

The land use shapefile is the result of the combination of an American shapefile and a Mexican shapefile. To be able to correctly project these two layers in ArcMap the corresponding metadata was modified, since each shapefile had different projection styles. The next step was to remove all overlapping areas along the border with the use of the GeoProcessing wizard clip tool in ArcGIS 8.3. After removing the overlapping areas, we joined the American and Mexican shapefiles into a single layer with the use of the GeoProcessing wizard merge tool. The result of this action was a single shapefile with several gaps along the border of the two countries. This problem was eliminated with the utilization of the Zipper tool in ArcGIS 9.1. This tool was used in the areas where there was a gap present, setting tolerance level appropriately to prevent modifying the polygons adjacent to the gaps. Another obstacle when combining both layers was the different land use classification systems used by Mexico and the United States. In order to have a standard classification, each Mexican classification was compared to the American system and assigned its corresponding American value. Each value was then populated into the merged attribute table in the LUCODE field.