in a federal, state, or local plan?	X		No	For comments see attachments
5.Disproportionately affect minority or low-income populations?	X		No	Willard, Emily P. 01/21/2014
6.Involve genetically engineered organisms or materials?	X		No	Willard, Emily P. 01/21/2014
7.Produce visual contrast or visual discord?	X		No	For comments see attachments
8.Potentially interfere with recreational or educational uses?	X		No	Willard, Emily P. 01/24/2014
9.Potentially interfere with river or other navigation?	X		No	Willard, Emily P. 01/24/2014
10.Potentially generate highway or railroad traffic problems?	X		No	Willard, Emily P. 01/24/2014

Part 5. Other Environmental Compliance/Reporting Issues

Would the proposed action...	No	Yes	Commitment	Information Source for Insignificance
1.Release or otherwise use substances on the Toxic Release Inventory list?	X		No	Willard, Emily P. 01/21/2014
2.Involve a structure taller than 200 feet above ground level?	X		No	Willard, Emily P. 01/21/2014
3.Involve site-specific chemical traffic control?	X		No	Willard, Emily P. 01/21/2014
4.Require a site-specific emergency notification process?	X		No	Willard, Emily P. 01/21/2014
5.Cause a modification to equipment with an environmental permit?	X		No	Willard, Emily P. 01/21/2014
6.Potentially impact operation of the river system or require special water elevations or flow conditions??	X		No	Willard, Emily P. 01/21/2014
7.Involve construction of a new building or renovation of existing building (i.e., major changes to lighting, HVAC, and/or structural elements of building of 2000 sq. ft or more) on which TVA will pay/pays the utilities??	X		No	Willard, Emily P. 01/21/2014

Parts 1 through 4: If "yes" is checked, describe in the discussion section following this form why the effect is insignificant. Attach any conditions or commitments which will ensure insignificant impacts. Use of non-routine commitments to avoid significance is an indication that consultation with NEPA Administration is needed.

An EA or EIS Will be prepared.

Based upon my review of environmental impacts, the discussion attached, and/or consultations with NEPA Administration, I have determined that the above action does not have a significant impact on the quality of the human environment and that no extraordinary circumstances exist. Therefore, this proposal qualifies for a categorical exclusion under Section 5.2. of TVA NEPA Procedures.

Project Initiator/Manager Bill L Zotto		Date 04/30/2014
TVA Organization CR	E-mail blzotto@tva.gov	Telephone

Site Environmental Compliance Reviewer

Final Review/Closure

Signature

Signature

Other Review Signatures (as required by your organization)

Emily P Willard 04/30/2014

Signature

Signature

Signature

Signature

Signature

Signature

Attachments/References

Project Title Continued from Page 1
Financial Assistant to Prentiss County, Mississippi Development Association for Pad Construction at the West Prentiss Industrial Park

CEC General Comment Listing

- | | | | |
|----|---------------------------------------------|------------|--------------|
| 1. | Project Description | | |
| | By: Emily P Willard | 01/21/2014 | |
| | Files: Project Description.docx | 01/21/2014 | 15.41 Bytes |
| 2. | Pad layout and corner coordinates attached. | | |
| | By: Emily P Willard | 01/22/2014 | |
| | Files: Coordinate Layout.pdf | 01/22/2014 | 452.04 Bytes |

CEC Comment Listing

Part 2 Comments

- | | | | |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|
| 1. | Per the attached correspondence from US Fish & Wildlife Service, "There are no listed species or their habitats within the project vicinity. Therefore we anticipate that no listed species will be impacted by the work activities." | | |
| | By: Emily P Willard | 01/22/2014 | |
| | Files: USFWS Response.pdf | 01/22/2014 | 131.53 Bytes |

1. "Based on review of the TVA Regional Natural Heritage database in April, 2014, for records of terrestrial animals, no federally-listed or state listed species have been documented within three miles of the project area or within Prentiss County, Mississippi. This lack of documented occurrence is supported by correspondence from the Jackson, MS, Ecological Services Office of the U.S. Fish and Wildlife Service, which stated that no federally listed species or associated habitat is known to occur within the project vicinity. Further, desktop review of aerials to assess and characterize habitat within the project footprint resulted in determination that the potential for listed species to be present within project footprint is low given the habitat present (i.e., pasture).

No threatened or endangered terrestrial animal species have been documented within Prentiss County or within three miles of the project area. None are expected to occur within the project area based on type of habitat present. Impacts to neither federally-listed nor state-listed species are expected to occur as a result of proposed actions." Holly LeGrand - TVA's Biologic & Cultural Compliance Group.

