

MAJOR PROJECTS EXECUTED

Narmada Valley Development Authority (NVDA) Govt. of Madhya Pradesh

- Survey, Investigation, DPR and Detailed Estimate for Medium and Minor Projects in Narmada Basin covering 12679 Sq Km
- Survey, Investigation, Design, drawings, Estimates & DPR for Morand and Ganjal Complex Project covering 2600 Sq Km
- Project Management Consultancy Services for Punasa Lift Irrigation Scheme (350 Sq Km) and Omkareshwar Lift irrigation Scheme

Uttar Pradesh Water Sector Restructuring Project, Govt. of Karnataka, Uttar Pradesh

- Survey, Investigation & generation of GIS database for an area of 6,15,658 Ha and 2.50 million parcels **(World Bank project)**

Krishna Bhagya Jala Nigam Limited (KBJNL), Govt. of Karnataka

- Survey, Investigation, Design, drawings, Estimates for Indi Lift Canal (30,000 Ha), Chimmalgi LIS (40,000 Ha)
- Detailed Project Report, Design, Estimates for Anachi, Sank & Bhuyar Lift Irrigation Schemes

Karnataka Neeravari Nigam Limited (KNNL), Govt. of Karnataka

- Survey, Investigation, Detailed Estimates and DPR for Restoration of MI tanks in Kolar,Tarikere, Kadur taluks under Upper Bhadra Project
- Survey, Investigation, Cost Estimates for Chitradurga Branch Canal under Upper Bhadra project
- Modernization and Rectification/Remodeling of existing canal system of Amarja project (100 Km)

CADA, Irrigation Department, Govt. of Andhra Pradesh

- Micro Network for Sri Sailam Right Bank Canal (7800 Ha) **(World Bank project)**

Uttar Pradesh Bhumi Sudhar Nigam, Govt. of Uttar Pradesh

- Project Management and Construction Supervision for Rehabilitation & Resettlement of Drains in 25 districts **(World Bank Project)**

Sardar Sarovar Narmada Nigam Limited (SSNNL), Govt. of Gujarat

- Project Management Consultancy services for EPC and Item rate Contracts for construction of Branch canals and Distribution Network

Water resources Department, Govt. of Madhya Pradesh

- Survey, Investigation, Design, Estimates & DPR for Panchamnagar Project (56,200 Ha) and Bariyarpur Right Bank Canal project (20,500 Ha)

Central Institute of Coastal Engineering, Bangalore

- Survey, Investigations, Design of Cyclone Protection Bunds, Dykes etc for Brackish Water Shrimp farms **(World Bank Project)**

Under Water Leak detection, KIOCL, Govt. of Karnataka

- Arresting leakage at the intake well and exit portal of gravity tunnel Design, Installation and Supervision of Regulating arrangements at Lakya Reservoir

Narmada Water Resources Water Supply and Kalpsar Dept., Govt. of Gujarat

- Feasibility, Design of Barrage and allied works, Bid document on PPP model across river Narmada, near village Bhadbhut, district Bharuch
- Survey, Investigation, Design and Estimates for Narmada Diversion Canal (34 Km)

SECON's other Area of Core Competence and Service Offerings

Investigation and Services

- Engineering, Property and Hydrographic Surveys
- Geotech, Soil Investigation and Foundation Engg
- Photogrammetry, LiDAR and Remote Sensing
- Route Planning, 3D Corridor and GIS Database
- Geological and Geophysical Surveys
- Ground Water and Resistivity Surveys
- Underwater Leak Detection and GPR Surveys
- GIS/CADD Conversion and generation of Database

Design Consultancy and Engineering Services

- Water, Sewerage, Storm Water and Treatment
- Highway Engineering & Construction Supervision
- Cross Country Pipeline Transportation
- Town Planning, Electrical, Telecom and Utilities
- GIS Driven Software Application Development
- GIS Based Land Information System, Right of Way
- Environment and Social Impact & Management Plan
- Irrigation, Flood Control & Water Management

