



COLLEGE OF SCIENCES AND HUMANITIES  
DEPARTMENT OF ANTHROPOLOGY

Muncie, Indiana 47306-0435  
Phone: 765-285-1575  
Fax: 765-285-2163

March 3, 2015

Memorandum for Record

Subject: Mounds Lake Phase II Peer Review: Cultural Resources

To Whom It May Concern:

We submit this preliminary and brief peer-review of the Social section of the *Mounds Lake Reservoir Phase II Study* (DLZ, September 2014) focusing primarily on Cultural Resources and related regulations. We have extensive experience and knowledge of the regulatory framework surrounding NEPA and the NHPA as it pertains to the effects of federal undertakings on historic properties and cultural heritage sites in several states, particularly Indiana. We have authored dozens of technical reports and many articles directly related to this subject of this review.

In general, we find the treatment of Cultural Resources and Historic Properties to be insufficient or misleading in detail regarding the scale of potential resources and properties to be effected by the proposed undertaking, and in the apparent understanding of the legal framework within which resources and properties are considered. Further, the overall lack of discussion of alternatives is problematic. There are also several cases where the evidence is presented or analyzed in a way that seems to be designed to skew deliberations more favorably towards construction. In multiple instances this takes the form of putting forth assertions that are not supported by reasoning or substantiated by evidence. This is true in several sections of the report and not just the Social sections considered here. This combined with the complete absence of discussion of alternative options is contrary to the spirit of informed discussion.

These oversights give a false impression to the public about the nature of the processes and the impact that is entailed by the proposed reservoir. It is in the public interest that all relevant information is available for consideration. In order to facilitate frank, honest, and informed discussion of the costs and benefits of the proposed undertaking, it is essential to have as many alternatives presented as possible. It is also important for the public to have access to complete information when weighing a decision of this magnitude. Only when this is accomplished is it possible for the public and public officials to make the choice that best matches their needs. The impact to the resources must be weighed against the benefit of the proposed action. Further, it is the cumulative impact to property and resources that must be weighed against the cumulative benefits of the proposed undertaking. We also note that duration must be factored into this

evaluation (i.e., for how long will the impact/benefit linger). We do not rank or evaluate the cumulative trade off here, but merely furnish information to more fully inform public discourse.

Specific Comments, re: Cultural Resources subsection, pp. 29-32

The organization of this section implies a misunderstanding of the relevant regulatory framework. It is implied that Section 106 of the National Historic Preservation Act of 1966 does not apply to archaeological resources. Specifically the subheader that discusses the archaeological resources reads “*Archaeological Resources*” and the following subheader devoted to addressing standing structures reads “*Historic Properties (Section 106)*”. All sites (historic, architectural, and/or archaeological) that are potentially eligible for the NRHP are “Historic Properties” under the NHPA. That this is a misunderstanding of the regulatory framework and not just a formatting oversight is illustrated by the “Potential Impacts” subsection: “The project could impact numerous archaeological sites, two historic properties, and ten potentially NRHP eligible properties” (DLZ 2014:30).

Under the legislative and regulatory framework for evaluation of cultural resources for federal undertakings, all archaeological sites and historic sites are Historic Properties under Section 106. In fact, the predicted archaeological sites that will likely require additional phases (beyond site identification) of investigation will be deemed to require additional investigation *because* they are “potentially NRHP eligible properties”. Therefore the bulk of the adverse effect for historic properties and cultural resources under NEPA and NRHP Section 106 will be in regard to the archaeological resources which are marginalized in the current report. That the additional details about the scale of the archaeological compliance issues were not presented, and that the formal role archaeological sites play in the regulatory compliance environment is mischaracterized is disconcerting and misleading to the public and public officials. This oversight must be rectified. The current level of detail is insufficient for a document to inform public policy paid for by public funds.

