

Hybrid Classification – Pervious vs. Impervious Surfaces

Project Summary

A hybrid classification approach (i.e., use of supervised and unsupervised classification methods) in ArcGIS 10 was used to investigate the proportional areas of pervious and impervious surfaces in a Sacramento County neighborhood. Approximately 150 supervised training samples were acquired for 10 land cover types, including several land cover types representing pervious and impervious surfaces. The unsupervised classification resulted in the identification of 12 classes, including shadows, asphalt, concrete, roofs, metal, pools, trees/vegetation, grass, and dirt/mulch. Excluding land cover types that could not be identified as pervious or impervious (e.g., shadows), the neighborhood encompassed by the Citrus Heights SW Quadrant was comprised of about 42% pervious surfaces, and about 58% impervious surfaces.