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SECON

(CMMI Level 3, ISO 9001: 2015, NABL Accredited)



GIS Driven Multidiscipline Engineering Consultancy



IRRIGATION, FLOOD CONTROL AND WATER RESOURCES

Survey and Investigation

- Topographic and Hydrographic Survey
- Mobile LiDAR Survey of Canals
- Aerial LiDAR and Photogrammetry Survey of River basins
- Hydraulic and Hydrological Investigations
- Reservoir Capacity Survey
- Submergence and Land Acquisition Survey
- Rehabilitation and Re-settlement Survey
- Socio Economic Survey
- Geotechnical Investigation
- Construction Material Survey and Soil Survey

Irrigation and Flood Control

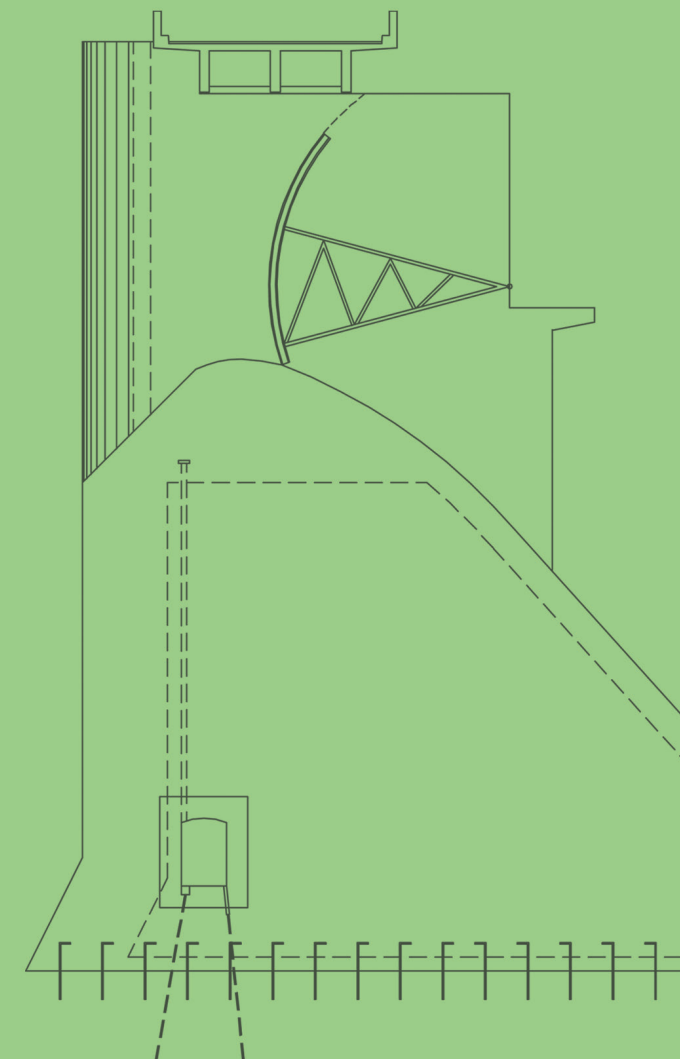
- Integrated River Basin Planning
- Feasibility Reports and Detailed Project Reports
- Compendium Planning for Irrigation Command Area
- Design of Hydraulic Structures
- Modernization and Restructuring, Rehabilitation and Re-settlement plans
- Water Management and On Farm Development works
- Leak detection and turnkey solution

Construction Phase Services

- Project Management and Construction Supervision
- Detailed Estimations, BOQ and Tender Documents

Web enabled GIS

- GIS Asset Management Systems



Total Solution from a Single Window

SECON, established in 1981, is a CMMI LEVEL-3, ISO 9001:2015 and NABL Accredited Firm of over 700 personnel. The HQ in Bangalore, India, has an aesthetically designed 105,000 sft company owned office. Regional Offices at Mumbai, New Delhi, Vadodara, Bhopal, Lucknow and Tripoli, Libya augment SECON's range and reach. SECON is the only company that offers in-house multitask / skill solutions for Design Engineering, Related Investigations including Software Development, Testing & R&D Services. SECON also renders services on Onshore - Offshore Model.



