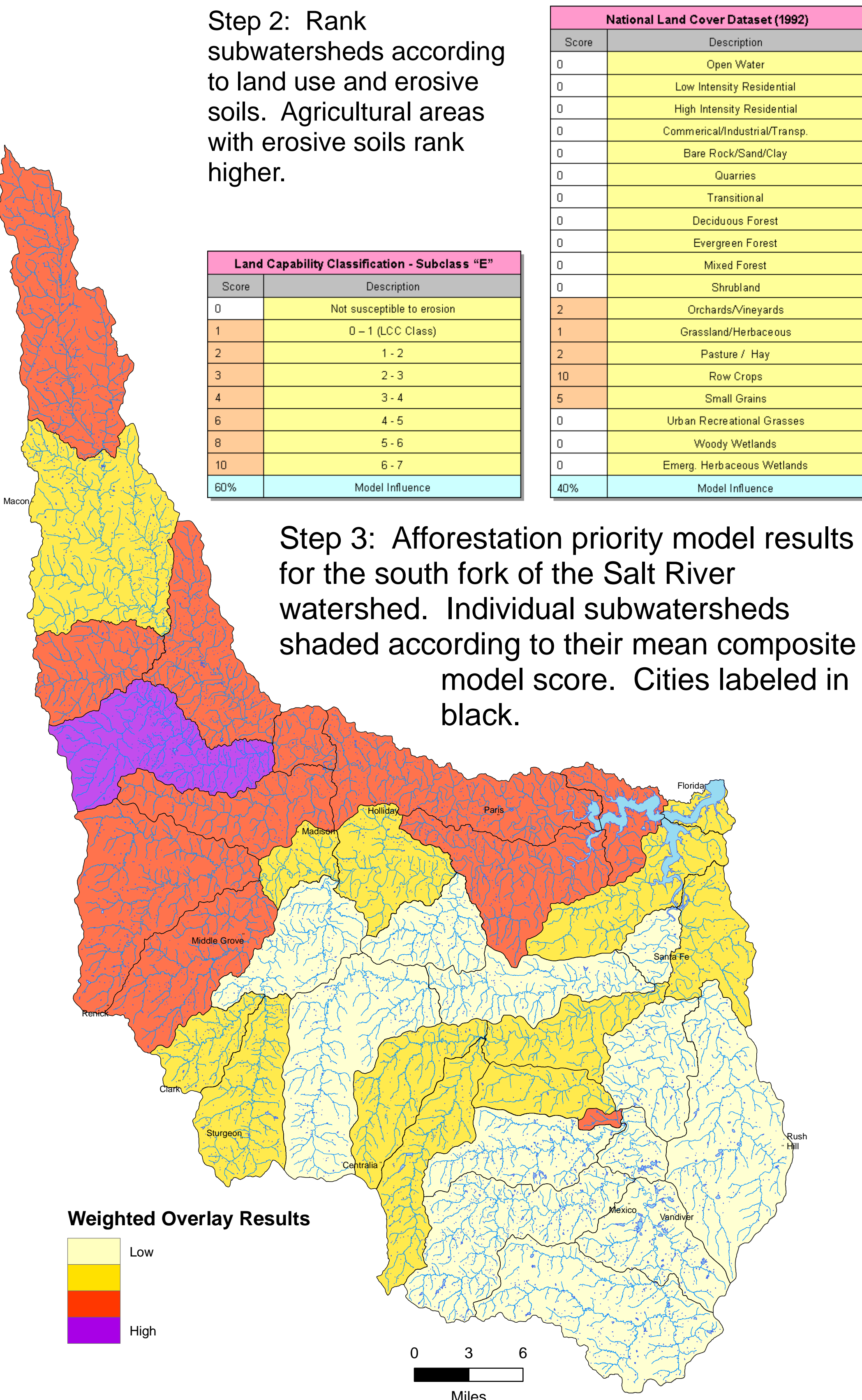


Upper Mississippi Forest Partnership

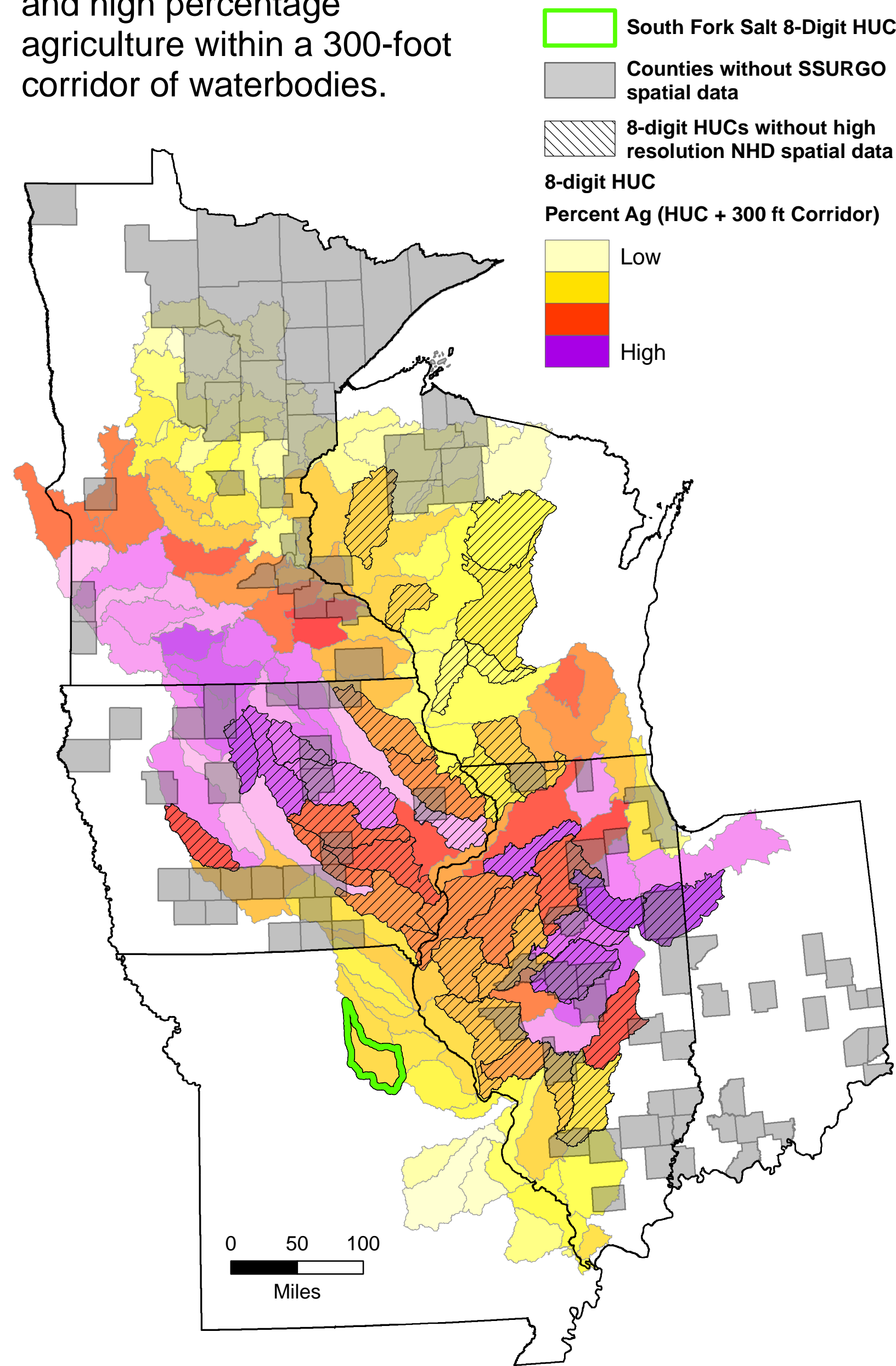
Preservation of Riparian Corridor Water Quality and Aquatic Habitat South Fork Salt River Watershed Analysis



