GIS Uses in County Departments

Ag Commissioner

Animal disease control, apiary enforcement, biological control, botany and entomology, fruit and vegetable quality control, fruit fly quarantine area mapping, incident management, investigations, ag permits, noxious plant mapping, nursery and seed inspection, pest detection and eradication, pesticide field inspection, plant quarantine regulation, predatory animal control, ranch map maintenance, weed and vertebrate pest management, etc.

Air Pollution Control Districts

Analysis of: Air dispersion modeling, emissions inventory, air quality trends, environmental impacts, air contamination mapping, perimeter searches for schools and permitted sites, public education and outreach, public notification, risk analysis, permit mapping, etc.

Building and Safety

Building Inspection and operation, continuous parcel maintenance, facilities mapping, front counter application, land use, mobile GIS, permit application, special studies, zoning application, etc.

District Attorney

Crime investigation/prevention, crime scene analysis and mapping, property cases, presentation of graphics in a courtroom, prosecution case support, trial support, etc.

Elections

Annexations, consolidation of precincts, customer maps, election specific maps, poll location sites, precinct map maintenance redistricting, voter address verification/mailings, and voting results analysis, etc.

Engineering

Bridge inventory, culvert/drainage management, parcel map index, tract map index, traffic, pavement management, etc.

Environmental Management

Disease surveillance, environmental impact assessment, environmental review, farm labor camp locations, food establishment permitting, food facility permitting and inspection, garbage ordinance compliance, ground water quality hazardous material release mapping, hazmat monitoring, hazmat storage facility permitting and inspection, health inspector sites, permit review, public water systems, service request tracking, site analysis, underground tank monitoring, water well locations, water well permit site inspection, well mitigation, etc.

Emergency Operations

Damage assessment, planning, public notification, response, map production and distribution, data browsing, etc.

Fire

AVL tracking, emergency medical services, fire flow testing, fire models, prevention, response design, suppression run maps, hazard analysis, hazard response, hazardous materials inspection, incident analysis, prescribed burn areas, public education, resource allocation, search and rescue, site location, urban interface analysis, vegetation management, wildfire fire analysis, dispatch, etc.

Flood Control

CIP/Infrastructure planning, environmental impact analysis, fee/budget analysis, flood insurance rate mapping, flood mitigation, flood reporting and analysis, habitat management, master plan, presentation graphics, right of way management, site analysis, storm drain (NPDES), watershed/flood modeling, watershed management, well mitigation/hazmat, etc.

Health Services

Birth/death registries, census mapping, clinical (ICD9 & 10) visualizations, communicable disease tracking, emergency service tracking, environmental health, epidemiology, facility care management, fraud and abuse detection, front counter applications, home health care, homeland security issues regarding health, incident mapping, lead based paint mapping, policy analysis, tobacco retailers, traffic crash mapping, flu clinic service location and analysis, staff locator, etc. (see SCPH specific projects below).

Housing

Affordable housing analysis, assign services to contractors, property acquisition, property rehab, etc.

Human Services

County building layouts, CPS case scheduling/routing, disaster relief planning, front counter, medically frail persons, service area design, case mapping, etc.

Parks and Cultural

Capitol improvement project, CEQA compliance, facilities and infrastructure maintenance, historic and cultural resources management, land acquisition mapping, natural resources mapping, park facilities and trails mapping, park operations, planning, public education and outreach, real estate administration, recreation, etc.

Planning

Land development monitoring, monitor land use supply, environmental land use planning, land conservation financing, temporal land use change, land allocation modeling, land policy development urban demographics, land use inventory, fiscal impact analysis, environmental impact review, transportation planning, employment/population growth projections, assess transportation services, transportation modeling, traffic congestion, urban demographics, transportation demand analysis, general planning, zoning/rezoning, build-out analysis, buildable land supply, performance of growth, community planning and design, public spaces planning, traffic congestion, urban sprawl, economic development planning, urban demographics, neighborhood design, planning for safety and security, historic preservation, redevelopment, etc.

Roads

Call center road repairs, fee calculation/Melrose, logistics of snow removal/street sweeping, master planning, materials management (salt/gravel), pavement management, street light maintenance, traffic accident monitoring, traffic control, work orders, traffic operations, ITS planning and development, collision mapping, mobile GIS, community service district billing, front counter application, permit application, special studies signage, etc.

Sheriff

Activity reporting, air patrol, AVL, beat design, community policing, crime analysis, disaster response, dispatch, field reporting/interview, incident command, Megan's Law, narcotics, property search, resource allocation, search and rescue, SWAT Team, traffic analysis, etc.

Social Services

Foster care and location of children served, school district boundaries, areas that participants live and location of services, location child removed from in relation to placement location, worker caseload management, etc.