

## **Abstract**

Site suitability modeling in geographic information systems has not been previously used to gauge the strength of historic structures as preservation candidates. The goal of this project was to develop an ArcGIS model and related methodology to serve as a screening process when evaluating a large number of potentially eligible structures. While an automated method cannot truly replace an evaluation by an expert, it can serve to make the process of evaluating a structure more efficient. This model can be used to streamline the evaluation process, and save time and resources by removing from consideration those structures that are obviously unsuitable, and ranking the remaining candidates based on various criteria. An expert can then make the final evaluations. As a case study by which to develop and test the modeled evaluation process, structures on the Main Garrison area of Fort Ord were evaluated using the model. Fort Ord is a former United States Army post north of Monterey, California. Closed in 1994, it contains a large number of structures dating from between 1940 and the late 1980s. Despite Fort Ord's significant role in US military history throughout much of the 20<sup>th</sup> Century, there are currently no plans to preserve any of the structures on the base. Confirming the validity of the proposed model workflow, Fort Ord buildings identified in an a priori assessment of building significance scored highly in the model. These results suggest the model workflow can become a useful addition to the cultural resource management toolkit. Additionally, this framework can also potentially be useful as historic communities evolve and develop, in determining which structures to preserve.