The text selectively presents available and unclassified information. While the Heart of the River group in their stated concern for the impact of the proposed reservoir on cultural resources misunderstands the nature of the 80 known archaeological sites (most of which are not eligible or potentially eligible for the National Register of Historic Places), the magnitude of the impact on the archaeological and historic record is substantially larger than that implied by the Phase II report. While the current Phase II report notes that there are 80 previously known sites recorded in the state database, there has been no systematic survey of most of the areas within the footprint of the proposed project. Many of these sites were reported by chance discoveries by the public. A systematic survey of the area is likely to encounter 1 site approximately every 2 acres (see <http://cms.bsu.edu/academics/centersandinstitutes/applied-anthropology-laboratories/publications/36tiptontillplain>). Multiplied over the size of the entire project area we would, in a very simplistic and conservative manner, anticipate around 1000 newly identified archaeological sites in the proposed reservoir. That is the magnitude of the “large number of sites predicted” (p. 30) mentioned in the Phase II report.

Taking this “large number” of archaeological resources and applying the next statement in the report that approximately “one-third of these sites may be recommended as potentially eligible for the NRHP and would require additional investigation to assess eligibility and mitigation” we arrive at over 300 *potential* Historic Properties within the proposed reservoir. Additionally, the Phase II study does not discuss the fact that 1-3% of the surface area of the modern alluvial zone would require intensive subsurface investigation in addition to those mentioned above.

Additional, buried cultural resources will be discovered in the alluvium. The investigation of these buried sites is complex, time intensive, and expensive. Further, according to Division of Historic Preservation and Archaeology [guidelines](#), 1-3% subsurface investigation is a minimum and specific cultural and geomorphic contexts may require additional surface area to be sampled in order to constitute a reasonable and good faith effort to identify (Phase 1) and evaluate (Phase 2) cultural resources. All of this subsurface investigation and methodology must be proposed to and approved by the Division of Historic Preservation and Archaeology.

The only archaeological resource that the current Phase II report acknowledges is Mounds State Park (Anderson Mounds, site number 12M2). Even within this large “site” the sole focus of concern for cultural resources within the park is the actual mounds themselves. While there are questionable claims made about the potential for impact on the mounds (see discussion of erosion by Florea and Rice-Snow), these are not the only cultural resources within the park. First, there is the Bronnenberg House and its associated activity areas, some of which may be impacted by the reservoir. Second, there are several areas associated with the property’s history as an amusement park. Third, there are also dozens of individual activity areas throughout the park that are all recorded in the state database under this single “site” number 12M2 (see <http://cms.bsu.edu/academics/centersandinstitutes/applied-anthropology-laboratories/publications>). Some of these are associated with activities that took place with the mounds, and some are not. The current Phase II report communicates no awareness of the existence of these resources, or that NHPA and NEPA cultural resources regulations include these sites as well.

Many of these smaller sites would be independently eligible for the NRHP if they were not already lumped in with 12M2. However, even the consideration of the mounds is incomplete. Part of the evaluation of eligibility for the NRHP involves setting and feeling (integrity criteria). Integral to the setting and feeling of the mounds at MSP is the relationship to the bluff and the river. Alteration of aspects of the surrounding environment that contribute to the setting and feeling integrity evaluation for the Anderson Mounds may have an impact on the NRHP eligibility status for the entire earthworks complex even in the absence of a direct physical impact on the mounds themselves. The impact to those aspects of the surrounding environment must be considered as adverse effects or potentially adverse effects on the mounds of 12M2 under Section 106, and must be considered in the consultation and mitigation phase of the permitting process. We would also note that avoidance is always a valid alternative mitigation strategy for addressing potential adverse effects. This is not acknowledged in the current Phase II report.

