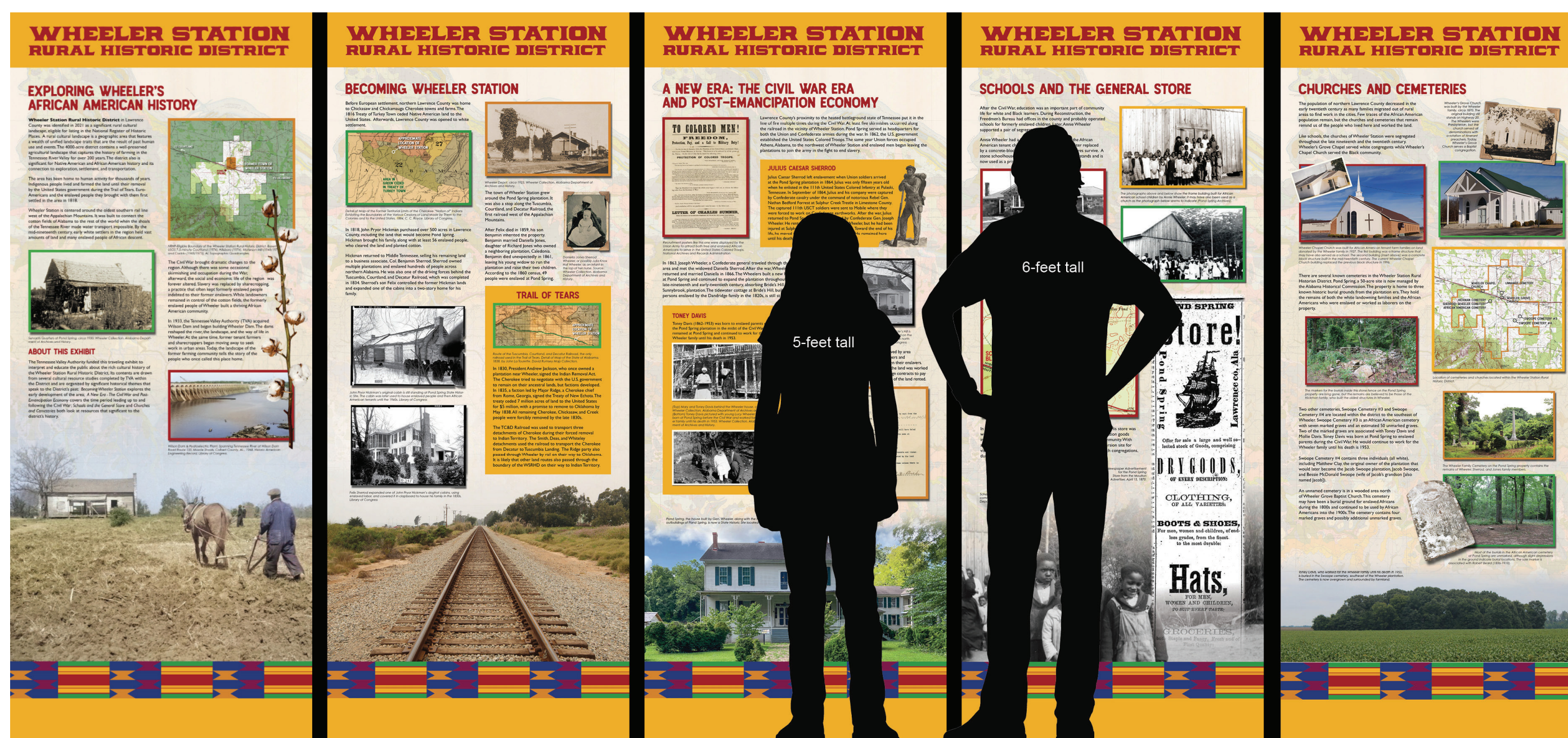


Engage stakeholders. Identify concerns. Visualize effects. Mitigate creatively.

Creative Effects Assessments and Mitigations for Cultural Resources in Solar

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Introduction

Significant cultural resources within a project's Area of Potential Effect complicate solar development and environmental review processes. Solar projects that have power purchase agreements with the Tennessee Valley Authority (TVA) will undergo review through the National Historic Preservation Act Section 106 process, with close attention to the effects the project may have on above- and below-ground cultural resources. Creative strategies can be implemented in planning, as well as during the compliance review process, that can help minimize and mitigate these potential issues.

Common Pitfalls

- Cultural resources are just one aspect to consider in solar projects but could have a major impact on the successful completion. Key pitfalls include:
- Lack of early coordination with SHPOs and Tribal Nations to identify stakeholder concerns and preferred methodologies.
 - Planning gets ahead of identifying significant resources, and resources encountered in surveys cannot be avoided due to a set project design.
 - Schedule and costs increase due to additional work needed for Section 106 compliance.