Over 26,00,000 Hectares (26,000 sq. km) of Surveying and Mapping for Irrigation projects

Over 700,000 Hectares (7,000 sq. km) of Irrigation and Water Management design projects

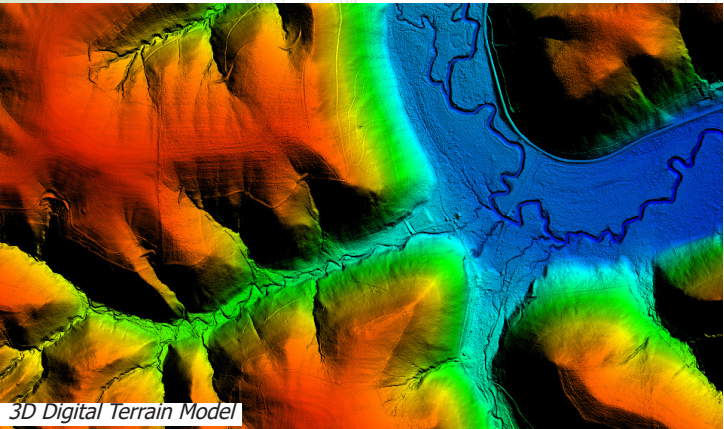
Survey and Investigation

- Topographical Survey for Sub Basins, Command area, Submergence area
- Mobile LiDAR Survey of Canals
- Aerial LiDAR and Photogrammetry Survey of River basins
- Detailed Survey along Dam alignment, Canal network etc
- Hydrographic Survey across rivers for Hydraulic structures and other crossings
- Socio Economic Survey, Rehabilitation and Re-settlement Survey



Geotechnical Investigation and testing

- Boring for Hydraulic structures, Canals, Bridges etc
- Collection and testing of soil and rock samples, analysis with recommendations
- Identifying Quarries, Borrow areas and Material Investigation



Integrated River Basin Planning

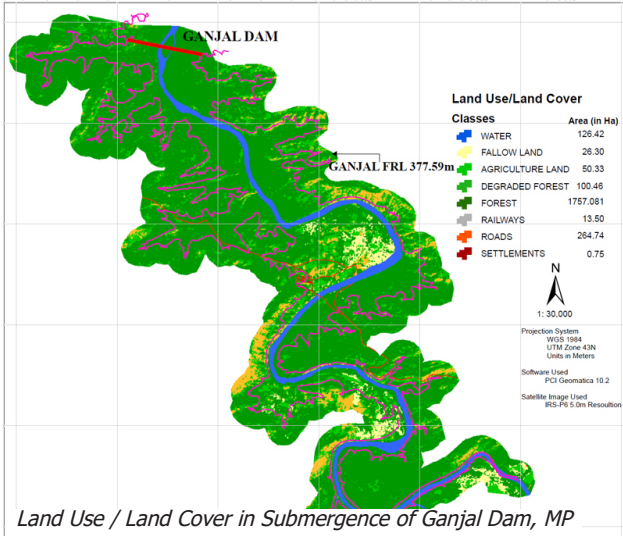
- Soil Land, Land Classification and Land Use
- Water availability studies & Yield computation
- Surface water and ground water study
- Conjunctive use of ground water and Surface water
- Water Harvesting
- Asset management

Feasibility Reports and Detailed Project Reports

- Techno Economic Feasibility/viability of the projects
- Detailed Project Reports as per CWC guidelines
- Reports for MoEF Clearances, Forest Clearance and Grant from NABARD, AIBP
- Assistance in obtaining Clearances from CWC, MoEF, Planning Commission, MoTA

Compendium Planning, Water Availability Studies, Flood Estimation and Capacity assessment