While the Mounds Lake project website notes that the process for identifying cultural resources is “well established under federal [and local] guidelines” (<http://moundslake.com/2015/02/hotrcqanda/>), the fact that the pertinent details of the remaining process are withheld from their public document is of concern. However, in the Phase II report they state that they will need to consult with DHPA “to determine the level and intensity of surveys” (p. 31) needed to identify cultural resources. The state [guidelines](#) already provide these details, and the process is standardized. The cultural resource management process for federal undertakings as it is implemented in Indiana consists of three phases of investigation. The first phase is identification and consists of surveying the entire ground surface of the project area systematically (Phase 1). At the end of this phase the identified sites are evaluated against the NRHP eligibility and integrity criteria. If there is not enough information to rule them ineligible, they are classed as potentially eligible. The second phase is evaluation. During Phase 2 all potentially eligible sites are tested to definitively determine whether they retain sufficient integrity and possess characteristics that align with one of the four NRHP criteria. If the site is considered eligible after Phase 2, then there is a finding of adverse effect, and the fate of the historic property must be considered in the plans for the undertaking. Most often this comes down to two options: avoidance or full-scale data recovery mitigation. For alluvial settings, a subsurface reconnaissance must be conducted at the identification phase (called Phase 1c) where a sample of the project area is excavated with heavy equipment down to 4 feet or deeper. Potentially eligible sites are often identified during these investigations as well.

We would also note that any federal undertaking must take into account the cumulative effects of the undertaking. There are several reasonably foreseeable indirect consequence and direct consequence beyond the area of potential effect considered for the current Phase II report. For example, changes in land use and transportation plans are foreseeable cumulative effects from the proposed action. These are not identified clearly nor are anticipated in the area of potential effects. Both NHPA and NEPA require assessment of cumulative effects. Additionally, as the Indiana Archaeology Council has noted, replacing the White River with a lake will alter the nature of direct, unmonitored access to the Anderson Mounds currently protected within Mounds State Park. Unmonitored access is known to correlate with increased risk of damage to archaeological resources. This should be considered with other adverse effects as the project move forward.

With respect to mitigation of adverse effects on historic properties the discussion in the Phase II report is too narrowly conceived. Mitigation must be thought of quite broadly, from alternatives such as avoidance, preservation in place, data recovery, project design and long term efforts, and incorporating the economic and social benefits that may be realized from these resources into project outcomes. In minimizing the role of cultural resources, the Phase II report provides no foundation for this wider range of potential outcomes. For example, one option specifically mentioned is “relocation”. This is notably not an option for purely archaeological cultural resources. However, this is also not generally an option for NRHP eligible structures as moving them violates the location, association, and feeling integrity criteria relative to their eligibility status.

We would also note that under NEPA (40 CFR 1508.27(b)(3)& (b)(8)) a federal undertaking must consider “historic or cultural resources”. This consideration under NEPA does not require NRHP eligibility or integrity criteria to be met for consideration. Cultural resources in this part of the NEPA regulations does not require a historical component. This can include institutions, ways of life, and community importance. The community can be the local community at large or a traditional community. This means that the meaning and value of the cultural properties to local residents and/or to groups with a meaningful cultural tie to the resource must be considered in evaluating potential adverse effects. The landscape of Mounds State Park could be considered a sacred Native American landscape, and the White River would be an integral part of that landscape and can even be considered a cultural resource under NEPA. It is imperative that Native American tribal representatives for Federally Recognized Tribes be consulted as early as possible in this process.

In the above review, we have identified several information gaps and highlighted relevant regulations and procedures that must be followed when evaluating potential adverse effects on the Cultural Resource and Historic Properties within and around the proposed Mounds Lake Reservoir. We recognize that some of these comments are beyond the stated scope of the Phase II report, but we felt that this information was pertinent to the public decision making process.

We the undersigned respectfully submit these comments as part of the public record in the hopes of facilitating a more complete evaluation of the issues and decisions at hand.

Ronald Hicks, Professor of Anthropology

Mark A. Hill, Assistant Professor of Anthropology

S. Homes Hogue, Professor of Anthropology

Kevin C. Nolan, Senior Archaeologist

Christine K. Thompson, Archaeologist