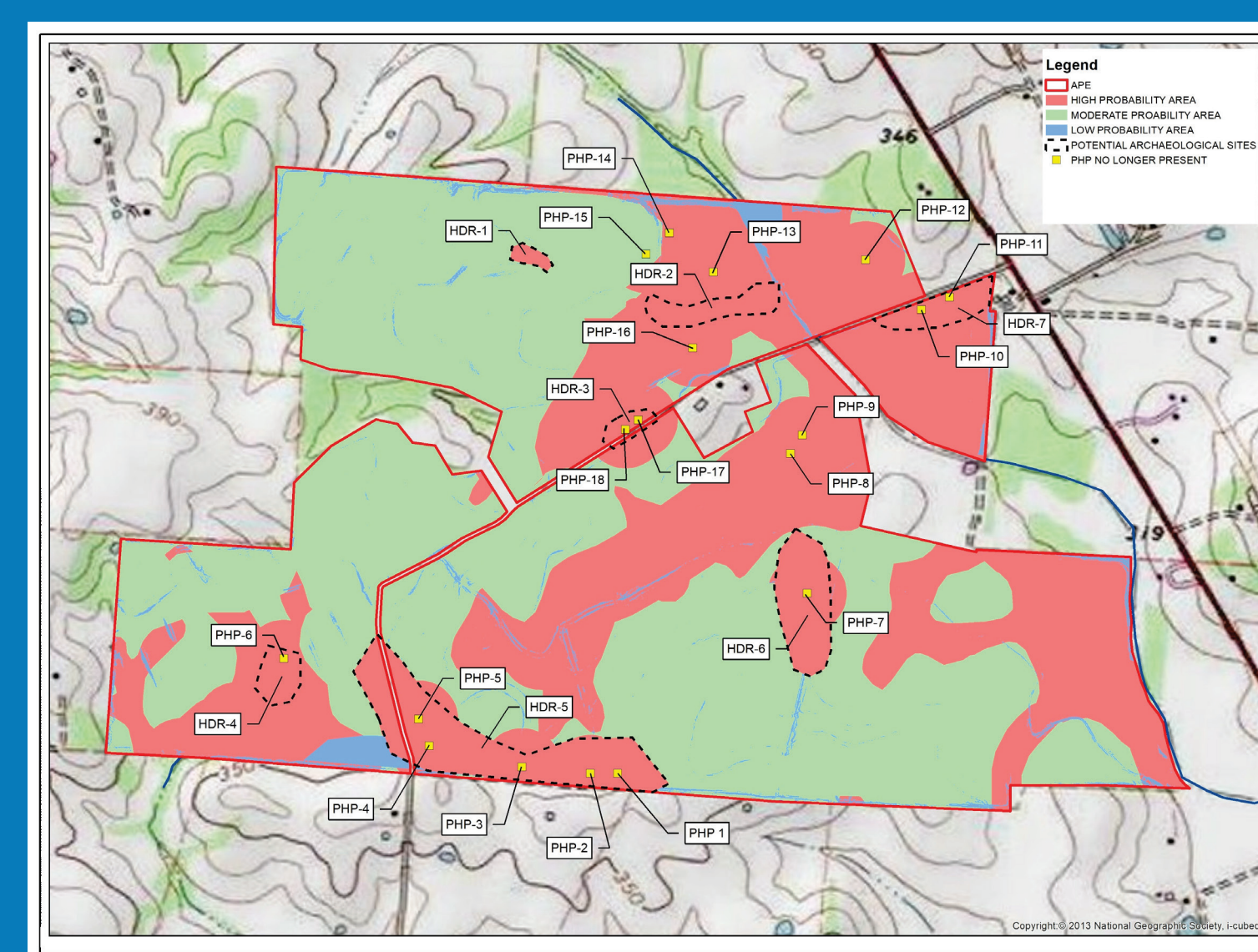
Mitigations

- Coordinate with consulting parties earlier in the process to provide greater flexibility to avoid significant cultural resources and develop creative measures to minimize and mitigate when avoidance is not feasible.
- Conduct background research, along with surface reconnaissance and probability modeling, to assist in identifying constraints during initial planning to allow for avoidance.
- Produce viewshed renderings from above-ground resources to the project to assess effects and the need for minimization efforts.
- Implement alternative mitigation strategies in coordination with stakeholders, such as traveling exhibits, websites, and outreach.

Example

In the development of North Alabama Solar, TVA conducted early coordination to identify important cultural resources and preferred methodologies. An ARCGIS viewshed model and HDR-produced viewshed renderings helped develop buffers to minimize or avoid effects to identified historic properties. While the project will affect a larger rural historic landscape, TVA and AHC developed a memorandum of agreement to mitigate adverse effects to the historic landscape, consisting of a traveling exhibit with a specific focus on the frequently underrepresented history of African American life in late nineteenth to mid-twentieth-century Lawrence County, Alabama.

Probability Model



Viewshed Rendering



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