Appendix K: Land Acquisition Decision Support Model

The purpose of the GIS derived model is to give any proposed tract a weighted value based on the acquisition criteria set forth in the 1999 Big Muddy Final Environmental Impact Statement and in appendix A. The model is broken into multiple sub-models. First, a proposed tract is merged with existing conservation lands (U.S. Fish and Wildlife Service and other ownership). The whole area is overlaid with distinct river features (bottoms, islands, etc.). Tracts that acquire large percentages of river features (or complete conservation on river features) are given higher weighting. This is because management of river features is much easier when adjacent private landowners are not affected by actions (levee removals, reconnecting backchannels and sloughs, etc.).

Finally, the model evaluates distance to the river itself. When other factors are more or less equal, it is generally more desirable to acquire land directly along the river itself.
The use of this model is to give a quick ranking of proposed acquisitions at any one time. Other factors may influence actual acquisition. For example, this model would not weight acquisition of a previously unprotected river feature high (unless the tract to be acquired is a large portion of said feature). The model is meant to be used as a tool and not the end-all decision maker when considering tracts for acquisition.