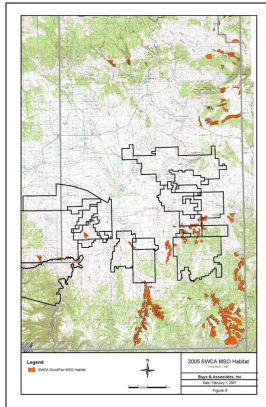


Geospatial & Computer Aided Drafting (CAD) Services and Applications



Data Acquisition & Management

Kleinfelder/Buys & Associates' GIS Professionals are highly skilled in data research, collection, and integration of various data types, including satellite & aerial imagery, GPS, CAD, and survey data. The geospatial team has excelled in the development, analysis, and manipulation of geospatial data, specifically as it relates to the use or understanding of natural resources, environmental change agents, and state and Federal environmental regulations. Kleinfelder/B&A employs the latest in Trimble GPS, ESRI ArcGIS, and Autodesk products.

Thematic Mapping & Site-Diagrams

Kleinfelder/B&A has created thousands of maps, including 2-D and 3-D site diagrams that display data associated with natural resource development and environmental studies. In addition, we have the plotting technology and resources to provide our clients with high quality, full color deliverables at affordable prices.

Spatial Analysis

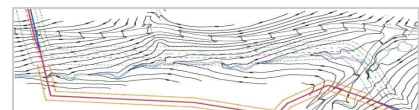
Our team of geospatial analysts are capable and experienced in spatial analysis and the utilization of ESRI's ArcGIS Spatial Analyst and 3D Analyst extensions. This expertise allows our team to perform complex calculations including land slope, viewshed analysis, and habitat fragmentation modeling, thus providing a solid foundation for accurate, unbiased analysis.

Geodatabase Design & Management

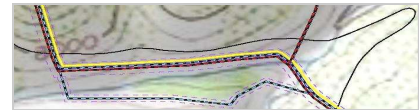
Kleinfelder/B&A has designed, populated and managed numerous geodatabases to fit client's data management needs. Derived from the geodatabases, we can create a user-friendly desktop application tool (i.e. Microsoft Access document) in which geospatial data and calculations, maps, and photos are organized in unique pre-determined record forms. Records can be easily combined or queried to create professional, customized reports.

Data Updates, Conversion, Post-Processing & Verification

Kleinfelder/B&A frequently assists clients in updating and converting data sets (e.g., parcel coverages) to new file formats or between software systems. In addition, the geospatial team has provided data post-processing and accuracy verification and validation services and is familiar and experienced with various government agency's geospatial data standards and requirements (i.e. BLM, USFS, USFWS, BIA, NPS, VA) and will process and integrate data accordingly.



Converting pipeline ROW from CAD to GIS



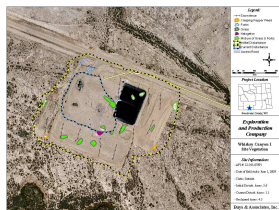
As-Built CAD Drawings

Whether from hand drawn sketches provided by the client or field visits by our staff, we can create a set of as-built drawings of any site and turn simple sketches into professional looking drawing sets.

GIS Training

Our skilled geospatial staff are qualified and eager to provide on-site GIS basics training and application workshops to enhance the use of geospatial software and understanding of GIS science. Our training sessions are customized to YOUR needs and data, for more information contact us today.

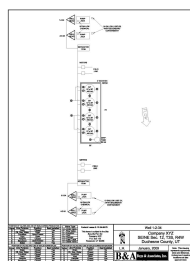
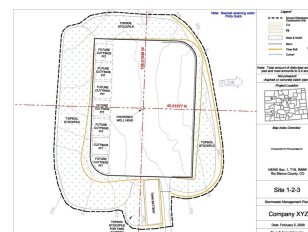
Environmental & Regulatory Compliance Applications



Site Reclamation Mapping: Land reclamation is now required by federal agencies for most land disturbance activities. Our GIS/CAD Specialists are skilled in utilizing collected field data to map the current reclamation status and create a customized database for identified reclaimed locations (i.e. roads, well pads, pipelines, transmission lines, etc.). These are essential tools in developing baseline data, reasonable success criteria, and status reports.

Stormwater Best Management Practices (BMP) Mapping:

In accordance with the National Pollution Discharge Elimination System (NPDES) stormwater requirements, permit holders must create site diagrams depicting site-specific Best Management Practices (BMPs). Kleinfelder/B&A's GIS/CAD Specialists are experienced in converting field data into detailed, user friendly and agency-compliant site diagrams.



Spill Prevention, Control and Countermeasure (SPCC)/Site Security Diagrams: Kleinfelder/B&A utilize AutoCAD to prepare "to scale" site diagrams. These diagrams are prepared in accordance with federal regulations (40 CFR 112) and Onshore Oil and Gas Order No. 3. GIS is also utilized to provide site location topographic maps for SPCC Plans.

Kleinfelder/Buys & Associates, Inc. Geospatial Team

NICOLE PEACE, GIS Analyst

Ms. Peace is a highly motivated and dedicated GIS professional with over five years of environmental resource & geospatial team management, cartography, and GIS analyst experience. She has extensive knowledge of surveying and mapping principles and practices, including state and federal statutes; research methods and techniques to analyze spatial and statistical data; knowledge of database structure and data maintenance procedures; and proficiency in methods, techniques, and quality assurance employed in generation of maps and GIS products. Ms. Peace has developed and maintained custom GIS applications, mapping support, analyses, and extensive data acquisition for a wide variety of environmental, biological resources, cultural resources, and regulatory projects, in addition to comprehensive GPS field survey management. Ms. Peace provides custom GIS and GPS data collection training sessions to in-house staff and clients, while staying current with the best practices in the industry.

LINDSEY HOCKERT, GIS Specialist

Ms. Hockert has over eight years of experience in the environmental compliance industry. Her responsibilities and areas of expertise include GIS analysis and thematic mapping, environmental/regulatory permit applications, and Spill Plan Countermeasure Control (SPCC) plans and diagrams. Some of her field accomplishments including leading crews in mapping and staking roads for oil rigs using a GPS, mapping pipelines and proposed oil well locations, and observing well site equipment. She also does technical editing of Environmental Assessments (EAs) and Environmental Impact Statements (EISs).

RYAN JONES, GIS Specialist

Mr. Jones has a wealth of unique experience in environmental field data collection, geospatial analysis and thematic map development. His experience includes field work in Nicaragua where he lay the foundation to protect water delivery systems for indigenous populations and assisted in creating an interactive map with data using Linux based GIS software to be used to improve access to drinking water. He has also collected GPS field data for the National Forest Highway system and was responsible for creating reports and mapping products on the existing infrastructure using ArcMap v. 9.2. Mr. Jones is proficient in GIS using ESRI's ArcGIS Desktop Suite and all of its components, with specific experience in model generation incorporating TIGER files, USGS landcovers, and Digital Elevation Models (DEMs).