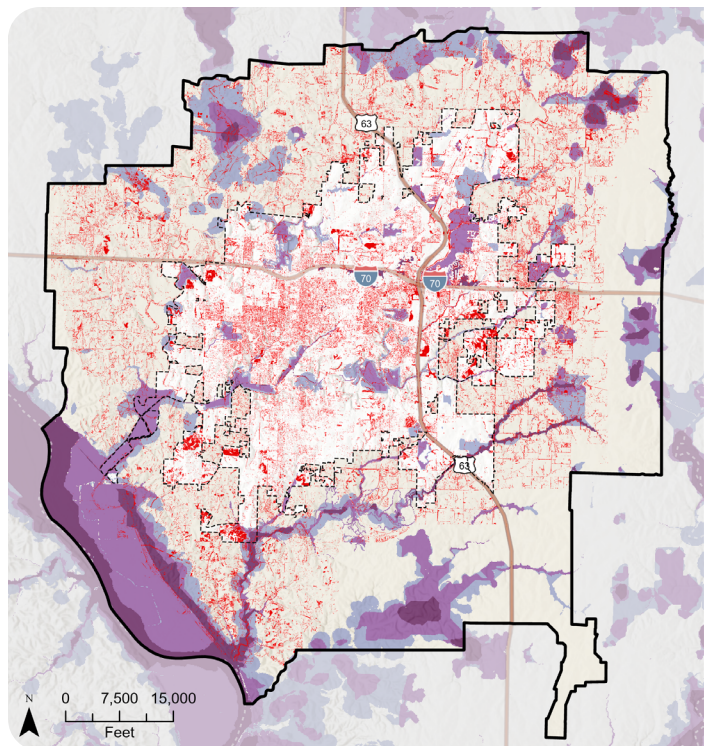City of Columbia

Columbia Missouri Natural Resource Inventory

Columbia, Missouri

A Natural Resources Inventory helps decision-makers understand the location and status of natural resources throughout the growing metropolitan area.

SERVICES
Climate Adaptation & Resilience
Conservation Planning

The City of Columbia sought to update its Natural Resources Inventory (NRI) to identify areas of local and regional importance including land cover, waterways, and vegetative communities. Such visualization of natural resources and how they relate to each other can identify conservation priorities and strategies such as zoning updates or open space protection. The 2023 Update focused on showing landscape changes since the last NRI, which was from data captured in 2007, and on prioritizing natural areas to protect.

The 2023 NRI is a remotely sensed project that used aerial photography to create a database of the natural resources that exist in Columbia. To provide a detailed and accurate map of current land cover, 2022 leaf-on imagery at a 60 cm resolution was used to classify land cover. Davey Resource Group led the land cover assessment, identifying the current extent of seven land classes: tree canopy, shrub, grass/open space, bare ground, impervious surfaces, cropland, and open water. Each feature class was compared to the 2007 NRI data.

The final report, created by Biohabitats, included analysis by Biohabitats of the implications and opportunities presented by the new dataset, such as priority stream buffers for restoration planting.