Riparian corridor afforestation priority model



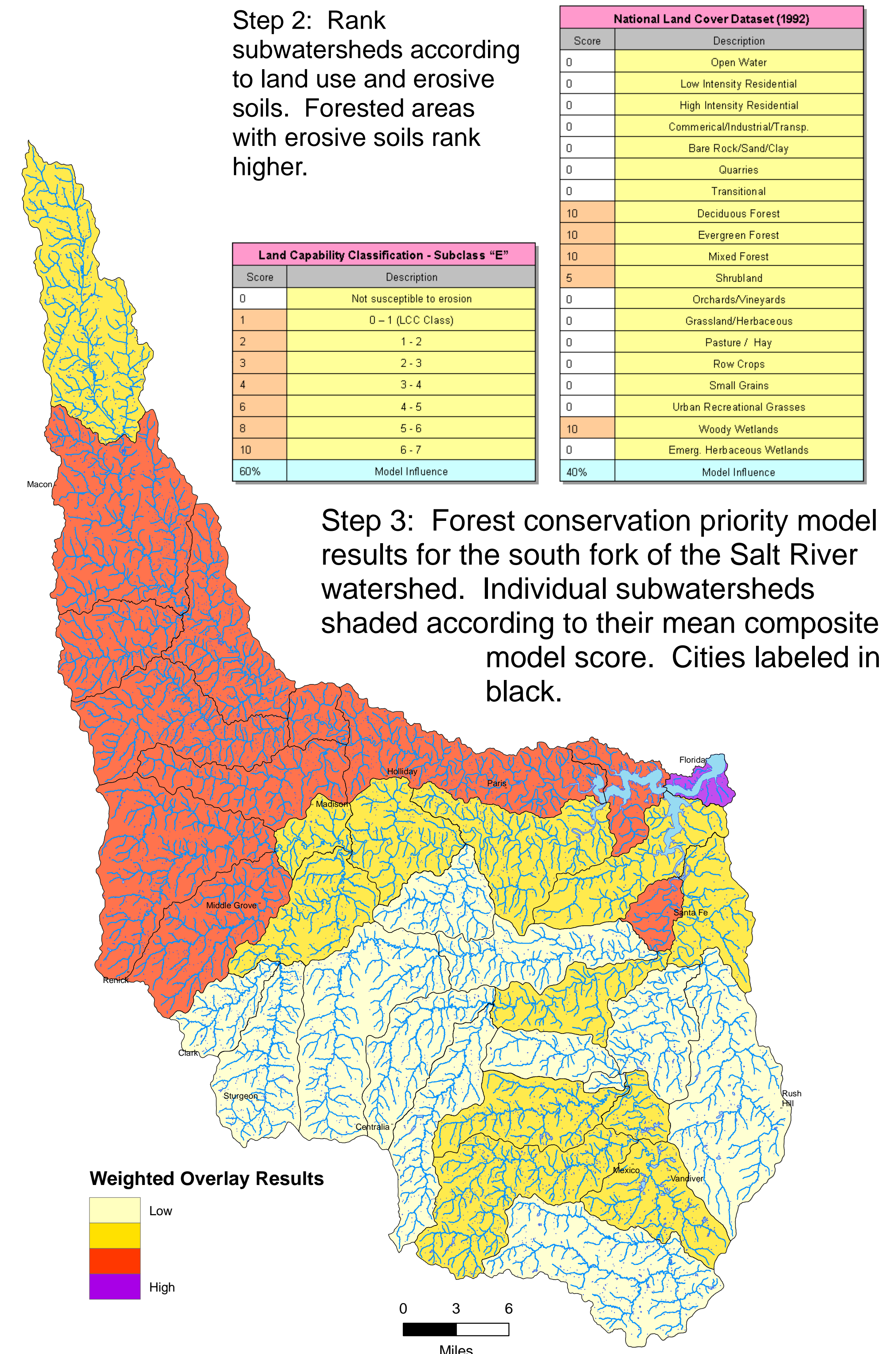
Step 1: Location of watersheds with high percentage agriculture and high percentage agriculture within a 300-foot corridor of waterbodies.



South fork Salt River watershed chosen based upon having a contrasting landscape to the Watonwan River watershed. The Watonwan River watershed is dominated by agriculture and gentle slopes, whereas the south fork Salt River watershed has steeper slopes and is less dominated by agriculture. Additionally, this watershed has surface run-off and other erosion problems and water quality concerns in Mark Twain Lake. This watershed also met the minimum data requirements with the availability of high resolution hydrography (NHD) and high resolution soils (SSURGO) data.

