

Too often sanitary and water utilities discover that paper maps and drawings are seriously outdated, incomplete, or even nonexistent. The problem is usually related to turn over of employees or engineers. The beginning of a utility database begins with GIS mapping of the infrastructure. Detailed base mapping can be created by scanning existing maps, importing CAD drawings, working from aerial photos, and surveying the location of infrastructure and utilities.

### CTL Engineering offers these services:

- Global Positioning Systems (GPS) Field Inventory
- Geodatabase Design
- Data Creation Services
- GIS/IT Integration

### GIS Technology can benefit these industries:

- Infrastructure
- Water, Wastewater
- Storm Water
- Oil and Gas
- Mining
- Wetlands
- Electric utility
- Transportation
- Land/Urban Planning
- Strategic Planning
- Public Safety
- Emergency Management
- Forestry
- Facilities Management
- Forensics

### Supporting Services

- Surveying/ Mapping
- Civil/ Site Design
- Environmental
- Geotechnical
- Construction Management
- Materials Testing
- Analytical Laboratory



Every sector of a municipality can benefit from GIS mapping. CTL creates a phased mapping program that will reduce staff time, improve decision making, eliminate redundant data collection, improve record keeping and allow better asset management. CTL uses the latest version of ArcMap which allows importing of all current data formats to build a comprehensive database for the future. This database can be maintained and developed to enhance emergency response when public water/wastewater service is an issue. Also, planning and funding of new projects can be effectively prioritized.

CTL's GIS professionals use recent aerial photography and existing utility maps for base maps in order to direct surveying activities. We also add location specific supporting information from a variety of sources. Over time, CTL can create precise mapping which will allow your municipality to plan accordingly for the challenges and changes you will face.

