

GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND SPATIAL ANALYSIS

Our core capabilities involve mapping and spatial analysis for demographics and natural resource management. We have been providing Geographic Information Systems (GIS) and spatial analysis support to state and federal agencies, private industry, and international organizations since 1989. Our expertise in the physical and biological sciences, urban planning, and the acquisition and analysis of a variety of remote sensing products, from digital aerial photographs to high-resolution satellite imagery to LIDAR and other airborne sensors, combined with our proficiencies in GIS and cartography, relational database design, geostatistics, 3-dimensional modeling and visualization allow us to specialize in GIS and analysis for:

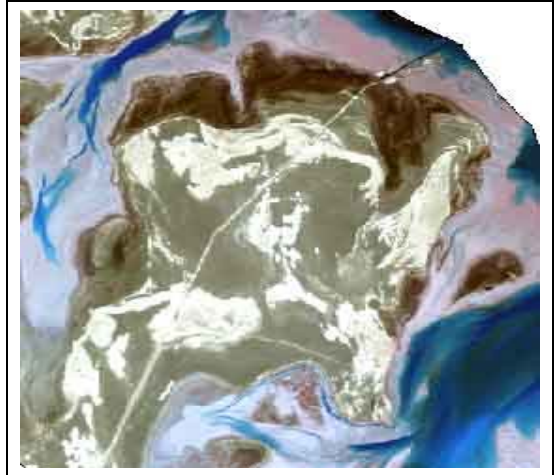
- Coastal Resources Management
- Environmental Sensitivity Index (ESI) Mapping
- Oil Spill Planning and Response
- Conservation Biology



- Demographic Mapping
- Natural Resource Damage Assessment (NRDA)
- Water Resource Analysis, Modeling, and Management
- Geologic Modeling
- Wetlands and Habitat Mapping

Saudi Arabia Oiled Shoreline Survey

RPI acquired high-resolution multispectral and panchromatic imagery of the coastal zone of northeast Saudi Arabia from the newly-launched Quickbird platform. This imagery was used to develop high accuracy intertidal habitat maps as part of the project goals to map and analyze the fate of spilled oil from the 1991 Gulf War oil spill.



Louisiana Satellite Enhanced ESI

RPI is participating in a MMS-CMI grant with researchers from Louisiana State University on a pilot project to attempt to extract detailed shoreline position and geomorphology information from high-resolution multispectral and panchromatic Ikonos satellite imagery. This work will hopefully enable the rapid and repeated mapping of the extraordinarily complex Louisiana coast.

