**Appendix B: Example Applications of Archaeological Planning Tools**

This review of archaeological planning tools leaves the authors confident that such tools can and should focus the inventory and evaluation methods that we employ as professionals. Some readily available examples are summarized here and links to detailed information is provided.

Monitoring Potential Threats to Cultural Resources

Resources for regional planning will almost always be limited. Thus, focusing proactive efforts by the SAA, archaeological advocacy organizations and partners, and by cultural resource professionals should prioritize threatened areas. The locations of large-scale development threats are reasonably predictable. Oil and gas fields occur in regional or sub-regional scale areas and pipelines and power transmission corridors tend to be constrained by topographic or other predictable conditions. Examples of information sources on large-scale threats follow.

In the western United States, the BLM is undertaking very large-scale studies called Rapid Ecoregional Assessments that are scaled according to the processes and ecological units of interest to the BLM but are not limited by administrative boundaries. These assessments are a good resource for projected future impacts and change agents and are accessible on line at:

(<http://www.blm.gov/wo/st/en/prog/more/Landscape_Approach/reas.html>)

Large-scale oil and gas fields subject to current and future exploration are monitored by the Frack-Tracker Alliance (<http://www.fractracker.org/2014/03/gapp/>). These and other more regional sources should be monitored regularly in order to assess large scale threats to cultural resources. The SAA should consider taking a more active role in this monitoring process.

Predictive Models

MnModel. This is a predictive model for the entire state of Minnesota that was developed beginning in the mid-1990s and has been updated since its completion in 2002. Web link: <http://www.dot.state.mn.us/mnmodel/index.html>

Pennsylvania. Models developed to predict the locations of various site types have been developed in Pennsylvania and include Custer and Kellogg’s (1990) *LANDSAT-based Predictive Model for Archaeological Sites in the Upper Conestoga Drainage of Lancaster County* as well as follow-up studies for locating upland sites in the Crooked Creek Valley as prepared Neusius and Watson (1991). Other models can be found in Herbstritt and Michael’s (1980) *Prehistoric Archaeological Site Survey—Pennsylvania Region II* and Hay, Hatch, and Sutton’s (1987) management plan for locating Clemson Island sites in the Commonwealth. Although largely drainage and resource specific, all of these models provide a combined approach to looking at the landscape through the integration of field survey and geographic information systems in mapping and predicting site locations.

ESTCP: The overarching objective of this project was to demonstrate that predictive models of prehistoric archaeological site locations can be sufficiently accurate to serve as the foundation for programmatic approaches to compliance that, when implemented, can achieve greater efficiency and lower costs for administering CRM programs. The specific performance objectives—improving surface, subsurface, and “red flag” predictive models; developing Section 106 PAs; and demonstrating that models integrated into compliance protocols can significantly reduce the level of effort, cost, and number of evaluated sites—were met. Web link: <https://www.serdp-estcp.org/Program-Areas/Resource-Conservation-and-Climate-Change/Cultural-Resources/RC-200720>

Significance Models

The site significance model was first conceptualized in a report prepared for the Department of Defense’s Legacy Resource Management Program (Cushman and Sebastian 2008). Here, Sebastian developed a framework for organizing archaeological site data into significance categories. While conceptual only, the rationale for a site significance approach is presented. Web link: <http://www.srifoundation.org/legacy_pdf/legacy_06-167_final_report.pdf>

Priority Planning Studies

Pinal County, Arizona. An evaluation of non-tribal lands in a large county in southern Arizona. Web link: <http://www.archaeologysouthwest.org/what-we-do/initiatives/priorities/>