By: Emily P Willard 04/29/2014

1. "No state listed or federally listed aquatic animals are documented to occur within the Pollys Creek - Tuscumbia River Canal watersheds. Furthermore, a letter from the United States Fish and Wildlife Services dated December 13, 2013 also indicated that no listed species or their habitats occur within the project vicinity and that they anticipate that no species would be impacted by the work activities. Therefore, adoption of the action alternative would not result in impacts to federal or state-listed aquatic species." Craig Phillips - TVA's Biologic & Cultural Compliance Group.

By: Emily P Willard 04/30/2014

2. NOTE TO HERITAGE: NEED TO SEND LETTER TO THE TRIBES.

By: Emily P Willard 01/22/2014

2. Per the attached correspondence from Mississippi Department of Archives & History, they "...concur the project will have no adverse effect to cultural resources, and have no objections to the development of this parcel."

By: Emily P Willard 01/22/2014

Files: MDAH CRS Concurrence (3).pdf

01/22/2014

36.62 Bytes

3. Project footprint is located outside of any land designated as Prime Farmland. See attached Natural Resources Conservation Service maps. Soil designations within project include c6d1 and c6ck, which are not designated as Prime Farmland.

By: Emily P Willard 02/19/2014

Files: West Prentiss Soil Survey Map.pdf
prime farmland classification.pdf

02/19/2014

1,089.01 Bytes

02/19/2014

1,100.55 Bytes

6. Per the attached jurisdictional determination from the Army Corps of Engineers the project area is considered "upland" and no permitting requirements apply.

By: Emily P Willard 01/24/2014

Files: COE Response.pdf

01/24/2014

429.17 Bytes

6. "Wetlands are those areas inundated by surface or groundwater such that vegetation adapted to saturated soil conditions is prevalent. Examples include swamps, marshes, bogs, and wet meadows. Wetland fringe areas are also found along the edges of most watercourses and impounded waters (both natural and man-made).

The proposed project area was evaluated for the presence of wetlands using existing desktop data, including National Wetland Inventory (NWI) maps, soil survey data, and aerial photography. This data indicates the site is an upland site, and there are no wetlands present. The U.S. Army Corps of Engineers (USACE) concurred with this finding in 2014 correspondence with the Prentiss County Development Association.

There are no wetlands present within the proposed project area, thus there would be no impacts to wetlands associated with [the proposed project]. Kim Pilarski-Hall - TVA's Biologic & Cultural Compliance Group

By: Emily P Willard 04/24/2014

7. "The project is completely outside the 100-year floodplain". Carrie Mays - TVA's Biologic & Cultural Compliance Group

By: Emily P Willard 04/14/2014

8. "Review of the TVA Natural Heritage database indicated that the proposed project in Prentiss County, MS would not be located within or immediately adjacent to any Managed Areas or Ecologically Significant Sites. In addition, there are no such sites within three miles of the West Prentiss Industrial Park. Under the [proposed project] there would be no impacts to Managed Areas or Ecologically Significant Sites, as there are no such sites located either within the proposed project area (West Prentiss Industrial Park) or within three miles of the site." Kim Pilarski-Hall - TVA's Biologic & Cultural Compliance Group.

By: Emily P Willard 04/24/2014

12. See EA write up.

By: Emily P Willard 04/15/2014

13. There are no wells located onsite per the Phase I Environmental Assessment.

By: Emily P Willard 04/15/2014

14. See EA write up.
By: Emily P Willard 04/14/2014
15. See comments and attachments in 2.1.
By: Emily P Willard 01/24/2014
16. See comments and attachments in 2.1.
By: Emily P Willard 01/24/2014
- Part 3 Comments
2. Yes - See EA write-up.
By: Emily P Willard 04/29/2014
4. Yes - See EA Write-up.
By: Emily P Willard 04/29/2014
11. Per the Phase I Environmental Assessment there is no evidence of historical contamination onsite.
By: Emily P Willard 01/24/2014
14. Site preparation activities as defined under this project would not require a permanent light source. Lighting, if required during the construction period, would be temporary until activities are complete. By: Emily P Willard 01/24/2014
16. Per section 6.2 and 6.3 the Phase I Environmental Assessment there are no storage tanks on the subject property.
By: Emily P Willard 01/23/2014

Part 4 Comments

4.

The proposed West Prentiss Industrial pad site is located within an existing industrial park. The completion of the proposed pad would be consistent with an Industrial Park designation.

By: Emily P Willard 01/24/2014
7. The proposed West Prentiss Industrial pad site is located within an existing industrial park. The completion of the proposed pad would be visually consistent with an Industrial Park designation. By: Emily P Willard 01/24/2014

CEC Permit

Listing Part 3

Permits

4. User Defined: Applicant to obtain any required state/ms4 permitting.
By: Emily P Willard 04/29/2014

CEC Commitment Listing