ATTACHMENT 7

Page 23 of the Appeal Resolution Document accompanying the September 26, 2000 Preliminary Map

Using the HEC-2 model with the Manning's dike in place, it was determined that allowing 5.5 percent of the total flow to enter the Richland County floodplain would decrease water-surface elevations in the Lexington County floodplain by approximately 1 foot. Using Figure 11, the 5.5 percent flow in Richland County floodplain would correspond to a breach width of approximately 250 feet. This means that if Manning's dike were considered to restrict flow in Lexington County, a breach greater than 250 feet wide would lower water-surface elevations by more than 1 foot in Lexington County.

Based on these investigations with the RMA-2 model, it was concluded that the Richland County floodplain would convey a significant amount of flow in a 100-year flood. Specifically, it was determined that the large (1,320 feet wide) relief bridge is critical to conveying the Congaree River flow during a 100-year flood. Therefore, based on the two-dimensional model investigation, it was determined that the floodway should extend landward of Manning's dike in Richland County, and should allow for flow through the large relief bridge.