

6.0 PREDICTIVE SURFACE RESULTS

6.1 Pre-contact Period Archaeological Predictive Surface

The potential for the presence of pre-contact period archaeological remains within the Western Parkway study area is shown on Figure 7. The predictive surface representation of pre-contact period archaeological potential is divided into five categories: very low potential for pre-contact period archaeological remains (blue), low potential for pre-contact period archaeological remains (green), moderate potential for pre-contact period archaeological remains (yellow), high potential for pre-contact period archaeological remains (orange), and very high potential for pre-contact period archaeological remains (red).

Overall, and as shown on Figure 7, there are large portions (40.6%) of the study area that exhibit very low or low potential for the presence of pre-contact period archaeological remains. Areas with very low (blue) pre-contact period archaeological potential comprise 935.16 ha (2,310.74 ac), or 36.6 percent of the Western Parkway study area. Areas with low (green) pre-contact period archaeological potential comprise 103.23 ha (255.08 ac), or 4.0 percent of the study area. Most of these very low or low potential areas are the direct result of the integration of the disturbance layer into the predictive surface process and reflect modern residential and commercial development which has taken place in the study area. The majority of these very low and low potential areas are clustered in and along U.S. Route 1 and reflect post-depositional destruction of archaeological remains rather than an original lack of pre-contact period use of those areas. The disturbance by commercial and residential development to the study area is currently unchecked and is the single most important factor affecting the identification and recordation of archaeological remains in the Western Parkway study area. Other areas reflecting very low or low potential include swampy areas adjacent to waterways, man-made ponds, and graded or borrow areas.

Despite the presence of really large portions of the study area with very low potential, this can not be interpreted as meaning that there is no potential in these areas or that these areas lack archaeological resources. Rather, it means that due to the formula used to construct the predictive surface, the surface likely does not have the capacity to predict it. This is generally true for pre-contact period site types which are counterintuitive to typical positive site location/environmental associations (e.g., rockshelters on steep slopes; quarry sites located on bedrock outcrops, not well-drained soils, etc.). Conversely, the classification of an area as

having a very high potential for pre-contact period archaeological remains does not mean that the probability of finding a site is 100 percent.

To this end, while the predictive surface can help narrow planning choices made during the preferred alternative selection process and guide subsequent archaeological field methodologies, it can not be used to preclude areas from basic geomorphological/archaeological investigations. The very low and low potential areas need to be included in the archaeological survey but often at a lesser intensity of testing than other areas exhibiting higher potential for pre-contact period archaeological resources. A combination of pedestrian survey and geomorphological auger borings is often sufficient to efficiently confirm areas with no potential for archaeological resources due to the lack of sediments of appropriate age or to confirm areas with potential, albeit very low or low, that need to be surveyed.

As shown on Figure 7, approximately 512.43 ha (1,266.20 ac) or 20.0 percent of the Western Parkway study area is classified as having moderate (yellow) potential for pre-contact period archaeological resources. The majority of these moderate potential areas represent level agricultural fields that are relatively distant to natural water sources, and exhibit well-drained soils. These areas do not exhibit high levels of post-depositional disturbance other than agricultural activities, but are not close enough to natural waterways to warrant their inclusion in the high or very high potential classifications. Geomorphological investigations may be capable of isolating small localized disturbed areas with no archaeological potential within the moderate potential areas; however, the majority of these areas will need to be surveyed. Archaeological field methods appropriate for the majority of these areas would include pedestrian reconnaissance when the ground surface is visible or excavation of shovel test pits (STPs) when vegetation covers the ground surface.

Overall and as shown on Figure 7, approximately 39.4 percent of the Western Parkway study area is classified as having high (orange) or very high (red) potential for pre-contact period archaeological resources. Areas with high pre-contact period archaeological potential comprise approximately 912.07 ha (2,253.70 ac) or 35.7 percent of the Western Parkway study area. Areas with very high pre-contact period archaeological potential comprise approximately 94.59 ha (233.73 ac) 3.7 percent of the study area. Most of these high and very high potential areas comprise the portions of the study area which are proximal to water, contain well-drained soils, and are at elevations high enough to preclude standing water or allow overviews of the waterways. The majority of the high and very high potential areas are concentrated in the southwestern portion of the study area in the vicinity of Love Creek and its tributaries, Goslee Creek and Hetty Fisher Glade. The correlation of high and very high potential for pre-contact

period archaeological remains can be seen clearly in the clustering of these areas on higher elevations overlooking natural waterways.

6.2 Historic Period Archaeological Predictive Surface

The combined overlay of the various historical archaeological sensitivity areas for the Western Parkway study area is shown on Figure 8. The predictive surface representation of historic period archaeological potential is divided into five categories: very low potential for historic period archaeological remains (blue), low potential for historic period archaeological remains (green), moderate potential for historic period archaeological remains (yellow), high potential for historic period archaeological remains (orange), and very high potential for historic period archaeological remains (red).

Overall and as shown on Figure 8, there are large portions (72.8%) of the study area which have not been coded for historic period archaeological potential (no color coding). These non-coded areas are those for which no historic period data of particular structures, activities, or events could be found during the data collection. These areas most likely saw ephemeral or light occupation/use during the historic period and were probably agricultural fields, pasture, or wooded lots. Despite the very low potential of these uncoded areas, the possibility of undocumented historic features still exists; therefore, the potential for historic archaeological resource remains. The identification of these undocumented resources would most likely be verified only through field investigations.

Of significantly greater potential are those areas that are color coded and represent the very low (blue) low (green), moderate (yellow), high (orange), and very high (red) potential areas, as their ranking for potential historic archaeological remains is directly derived from and associated with the presence of various documented historic features. These higher potential, feature-related zones were ranked by relative potential from very low to very high, depending upon the nature of the anticipated resources and associated documented features, the potential for preservation of the deposits, and the probable relative research significance of the potential remains. In this way, there are several areas, primarily around historic settlements, which exhibit dense clusters of historic structures and features that create a broad expanse of moderate to high potential. Conversely, there are more limited and/or isolated areas associated with individual properties or features within which localized, preserved archaeological remains would be of significance to the history of local settlement and development.

As shown on Figure 8, the highest potential areas are generally associated with the historic communities (areas closest to Lewes, Belltown, Jimtown) and structures (extant or historically mapped) within the study area. Unlike with the pre-contact period predictive surface, major modern development disturbance to the area has not eliminated large portions of the study area from having the potential to contain historic period archaeological resources. This is due to the fact that most of the modern development occupies former agricultural fields, which would have originally contained low potential for historic period archaeological resources. The higher potential areas for historic period archaeological remains cluster along historic roadways and near the Five Points area. The Five Points area is located west of the early settlement of Lewes and would have seen settlement and use during the entire historic period of this portion of Sussex County. In addition, the African American communities of Belltown and Jimtown also rank high with regard to potential for historic period archaeological resources, since they provide a little-explored research avenue.

The historic settlement and development of the study area has been strongly influenced by the early settlement of nearby Lewes, the agricultural nature of the region, and tourism. The earliest focus of settlement was in areas nearest Lewes, with agriculture playing the lead economic role. During the earliest settlement of the region, the entire study area would have been peripheral to the settlement at Lewes and been agricultural. During the late eighteenth and early nineteenth centuries, residential, industrial, and commercial development historically clustered along the waterways, roads, and railroads.

Broader areas of moderate potential are associated with other historically mapped features, such as roadways. As shown in Figure 8, the low potential areas within the study area are somewhat dispersed, but are generally associated with streams, and more recent roadways and settlements.