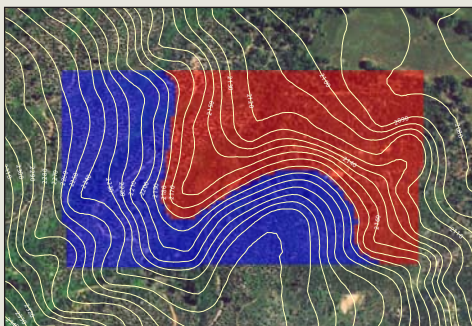


Tukman Geospatial brings the power of technology to land management through the sophisticated capabilities of remote sensing and GIS.

We combine an expert knowledge of technology with the specialized knowledge of environmental management. This complementary expertise allows us to provide clients with a full suite of digital mapping solutions.



Visit Tukman Geospatial  
on the web at  
[www.tukmangeospatial.com](http://www.tukmangeospatial.com)

## Tukman Geospatial's Services

### Cartography

Making maps is at the heart of what we do. Tukman Geospatial has produced thousands of maps over the past six years. These maps range from artistically rendered poster-sized maps for wall display to tiny maps for display on web sites. Maps serve our clients in a range of ways. From maps of dangerous trees that could threaten transmission lines managed by our energy clients to maps of the Sierra Nevada High Country for mountaineers, we take pride in using the latest and best cartographic tools and to convey complex information while still looking great.

### Geospatial Analysis

The power of geospatial analysis is what led Mark Tukman to start Tukman Geospatial. Geospatial analysis makes the mundane combination of relational databases and maps into a tool with incredible power and versatility. GIS allows you to make connections about a place that you couldn't make any other way. It enables you to locate places that have unique combinations of characteristics. It provides the ability to analyze data within the context of a map.

### Satellite Imagery and Air Photography

Satellite imagery and air photography are key components to Tukman Geospatial's business. The views of the earth that satellite imagery and air photography provide are used to create vegetation maps and other types of earth cover maps. The digital information embedded in many types of satellite imagery and aerial photography provides a powerful tool for vegetation mapping. Since different types of vegetation reflect infrared wavelengths in different ways, imagery containing infrared data is very useful in mapping vegetation. Mark Tukman has been working with satellite imagery and air photography since the mid-1990s.

### Vegetation Maps

Vegetation maps and land cover maps are used by land managers to guide them in many types of decision making. Knowledge of vegetation type is critical in fuels and fire management, as well as in fire suppression. Vegetation maps are important for wildlife managers, since vegetation is a key component of habitat. For timberlands, vegetation maps are critical so that a forester can make appropriate decisions on where to harvest, what trees to plant, etc. Counties and municipalities use vegetation maps and land cover maps for all manner of applications, including storm water modeling, planning, and monitoring of water use.



Vegetation mapping is critical for monitoring carbon emissions. When vegetation grows, it stores carbon. Vegetation maps provide a way to begin to measure amounts of carbon stored in vegetation. By comparing images from different dates (change detection), or vegetation maps created from different dates of imagery, the amount of carbon stored or lost can be estimated.

Tukman Geospatial has been creating vegetation maps using GIS and remote sensing since 2003. Mark Tukman has been creating vegetation maps since 1993.

## Energy Mapping Services

The energy industry uses GIS to map assets and infrastructure, identify sites for new projects, and track the flow of energy across the grid. Tukman Geospatial has provided extensive GIS services to support energy projects. We have experience in using LIDAR to map trees that could potentially fall into transmission lines, in providing GIS analysis to minimize the environmental impact of new transmission projects, and mapping the existing transmission infrastructure. Tukman Geospatial has also helped its clients identify optimal locations for proposed solar, geothermal, and wind generation facilities. Through its energy work, Tukman Geospatial has developed specific expertise on how GIS can benefit an energy company or a utility.

## Other Services

- Mapping roads and trails
- Mapping erosion features
- ArcPad/Trimble GIS based field work

## Clients

As principal of Tukman Geospatial LLC, Mark Tukman has years of experience working with a wide range of clients. Appropriate clients include public agencies requiring vegetation mapping; conservation groups interested in using the power of GIS to target conservation areas; private and commercial land owners interested in using GIS for farming or forestry; and park managers who need maps and GIS analysis to help them do their jobs.

## Contact Us

If your company or agency is interested in GIS design and development or custom maps, please contact Mark Tukman at 916.834.5073 to discuss our fit for your project.

## Software

Tukman Geospatial utilizes a full suite of GIS and remote sensing software including ArcInfo, Spatial Analyst, Erdas Imagine Professional, ArcGIS Server and Microsoft SQL Server. Our server-based GIS is on a dedicated server collocated in a server farm. We also use Microsoft Sharepoint for project collaboration.