- Data Collection (SOI maps, Revenue maps, Cadastral, Forest maps etc)
- Planning, alignment of primary and secondary canal systems
- Assessment of Command area from revenue records
- Collection of Rainfall discharge data, Flood history, Estimation of PMP, PMF, SPS and flood for different frequencies
- Study existing utilization, purposes, use and commitments
- River Basin Characteristics
- Contour study, capacity assessment of flood prone areas
- Assessment of Flood and Flood Hazard
- Flood Routing studies



Design of Hydraulic Structures

- Dams, Barrages, Weirs and Tunnels
- Intakes structures, Jack well and Pumping Stations
- Design of Cross Drainage works
- Water conveyance systems - Flow Canals, Pressure Irrigation (Micro Irrigation)
- Cyclone protection works

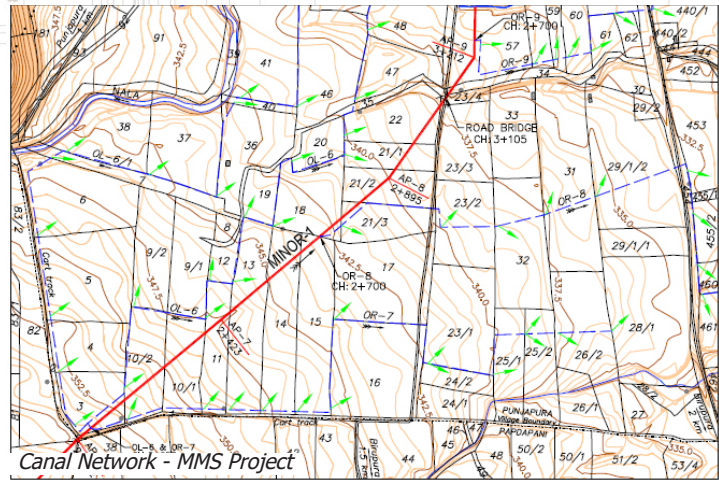


Water Management and On Farm Development works

- Interstate Water Disputes
- Environment Impact Assessment of Water Resource Projects
- Command Area Development
- Watershed Management
- Risk and uncertainty analysis

Leak Detection and Turnkey Solutions for Dams and Underwater Structures

- Field Reconnaissance, Data Collection and Identification / Locate the problems
- Suggest Remedial Measures
- Construction Drawings and Turnkey Solutions



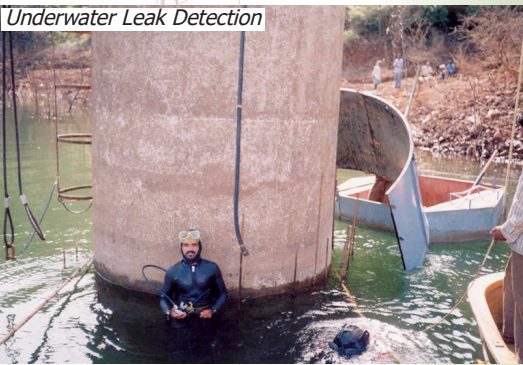
Web enabled GIS

- Field Survey and Data Collection
- GIS Data Development (Converting Hardcopy / CAD Plans / As built Drawings into GIS Database for Water resource projects)
- Development of Enterprise GIS applications for Irrigation Management, Asset Management and Environmental Monitoring



Modernization and Restructuring, Rehabilitation and Re-settlement plans

- Systematic diagnostic study for identification of deficiencies in dams, canal, drainage problems from the considerations of operation and management
- Identify Constraints in existing design features
- Joint walkthrough survey
- Survey and redesign of the existing Water storage and Carrier system
- Redesigning and Reconstruction / Rehabilitation of infrastructure



Project Management and Construction Supervision

- Review of Design, Drawings, Estimates & Reports
- Construction Supervision and Monitoring
- Review the suitability of sources of materials and their quality
- Tender Evaluation
- Quality Assurance Plan
- Measurements and Certifications

Detailed Estimations, BOQ and Tender Documents

- Rate Analysis, Quarry and Lead identification
- Quantity Survey, Preparation of Cost estimates
- Draft Tender Papers, Bid Document
- Cost Benefit Analysis
- Financial Viability of projects