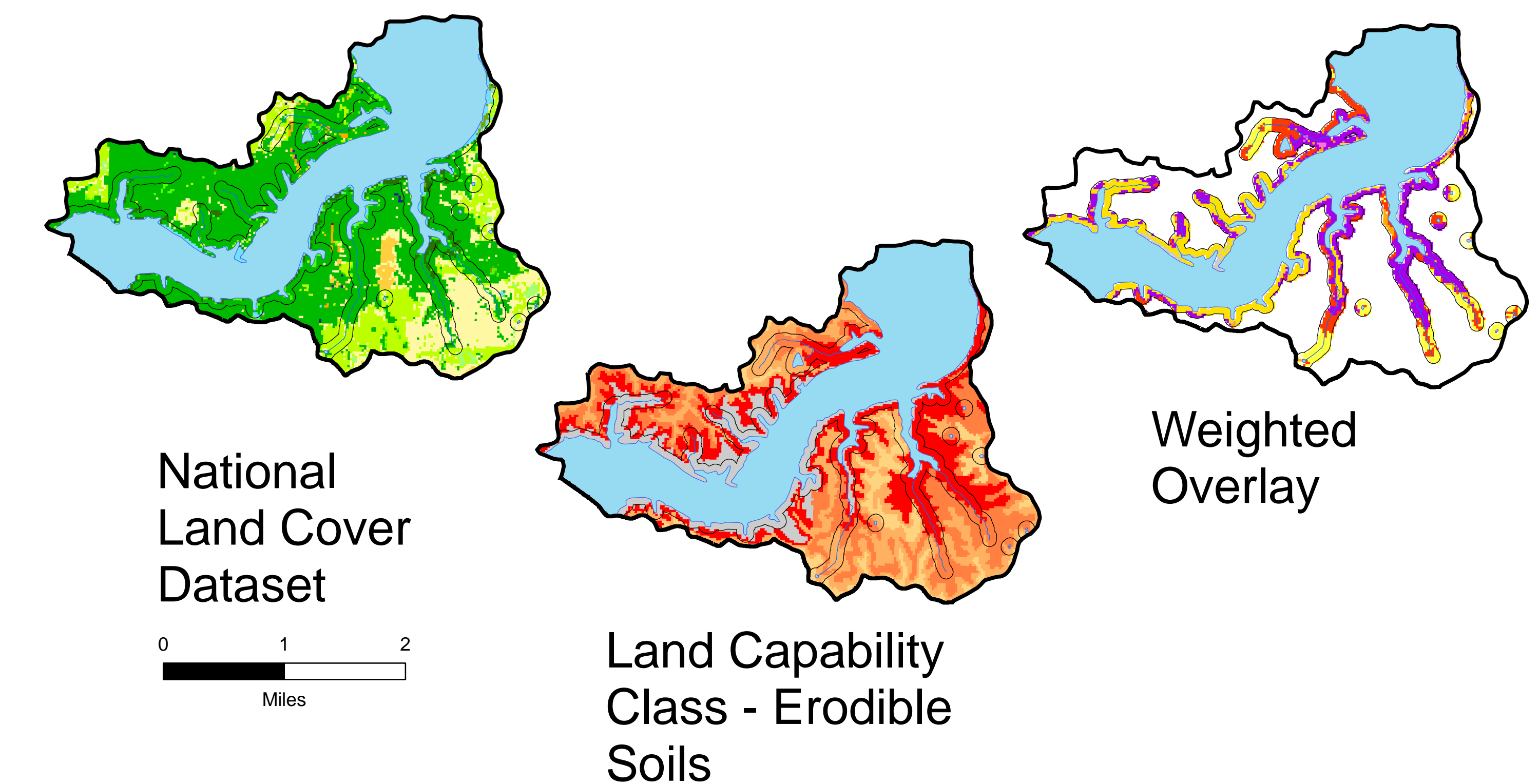
Afforestation and forest conservation models were individually run on land area within a 300 foot corridor surrounding perennial and intermittent water bodies within the south fork Salt River watershed as delineated by the National Hydrography Dataset (NHD). These results were then averaged by subwatershed boundary (MO NRCS) and are displayed in the map layers to the left and right.

