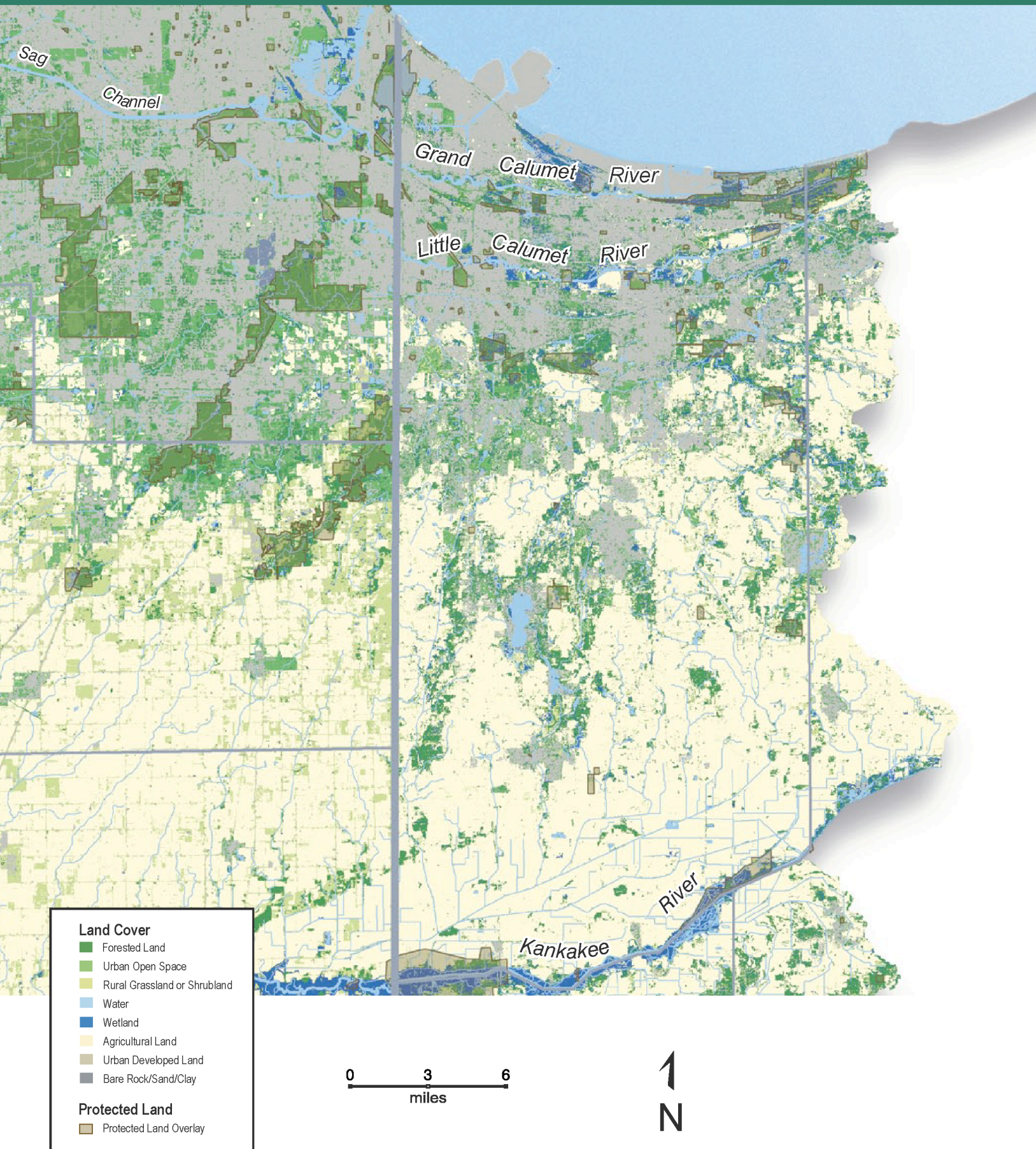


# Natural Connections: Green Infrastructure in Lake County, Indiana



## Land Cover Definition:

The land cover data product was derived from Landsat Thematic Mapper (TM) satellite imagery acquired from data acquisition fly-overs. Each pixel represents a 30-meter square. The TM sensor measures the sun's energy as reflected from elements of the land surface. The spectrum of reflected energy is measured at discrete intervals, referred to as bands, with each band capturing a narrow range of wavelengths. Six bands were used for classification of land cover, including visible (blue, green, red) and non-visible (near infrared and two mid-infrared) wavelengths. A TM data set includes reflectance values for each pixel for each of the six bands. A unique combination of reflectance values comprises a spectral "signature," and (potentially) allows each element of the landscape to be identified as a particular type of land cover.

Reflectance from vegetative cover can vary significantly over the course of a growing season. Thus, acquisition of multiple dates of coverage, such as early and late in the growing season, often allows a further refinement of spectral signatures, and a higher degree of resolution among vegetation types. For example, plant species with spectrally similar signatures early in the growing season may diverge in this regard later in the season, allowing their unique identities to be resolved. Where multiple layers of vegetation exist, such as forest canopy and understory, the measured reflectance is that of the top layer. Consequently, a closed forest canopy would not allow understory vegetation to be identified, and an open canopy forest would yield a mix of both tree canopy and understory reflectance.

**Fly-Over Dates:** Illinois, 1999/2000 Wisconsin, 1992/1993 Indiana, 1992/1993

## Land Cover Classification:

Various agencies analyze TM data and assign detailed land cover categories. The broad land cover categories shown on this map reflect a grouping of these detailed categories, as defined below:

**Forested Land:** Primarily tree-covered areas

**Urban Open Space:** Primarily city parks, but also ball fields, cemeteries, and golf courses

**Rural Grassland and Scrubland:** Natural grasslands, including prairies and some pastures

**Water:** Open water bodies, such as lakes, rivers, and ponds

**Wetland:** Palustrine, lacustrine, and riverine wetlands

**Agricultural Land:** Farmed land including cropland and pastures

**Urban Developed Land:** Areas dominated by features such as buildings and paved surfaces

**Bare Rock/Sand/Clay:** Areas that are barren of vegetation, such as quarries, beaches, and construction zones

## Protected Land:

These are areas protected from further development and are independent of the land cover data. Protected Land represents major land holdings and easements owned by the National Park Service and the USDA Forest Service, the three state Departments of Natural Resources, county park districts, conservation districts, forest preserve districts, certain park districts, and certain private land trusts and non-profit organizations. Mappable data was not available from many local park districts, open space districts, and private organizations.

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