

GEOGRAPHIC INFORMATION SYSTEMS (GIS)

The use of Geographic Information Systems (GIS) has become a powerful tool in the field of water resources. Geographic Information Systems is defined as a system of hardware and software used to store, retrieve, display, and analyze spatial data. Martin and Wood uses the ESRI ArcGIS 8.3 software to conduct GIS work.

Martin and Wood personnel use GIS for a multitude of purposes, including mapping, data management, spatial calculations, data editing, and geoprocessing. One of the most widely used purposes of GIS is for mapping and display of spatial data. Martin and Wood personnel use GIS extensively to construct maps for reports and courtroom exhibits, as well as to illustrate and convey information to clients.



Historically irrigated area

GIS is also an invaluable tool by which to conduct data analysis. GIS allows Martin and Wood personnel to integrate spatial data and databases to manage, organize, display, and analyze data and information in an efficient manner. Martin and Wood personnel commonly use GIS to georeference aerial photography in order to delineate and calculate irrigated areas more accurately. Martin and Wood also uses GIS to create interactive maps to integrate spatial data and databases from different sources. Such interactive maps allow our personnel to explore and organize the integrated databases to automate analysis and make well-informed decisions regarding water resources.

Martin and Wood Water Consultants, Inc.

602 Park Point Drive, Suite 275 • Golden, CO 80401 • Phone: (303)526-2600 • Fax: (303)526-2624