Riparian corridor forest conservation priority model



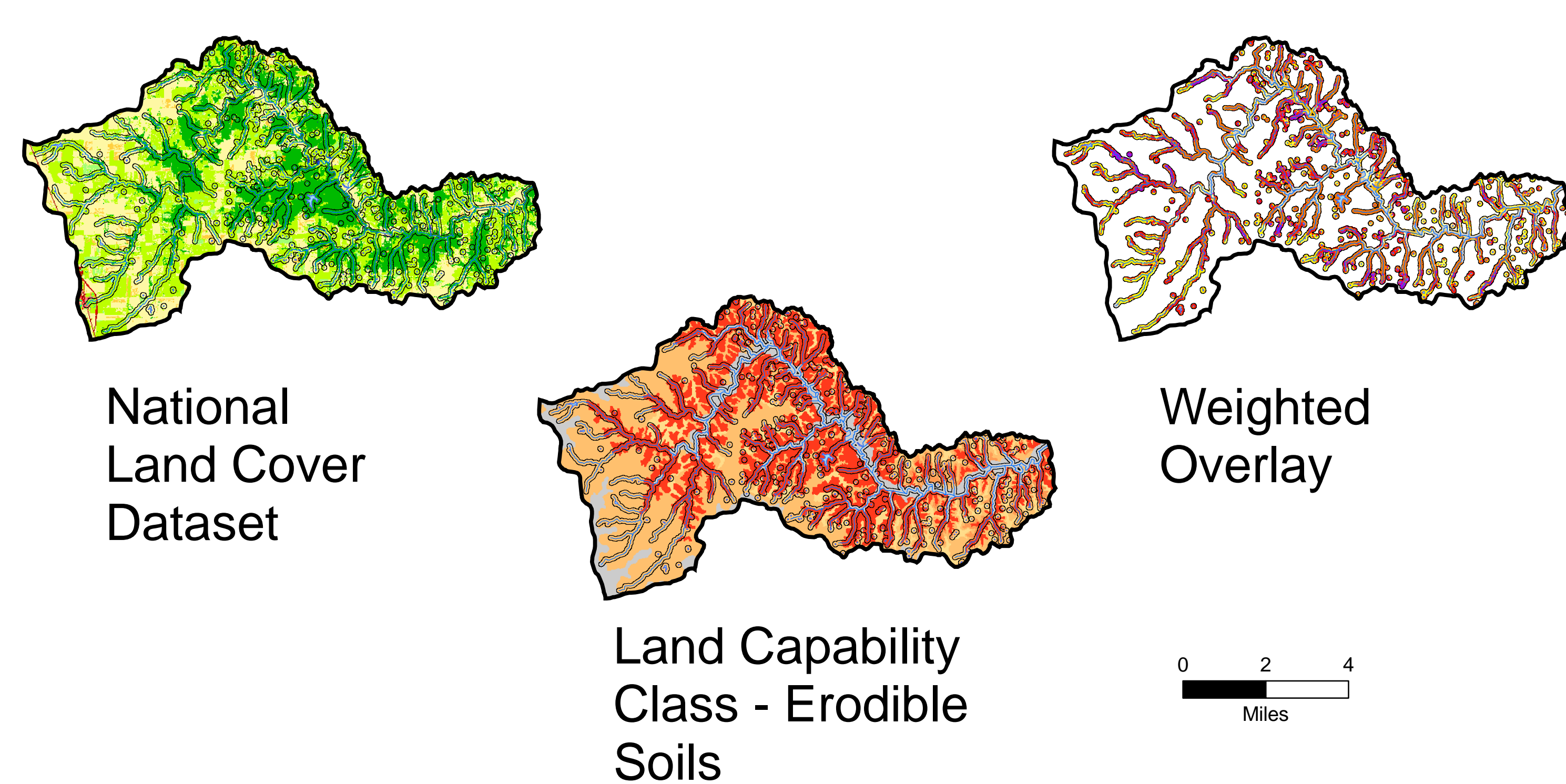
Step 4: Delineating forested areas with potentially erosive soils within 300 feet of a water body.

Example subwatershed (shaded in purple in map above) depicting NLCD, Land Capability Class, and weighted overlay results. Example subwatershed chosen based on highest mean forest conservation priority model score.



Step 4: Delineating agricultural areas with potentially erosive soils within 300 feet of a water body.

Example subwatershed (shaded in purple in map above) depicting NLCD, Land Capability Class, and weighted overlay results. Example subwatershed chosen based on highest mean afforestation priority model score.



- Legend**
- NHD Hydrography (Lines)
 - NHD Hydrography (Polys)
 - 300-Foot Corridor
 - Subwatershed Boundary
 - SSURGO Land Capability Class Subclass "E"
 - 0
 - 0 - 1
 - 1 - 2
 - 2 - 3
 - 3 - 4
 - 4 - 5
 - 5 - 6
 - 6 - 7
 - Weighted Overlay Results
 - Low
 - High
 - National Landcover Dataset (NLCD 1992)
 - 11 - Open Water
 - 21 - Low Intensity Residential
 - 22 - High Intensity Residential
 - 23 - Commercial/Industrial/Transportation
 - 31 - Bare Rock/Sand/Clay
 - 32 - Quarries/Strip Mines/Gravel Pits
 - 33 - Transitional
 - 41 - Deciduous Forest
 - 42 - Evergreen Forest
 - 43 - Mixed Forest
 - 51 - Shrubland
 - 61 - Orchards/Vineyards
 - 71 - Grasslands/Herbaceous
 - 81 - Pasture/Hay
 - 82 - Row Crops
 - 83 - Small Grains
 - 85 - Urban/Recreational Grasses
 - 91 - Woody Wetlands
 - 92 - Emergent Herbaceous Wetlands



Map Date: November 2, 2006

